

THE NATIONAL OLD TRAILS ROAD PART 3: Promoting the Road During a War

**By
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Setting The Stage

President Woodrow Wilson was up for reelection in 1916. While many issues would be raised during the campaign, one overall concern was whether the United States would enter the war in Europe that had begun in August 1914. The issues that resulted in the war seemed far removed from America's concerns, but nevertheless affected many aspects of life, including international travel. German U-boats continued to sink ships in Atlantic waters, a threat that had been most dramatically illustrated on May 7, 1915. On that date, a German U-boat sank the RMS Lusitania when it was only 11 miles off the coast of Ireland. As the luxury ship sank, 1,198 people died, including 128 Americans.

President Wilson and the Department of State worked through diplomatic channels with the German government to reduce the threat to American shipping and lives, but whether an agreement could be reached remained uncertain in 1916. While the President would campaign in the fall on keeping America out of the war, the threat of war prompted many organizations to think about how their interest could benefit from preparations for American entry into the Great War.

The Good Roads Movement was no exception.

By 1916, the automobile was transforming the country (population: 91.6 million). The U.S. Office of Public Roads and Rural Engineering (OPRRE) stated in 1915:

During the past 10 years the State registration of motor cars, including commercial vehicles, has increased 5,000 per cent or from 48,000 in 1906 to 2,445,664 in 1915. The motor vehicle has not only developed at an astonishing rate as a factor in transportation, but has in an equally remarkable development served to augment very materially our revenues for road purpose. Thus, while in 1906, less than three-tenths of 1 per cent of the total rural road and bridge expenditures in the United States was derived from the motor-vehicle revenues, nearly 7 per cent was secured from this source in 1915. [*Automobile Registrations, Licenses, and Revenues in the United States*, 1915, Division of Road Economics, Office of Public Roads and Rural Engineering, Office of the Secretary, U.S. Department of Agriculture, Circular No. 59, page 1]

(In a reorganization of the Department of Agriculture intended to put all engineering activities in one place, rural engineering activities, such as drainage and construction of farm buildings, were added by the Department's appropriation act for 1916 to the Office of Public Roads (OPR) on July 1, 1915, creating OPRRE.)

In 1908, Henry Ford had introduced the Model T, which was built for the rough rural roads of its era but was sold at a low price that made it affordable for people who previously could only dream of owning a motor car. Demand for the Model T was so great that Ford, in 1910, began transitioning to mass production techniques that would soon be adopted throughout the industry and spread to other fields. In 1909, Ford sold 10,609 vehicles; in 1916, Ford would sell nearly 600,000 Model Ts. Historian Douglas Brinkley explained the impact:

In large part due to the Model T's electrifying effect on the car-buying public, in 1914 the automobile business was by far the fastest-growing industry in the country. In 1913, it had been the 7th largest; fifteen years before that it had ranked a distant 50th. Total production across the country had grown by 28 percent from 1912 to 1913 alone. Even that was but a gust of wind compared with the gale blowing through Ford: in the same year, its production increased by a full 100 percent. [Brinkley, Douglas, *Wheels for the World: Henry Ford, His Company, and a Century of Progress*, Viking, 2003, pages 185-186]

Revenue from automobile taxes had increased as well, with much of it applied to road improvement. New York, the first State to collect vehicle taxes, took in \$954 in the first year, 1901. By 1916, the States were collecting over \$18 million, with about 90 percent of this revenue applied to road improvement. [Circular No. 59, page 1]

In 1904, when the U.S. Office of Public Road Inquiries conducted the first inventory of roads outside of cities, it reported that the country included 2,151,570 miles of rural public roads, plus 1,598 miles of stone-surfaced toll roads. Only 153,662 miles of the other rural public roads had any kind of surface, including earth, gravel, stone, shells, and sand-clay. Only 276,920 miles had any kind of artificial surface. [*America's Highways 1776-1976: A History of the Federal-Aid Program*, Federal Highway Administration, 1976, page 50]

Meanwhile, from 1904 through 1915, annual expenditures on rural road had increased from about \$80 million to \$282 million – an increase of more than 250 percent. The 1904 figure does not entirely reflect expenditures. About \$20 million of the \$80 million was paid in labor provided by those along the roads who worked to smooth them out or remove obstacles in lieu of paying poll taxes. An OPRRE report documented the change:

The remarkably rapid increase in our road expenditures during the past 12 years, however, is not all due to increased activity in construction. A large portion must be charged to the demand for better and consequently more expensive types of construction, as well as greatly increased maintenance costs made necessary by the changed traffic conditions. The effect of the motor vehicle on the cost of road construction and maintenance had not become apparent in 1904. To-day many of our roads carry a motor traffic far in excess of the total traffic of all classes carried 12 years ago. At the present time there are about 2,500,000 motor vehicles in use on our public roads, or about one motor vehicle for every mile of road. This motor traffic is not uniformly distributed but largely concentrated on certain roads. This is the underlying reason why maintenance

and reconstruction costs have increased so rapidly on many of our roads and why the total road expenditures have increased so much more rapidly than the mileage of improved roads. [*State Highway Mileage and Expenditures for the Calendar year 1915*, Office of Public Roads and Rural Engineering, Office of the Secretary, U.S. Department of Agriculture, Circular No. 63, page 1-2]

Interstate named trails were a relatively new development. Automobile clubs had provided names for early interstate roads, such as the Trail to Sunset (discussed in part 1), but these were mainly lines on a map, not a movement with advocates. The National Old Trails Road Association dated only to 1912, just as Congress began serious, if unsuccessful, consideration of legislation on national road funding. The influential Lincoln Highway Association, formed by automobile industry officials to back a “rock” road from New York City to San Francisco, had been formed in 1913. The Lincoln Highway Association was one of the few associations that actually built at least a small part of the trail as “object lessons” demonstrating what could be accomplished. For the most part, the growing number of associations depended on State and county officials to fund improvement of the road.

These two and other early interstate named trail associations provided the model for hundreds of other named trails over the next decade and a half. Each had a colorful or descriptive name and a chamber-of-commerce type organization to promote its trail. They encouraged State and local governments to improve the road and issued maps and travel guides inviting motorists to use the road and patronize the businesses along the roadway that paid dues to the association. By the mid-1920s, enterprising good roads backers had created approximately 250 named trails. Many of the trails overlapped, especially where alternatives were few as in the far Southeast; routes sometimes shifted to communities more willing to pay dues or improve the road; and some associations were launched by fly-by-night operators.

System of National Highways

Aside from the contribution these groups made to the improvement of their roads, they contributed to the general interest in road improvements and growth in auto travel. Advocates for long distance roads made their case to Congress that the country needed an interstate network of good highways. The National Highways Association, discussed in part 1, was an example, with its proposed 50,000-mile network of interstate roads.

Judge Lowe, president of the National Old Trails Road Association and a founding member of the National Highways Association in 1912, had introduced his own map in 1913 of a System of National Highways:

Connecting State Capitols and All Cities of over 20,000 with the NATIONAL CAPITOL.
[sic]

A caution on the map stated:

This map shows TENTATIVE locations for the System of National Highways following

substantially lines suggested by Hon. S. Warburton of Wash. and map compiled by National Highways Association.

The plan, as described in the April 1913 issue of *The Road-Maker*, explained financing:

Under this scheme the necessary money for the payment of this work will be collected by the Government within five years after the act takes effect. The proposed plan contemplated the construction of about 18,000 miles of road. I estimate the cost will not exceed \$15,000 a mile or \$17,500 at the maximum.

I propose to raise the fund by approximately restoring the internal revenue tax of 1879 on tobacco, and set aside the additional income from this source as a National Road fund.

The main difference is the tax on cigars. The law of 1879, as all our recent laws, fixed the same tax in all grades of cigars; the tax was six dollars a thousand regardless of whether the wholesale price was \$35, \$75, or \$150 a thousand. I have always contended that this was a wholly unfair system of tax; that the tax ought to be graded so that the man who smokes a five-cent, the man who smokes a ten-cent, and the man who smokes a twenty-cent cigar would pay about the same per cent tax.

The additional tax so provided would amount to about sixty million dollars a year. It would not quite double the present internal revenue tax on tobacco. If the proposed roads should cost \$15,000 a mile the roads will be paid for in about five years.

The article concluded:

The proposed scheme of roads I think is a most important one from every point of view. It is not necessary to state the advantages of such a system of roads; they will readily appeal to every one. If you will observe the map it will be seen that every state reaps an equal, or about an equal, advantage from the construction of such a system of roads. Any administration that passes such a law will not experience hard times during such administration and will have the everlasting gratitude of the people of this country.

Not only so, but the immense saving in the transportation of farm products, the increased value of all land along such highways, the increased revenues derived by the Government by reason thereof, the object lesson in road building extending throughout the country, the energy and enthusiasm it would inspire in the States and Counties, the community of effort, the unity of interest, and the patriotism of the people thus enabled to meet and to know all divisions and parts of a common country makes this easily the greatest movement ever conceived by the mind of man. ["The Proposed Inter-State Highway System," *The Road-Maker*, April 1913, pages 4-6]

Judge Lowe also prepared a bill that was introduced in Congress:

A Bill to Provide for the Construction, Maintenance and Improvement of a System of

National Highways and to Provide Funds for Their Construction and Maintenance.

It proposed a National Highways Commission “consisting of the Director of the Bureau of the Office of Public Roads, and four other members to be appointed by the President of the United States, by and with the consent of the Senate.” No more than three of the Commissioners “shall belong to the same political party as the President. The OPR Director “who shall also be a member of the President’s Cabinet, was to be Chairman of the commission:

That said National Highways Commission shall have supervision of the construction, reconstruction, maintenance and repair of said roads, their bridges and their general construction; shall determine the manner thereof and material thereof, the plans and specifications necessary thereto, and the times and manner of letting contracts for the same, and the time and manner of payment therefor.

To assist in this effort, the commission “may apply to the Secretary of War for such part of the engineering force not now needed in the completion of the Panama Canal, and for such machinery or material no longer needed in such work and such as may be useful in the construction of said highways.”

The bill directed all revenue from taxes on cigars, chewing, and smoking tobacco of every description “shall be set aside by the Treasurer of the United States and placed in a separate fund, to be known as the National Highways Road Fund.” The commission would draw on the fund for construction expenses.

Section 8 of Judge Lowe’s bill stated that the commission would “lay out and definitely locate, take over, construction and maintain the following National, Commercial and Military Highways and Post Roads.” Road No. 1, of 18 specified in the bill, was the National Old Trails Road. The bill included the map Judge Lowe had prepared for the National System of Highways. [“System of National Highways,” *National Old Trails Road: The Great Historic Highway of America*, National Old Trails Road Association, 1925 (Revised Edition), pages 229-238]

The bill was not adopted.

In Missouri

For Judge Lowe, who lived in Kansas City, Missouri, the progress of the road in Missouri was of particular concern. In January 1916, *Southern Good Roads* magazine reported that, “The work of building a hard surfaced highway from Kansas City to St. Louis along the Old Trails Road, 303 miles in all, is practically half completed”:

Last summer at a good roads meeting held in Kansas City Judge J. M. Lowe, president of the National Old Trails Road Association, proposed that the task of linking the two great cities of Missouri be completed within the year. His enthusiasm was so contagious that the fever of rock road building quickly spread from one road district to another, until now it is safe to predict that another summer will see all of the money needed for the cross-

state highway secured.

When the fight to construct Missouri's first great rock [road] began 119 miles of the Old Trails Road had been hard surfaced. This mileage included the hard roads across Jackson, Boone and St. Louis counties, the rock roads through the Lexington and Fulton special road districts, in Lafayette and Callaway counties respectively, and the gravel and rock roads across St. Charles county.

Since then Wellington special road district, the first east of Kansas City, has voted bonds in the sum of \$55,000 to plug its gap in the trail. Between the Jackson county line and the Wellington district line is a 2-mile stretch not included in any road district, but money has been promised the Old Trails Road Association by Kansas City road boosters to care for that bit of the trail.

Waverly district has approved a bond issue of \$49,000 to be expended in hard surfacing the 10.2 miles of the cross-state highway that cuts that district. This means that in Lafayette county alone within the last few weeks the money has been found to rock 24.2 miles of the Kansas City to St. Louis road.

The Saline county rock roads committee is considering plans for rocking 192 miles of road in that county. This plan includes the mileage of the Old Trails Road through Saline. But if the voters do not approve the bonds, Sherman Houston, of Malta Bend, chairman of the county committee, is the authority for the statement that when Lafayette county brings the rock road to the Saline county line, Saline will carry it across to Howard and Cooper counties.

In St. Charles county 1.8 miles of the trail is being rocked this fall. That means 145 imles [sic] of the trail either has been rocked or the money provided for it. ["Old Trails Road Progress," *Southern Good Roads*, January 1916, page 12]

(In the 1910s, the term "hard surfaced" did not mean a road with an asphalt or concrete pavement. It referred to a road that would not turn to mud in a rain, as was the case with earth roads. A common alternative term for a hard surfaced road was a 365-day highway. For example, a hard surfaced road might include a top coat of crushed gravel or rock over graded earth. In 1914, the country had 2,445,761 miles of rural roads. Only a total of 257,291.54 miles, or 10.52 percent, was surfaced:

- Gravel: 116,058.12 miles (45.11 percent)
- Macadam: 64,898.43 miles (17.16 percent)
- Sand Clay: 44,154.73 miles (17.16 percent)
- Bituminous Macadam: 10,499.79 miles (4.08 percent)
- Concrete: 2,348.43 miles (0.91 percent)
- Brick: 1,593.88 miles (0.62 percent)
- Various 17,738.16 miles (6.90 percent)

[*Public Road Mileage and Revenues in the United States, 1914. A Summary*, Office of Public Roads and Rural Engineering, U.S. Department of Agriculture, Bulletin No. 390, January 12, 1917, pages 3-4)]

American Motorist magazine, published by the American Automobile Association (AAA), added:

St. Louis and Kansas City are taking up definitely the project of an interurban stone-surfaced highway to connect the two cities. The road to be constructed follows the "Old Trail" route and has a total length of 303 miles, one-third of which has already been surfaced with stone. The road passes through St. Charles, Warrenton, Fulton, Columbia, Glasgow, Lexington, and Independence.

The Business Men's League of St. Louis has begun the organizing of a road-building campaign in each community along the route, and the plan of campaign provides for the raising of funds in each county by means of a bond issue where current revenues are insufficient to carry out the project. It is planned that after the people in the different counties have raised as much as is practicable, the cities of St. Louis and Kansas City will make up the remainder needed.

It is estimated that the cost will be \$5,000 per mile and that 200 miles of the route will have to be constructed, making the total outlay necessary about one million dollars. It is anticipated that the counties will provide \$850,000 of this sum and that the two cities will raise the other \$150,000. The government is expected to furnish the engineers for surveys, estimates, and supervision. ["St. Louis and Kansas City to Help Build 'Old Trail,'" *American Motorist*, April 1916, page 44]

(Although the Missouri State Highway Department dates to 1913, State funds from general or special funds available for road improvement were apportioned among the counties that had the funds to pay for at least one-half the cost of any road improvement or construction project. The role of State Highway Commissioner F. W. Buffum (1913-1917) was mainly advisory, with a primary responsibility to encourage the counties to improve their roads. In 1917, the Hawes Law, named after State Representative Henry B. Hawes, assented to the Federal Aid Road Act, created the position of State Highway Engineer, and established a four-member bipartisan State Highway Board. The State did not assume responsibility for the road work until 1921. [*Serving Missouri's Transportation Needs for 75 Years*, Missouri Highway and Transportation Commission, 1996, page 3])

In the Southwest

During the 1910s, construction of California's State highway system involved three main acts. The State Highway Act of 1909 called for designation of a system of State Highways to be constructed at a cost not to exceed \$18 million. All funds from the State sale of highway bonds would go into a State Highway Fund in the State Treasury. The routes included in the system were "to be selected by the Department of engineering . . . as to constitute a continuous and connected State Highway system running north and south through the State, traversing the Sacramento and San Joaquin Valleys and along the Pacific Coast, by the

most direct and practicable routes, connecting the county seats of the several counties through which it passes and joining the centers of population, together with such branch roads as may be necessary to connect therewith the several county seats lying east and west of such State Highway.” The highways were to be “permanent in character,” with the exact character and type of paving left to the Department. The 1909 Act was ratified during the general election of November 1910 and became effective on December 31, 1910.

As of June 30, 1920, the mileage completed with the \$18 million totaled 1,100 miles of paved road and 400 miles of graded highway, the latter with culverts and structures. The mileage included a 53.5-mile road from San Fernando in the Los Angeles area to San Bernardino.

The State Highways Act of 1915 called for an additional debt of \$12 million for work on the uncompleted portions of the State system and \$3 million for additional roads listed in the legislation. The voters approved it in November 1916. One of the routes improved was a 76.33-mile route from San Bernardino to Barstow.

The State Highways Act of 1919 involved a \$40 million bond issue, and covered a 255-mile route from Needles, via Barstow, to Mohave. [*The State Highways of California – An Engineering Study*, conducted jointly by the California State Automobile Association and the Automobile Club of Southern California, July 1920-January 1921, pages 11-16]

Ben Blow, manager of the Good Roads Bureau of the California State Automobile Association, wrote in 1920 that the bond funds were far below what was needed. Of the first bond issue, he wrote that, “all was easy sailing, as easy as it could be when the fact that the Highway Commission was charged with building about \$50,000,000 worth of roads for \$18,000,000 is taken into consideration.” The first work began on August 7, 1912, in San Mateo County on the road from San Francisco to the south.

The second bond issue was easily approved, but immediately ran into problems:

The United States began to experience abnormal conditions, prices went up – of labor and all sorts of supplies. And then the United States plunged into war and a multitude of boards and commissions and dollar-a-year men appeared like mushrooms, earnestly and sincerely, in the main, trying to help win the war but gumming things up in relation to construction work until in practically every section of the United States highway building was halted, the work done by the California Highway Commission being the only work of magnitude which was carried on. [Blow, Ben, *California Highways – A Descriptive Record of Road Development by the State and by Such Counties as Have Paved Highways*, The H. S. Crocker Company, Ltd., 1920, pages 1-3]

In January 1916, the Automobile Club of Southern California’s magazine, *Touring Topics*, discussed the condition of the western end of the National Old Trails Road:

This highway as far east as Seligman in Arizona is reported in good shape at present but rains and stormy weather may change route conditions at any time. From Los Angeles to

San Bernardino by way of Foothill Boulevard, [is] continuous pavement with the exception of one mile of dirt road west of Upland which is excellently maintained. From San Bernardino over Mount Vernon Avenue and through Cajon Pass to Barstow there is a first class road with the exception of the four miles in the Cajon Pass which is almost impassable on account of snow and mud. The last ten miles into Barstow has been badly cut up by heavy freighting.

From Barstow to Ludlow the road surface has been badly rutted by heavy auto trucks. This portion of the road is quite sandy and contains numerous chuck holes which necessitates slow driving. From Ludlow to Cadiz, fair dirt road with the exception of the last six or seven miles into Cadiz which has numerous chuck holes and is very sandy. Between Cadiz and Needles the road is in good condition. From Needles it is advisable to turn to the right into Topoc, at which point the Colorado River is crossed on the Santa Fe Railroad bridge (a charge of \$3.50 is made for crossing.) From the river the route extends eastward through Yucca, Kingman, thence by Hackberry, Peach Springs to Seligman. The road is in good shape with the exception of some rough work near Seligman. [“Trans-Continental Highways: National Old Trails Road,” *Touring Topics*, January 1916, page 23]

The magazine updated its report a month later:

This all-year route has withstood rains and travel has not been interfered with to great extent. Cajon Pass, beyond San Bernardino is passable and in fair shape. There is one creek to be crossed four miles above Devore but this is causing no trouble – also a creek crossing one mile beyond Victorville which required team assistance on February first but with a few days of clear weather this crossing will cause no trouble. From Barstow to Needles roads will be found passable although numerous cross washes will be encountered. [“Transcontinental Routes: National Old Trails Highway,” *Touring Topics*, February 1916, page 22]

San Bernardino County

Writer Nick Cataldo has examined the history of the National Old Trails Road in San Bernardino County. As a result of a special election on October 14, 1914, the road was improved “at 16 feet wide with crushed limestone aggregate and asphaltic binding.” The road through the San Bernardino Valley, he wrote, “meandered through the Cajon Pass before continuing into the Mojave Desert heading east.” As motor vehicle traffic increased along the road – 419 vehicles in 1914, 1,367 in 1915, 1,774 in 1916, 2,607 in 1917, and 4,240 in 1918 – stores, gasoline stations, and tourist camps opened:

The most pressing need for climbing the Cajon grade from San Bernardino was water for overheated engines. Automobiles in those days did not have the super cooling systems of today’s vehicles, and many were the motor cars that were obliged to pull to the side of the road with steam rising from their boiling radiators.

The driver proceeding up the National Old Trails Road from San Bernardino came first to the small railroad siding of Verdemon, eight miles from town (but now part of San Bernardino),

where water for radiators was available. Two and a half miles further was the small community of Devore, where gasoline, water and groceries could be obtained.

Beyond Devore, Cajon Canyon narrowed considerably as mountains closed in on both sides.

Motorists continued 4 miles to Keenbrook, a railroad siding with water available. “Just beyond, the highway and the Santa Fe tracks close on the left twisted through the narrow defile of Blue Cut to Cozy Dell, shaded by great oaks, with its grocery store and gas station.” Fuel and supplies were available a mile and a half later at Cajon Station, with a public campground called Camp Cajon a half mile further east. In this era before roadside “motels,” a term that was not coined until the 1920s, communities often established camping areas for motorists to keep them from camping on private property along the way. Camp Cajon provided “50 cement tables, stoves and restrooms built by William Bristol, a wealthy citrus rancher from East Highlands. The AAA rated Camp Cajon, dedicated on July 4, 1919, as one of the best in the west.”

Also in 1919, Marion Meeker established a café and garage called Meeker’s Store a mile and a half beyond Camp Cajon:

Two miles further on, the National Old Trails Road crossed the Santa Fe tracks and passed Alray Station, the last water stop before the final climb to the 4,200 foot Cajon Summit. If the driver didn’t tank up before this stretch, his engine would be boiling well before he reached the top.

Finally, if the driver made it to the summit, 25 miles or so from San Bernardino a welcome “oasis” greeted him known as the original Summit Inn. Established in the early 1920s, it was here that the weary traveler was accommodated with a café, store, gasoline station and garage. Serving as the main stopping point on the highway before dipping down into the Mojave Desert, the Summit Inn was a popular rest stop. Needless to say, the Summit Inn garage did one heck of a business fixing overheated engines.

Columnist L. Burr Beldon of the *Inland Valley Daily Bulletin* interviewed Sam McNabb, a former mayor of San Bernardino, in 1964. Mayor McNabb recalled the early days of travel on the National Old Trail Road:

It left San Bernardino on Fourth Street and continued straight west through Rialto and on to Etiwanda. Near Rochester, between Etiwanda and Cucamonga, there was a slight bend. In Cucamonga proper, the road jogged north a block and headed for Cucamonga Creek which was crossed from 300 feet north of the present bridge. Dips were frequent and often overflowing with waste irrigation water. The San Antonio Avenue crossing west of Upland was at times so deep that cars would stall out. A nearby resident is said to have kept a team of horses hitched just to pull out cars for which he charged \$2. [Cataldo, Nick, “Taking a trip up the National Old Trails Road,” *The San Bernardino Sun*, July 24, 2017; “Old Trails Road paved the way for Route 66,” *The Inland Valley Daily Bulletin*, April 5, 2010]

An everlasting Debt of Gratitude

As discussed in part 1, the Automobile Club of Southern California had taken on the task of signposting

the National Old Trails Road to Kansas City. The top of the sign was a diamond inside of which was a globe-like circle with the words “National Old Trails Road Association” inside a circular band surrounding latitude/longitude lines with a line depicting the road from “NY” to “LA” with the words “Ocean to Ocean” to the left, top, and right, with “Highway” on the line.

Below the diamond was a directional road sign, topped by a band labeled National Old Trails Road. For example, the sign might read:

KANSAS CITY

ST. LOUIS	302mi.
INDEPENDENCE	8mi.
LA JUNTA	581mi.
OLATHE	24mi.

The signing crew finished in early 1915, as explained in the March 1916 issue of *Touring Topics*:

Early in 1915 our crews completed the enormous task of erecting our signs over the National Old Trails Road between Los Angeles and Kansas City, including branch routes to the Grand Canyon and to Big Springs, Nebraska. This is the longest continuously signposted road in the world, and this vast undertaking has stamped the Automobile Club of Southern California as the most enterprising signposting organization in existence. There are two very significant facts in connection with this work. First, that during the year after the signing of the road was nearing completion, transcontinental travel into Southern California over this route increased over one thousand per cent. In 1914, 194 touring parties traveled over the National Old Trails Road into Southern California, and in 1915, over the same road, but guided by and enjoying the assurance of the Club’s road signs, there were 2,000 parties! No other single enterprise has ever meant more to our community than this. The second interesting fact is that the project was financially self-sustaining – the various counties through which the road runs paying for the signs and posts. [“Roads and Signs,” *Touring Topics*, March 1916, page 13]

Judge Lowe was appreciative of the club’s work. He wrote:

The Automobile Club of Southern California is one of the few Auto Clubs which has arisen to a full conception of its opportunities and an appreciation of the purpose of its organization. Not neglecting the social and technical features pertaining thereto, it has risen to the higher and more paramount issue of road building, rightly conceiving that this should be first on its list of activities, for which this purpose is attained “All things else shall be added to it.”

And its success may be largely and chiefly accounted for because of this fact – it has stood for something. Handicapped at first by an unreasoning opposition to the automobile in rural communities, it steadfastly pressed to the front in its advocacy of every measure for road betterment until it broke down every foolish prejudice and every form of opposition and came to be recognized everywhere as one of the great and leading

factors in a National Campaign for Good Roads everywhere.

During the life of your Association, and due to its ceaseless and untiring energies, Southern California has been grid-ironed with a system of permanent roads which is the pride and wonder of a continent.

Your people have done in five years more than other communities have in a hundred. You have again demonstrated that "When there is a will there is a way." The splendid achievements in Southern California are the wonder and inspiration of a continent. You have demonstrated over and over again that the money wisely applied to promotion work is the best money which goes into good roads.

California owes you an everlasting debt of gratitude, and no matter whether it seems to be appreciated or not, the name of your Association will be everlastingly linked with the history of better roads throughout the length and breadth of the land.

Among your activities not the least was the permanent signposting of the National Old Trails Road from Kansas City to Los Angeles, since which we have carried it forward to St. Louis, and shall carry it on to Washington, Baltimore, Philadelphia and New York this year.

The liveliest imagination cannot conceive what this means to the material interests of Southern California. We are fast hooking up with the N.O.T. every State and county system of highways through which it runs. This means that more than one hundred thousand miles of permanent roads will pour their traffic into the lap of Los Angeles for all time, over this great single artery. Nothing can divert it. [Lowe, Judge J. M., "California Owes You An Everlasting Debt of Gratitude," *Touring Topics*, March 1916, page 23]

The Topock Bridge

On March 25, 1916, officials dedicated the new \$100,000 automobile bridge over the Colorado River at Topock, Arizona, near Needles, California. As *Touring Topics* pointed out in its April 1916 issue:

It was necessary, formerly, for transcontinental motorists to enter California over the Santa Fe Railroad bridge which was planked and made available for automobiles with a small toll charge. Prior to planking this bridge, cars were ferried across the river.

Funds for the new bridge came from San Bernardino County and the States of Arizona and California:

The bridge itself consists of a single span five hundred and sixty feet in length and two hundred feet above the river bed. It is sufficiently wide for vehicles to pass for its entire length. Not only the bridge itself, but the roadway of approximately fifteen miles in

length between its approach and Needles is an engineering masterpiece. The roadway was built principally through the efforts of Judge L. V. Root, president of the Chamber of Commerce of Needles and an officer of the National Old Trails Road Association. So admirably have the road builders done their work on this stretch of highway that any speed of which a car is capable may be safely taken and the grade to the bridge has been located so scientifically that it is scarcely noticeable.

The dedication ceremony included representatives of the two States, San Bernardino County, the Automobile Club, and chambers of commerce of Los Angeles, Needles, and the county:

The dedication ceremony consisted of an address by Judge Root, a response by J. S. Mitchell, president of the Los Angeles Chamber of Commerce, and its christening by little Miss Baker, daughter of the Secretary of the Needles Chamber of Commerce. Following this ceremony, a banquet was given to the visitors in Needles at which President Baker of the Automobile Club of Southern California assured the good roads men present that the Association could be counted upon to place direction and mileage signs on all main automobile roads as fast they were placed in condition to encourage motor traffic.

Touring Topics assured readers that the new bridge was “but one step in the record of progress that has been made along the western portion of the National Old Trails road to improve it for local and transcontinental motoring. State and county officials had “cooperated in improving this highway and placing it in such condition that no automobilist need hesitate in undertaking the journey so far as the western part of the roadway is concerned”:

From San Bernardino over the Cajon Pass the roadway is in excellent condition with the exception of a three-mile detour at Pitman Heights, now necessary while concrete is being laid by San Bernardino County. Beyond the Pass as far as Barstow the road is somewhat sandy, but not difficult to travel, and between Barstow and Ludlow, with the exception of a few miles of soft road, the highway has been graded, rolled and packed and readily lends itself to a speed of from twenty-five to thirty miles an hour. Between Ludlow and Needles there are some portions of the roadway that are quite rough due to heavy truck traffic occasioned by the demand for supplies by the new mining camp at Oatman. These poorer parts of the road will soon be a thing of the past, however, as San Bernardino County has a fund of approximately \$150,000 available the improvement of this highway. Road crews are at work along the entire two hundred and fifty miles between San Bernardino and Needles, and it is only a matter of weeks before the California section of the National Old Trails Highway can be traveled by any car almost as easily as a paved road.

To illustrate how good the road already was, the article pointed out that the Packard provided for the Los Angeles officials who attended the ceremony traveled the 316 miles between that city and Needles in 9 hours and 45 minutes – an average speed of 30 miles an hour. To avoid any

misunderstandings, the article added:

In justice to these law-abiding gentlemen, however, it should be stated that the trip over the road through the populous portion of the country was made during the night time when there were no other vehicles on the road and when there was absolutely no danger to other traffic in thus slightly exceeding the speed limit. ["Needles \$100,000 Automobile Bridge Dedicated," *Touring Topics*, April 1916, pages 7-9]

Donald C. Jackson's *Great American Bridges and Dams* discussed the Old Trails Bridge at Topock:

The Topock Bridge is a 592-foot-span steel through arch built to carry highway traffic across the Colorado River between Arizona and California. Originally a component in the Old National Trail Highway, it later became part of the famed U.S. Route 66. In the late 1940s the Santa Fe Railway replaced its nearby Red Rock Cantilever Bridge (1890) with the Topock Bridge and donated the Red Rock span (since demolished) to Arizona and California for highway use. In 1948 the arch bridge was sold to the El Paso Natural Gas Company and the Pacific Gas and Electric Company. The firms subsequently modified it to carry a gas pipeline over the river. Although no longer serving its original purpose, the main structure of the Topock Bridge retains its historical integrity. It is readily visible from the modern highway bridge that carries Interstate 40 across the Colorado River. [Jackson, Donald C., *Great American Bridges and Dams*, The Preservation Press, National Trust for Historic Preservation, 1988, page 249]

David Plowden, in his photographic book on bridges, wrote about the Old Trails Bridge. He began by noting that the bridge was, briefly, the longest arch bridge in America.

After it was built in 1916, it exceeded by one foot only the length of the Detroit-Superior Avenue Bridge in Cleveland. It also had the distinction of being both the lightest and longest three-hinged arch. It weighed only 360 tons and had a single 592-foot lattice-rib half through arch span.

A daring method of erecting this arch was used because of the Colorado River's unpredictable nature. The tremendous fluctuations in water level made the use of falsework extremely dangerous and expensive. Instead, each half of the arch was assembled in a horizontal position and then raised into place by tackle from a tower located in midstream. A unique type of ball-and-socket center hinge and the bridge's extreme lightness made this maneuver possible. The idea was conceived by A. M. Meyers, the contracting engineer for the Kansas City Structural Steel Company, who were the fabricators of the steelwork and responsible for carrying out the actual work.

The Old Trails was designed by J. A. Sourwine of San Bernardino, California, who saw the work completed on February 20, 1916 Today this remote and tiny hamlet [of Topock] has no less than five bridges, clustered together in the middle of the empty desert. [Plowden, David, *Bridges: The Spans of North America*, W. W. Norton and Company, 1974, page 178].

The National Park Service says of the bridge:

The steel arch of the Old Trails Bridge simply soars. An innovative piece of engineering, one enormous span of 600 feet supports the 800-foot bridge that crosses the Colorado River in Topock, halfway between Yuma and the Utah border. The bridge carried automobile traffic over the Colorado River from 1916 until 1948.

Calling it “a landmark of American civil engineering,” the discussion continued:

Technologically, the structure is nationally significant as an outstanding example of steel arch construction. The engineers for the Old Trails Bridge had studied the problems builders and engineers encountered while constructing the Ocean-to-Ocean Bridge [at Yuma, Arizona, south of Topock]. They knew the engineers there had found constructing and securing a large span over the deep Colorado gorge difficult, so they tried the task a different way.

In Topock, engineers used a unique cantilever method of construction assembling bridge halves on their sides on the ground and hoisting them into place using a ball-and-socket center hinge. This meant that the structure was not supported by traditional spans from the ground up as it was being built. The use of the cantilever was a daring move for its time, creating the longest arched bridge in America. At 360 tons, it was the lightest and longest bridge of its kind. From the day it opened, this graceful arch and the deck it supported were a pivotal Colorado River crossing, first on the transcontinental National Old Trails Road and, by 1926, on Route 66. [Old Trails Bridge, Topock, Arizona, Route 66, Discover Our Shared Heritage Travel Itinerary, National Park Service, https://www.nps.gov/nr/travel/route66/old_trails_bridge_topock.html]

On September 30, 1988, the Old Trails Bridge was listed in the National Register of Historic Places.

Following the opening of the Topock bridge in 1916, Mohave County in Arizona took over the private mining road from Kingman to Topock via Oatman. According to Sherry and Richard Mangum’s book about the National Old Trails Road in Arizona, the county “began reducing the grade up the hill to Goldroad, which at the time was a twenty-six percent engine-buster. On the west side of the Black Mountains, Mohave County worked to reduce other steep grades.” [Mangum, Rickard K, and Mangum, Sherry G., *The National Old Trails Road in Arizona*, Hexagon Press, Inc., 2008, page 89]

Retirement?

On March 3, 1916, *Kansas City Post*:

Lack of financial support from road enthusiasts throughout the country has resulted in the resignation of Judge J. M. Lowe, president of the National Old Trails Road association.

The resignation is to take effect April 1. On that date the headquarters of the association in the Midland building will be closed.

For many months Judge Lowe has been standing the expenses and paying the rent of the offices maintained by the association. Appeals for aid in carrying out good road work were in vain and Judge Lowe has become discouraged. He mailed his resignation to the directors of the association yesterday.

Judge Lowe was one of the pioneers in good roads agitation throughout the West. He has held the position of president of the association for more than three years. It was through his efforts that the Santa Fe trail east of Kansas City was marked and to him belongs the credit for making Kansas City the midway point in the ocean to ocean highway.

Whatever the accuracy of this article, Judge Lowe remained president and continued issuing bulletins and fighting for the National Old Trails Road.

Daughters of the American Republic, 1916

The Daughters of the American Republic (D.A.R.) met in Washington on April 17-22, 1916. The new chairman of the National Old Trails Road Committee, Mrs. Henry McCleary, reported on the committee's activities. She began:

The National Old Trails Road Committee appointed for the purpose of securing National legislation creating an ocean-to-ocean highway from the old historic roads and trails of our country has been actively engaged in this work for six years. During this period it has created a great interest not alone in the highway for which it labors, but in almost every State in our land the Daughters are searching out the pioneer trails and marking them with boulders, tablets and monuments. While this is subsidiary to the National Old Trails Road it is of inestimable value in creating a sentiment in behalf of the National legislation we desire. No other word of this Society has created greater interest in the early history of our whole country than the work of this committee.

Mrs. McCleary had written to every State chairman seeking their cooperation:

Their replies tell a widespread. Many chapters have one day's program a study of the National Old Trails Road. The reports of the State Chairman, which time will not permit us to read, show that through the efforts of the Daughters in locating pioneer trails many interesting facts of the early history of our country are being brought to light.

The letters were appended to her address in the proceedings.

She commented on the status of the legislation D.A.R. had initiated:

House Bill 4755 introduced in the present session of Congress by Hon. [William] P. Borland [sic] of Kansas City, and known as the Old Trails Act, asks for the enactment of

a law making our road a National highway. It is not known as the D.A.R. bill, but we ask the support of each Daughter for this measure. At the next session of Congress we hope to have this bill introduced under our own name and to enlist the support of each State organization and the National Board.

At a meeting of this Committee held during the present session of this Congress a Committee was appointed to design a permanent marker for our National highway.

Another Committee is designing a seal of the Old Trails Road which we hope will be extensively used by the D.A.R. in their correspondence, thus aiding in giving publicity to our work.

It was also decided at this meeting of our Committee to ask the State societies of the S.A.R. [sic] and State Historical Societies to co-operate with us in securing National legislation for our Old Trails Road.

This is a time of road building – a period when the cry for good roads is more and more persistent, and the demand for a National ocean-to-ocean highway grows strong each year. Undoubtedly it will soon be granted. Why then should not this great highway be the one mapped out by the Daughters of the American Revolution? Every foot of it is rich in history. Its history is the story of the development and civilization of a continent, of the growth of a great people and a world power from a few struggling colonies on the Atlantic Coast

On December 14, 1915, at the start of the first session of the 64th Congress, Representative William P. Borland had introduced several bills, including:

H.R. 4755 – To be known as the old trails act, to provide a national ocean-to-ocean highway over the pioneer trails of the Nation, thus making a continuous trunk-line macadam road from the site of Jamestown, Va., and from the city of New York, N. Y., to the city of Washington, D.C.; thence by way of St. Louis, Mo., to Gardner, Kans., and there to branch, one branch leading through Santa Fe, N. Mex. The other branch leading from Gardner, Kans., through Kearney, Nebr., to Olympia, Wash.; also to aid the States through which the highway herein described as the National Old Trails Road shall run in extending, constructing, rebuilding, and repairing same.

The bill, which offered warrants for one-half the cost of construction to be issued to States on certification of completion of construction through each State, had been referred to the Committee on Agriculture.

After commenting on each segment of the National Old Trails Road, Mrs. McCleary continued:

Make it a great National Highway. Over such a road rural free mail delivery will reach thousands of homes. Farmers will market their products, their children will attend school. Charles Sumner said: “The two greatest forces for the advancement of

civilization are good roads and the schoolmaster.” Thousands of motorists will traverse it and will learn to know our country better. Will be entranced by its natural beauties and amazed at the financial possibilities awaiting development. The dreadful wars of the Old World have forcibly brought to our knowledge the fact of our utter unpreparedness to protect or defend our nation, and in preparation for defense good roads are of inestimable value and have been so proven in the foreign war It is just as patriotic to defend your country and protect the living as to build monuments to commemorate the achievements of a past age. Then let us as a Society use our utmost endeavor to secure the enactment of a National legislation making the Old Trails Roads an ocean-to-ocean highway. As a means of National defense, a memorial to the worthy pioneers, a great factor in the social and commercial development of our country, a practical lesson in patriotism. A monument that not only honors the dead but serves the living.
[*Proceedings of the Twenty-fifth Continental of the Daughters of the American Revolution*, April 17-22, 1916, pages 1158-1160]

The Fight for National Roads

Still, the advocates of interstate highways were regarded by many as favoring the "idle rich" or "peacocks" who had time to travel the rigorous miles across the country by auto. An editorial in the *Engineering News* issue of May 6, 1912, had reflected the popular feeling:

We must say frankly that to propose such an expenditure of the public money for the benefit of a few wealthy pleasure seekers at a time when the masses of people are crying out in a protest against the increased cost of living seems like trifling with a grave situation.

Nevertheless, with the growth of automobile traffic, pressure for improved rural roads had grown. Congress had taken up the issue for several years, but had been unable to resolve the different viewpoints, particularly between those who favored Federal construction of national roads versus those who preferred a Federal-aid program of assistance to State and local officials. While the debates continued, a provision of the Post Office Appropriation Act of 1913, signed by President William Howard Taft on August 24, 1912, authorized a \$500,000 experimental post road improvement program as a test of concepts. State or local governments were to pay two-thirds of the cost.

The program produced few physical results, but had the positive outcome of convincing Federal road officials that aid should be limited to the States to avoid the complexities of working with the country's more than 3,000 counties. [*America's Highways 1776-1976*, pages 81-83]

On January 25, 1916, the House of Representatives passed a Federal-aid bill by a vote of 281 to 81. All work would be under the supervision and control of the State highway departments or, if a State did not have one, in such manner as may be agreed to by the Governor and the Secretary of Agriculture. Any State receiving the aid after January 1, 1920, must have a State highway agency. Although States would select Federal-aid projects, the Secretary would examine all surveys, plans, and estimates; make progress payments as the work was underway; and make the

payment of the Federal share only after an inspection of the work. The Federal share would be not less than 30 percent nor more than 50 percent.

Backers of good roads were not uniformly pleased. Many good roads groups were still pulling for construction of national roads, namely their named trails, and opposed the Federal-aid concept that they described as States spreading money over local roads, to no national purpose, in a “pork barrel” waste of the funds.

The possibility that the United States might enter the European war prompted the named trails associations to promote the value of improving the primitive interstate road network to support a potential wartime economy. On April 7, 1916, for example, Judge Lowe wrote to President Wilson:

Dear Mr. President:

In any question of “Preparedness,” either for possible war or peace, it seems to me certain roads should be built and maintained by, and under the sole supervision of, the General Government. In this connection, I call your attention to the “Cumberland,” now called the “National Old Trails Road,” originally built and maintained by the Government for more than a quarter of a century – twice a campaign issue, in 1824 and 1848 – and victorious in each instance. It had the support of such Statesmen as Jefferson, [Virginia Governor William B.] Giles, Gallatin, Randolph, Calhoun, Jackson, Benton and Lincoln.

He enclosed a clipping from April 7, 1916, issue of the *Kansas City Times* and requested “that you glance over it.” The article, titled “To Urge Old Trails Facts,” began:

Facts showing the pre-eminence the National Old Trails Road would have as a military highway have been prepared by Judge J. M. Lowe, president of the Old Trails Association, at the request of C. J. Myers of the Co-Operative Club. This is for use in the campaign which the Co-operative Club is making to raise \$13,000 to finance the road association the ensuing year.

The facts included:

It leads from the seat of government directly through the central and most thickly settled part of the United States.

It directly connects at either end with our Coast system of highways, and with all our military supply stations, and with all our Coast fortifications.

It connects the Atlantic with the Pacific by the shortest route and easiest grades.

It is the most practicable all the year round road.

It is directly connected with the state and county systems of each state through which it runs.

It runs or is closely connected with all the largest centers of population and with the capital of each state through which it runs.

The article listed the mileage of all roads in each Old Trails State from Maryland to California, and noted that the road was directly connected to road system totaling 694,161 miles.

I have elsewhere shown that if only about 122,000 miles (one-fifth) of this system were permanently built, no farm in the states through which it passes would average a greater distance from it than about five miles.

In an emergency the concentration or mobilizing centers would undoubtedly be Boston, New York, Philadelphia, Baltimore, Washington, Richmond, Pittsburgh, Columbia, Cincinnati, Indianapolis, Louisville, St. Louis, Kansas City, Topeka, Denver, Santa Fe, Phoenix, Los Angeles and San Francisco, all directly reached over the National Old Trails Road.

It will serve directly one-third of the population of the United States.

He estimated that one-third of the population to total 32,811,745 people.

Edison says: "I cannot overestimate the value of good military roads; the railroads have nothing like their elasticity. With good roads a million men with artillery and supplies can be shifted two hundred miles in twenty-four hours."

Almost one-third of this road was built and maintained by the government as a national and military highway for nearly forty years and more than one-half of it is now either built or the funds are provided without any strings tied to tentative or conditional promises.

Nearly all transcontinental roads suggested connect at some point with the National Old Trails Road. [Found in the National Archives at College Park, Maryland]

The White House received Judge Lowe's letter on April 10 and forwarded it to the Department of Agriculture, which received it on April 12.

The Stationary

Beginning in 1916, the National Old Trails Road Association introduced new stationary for its letters. At the top on the left appeared the names, title, and home town of the Association's Officers, including Judge Lowe, president. On the right, a similar list for executive committee members.

Centered below the list appeared:

HEADQUARTERS
NATIONAL OLD TRAILS ROAD ASSOCIATION
THE GRAND CANYON ROUTE

DEPARTMENT
NATIONAL HIGHWAYS ASSOCIATION

RAILWAY EXCHANGE BUILDING
KANSAS CITY, MISSOURI

Centered between the two lists appeared the Automobile Club of Southern California's diamond-shaped sign of the road, with the upper point of the diamond just below the "A" in "CANYON." Below the diamond was the directional road sign from Kansas City described earlier.

Arrows pointed the east-west directions for the cities from Kansas City.

To the left and right of the centered road sign was a list of State Vice-Presidents

The Federal Aid Road Act

While advocates for national roads, including Judge Lowe, continued to fight for their cause, the House and Senate voted in favor of the Federal-aid concept of Federal-aid to States along the lines of the draft bill developed in Oakland by a committee of the American Association of State Highways Officials (AASHO) and adopted by AASHO for submission to Congress. Its chief advocate in the Senate was Senator John H. Bankhead of Alabama, chairman of the Committee on Post Offices and Post Roads.

Senator John D. Works of California, by contrast, was one of the outspoken opponents of the Federal-aid concept. As the Senate debated the bill on April 21, 1916, he began:

I rise to oppose the pending bill. I appreciate the fact that it is an unpopular thing to do, as it is avowedly legislation in the interest of the States and particularly of the farms of the several States. But the bill is so clearly vicious as a matter of policy and to my mind it is so clearly against the spirit if not the letter of the Constitution, that I feel it is incumbent upon me to discuss the bill at some length.

He often had expressed concern, he pointed out, about "the present tendency of legislation in Congress . . . to wipe out almost completely the dividing line between the sovereignty and jurisdiction of the States and the Federal Government, and that this has been brought about largely by the desire of the States to secure appropriations of money from the National Government." He listed dozens of such bills in areas of public health, education, agriculture, and defense highways and public roads.

He considered the present Federal-aid bill "one of the worst of its kind." He went through the provisions before concluding:

I have occupied all the time I think I ought to consume in the discussion of this bill; but I have here a synopsis of the statement made by Judge J. M. Lowe, who is president of the National Old Trails Road Association of Kansas City, Mo., before the Good Roads committee of the House of Representatives, which was prepared by Judge Lowe himself, and which bears upon this question.

He had the statement, initially presented in January 1914, read into the record. The presentation was summarized in part 1. Judge Lowe asked:

As “Federal aid” in some form is being agitated as preferable to a system of national highways, permit me to ask why make the States contribute an equal amount or any other amount as a condition precedent to any action by the General Government?

Why make the State contribute to a national enterprise at all?

If a road is not of national concern, ought the national revenues be appropriated to it?

One argument was that the State share was justified because the States would benefit from the Federal-aid roads. “If this is to be the policy, then why not apply it to rivers and harbors,” as well as public buildings, all of which were developed entirely with Federal funds. He explained:

But “cross-country roads,” “tourists’ roads,” “ocean-to-ocean highways” ought not to be built for fear automobile “joy riders” will use them!

The roads most in favor by these critics are “the rural roads,” the roads in the back districts, in remote sections, where there are no products to market and no people to use them, either for “joy” or necessity – roads that “begin nowhere and end nowhere” – roads of little local value and no general value; these are the roads to which it is proposed by some that the general revenue be applied.

Constitutions in half the States, he had said, prohibited cooperative participation; they would have to be amended.

After going through the long history of debates over internal improvements in the 19th century, he concluded:

But shall those live States and communities which have already awakened to the importance of good roads and have issued road bonds be permitted to participate in this “aid,” or shall it be given as a free bounty or reward only to those backward and slothful communities where there are neither products to market nor people to transport?

If the former are treated at least equally with the latter, then they have already issued \$410,000,000 in road bonds and are ready to wipe up any appropriation Congress may make.

New York alone is ready to take up \$100,000,000 of this “aid.”

Besides, is it not illogical and impracticable to give, or try to give, joint authority and supervision to the States over a national highway or over any highway? The Supreme Court has repeatedly said that there is no difference between a highway on the land and

on the water. What would be the result if every State through which a navigable stream may run had jurisdiction and control over it? There would be no uniformity in its upkeep nor in the navigation laws governing its use.

Joint control and supervision is impracticable and unworkable. Either the State or the General Government must be supreme. If each is supreme over its own system and only over its own system, there will be no friction, no departure from the uniform practice of the Government, no questions of State rights nor of paternal nor concentrated Federal power, no conflict of authority, no dodging of responsibility.

And, after all is said, why tax the State, or the people of the State, before permitting them to have any benefit from taxes already paid? For, twist the whole matter as we may, it all comes back to the ultimate fact that “the people pay the freight,” whether it comes out of the National Treasury or a part of it out of the State treasury. [“Good Roads,” *Congressional Record-Senate*, April 21, 1916, pages 6533, 7225-7226]

The Senate then took up an amendment from Senator Thomas J. Walsh of Montana to appropriate \$1 million a year, for 10 years, for roads and trails in national forests. After Senator Walsh explained the basis for the amendment, Senator Works endorsed it saying, “it would bring one legitimate provision into this bill, because it does provide for work to be done that is national in its character.” The amendment was “entirely legitimate; and it is the only provision that I have yet noticed in this bill that, in my judgment, is legitimate and proper.”

Despite the efforts of critics, Congress passed the Federal Aid Road Act, which President Wilson signed on July 11, 1916. It established the Federal-aid highway program and the Federal-State partnership that remains in place, much altered, to this day. For the story of the legislation, see “Creation of a Landmark: The Federal Aid Road Act of 1916” on this Website at <https://www.fhwa.dot.gov/highwayhistory/landmark.pdf>.

The 1916 Act authorized \$75 million for Federal-aid projects over a 5-year period, through June 30, 1921, plus \$10 million for forest road improvements spread over 10 years. To participate in the programs, States were required to have effective control of a large measure of road work, to avoid haphazard construction, plus strengthened State participation in maintenance. Each year, the Secretary of Agriculture was to set aside 3 percent of the appropriation for administration of the Act, then to apportion funds among the States based on:

One-third in the ratio which the area of each State bears to the total area of all the States; one-third in the ratio which the population of each State bears to the total population of all the States, as shown by the latest available Federal census; one-third in the ratio which the mileage of rural delivery routes and star routes in each State bears to the total mileage of rural delivery routes and star routes in all the States, at the close of the next preceding fiscal year, as shown by the certificate of the Postmaster General, which he is directed to make and furnish annually to the Secretary of Agriculture.

The Federal share of costs could not exceed 50 percent, and all work required prior Federal

approval.

Projects were restricted to rural post roads, defined as “any public road over which the United States mails now are or may hereafter be transported, excluding every street and road in a place having a population, as shown by the latest available Federal census, of two thousand five hundred or more, except that portion of any such street or road along which the houses average more than two hundred feet apart.”

At the time, several States did not have a highway department (Delaware, Georgia, Indiana, Nevada, South Carolina, and Texas), while others did not meet the “effective control” test (Arkansas, Florida, Idaho, Kansas, Michigan, Missouri, Oklahoma, South Dakota, and Wyoming). Recognizing that every State might not be able to use the funds apportioned to it, the Act provided:

That in States where the constitution prohibits the State from engaging in any work of internal improvements, then the amount of the appropriation under this act apportioned to any such State shall be turned over to the highway department of the State or to the governor of said State to be expended under the provisions of this act and under the rules and regulations of the Department of Agriculture when any number of counties in any such State shall appropriate or provide the proportion or share needed to be raised in order to entitle such State to its parts of the appropriation apportioned under this act.

The program operated on a reimbursement basis. The State paid the full cost of work with its own funds, or funds provided by the counties, then would be reimbursed for the Federal share, up to 50 percent, if the Secretary found that the work was in compliance with plans and specifications. The Secretary, at his discretion, could make progress payments to the State while the work was underway. However, the Act stated that payments could not exceed “\$10,000 per mile, exclusive of the cost of bridges of more than twenty feet clear span.”

The States were responsible for maintenance of the projects:

To maintain the roads constructed under the provisions of this act shall be the duty of the States, or the laws of the several States. If at any time the Secretary of Agriculture shall find that any road in any State constructed under the provisions of this act is not being properly maintained he shall give notice of such fact to the highway department of such State; and if within four months from the receipt of said notice said road has not been put in a proper condition of maintenance, then the Secretary of Agriculture shall thereafter refuse to approve any project for road construction in said State, or the civil subdivision thereof, as the fact may be, whose duty is to maintain said road, until it has been put in a condition of proper maintenance.

The Act provided that “all roads constructed under the provisions of this act shall be free from tolls of all kinds.”

The Secretary delegated authority for most work under the 1916 Act to OPRRE. To handle the

increased work, OPRRE established ten districts with an engineer in charge to oversee projects in several States. The agency also reorganized its headquarters officials into two branches. "The management branch deals with all administrative fiscal, legal, statistical and economic questions, while the engineering branch has charge of all matters relating to construction and maintenance." All projects required approvals by the district engineer and the headquarters engineering branch. [*Annual Reports of the Department of Agriculture for the Year Ended June 30, 1917, pages 37-38*]

OPRRE invited the States to send representatives to Washington to assist in preparing regulations for implementing the provisions of the 1916 Act. After OPRRE incorporated their ideas into the draft regulations prepared by the Department solicitor, Secretary of Agriculture David F. Houston approved the regulation on September 1, 1916.

Judge Lowe Reacts

Judge Lowe issued an undated statement on "National State and County Highways." It began:

We have neither changed nor modified our often expressed opinion that the only practical solution of the "good roads" proposition is that the National Government should construct and maintain a system of national highways, embracing all roads constituting through routes and interstate in character. This system of National Highways should be supplemented by a system of State highways to be constructed and maintained by the State and embracing the main inter-county routes, and connecting every County seat town with the State and National system.

Each County should construct a system of County roads, supplement such system of State roads and embracing the main inter-town routes, and thus binding together all parts of the Country.

This would give a system of permanently built roads, all connected in one vast scheme and embracing the entire country.

Such a system, Judge Lowe wrote, was inevitable. In the meantime, the public had been "misled by mistaken legislation looking to the building of short stretches of local roads, beginning nowhere and ending nowhere." This "mistaken notion" could be traced "to political demagogues, who, actuated by the opinion that there were a greater number of dirt roads than permanent ones, and possibly believing there was a larger population living in the back 'districts' than on the great highways. Their appeals have been made to a narrow prejudice which utterly misled public sentiment."

All attempts to develop a system of roads, "by first building local roads have been miserable failures." As illustrated by common wagon roads and railroads, "not until trunk lines were built was there any material advance in road building." The trunk lines created a desire for building local roads to them. "Otherwise, there was no desire or reason for the existence of such local feeders." Federal construction of national highways would free the States to build improved

roads on heavy traffic lines; that would free the counties to build roads from remote districts to the State roads:

A system like this will add an impetus as yet unthought of to road building throughout the nation. Authority and responsibility will be logically and economically divided and fixed without any possible conflict. Uniformity and efficiency will result, and the standards of construction and maintenance will be raised, and they will be built in the shortest possible time and with the utmost efficiency.

Despite all these advantages, Congress was not ready:

It is agreed, however, that Congress will, as heretofore, be slow to take any action, at least of a practical and sensible nature, until public sentiment has become so aroused that it will be forced to take action. In the meantime, and until Congress does take some action, we will abate no effort along this line, but will be on hand, "in season and out of season," until the general government has arisen to a full appreciation of the situation.

At a time when military preparedness was "being agitated on every hand, we shall insist that as a vital and essential part of such preparedness, nothing is so important as a system of military roads, over which the armies, artillery and supplies, can easily be mobilized":

The country will never be safe from attack from the east or west, north or south, until such system is constructed. It is worth while to mention the fact this was a part of the conception in the early history of this country, for the building of the eastern section of the National Old Trails Road as a military road, and it served its purpose well, both in the early history and during the Civil War

Therefore, we are urging the people not to wait on the slow and possibly uncertain action of Congress, but to build the road and to build it now. When Congress does take action, there is not a doubt that this Old Road will be included in any system, or in any assistance given by the general government. No conceivable enterprise [sic] – not even an additional trans-continental railroad or trolley, will be of so much real benefit and value to the country generally and especially to the counties and states through which the road runs as will be of so much real benefit and the value to the country generally and especially to the counties and states through which the road runs as will be the permanent building of the National Old Trails Road. It is not only a patriotic duty, but it appeals to every motive and instinct which actuate the progressive, wide-awake citizen.

He illustrated his point by discussing what Clay County in Missouri could do under existing statutes to build permanent roads, including the National Old Trails Road, that would increase the value of the land, concluding:

Can you imagine a better insurance or a better investment possible to be made? Instead of enhancing the value of land in such County by \$10,00 an acre, it will more nearly enhance it to \$50,000 an acre. These figures will seem extravagant to those who have

never experienced the benefit of permanent roads. Why wait for National and State Aid, when the opportunity lies so easily within our grasp to ensure such aid by taking immediate action to help ourselves? [National Archives at College Park, Maryland]

The 1916 Convention

The August 1916 issue of *Touring Topics* reported on usage of the National Old Trail Road in California:

Travel has been extremely heavy over this transcontinental highway the past few months and there is no sign of any let up. There is an average of between twenty and thirty cars a day arriving in and leaving Los Angeles over this highway. Although some rather rough road is encountered between Barstow and Needles, road conditions as a whole between Los Angeles and New York City are excellent. [“National Old Trails Route,” *Touring Topics*, August 1916, page 20]

On August 7, Judge Lowe attended a dedication ceremony:

On August 7, several hundred good roads enthusiasts showed their appreciation of good roads by gathering at Eagle’s Nest, located fourteen miles west of Zanesville, on the Old National Pike, to witness the dedication of a memorial to former governor of Ohio, James M. Cox. The principle speaker was Judge J. M. Lowe, President of the National Old Trails Road Association, of Kansas City, Missouri. [*Better Roads and Streets*, November 1916, page 30]

The 1916 convention of the National Old Trails Road Association was held on September 14 and 15 in Herington, Kansas. According to a summary in the October 1916 issue of *Better Roads and Streets*, Judge Lowe characterized it as “the greatest convention ever held, enthusiastic but well organized, and before its conclusion the enthusiasm was directed into real road-building channels.”

The convention began with a parade of 400 automobiles, organized by delegations. Most were from the area but some “cars were present from as far as one hundred and sixty miles.” Over 700 cars were in town. Bands accompanied some groups, and the “float of the Childs Furnishing Goods Company, representing the Cradle of the Old Trail, was attractive, unique, and appropriate, and easily captured the prize as best float in the parade”:

Judge Lowe presided at all sessions of the convention, and the Official Music Box, the Old Trails Quartet, enlivened all sessions with selections, the most popular of which was their rendition of the imitation of a stream calliope, which they were compelled to repeat again and again.

Judge Lowe remarked on the great number of banners in the parade advocating Rock Roads, Cement Culverts, and Permanent Roads, and was elated that dirt roads were not mentioned during the convention.

There were, in short, no dirt road men attending the convention.

Presiding at the opening of the first session, Judge Lowe reminded Kansas that they had promised the association that if the convention were held in Herington, they would ensure that the National Old Trails Road would be made a high-class thoroughfare across their State within a year. He commented on funding available under the new Federal Aid Road Act and the State's Hodges Act, which he believed would enable roads to be built at less cost to the farmer than was the case in his home State of Missouri.

(The Hodges Rock Road Law, approved in 1909, required county commissioners to comply with road improvement petitions costing more than \$500 per mile if 60 percent of the owners of half the property along the route approved. The law had been expected to spur development of hard surfacing in the State. [Schirmer, Sherry Lamb, and Dr. Wilson, Theodore A., *Milestones: A History of the Kansas Highway Commission & the Department of Transportation*, Kansas Department of Transportation, December 1986, page 14])

The convention included numerous addresses. E. E. Peake of the Kansas City Auto Dealers Association, asked if anyone would put a paper roof on his house. He "compared the present work on the dirt roads to a paper roof which would be washed away by the first rain." He emphasized the necessity of good roads for agricultural, commercial, and social development throughout the West in general and, in particular, the sections of Kansas tributary to Kansas City.

Kansas State Highway Engineer W. S. Gearhart discussed legislation needed in the State and "pointed out how hard it is to make the country highways of one county match up with the county highways of its adjoining counties without some centralized authority." He described the work of his agency and its plans for improving the State's roads.

Robert Bruce of Clinton, New York, special representative of the National Highways Association, discussed his drive to the convention, noting a lack of interest in the project in Illinois. (See the next section for more on Bruce.)

Mrs. John Van Brunt of Kansas, spoke on behalf of the Good Roads Committee of the National Society of the D.A.R. She "assured the convention of the continued interest of that society in this movement." The road was a "memorial to the pioneers."

C. E. McStay, speaking on behalf of the Automobile Club of Southern California, covered highway improvement along the route in New Mexico, Arizona, and California. He described counties in California "that had been able to build and maintain hard-surfaced roads for less money per year than the dirt roads had previously cost them."

Several issues were discussed during the business session on the second morning:

Kansas arose to its opportunity and came before the national convention with a plan to hard-surface the five hundred miles of the road in that State at once. The enthusiasm of the previous day's meeting, which is believed to have reached a record in numbers and

noise, was repeated when the report came in. The plan calls for five commissioners, Kansas men, to have charge of the campaign. They are to get the approval of the State Highway Engineer and the United States Secretary of Agriculture for the improvement of the entire Old Trails Road in Kansas, so that Federal aid will be assured, and then go to the towns and land owners along the line. Local organizations are to be formed. In the rural districts the Hodges Road Law will be used and in the towns, the paving laws. County commissioners will be asked to pay at least twenty-five per cent. of the cost of the road. In this way it is believed that the cost to the adjacent land owner will be reduced to a very low figure.

The plan was to threaten “backward localities” with the motto: “Build it or lose it.”

The problem heretofore has been to arouse public sentiment to the point where the ones who must pay for the improvements were desirous that the work proceed and the outpouring of delegates to this convention and their unmistakable enthusiasm shows that the time has arrived.

Thirty-three towns of Kansas had over five hundred delegates registered at this convention, and the attendance was probably three thousand.

(As required by the Federal Aid Road Act, the legislature created a highway commission in 1917, and it began operations on April 4, 1917.)

The convention resolved the routing problem in New Mexico and Arizona by amending the association's constitution to allow signs to be posted on both the Gallup and Springerville alternative routes.

The convention also considered the long running dispute between the Old and New Santa Fe trail routes:

After due deliberation and realizing fully our responsibility to this convention to devise a workable plan for accomplishing the permanent hard surfacing of the National Old Trails Road across Kansas, thereby perpetuating for all time to come the Old Santa Fe Trail, so rich in its historic associations and so dear to the Kansas of to-day, we do recommend that this convention adopt substantially the following provisions that we deem essential to the prompt accomplishment of this purpose.

President Lowe was to appoint a commission of five members of the association, actual residents on the road, “to take up this work systematically with the various counties and cities through which the National Highway, as now adopted and marked, exists as a temporary monument.” The commission would confer with the State Highway Engineer on a plan for permanent surfacing, with the Federal Government to pay its 50-percent share. In addition, the commission was to assess the urban population along the road “as will be necessary to carry on the work of securing the necessary signatures of the individuals necessary under the Hodges Law and the adoption of paving in cities and villages for the cost of the other fifty per cent. of the road.”

Further, the commission was authorized, with the counsel and advice of the president and secretary of the association, "to make such deviation from the present adopted and marked road as may be absolutely necessary to secure the endorsement and building of one half its cost by the local individuals and communities benefited." Any such deviation would be permanent only if approved by a two-thirds vote of the subsequent annual convention.

The convention passed a number of resolutions in thanks, including to the host city of Herington; the counties of McPherson, Dickinson, and Morris that had "exercised splendid judgment and economy in the construction of permanent cement crossings on the Old Trails Road"; the Automobile Club of Southern California "for being one of the few automobile clubs that has any appreciation of what such clubs should stand for"; and the Citizens Bridge Committee of Richmond, Indiana, which had "labored courageously to build a splendid memorial bridge in Richmond."

The convention also adopted a resolution commending the National Highways Association and its founder, Charles Henry Davis, "who has given so lavishly and unselfishly of both time and money to the cause." No other association had "approximated its vast appropriation of money or the great educational work it has accomplished." Some other associations had "grown lukewarm and discouraged" as a result of the Federal-aid legislation, but the National Highways Association and its National Old Trails Road department "have remained in this great field of useful endeavor, contending all the more earnestly for the great ideals for which we mutually stand."

Judge Lowe was reelected unanimously as president, while Frank Davis was again elected secretary. ["National Old Trails Fifth Annual Convention," *Better Roads and Streets*, October 1916, pages 12-14]

Robert Bruce

Robert Bruce was a prolific good roads writer for AAA and the *Automobile Blue Book* travel guides who took a particular interest in the history of the roads he wrote about. In a two-part article on the history of roads in Indiana, he discussed the coming of named trails to the State, including the National Old Trails Road:

Straight east and west through Indianapolis passes the National Old Trails Ocean-to-Ocean Highway, of which the old National Road is its basic part across Ohio and Indiana. This is now the chief competitor of the Lincoln Highway for transcontinental travel through the Hoosier State. Between Indianapolis and Columbus, Wheeling, Cumberland, Baltimore or Washington, the Old Trails route has nothing to fear from its great rival to the north; but it suffers considerably for lack of a high-class modern road from Terre Haute to the Mississippi River.

Great improvements have been made recently across Missouri, and also much of the way from Kansas City over the Santa Fe trail and the Grand Canyon optional route through to Southern California, but the stretch of less than 175 miles from Terre Haute to East St.

Louis across Southern Illinois still lowers the standard of that route as a whole from the Atlantic to the Pacific. It is hoped that within a reasonably short time Illinois will realize its obligation to through travel, and co-operate with the other states by putting that portion of the historic old route in condition for motor travel. Pending such action by the State, the counties and towns along the line should make such improvements upon it as may be within their means, not only for the public good but for their own protection, as the travel and commerce of the future will largely follow good roads, and deliberately stay away from districts known for their poor highways. [Bruce, Robert, "The Historic Development and Progress of Indiana's Highways," Part II, *American Motorist*, May 1916, pages 19-23]

Bruce had addressed the National Old Trails Road's 1916 convention on its first day, then adapted his presentation to the convention for an article in the November 1916 issue of AAA's magazine, *American Motorist*. The article began:

During the past several years a movement has been in progress to develop, mark, and bring generally to the attention of motor tourists the old and historic line of road travel from Baltimore and Washington over the Blue Ridge and Alleghany mountains to the Ohio river at Wheeling, thence across the central-western and southwestern states to Los Angeles. Of late it has advanced more rapidly than ever before, due to the great improvements finished or in process in the majority of states traversed, the excellent signposting over the entire main route west of St. Louis, and the almost complete transformation of the Pacific Coast division. Some of the intermediate portions still need a great deal of new construction and repair work to bring them up to the standard of other sections, and make them attractive from a strict touring standpoint. But the route as a whole has become a complete and recognized transcontinental line, which can be traveled throughout at least as safely and conveniently as any other, and during more months of the year than the more northerly routes.

From a historic standpoint, the National Old Trails Road "may have close rivals but at least no superiors." For much of its length, the road traveled "the very trails by which the Central West and the old Southwest were largely settled." During the railroad era, the roads were virtually forgotten, "but now they have connected up, brought into an importance never dreamed of by the generations that laid them out, and most appropriately made a memorial road to the pioneers."

He told the convention that he had traveled the National Old Trails Road from Baltimore and Washington through Hagerstown and Cumberland, Maryland; Wheeling, West Virginia; Columbus, Ohio; Indianapolis, Indiana; to St. Louis, Missouri, by way of the National Road; across Missouri by Boone's Lick Road; and across 150 miles of Kansas on the Old Santa Fe Trails. He informed the convention of the conditions he encountered, beginning with:

Credit was given to Maryland for the uniformly highest-grade roads over its part of the route. Pennsylvania has a considerable mileage as good as Maryland, but some other stretches are not up to its standard. The 16½ miles across the Panhandle of West Virginia are in excellent shape.

In Ohio, the route was “undergoing a transformation which, at least in another year or so, should make it one of the finest sections between the National Capital and Los Angeles.” Beginning at the west side of the Ohio River opposite Wheeling, the road was “an uninterrupted brick boulevard” for 29 miles between St. Clairsville to Fairview. Between Fairview and Columbus, a motorist would encounter several construction zones where a detour would be needed. Most of the detours took motorists on excellent roads “slightly north through Newark and Granville,” but “one of the detours (old Washington into Cambridge), has been in bad shape most of the present year. This stretch will probably be completed before the end of 1916.”

Bruce characterized the route west of Columbus in Ohio and Indiana as “in fair-to-excellent shape”:

A few sections have suffered from inadequate supervision and maintenance, or for lack of oil [a dust preventative], and have become worn or dusty, or both. But they are fully equal to those on the corresponding parts of any other transcontinental route.

The Illinois division of the route from west of Terre Haute, Indiana, to East St. Louis was “by far the unsatisfactory stretch of any considerable length from Baltimore or Washington to as far west as the writer’s observations extended.” The “worst feature” was “that only feeble efforts seem to be made for its improvement.” It was “almost impassable” in wet weather. He recommended that motorists west of Terre Haute take a route “down the west side of the Wabash river in Indiana to old Vincennes, and then across a narrower part of Illinois to East St. Louis.” He considered the alternative “most interesting and should be taken at least one way on a round trip.”

Motorists could cross the Mississippi River on the toll Eads Bridge designed by the self-taught engineer John B. Eads and opened for railroad traffic on July 4, 1874. (It remains in service today.) From St. Louis, motorists used the “St. Charles Rock Road, an excellent stretch of twenty miles.” The road from there to Kansas City, “exemplified some of the best and also some of the worst to be seen in a great western state whose greatest single road is undergoing a revolution.” The 15 miles between Warrenton and Fulton, across the Mineola Hills, “are by far the worst seen on the inspection trip from Maryland to Kansas.” He was optimistic, though, because “a new right of way has been condemned to cut out the worst part of it, and a change for the better will soon take place.”

Still, some long stretches of the route east and west of Columbia “would do credit to New York State or Massachusetts.” A ferry must be used to cross the Missouri River either from New Franklin to Boonville or at Glasgow. He explained that “while there is often some slight delay on this account there is no real trouble, except perhaps getting on or off the boats in time of low water, such as the middle of September, 1916.”

In western Missouri, the Old Trails route was “better than through the eastern part of the state.” A “high-class road” was available from Lexington to Kansas City “with the exception of a few miles along the Missouri river west of Lexington (and that now under improvement).” The last

15 miles or so to Kansas City “are the equal of the best approaches to New York, Philadelphia or Boston.”

Kansas City, “the giant of the near Southwest,” was impressive, “and the run through the new automobile district is likely to be a revelation of its important to the territory it serves.” At Olathe, the Old and New Santa Fe Trails diverged:

The writer’s observations extended only over the old Santa Fe trail as far as Herington; while this was found rough in some places considerable improvements are underway, especially the building of strong concrete culverts to take the place of the old-time frail wood or weak iron bridges.

Bruce summarized his observations of the National Old Trails Road he had traveled on in 1916:

While a motor tour over the Old Trails route from Baltimore or Washington to the mid-Continent in Kansas is by no means all that might be desired, and a few stretches are likely to be quite bothersome in wet weather, no one need hesitate to make the trip now; and road conditions on several portions of the route and being constantly improved. [Bruce, Robert, “Rallying for the Old Trails,” *American Motorist*, November 1916, pages 24-25]

One of the resolutions adopted during the convention honored Bruce:

Resolved, That we express our appreciation of the excellent historical sketch of that part of the Old Trails Road from Washington to Wheeling, written by Robert Bruce of Clinton, New York, and published in co-operation with the National Highways Association.

We most heartily commend this book. It should be in the hands of everybody and we sincerely hope that its author may receive such encouragement that he will continue this splendid work throughout the length of the Old Trails Road.

The nearly 100-page book, published in cooperation with the National Highways Association, was titled *The National Road: The Most Historic Road in the United States and Strategic Eastern Link in the National Old Trails Ocean-to-Ocean Highway*. In a Foreword dated March 14, 1916, Bruce explained that the book covered the road from Washington and Baltimore to Wheeling. This was the historic first section of the Cumberland Road authorized by legislation signed by President Thomas Jefferson in 1806 and built by contractors working for the Department of Treasury.

In the first chapter, Bruce explained the importance of the road:

Easily first among the several through highways running west from the Atlantic seaboard, and ranking with the Santa Fe and Oregon trails of the far west, is the old National Road, which, though completed as a government project only from Cumberland, Maryland, to

Wheeling (then Virginia, now West Virginia), was connected up with the older pikes from Baltimore, Frederick and Hagerstown, and subsequently with the new lines west of the Ohio River, making for all time the shortest and more natural way for road travel from tidewater at Chesapeake Bay to the junction of the Mississippi and Missouri Rivers at St. Louis, Missouri. It follows as direct a course across the Alleghany Mountains as the nature of the country in western Maryland and southwestern Pennsylvania would permit; it is a wonderfully scenic route, and has a historic background beyond comparison with any of its rivals.

This Old National Road has been from the first a unique American institution, and was for many years a vital factor in the life, politics and industry of the country. To no other thoroughfare in the United States can the name "National Road" be correctly applied up to the present time. Between Cumberland and Wheeling, the names "National Pike" and "Cumberland Road" are interchangeable, both having been used indiscriminately by the Secretary of War, Chief Engineer and the field forces in their extensive correspondence during the progress of the work

It is unquestionably the most direct route of its length in the United States today, the only deviations from a straight line being occasional short offsets in going through some of the towns; and such windings as were found necessary to make safe ascents and descents of the numerous ridges in the Appalachian Chain.

So carefully was the route originally laid out that the loss of distance in the mountains between Clear Spring, Maryland, and Uniontown, Pa., is remarkably small, the road seeming always to find the shortest and easiest way across from one summit to another – usually by running down along the side of one ridge to the foot; and then, perhaps at once, but more often after a restful stretch of level road, making the corresponding ascent on the other side. Generally, too, there is a broad sweep to the curves, and a fair margin of safety to the traveler, in pleasing contrast to the narrow roads and sharp curves often found in equally hilly sections.

After summarizing the history of the original section of the Cumberland or National Road, Bruce informed readers that the road was gradually transferred to State control as a toll turnpike, resulting in "a long period of neglect, during which time the old Pike fell from its once-proud estate, largely because when government interest and supervision ceased, the original commanding purpose was lost, and the project was never carried through to its logical conclusions by the states concerned – Maryland, Pennsylvania, West Virginia, Ohio, Indiana, and Illinois. Perhaps this was only natural, as they never had any uniform or united plan for its repair and maintenance; and, at least until comparatively recent years, lacked the machinery to do this in the most effective way."

Maryland and Pennsylvania "have made so great and permanent improvements over the mountain divisions that it has not only been fully restored to through travel, but is generally conceded to be the most natural eastern connection for the National Old Trails Ocean-to-Ocean Highway, one of the large, vital factors in our coming transcontinental development."

Without the automobile, Bruce explained, “the Old National Pike would probably not be undergoing its present almost complete transformation, and it is certain the motorists will soon, if they do not now, greatly outnumber all other travelers over the entire Baltimore-Hagerstown-Cumberland-Wheeling line.”

Bruce was concerned that a motorist on the old highway “had nothing to help him identify the interesting old houses, or to connect those and various other points of interest graphically with the past.” He intended his book to fill in that information. Each chapter included detailed maps and photographs.

The chapters covered:

- Chapter 2: Baltimore Through Frederick to Hagerstown, Maryland
- Chapter 3: Hagerstown through Hancock to Cumberland, Maryland
- Chapter 4: Cumberland and the Historic Roads Toward Frostburg
- Chapter 5: Clarysville, Maryland, through Frostburg and Grantsville, to the Pennsylvania Line
- Chapter 6: From the Maryland-Pennsylvania Line, Past Fort Necessity to Uniontown
- Chapter 7: Uniontown through Brownsville to Washington, PA.
- Chapter 8: Washington, PA., Across to West Virginia “Panhandle” to Wheeling
- Chapter 9: Baltimore-Washington-Frederick “Triangle”

At the end of chapter 8, Bruce summarized:

As a matter of mere driving, the Baltimore-Wheeling trip can be made in about fifteen hours, averaging probably eight from Baltimore to Cumberland and about seven from Cumberland to Wheeling. Spread over two fairly long days, and with such advance knowledge of the route and its chief points of interest as this series of articles is intended to supply, it should – in favorable weather – turn out to be a tour of unusual variety, and one full of memories well worth retaining

But one making the tour, even so far as already covered by the detailed maps, will inevitably gain a new conception of the Old National Road – particularly its strategic location and deep historic interest; and is quite likely convinced that it is the most logical eastern part of the National Old Trails Ocean-to-Ocean Highway.

Better Roads and Streets reviewed the book:

It is the work of a close student of the subject, who has spared neither time nor pains to go beneath the physical features which, however, are brought out with special clearness and good effect, to the stirring history and legend that center about the old turnpike from Baltimore and Washington across the Allegheny Mountains to the Ohio River more than any other single road in America.

The book was published at a convenient time:

The fact that the National Road is now in first-class shape practically all the way from Chesapeake Bay or the Potomac River to the Ohio, and that many tourists are looking for new trips to take the place of their customary European tours, makes the publication of this book most timely. A careful reading of it is likely to convince one that American highways, especially those built along the lines of the old trails between the Atlantic seaboard and the central West or far West, deserve more careful and thorough treatment than they have received in the past.

The review noted that Bruce “will be glad to correspond with any motorist intending to make all or part of that trip.” [“Old National Road,” *Better Roads and Streets*, August 1916, pages 46, 48]

Best Paved Road in Indiana

On October 5, 1916, ten thousand people gathered in St. Clairsville, Ohio, to celebrate the completion of 28 miles of brick in Belmont County of “the best paved road in the state,” as the St. Clairsville Commercial Club put it. The section from Bridgeport on the Ohio River to the Guernsey County line was part of the National Old Trails Road. “The celebration was preceded by an auto parade eight miles long over the entire road.” Thousands of people witnessed the parade.

The project dated to 1913 when Highway Commissioner James R. Marker asked the county auditor, Emerson Campbell, what they could do to improve the road if the State would assist in a substantial way. “Ten days later Auditor Campbell called Commissioner Marker by phone informing him that his county was ready for the proposition from the state, as he had taken the matter up with the County Commissioners, and good roads people, in addition to the resident owners along the road, and township authorities through which the road passed.” Governor Cox and Campbell met with Marker, county officials, and a good roads committee. The conference resulted in Governor Cox agreeing to recommend \$150,000 of the main marker road fund for the reconstruction of the National road in Belmont county”:

Commissioner Marker appointed W. C. Fawcett, an expert engineer of Martins Ferry, Ohio, as resident engineer, to prepare the plans for reconstructing the National road in the county

This improvement of the National Road is the most important of all improvements made anywhere on that historic highway. It sets an example that should be followed particularly by the counties through which the roads pass within the state. The task is not so great but that it could be completed at least within the next two years, giving to Ohio the credit of the largest and best improvement of the National Road beyond that of any other state in the Union. If Ohio sets the example it surely will be followed by Indiana and Illinois.

Governor Cox and former Governor Frank B. Willis were the speakers. Marker was unable to

attend, but the ceremony included the unveiling of a monument to Marker “who, as state highway commissioner, inaugurated the Main Market highway in Ohio. [“Belmont County Honors Marker,” *Dependable Highways*, January 1917, page 17]

(On July 23, 1825, a ceremony was held in St. Clairsville to mark the start of construction on the Cumberland Road/National Road west of the Ohio River.)

Historical Highway Day

The centennial of Indiana statehood, dating to December 11, 1816, brought President Wilson and many good roads advocates to Indianapolis on October 12. Each day that week was dedicated to a special purpose, with October 12 designated “Historical Highway Day.” President Wilson would deliver two speeches, one to 5,000 good roads advocates at the auditorium of the Indiana Fair Grounds. He then would speak to farmers gathered at Tomlinson Hall.

His train arrived at Union Station in Indianapolis around 11:30 a.m. After a luncheon, the Presidential party, Governor and Mrs. Samuel M. Ralston, and other officials traveled by automobile to the reviewing stand for the centennial highway parade, organized by the Hoosier Motor Club, the Marion County Good Roads Association, and the Marion County Centennial Highway Committee. Carl G. Fisher, founder of the Lincoln Highway Association, was grand marshal.

The boom of a cannon signaled the start of the parade shortly after 1 p.m. Good roads advocates from eastern Indiana came from one direction, while the western Indiana advocates came from another. With the Presidential party and State and local dignitaries on the reviewing stand, chief marshal Fisher waited at Meridian and Washington Streets (Washington Street was the old National Old Trails Road, the Lincoln Highway crossed the northern part of the State in the general alignment of U.S. 30 today). Fisher directed the two lines of automobiles into a two-abreast formation and led them into North Meridian Street toward the Indiana State Soldiers and Sailors Monument installed in the circle in 1902. A contemporary account described events:

There the parties of the President and the Governor waited to review the parade. As the two lines approached the reviewing stand they parted, one line moving east of the Monument, the other to the west, joining again at Meridian street, north of the Monument. The way then led northward in Meridian street to Sixteenth street, west to Capitol avenue, north to Maple road, east to the east entrance to the fair ground.

There never was so many automobiles in Indianapolis before. When Carl G. Fisher, leading the parade, drew his car up at Meridian and Washington streets, he did not know what a parade he was handling. Behind him in Meridian street a crowd of suffragists waited with banners flying. To the west a long line of automobiles could be seen and some confusion was caused when visiting motorists got tangled with the President’s party, but this soon was adjusted.

Then from the east came another long line of good roads boosters. From practically

every county east of Michigan road there were automobiles flying their county and town banners. Drum corps and bands were intermingled with the cars. The two lines of cars drew up behind Fisher, the suffragists got right in behind the chief marshal and the parade began. The police succeeded in separating the two lines and sent them toward the reviewing stand two abreast. The National good roads boosters, interested in the resurfacing of the National road between Richmond and Terre Haute came several hundred strong. The ocean-to-ocean highway boosters were out in equally strong numbers, and the Dixie highway and the Hoosier-Dixie highway had strong representation. Practically every main highway in Indiana had delegations here to let President Wilson know that they support good roads

The reviewing parties remained in the stand until, on signal from Mr. Fisher, they entered automobiles and were driven north on Meridian street, the cars of the President's party passing between the long lines of automobiles in the parade.

The party left the reviewing stand around 2:15 p.m. Throughout the parade, the President "bowed and smiled at frequent intervals." [All quotes not otherwise cited are from coverage of the visit in *The Indianapolis News*, October 12, 1916]

American Motorist summarized:

Far in excess of a hundred thousand people saw the parade, did honor to the Chief Executive of the Nation, and helped in one way and another to swell the good roads shout. In double columns it required over an hour and a half for the self-propelled parade to pass the reviewing stand, where President Wilson had as his reviewing companions, Governor Ralston, Mayor [Joseph E.] Bell, and former Mayor [Charles A.] Bookwalker, flanked by other Indiana notables.

The First Lady of the Land was an interested observer of the exhilarating proceedings, accompanied by the wife of the Governor and other Hoosier social leaders. A message came to Mrs. Wilson, from Mrs. Thomas R. Marshall, who was accompanying the Vice President [a former Governor of Indiana, 1909-1913, before taking the oath of office as Vice President] on a speaking tour, regretting her enforced absence from the city on the occasion of Mrs. Wilson's visit.

The magazine also reported that at one point, Judge Lowe of the National Old Trails Highway Association, had approached the reviewing stand:

At the reviewing stand the President had received from Judge Lowe the "Van Buren gavel," made from a plank dug up from the old plank road that formerly was a part of the National Road, which is now the main thoroughfare through Indianapolis. According to the Judge, Van Buren was not favorable to extending Federal aid to roads, so it was contrived to dump him out in a famous mudhole on the Old Trails Road in Indiana. His harrowing experience in that well planned accident changed his mind. He signed a bill which permitted paving the particular mudhole with heavy oak planks. Recently, in

grading this road to rebuild it, one of the planks was dug up and the gavel presented to President Wilson was made from it. [“Network of Roads Will Release Locked-Up Riches of the Nation, Says the President,” *American Motorist*, November 1916, pages 12-13, 54; the plank incident is on page 13]

(Judge Lowe included a photograph of him reaching up to hand the gavel to the President in the association’s publications, including the 1925 revised edition of *The National Old Trails Road: The Great Historic Highway of America*, on page 225.

(Judge Lowe, or the writer of the account in *American Motorist*, had several details wrong. President Martin Van Buren (March 4, 1837 – March 4, 1841) had been defeated for reelection in 1840, but decided to try one more time to win the presidency. Hoping to gather support in the west, he took the stagecoach along the Cumberland Road to Indianapolis to deliver a speech in June 1842. Van Buren, as a Senator, Vice President, and President, generally opposed internal improvements by the general government. As President, however, he had signed a funding bill for the Cumberland Road on May 25, 1837, authorizing \$459,000 for construction west of Ohio, including \$150,000 for the road in Indiana. Nobody knew it at the time, but that would be the last major funding Congress would appropriate for the road. Details of the mudhole incident vary, but the stagecoach in which the former President was riding went out of control, with the connivance of the driver, at a mudhole along the road approaching Plainfield and ended up against an elm tree. Climbing out of the overturned vehicle, Van Buren walked through mud to Fisher’s Tavern in Plainfield. The site of the “Van Buren Elm” is noted by a roadside marker on a boulder in front of the Friends Meetinghouse in Plainfield.

(As for the plank road Judge Lowe mentioned, the Van Buren incident occurred before the craze for wooden plank turnpikes began in the mid-1840s. The craze, imported from Russia, lasted only about a decade, at which point railroads had taken travelers away from the roads while the wood planks had rotted through at a time when toll revenue was not enough to pay for their replacement. As Thomas J. Schlereth reported in his book about U.S. 40 in Indiana, the State granted “control of the National Road through Hancock, Marion, Hendricks, and Putnam counties . . . in 1849 to the Central Plank Road Company, which proceeded to cover the road with oak planks and put up a series of tollgates and tollhouses.” [Schlereth, Thomas J., *U.S. 40: A Roadscape of the American Experience*, Indiana Historical Society, 1985, page 76])

The newspaper described the stage for President Wilson’s speech at the Coliseum on the fairgrounds before an estimated 5,000 people:

President Wilson faced a nonpartisan crowd at the Coliseum when he arrived to make his address. The building was handsomely decorated with flags, and on the front of the railing around the balcony was a line of ninety-two banners, each bearing the name of an Indiana county.

The doors of the coliseum were opened an hour before the arrival of the President and his party in order that there be no jam at the doors when he arrived. There was nothing about the coliseum or the crowd to indicate any politics. The subject of better roads and

highways is a non-political proposition in Indiana.

In his days before becoming Governor of New Jersey, President Wilson had been an avid bicyclist, but as President, he enjoyed automobile trips as described in the September 1916 issue of *Northwestern Motorist*:

No more ardent motorist ever occupied the White House than President Wilson Mr. Wilson probably has spent an average of two hours a day in an automobile since he became president. He prefers to ride with the top down His choice of a seat depends upon the purpose of the ride. If he intends to do some thinking, he is almost certain to sit beside the chauffeur. If he is out solely to relax, he joins his companions in the [back seat] and mingles in their conversation. An automobile load of Secret Service men always accompanies the president's car, whether the journey be some 150 miles through the Green Mountains or merely from the White House to one of the Washington theatres. Motoring is the president's chief form of recreation during his vacations. [Brown, L. Ames, "President Wilson the Motorist," *Northwestern Motorist*, September 1916]

Governor Ralston introduced President Wilson, who delivered a lengthy address:

I am here because I am interested in the cause of good roads, and because I am interested in the State of Indiana. I was very much interested that this day, devoted to the cause of good roads, should fall in your Centennial Year. It made me think of many of the processes of our national history. Roads have so knit communities together, and communities into counties, and counties into States, and States into the nation, that we must learn how to think, and act, and do things together.

He said:

The arguments for good roads from the material point of view, are very obvious. It is true, I dare say, that we had to wait for the rapidly moving automobile to create a large enough number of persons interested in good roads, which would run beyond mere neighborhoods; and I am very grateful to the owners of automobiles, and to the members of automobile associations that they should have insisted with such success, upon the creation of highways. I note, incidentally, that they use them up almost as fast as we make them, but I will forgive them for that, if they stimulate us to the effort to make them, and to keep them in usable condition.

He commented on the purpose of good roads:

But, after all, the highway is not intended, first of all, and chief of all, for the pleasure vehicle. It is not intended for the mere traveler. It is not intended for the mere tourist. It is not made in order that some company of leisurely people may travel from coast to coast of this great continent. It is made because we need it in all the material uses of our lives. We need it first of all, and chief of all, in order that our resources may be made use of, for they can not be made use of until they are got to market and you can not get them

to market unless you can get them from the mine and the farm, to the nearest railway station.

You can not know what the resources of the country are unless the country is covered over with a network of roads which will release all the locked up riches of all our country sides. Why, there are little pockets in the mountains in some places in America, where there are the richest sort of crops, where nature has made [the] largest of her gifts of fertile soil and genial climate and abundant rainfall, but where they can never get their crops to market, where they burn their corn, so much of it as they can not feed to their cattle, where they raise what they do raise for the consumption of their families, merely, and contribute nothing to the markets of the nation.

Roads, he said, had a greater purpose as well:

It is perfectly obvious that you have got to have an intricate and perfect network of roads throughout the length and breadth of this great continent before you will have released the energies of America.

Good roads are necessary for every practical aspect of our lives – to draw neighbors together, to create a community of feeling, to create those arteries which may be compared to the arteries of the human body. The blood of the nation will not flow in harmonious concord unless it can flow in intimate sympathy. And so the argument, the material argument, the argument about markets and crops and the products of the mines, sinks into comparative unimportance when you consider the spiritual things that you are doing in making roads. You know there is an old saying that the lines between sections are obliterated only by the feet that cross them.

As an enthusiastic bicyclist in his younger days and now a President who enjoyed regular automobile rides, he explained:

And so one of my interests in roads is that I want to see that thing carried on which I have seen worked to the benefit of this nation in so many parts of it Wherever you have not got a good road you have created a provincial and sectional population. Wherever you have a good road, you have tied a thong between that community and the nation to which it belongs. And that is my interest in good roads, for, my fellow citizens, my present interest is chiefly in the nationalization of America.

Automobiles and good roads contributed “to justice, to freedom and liberty”:

So that the words I want you to carry in your mind in connection with this good roads cause are these:

First, Nationalization – Getting all the fibers of this great vital people united in a single organism.

Second, Mobilization – Getting them so related to each other, so co-ordinated, so

organized, so led, so united, that when they move they move as a single great, irresistible conquering force; and the third word that I want you to consider is the word that I suppose affords the key to doing these things; that word is the word "co-operation."

He concluded:

So, my fellow countrymen, build up these new roads in the construction of which the federal government is now to play so large a part, in the spirit of nationality, the spirit of cooperation, the spirit of liberty, the power which only a free people know how to exercise.

As President Wilson left the podium, the "crowd swarmed up to try to shake hands with the President, and it was only with difficulty he was able to get to the car waiting to carry him to Tomlinson Hall, where he made an address before a gathering of farmers." ["Wilson Urges Unity of Nation," *The New York Times*, October 13, 1916]

The meeting in Tomlinson Hall had begun before President Wilson's arrival. *American Motorist* pointed out that the meeting "could not escape from the good roads atmosphere, for the meeting had been opened with a talk by Luke W. Duffy, a well known Indiana highways advocate, and Judge J. M. Lowe." Judge Lowe was speaking about the history of the National Road when President Wilson arrived. President Wilson's speech discussed the role of the Federal Government in aiding farming, activities of the Department of Agriculture, including institution of parcel post "whereby the more perishable kind of farm products can be rapidly shipped and distributed in moderately small quantities." He also discussed the Federal Reserve and the Farmers' Loan and Credit Bank.

After his speech, the President and his party returned to Union Station to take the train, which left at 5:45 p.m. for the return to his family's rented summer home in Shadow Lawn on the Monmouth University campus in New Jersey.

[In addition to *The Indianapolis News* and *American Motorist*, the account of the visit to Indianapolis includes material from: "Wilson Urges Unity of Nation," *The New York Times*, October 13, 1916; "Wilson Urges Need of Unity," *The Baltimore Sun*, October 13, 1916; "Condemns Revival of Sectional Talk," *The Evening Star*, October 12, 1916; "Scores Sectionalism," *The Washington Post*, October 13, 1916. Many of these newspaper articles included excerpts from both speeches. The complete good roads speech can be found on pages 302-310 of *The Indiana Centennial 1916*, as well as in the November 1916 issue of *American Motorist*, pages 12-13, 54.]

President Wilson's Republican challenger was Charles Evans Hughes, a former New York Governor (January 1, 1907 – October 6, 1910) and associate Justice of the U.S. Supreme Court (1910-1916). On election day, November 7, the race for the White House was too close to call, with some newspapers declaring Hughes the winner. But on November 10, resolution of the California vote totals tipped the election to President Wilson, who won the State by 3,806 votes.

With 266 electoral votes needed for victory, President Wilson won 277 while Hughes picked up 254. The popular vote was: Wilson: 9,126,868 (49.2 percent) Hughes: 8,548,728 (46.1 percent).

Re-Signing the Old Trails Road

The March 1917 issue of *Touring Topics* reported that one of the Club's first activities "will be revision and elaboration of the Club's sign system along the National Old Trails Highway between Los Angeles and Kansas City." The club had dispatched one of its road crews for the trip, which would involve 4,000 miles of travel from March to May.

Many of the 5,000 or so club signs supplied along the road in 1914 and 1915 "have deteriorated under usage and all require attention in greater or less degree." Further, changes in the routing of the route required signing:

Chief among these changes is the new route of this highway between Holbrook, Arizona and Las Lunas, New Mexico. The roadway which the Club first signed passes through Springerville in Arizona and Socorro in New Mexico. This newly opened roadway will itself require the erection of approximately one hundred and fifty signposts to which direction and mileage signs must be attached. It is further estimated that replacement of signs over the entire route entail the location of approximately seventeen hundred signs and this work is in addition to straightening posts, repairing damaged signs and otherwise revising the sign system to meet the requirements of summer travel.

The crew also would update the club's map of the route:

Beyond this it is anticipated that the Club's car will find it necessary to proceed beyond Kansas City and chart the route of the National Old Trails Road across Missouri to St. Louis, thence along the main motor roads through Springfield, Bloomington, Pontiac and Joliet into Chicago. Returning westward from Chicago the crew expects to chart the main line of the Lincoln Highway to Omaha and to take map notes upon the southern road from Omaha by way of Nebraska city, Atchison and Leavenworth to its intersection with the National Old Trails Route at Kansas City.

The data gathered from the trip would be used for preparation of the next generation of National Old Trails Road maps that "will be particularly attractive to the large body of motorists in the central states and in the great lakes region." ["Club Begins Re-Signing National Old Trail Highway," *Touring Topics*, March 1917, page 23]

The eastbound signing crew had seen and heard enough to report general improvement of the road from Los Angeles to Kansas City. After passing Albuquerque, New Mexico they said, "a notable spirit of road improvement is manifest over every unit that has been covered thus far":

Between Barstow and Needles in California, and particularly in the vicinity of Bagdad and Amboy, the road has been plowed and graded with the result that the roadbed is still in soft condition and is difficult for motor traffic. This condition is only temporary,

however, and as soon as these soft stretches have been oiled and rolled this link of the N.O.T. will be in first-class shape for automobile travel.

With the exception of the mileage between Flagstaff and Winslow, which was impassable on account of snow, the Club car has had no difficulty in traversing the highway and the reports that have been received at Club headquarters indicates [sic] that the roadway is in really excellent condition for so early in the season.

A “movement” was emerging for signing the entire road to Washington, D.C.

In addition to reports from the sign crew, Judge Lowe provided assurance to the Automobile Club “that each state unit from California to the District of Columbia is exerting itself toward the improvement of this transcontinental highway and that during 1917 it will be by far the best of the nationwide automobile routes terminating in Los Angeles. His reports indicated:

Recently Kansas enacted laws which will result in hard surfacing the National Old Trails road across that state, and the various counties and communities of Kansas are already actively participating in the permanent improvement of this great highway. The same is true in Missouri and Illinois and it is in these three states that the necessity for improvement of the National Old Trails road is most imperative.

He added that the eastern and western States have been “most progressive in enacting wise highway legislation in actual road construction”:

Maryland has completed the road across the State (172 miles), and it is conceded to be one of the finest stretches of hard-surfaced road in the United States. It was built under the direct supervision of the State Highway Commission.

Pennsylvania has built her section (72 miles) also under State supervision.

West Virginia has completed her section (16 miles) with a very fine road.

Ohio has her section (232 miles) almost completed, there being left only about 12 miles not under contract. The work in this State is being done under the supervision of both the National Government and the State Highway Commission. Much of it is being built at an expense approximating \$20,000 per mile. The entire National Old Trails Road in this State will undoubtedly be completed in the coming year.

Indiana has her section (160 miles) built mostly of gravel and macadam. The work in this State is done under County and Township supervision, and therefore is not uniformly of the best construction and contrasts with the work done under State and National supervision.

Illinois has built and hard surfaced about 70 miles of her 170 miles of the National Old Trails Road. The sentiment is fast ripening there to complete the road during the year

1917, and these is little doubt that this will be done.

In Missouri about one-third of her 300 miles of the National Old Trails Road has been hard-surfaced. Here, too, like Indiana and Illinois, the work is being superintended by county and local authorities and will not rank with the high class work done on the eastern sections of the road.

Very little hard surfacing has been done on the road across Kansas (500 miles).

In Colorado (195 miles) very little of the road has been permanently built, but there is a live movement there to hard surface the road across that State.

New Mexico (450 miles), one of the youngest States in the Union, has already accomplished wonders, most of the road across that State being in fairly good travelable condition. Governor [William C.] McDonald, whose term has just expired, says that the road will be completed across that State out of State funds provided by a recent bond issue. The State has a real State Highway Commission, with authority lodged in the State Engineer to initiate and carry out road building. But for that fact alone it would probably be impossible to negotiate that State.

In Arizona (420 miles) the same thing is true as in New Mexico, and the money chiefly raised by County Bonds is spent under the supervision of a Highway Commission. State Engineer Lamar Cobb reports bond issues as follows:

Mohave County	\$100,000
Coconino County	\$250,000
Navajo County	\$150,000
Apache County	\$125,000

California (310 miles), perhaps, is entitled to the record as one of the most progressive States in the Union on the road question. Some years ago the people of the State voted an \$18,000,000 bond issue to be spent in hard-surfacing a System of State Highways. Out of this fund, 71 miles of the National Old Trails Road was built, from Los Angeles east, and at the recent election the people carried an additional \$15,000,000 State bond issue by an overwhelming majority. This Act provides a sufficient amount of this sum shall be appropriated to finish the National Old Trails Road east across the Mohave desert to Needles. ["Road Improvement General on Old Trails Route," *Touring Topics*, April 1917, pages 15-17]

By May, *Touring Topics* could report that the signing crew had completed its work from Los Angeles to Kansas City, had traveled to Chicago via St. Louis and Pontiac, Illinois, and was now returning home via Omaha:

Even this early in the season the Club's road crew reports conditions of the National Old Trails Highway as excellent considering the sparsely populated territory which it

traverses through the western states and further taking into consideration the damage to the roads that are the result of winter storms. One of the worst stretches of the National Old Trails Highway is in eastern California and this untoward condition will be speedily remedied by road work on the part of San Bernardino county. The Arizona and New Mexico links of the transcontinental route are in very fair condition and except for those mountainous stretches that are impassible with deep snow, this portion of the road can be placed in first-class shape with comparatively small effort. The Colorado section of the highway is also reported very fair, as is likewise the roadway through Kansas. The road through this latter state, however, is of ordinary dirt construction for practically the entire distance and is liable to local damage from unusually heavy spring and early summer rains.

Based on reports received, the article stated that the work in the early spring and summer “will see very marked improvement in this entire highway:

The enormous gain in westward-bound travel over the National Old Trails Highway that resulted last year from the advertising that has been given this transcontinental route, has impressed upon the citizens of the western states the economic desirability of supplying travelers with a first-class roadbed.

Every community along the road was “doing its share to attract additional thousands of motor tourists”:

Not only have the garages, the hotels and the storekeepers of the towns on this roadway benefited by the expenditures of the several thousand parties that used the roadway last year, but a direct benefit has also resulted to the property owners in each of these states from the visits of potential investors who have later become actual investors in many cases.

Regarding the sign posting, the article concluded:

When this work is completed the National Old Trails Road between Los Angeles and Kansas City will be, beyond all others, the most completely sign-posted long distance highway in the United States. [“All Links of Old Trails Active in Road Improvement,” *Touring Topics*, May 1917, page 10]

National Old Trails Road in Missouri

The January and February 1917 issues of *American Motorist* carried Robert Bruce’s two-part article on “Crossing Missouri by the Old Trails.” As in his book on the National Road, Bruce provided readers a topographical, pictorial, and historic view of the road, but also detailed commentary on the road itself.

Part 1 on St. Louis to Columbia began with a question:

“How shall I find the route across Missouri?

For years this has been a familiar – and very troublesome – question to all persons handling touring inquiries on a national scale. It is ever-present whenever the subject of a trip via the Old Trails route across the central-western States comes under discussion.

Answering such an inquiry was “difficult at best unless one has personally been over the ground.” Bruce, to answer the question, had traveled the route in both directions in September 1916, on his way to and from the National Old Trails Road Association convention in Herrington, Kansas. Coming and going, he took “notes and odometer mileages westbound from St. Louis to Kansas City, and checking them back on the return trip”:

As a whole the route across the State averages good, that average being somewhat lowered, however, by two unusually bad sections, one or both of which may possibly be improved, at least in part, by the summer of 1917. Evidences of progress are met every few miles, which assures the tourist that efforts are being made to gradually bring the route up to a modern standard.

He added:

On this way across the State there will be found many reminders of the Boone’s Lick road, principally tablets erected at historic points by the D.A.R. One of them is in front of the court house, St. Louis; and unless known of in advance, and specially looked for, it will probably be missed.

The “recognized route” began at Locust and 12th Street in St. Louis:

[The] route makes a short right and left turn to pass the Public Library. Then it continues straight out Locust street, past the Museum of Fine Arts to the entrance of Lindell Boulevard. Bearing left, it follows that magnificent parkway past rows of splendid residences, in front of the large Catholic Cathedral and across Kings Highway. Over to the left, just beyond, is the Lindell Boulevard entrance to Forest Park, in which the Louisiana Purchase Exposition of 1903 was held. Two and a quarter miles from the start the route turns right into the Union Boulevard, crossing Washington avenue, Delmar and Page Boulevards to Easton avenue.

Turning left on Easton avenue at mileage 5.8, the tourist starts northwest, crossing the Missouri river at St. Charles, and soon passes the court house in front of which is the boulder referring to the Boone’s Lick road as the old-time connecting link between St. Charles and the start of the Santa Fe Trail at Old Franklin.

Now begins the pleasant rolling country, quite typical of the whole route in Missouri. The road, so far good all the way from St. Louis, is still hard surfaced but has become

somewhat worn. Soon there is apt to be an unpleasant surprise if it happens to be wet; for at about the mileage 27.0 an unimproved stretch is met and followed into Cottleville. Beyond the town there are more than two miles of narrow, very stony and poor road; and there is a longer worse piece ahead – but we will get to that soon enough.

Gaining a slightly higher average altitude, the going gradually improves. Soon the tourist enters a region of “checkerboard roads,” which extend more or less across the rest of the State. It would seem impossible that so many short turns could be incorporated into any road system. The early land surveys were along section lines; there must have been a different group of surveyors [sic] working every few miles – and no attempt made to harmonize their lines. From the mileage 42.3, entering Wentzville from the east, to the mileage 59.2, where the road straightens out to go into Warrenton, there are twenty-eight square right and left turns.

One making this trip is not apt to lose sight of the fact that it is over an historic route, for two or three D.A.R. tablets are seen along the road between St. Charles and Warrenton. Entering the latter, one passes between the buildings of the Central Wesleyan College and Orphan Asylum Four miles east of the town, a deserted log cabin stands as a mute reminder of pioneer days. A yellow wildflower with narrow pointed leaves grows in abundance through this section; it is rather attractive to the traveler, but a great pest to the farmer, like mustard in the eastern states.

Since the bad 2-mile stretch west of Cottleville, road conditions had been average, but in talking with people encountered along the road, he began to hear warnings about Mineola Hills and further inquiries could “hardly be reassuring”:

From an elevated spot at the mileage 89.4, a range of beautiful hills looms up ahead; but there is first a descent over a series of waterbars that would put the worst of those remaining in Pennsylvania or Ohio entirely out of reckoning. They are really mounds, large and irregular; no matter how you take them, the car will roll and pitch in going down that grade.

Just beyond Mineola, the motorist crossed Loutre Creek on an iron bridge, but a tenth of a mile later “brings one to an unmistakable right turn into by far the worst stretch of road on the entire trip across the State”:

The grades are not steep, but the roadway up from the west side of the stream is narrow and almost impassable in wet weather though in dry weather it presents no serious difficulties.

Having gained the western slope, the motorist comes to about two miles of approximately level road; but it is across an almost continuous ledge of bare, uneven rocks, evidently the backbone of the range of which the Mineoli Hills are a part. Getting over it is a strain on tires more than on axles, for as only slow speed can be made, the car takes the wrenches and hitches in a deliberate way. It is possible to favor the tires only to a limited degree;

and one is out of it in a few moments.

It passes the comprehension of the average tourist from the east that such a condition should still exist on any main route across a great and enterprising State; it is due largely to the fact that in Missouri and other western states, road improvement has heretofore been almost entirely by counties. That portion of the route across the Mineola Hills is in a corner of Montgomery county, whose population and wealth would probably never enable it to build without assistance a road suited for through travel, even if it were crossed by a level stretch instead of by this rock formation, which goes to unknown depth. Furthermore, the principal towns and largest population are in the northern part of the county, off the direct route, which has always made it difficult to secure any real appropriation even to draw gravel to put on top of the exposed stone, which would help very much.

Fortunately, this stretch and the one west of Cottleville were the worst parts of the route across Missouri:

The question as to whether or not these pieces make the trip advisable from a touring standpoint is a subject of much debate. Personally, after covering the whole, once in somewhat wet weather and again in dry, I should say that one intending to make a fairly long run, of which this trans-Missouri trip is a logical part, might reasonably go ahead with it With good roads, the trip over these scenic highlands of a semi-prairie state could be made one worth going fairly long distances to make.

There is some discussion of a project to build an improved highway from the point where the road to New Florence turns off seven and one-half miles east of Mineola village, running through New Florence and Montgomery City, cutting out the worst part of the present route and returning to the direct line just before coming to the next town, Williamsburg. While this would eliminate a picturesque section, and take the tourist north of the Van Bibber Tavern, in some ways the most historic one now standing along the route, it would be a vast improvement over present conditions.

Bruce described Van Bibber Tavern as “famous in stagecoach days, and for a long time the center for the politics and social life of that part of Missouri.”

He reported on some of the historic sites along this stretch of the road, noting:

The taverns and wagon stands along the Old Trail route in Missouri were not built as substantially as those on the National Road in Maryland, Pennsylvania or Ohio; and most of them passed away with the generation they serviced. Not so, however, with the log houses, many of which still remain; some are so small that one imagines it must have been difficult for the early settlers to have arranged their few belongings inside, while others seem spacious even today.

The road crossed an iron bridge over Big Muddy creek at mileage 106.3. From there “the route

leads through Calwood, a small place, and thence over a good road into Fulton, county seat of Callaway county, and the commercial and railway center of its section.” In Fulton:

One comes into Court or Main street, Fulton, between rows of fine residences, passes a tablet relating to the early history of the place and sees the signboard indicating the right turn between two attractive churches into Seventh street, continuation of the route west.

He found some road improvement, particularly grading, across Callaway County. He was told “by competent authority” that “very soon the road across that entire county will be graded”:

At times this requires considerable cuts and fills, more common in the eastern states than the rolling prairie states. Starting from Court or Main street, Fulton, the route starts out west Seventh street, running into an excellent stretch of rock road.

Now follows about seven miles without a turn (a rare thing in Missouri); along this stretch of mostly level road, the weeds have grown amazingly, and no one seems to have tried to check them; as a result, they in some cases sway above the heads of the people in the car when the wind is blowing. Scientific care of the roadside has been given small attention in the central-western States.

In this section they have also made a start toward eliminating some of the useless short turns left by the old surveyors. It is a hopeful sign, for there is scarcely anything more monotonous than taking one after another, always at reduced speed.

Bruce reached Millersburg at mileage 125.9, and soon crossed a bridge over Cedar Creek, “and the tourist passes from Callaway into Boone county, running into a stretch of fine road which extends most of the way to Columbia”:

We speed through Harg, a little crossroads settlement, come along a picturesque stream, and follow the excellent winding road, considerable of it down a long easy grade, to a sharp right turn across an iron bridge. After an equally sharp turn on the opposite side, the road straightens out again and ascends a long, easy grade into Broadway, the fine side street of Columbia, home of the University of Missouri, and 138 miles from St. Louis.

Bruce noted that, “Walter Williams, Dean of the School of Journalism in the University, is one of the pioneer good roads workers in the State, and was the first president of the National Old Trails Road Association.” (As explained in part 1 of this history of the National Old Trails Road, Dr. Williams presided over the association’s first convention and was considered to become its first president, but declined “for reasons that I have confided to some of my more closely affiliated friends” and that made it impossible for him to consider the post. He recommended Judge Lowe who, of course, was elected.) [Bruce, Robert, “Crossing Missouri by the Old Trails, Part 1 from St. Louis to Columbia,” *American Motorist*, January 1917, pages 35-37, 70]

Part 2 of the *American Motorist* series covered Columbia to Kansas City. Bruce reported that in

Columbia, “Broadway is followed through the city without a turn, becoming the main line of travel toward the next important point, Rocheport.” Near Rocheport, “there are a few rough spots, and some holes in the road, but nothing serious”:

At mileage 13.9, the road turns sharp left to run alongside a stream. Making the next right turn into the main street of the town, a tablet, “Rocheport 1825,” is passed on the left. A right turn at the western edge of the town crosses an iron bridge, beyond which the road passes from Boone into Howard county, and starts over the hills for New Franklin and Boonville.

The road between Rocheport and the crossing of the Missouri River “is distinctly inferior to that from Columbia to Rocheport. Caution is needed on some of the curves and there are a number of short choppy hills, which must be harder traveling in wet weather than the really steep grades of the Alleghanies.”

At 22.0 miles, the motorist would find the first evidence that Boonville and Glasgow were keen rivals for travelers between that point and Marshall:

A very large sign on the road straight ahead indicates the Cross-State Highway through Fayette to Glasgow, where a ferry may be taken across the Missouri, thence through Slater to Marshall. On the left is a small sign indicating the continuation of the Old Trails route to New Franklin and Boonville. Intent upon following the latter all the way through, the writer made the left turn, coming, a few miles further on, to a right turn under the arch erected at the approach to the old Salt Creek cemetery A series of short turns brings one within sight of New Franklin. “Considerable hills,” I instinctively wrote in my notebook on the westbound trip alongside of the diagram before entering the village.

On Bruce’s westbound return trip, he found what “proved to be perhaps as steep a grade as any encountered on the way across the State; and no doubt a lot of drivers are caught unawares on it.”

Bruce pointed out a landmark:

The most conspicuous landmark on the way into New Franklin is a large boulder set in the center of the main street; on its western face is a metal tablet referring to the place as the “Cradle of the Santa Fe Trail,” an honor usually credited to what was once Old Franklin, the original north side settlement, along the Missouri a short distance from where our trip crosses it now. In this locality, the Boone’s Lick road, the pioneer route from St. Louis through St. Charles, Warrenton, Fulton and Columbia, comes to an end, and is succeeded by the greater Santa Fe trail, whose markers will be seen more or less frequently along the balance of the way across the State.

Old Franklin had been wiped out by flooding in 1844, “and was never rebuilt. The population that stayed on the north side of the river in this vicinity moved farther back toward the hills and

centered at what is New Franklin, which now claims for itself, or as the successor of Old Franklin, the honor of being the start of the first trade caravan to Santa Fe.”

The road continues through New Franklin by turning left “at a concrete building beyond the large boulder with tablet.” A mile further, the road approaches a boat landing at the Missouri River. “The last hundred yards or so are a packed sand trail, the length of which depends upon the stage of the water in the river; nor is the boat landing a permanent one, as it is shifted from one point to another as the necessities of navigation require. Care in driving down to the river and on to the boat is recommended from personal experience.” He continued:

The road from Rocheport to the Missouri river opposite Boonville is considerably below the standard of the route from Rocheport eastward to and through Columbia The piece from New Franklin to the river must be ticklish motoring in wet weather. And with all due respect to the courteous management and obliging, hard-working crew on the *Dorothy*, it seems as if a bridge ought to be built to carry the Old Trails across the Big Muddy at this point, where it is not very wide The boat makes an average of 30-minute crossings; so if it happens to be on the opposite side when one comes down to the north side from New Franklin, the wait will not be long.

Although the motorist has several options for leaving Boonville, Bruce advised that “the preferred way is to continue straight ahead across the Missouri Pacific railroad past the depot on the right, turning left with the travel just beyond into East High street, which leads up to Fifth or Main street. Turning right on Fifth street, the tourist at once passes the Cooper county court house on the left; and at the Farmers’ Bank building corner turns right on East Spring street, soon crossing the M.K.&T. railroad.”

The route led motorists to “a good wide road out of Boonville,” which, for a short distance, “affords an interesting view of the Missouri, over to the right”:

It also leads directly into a region of more hills and greater scenic beauty than the section just left behind. A few miles out one crosses a long iron bridge over La Mine river; after going through La Mine village there is another series of monotonous right and left turns.

The road followed a northwesterly course close enough for a “distinct view of the Missouri river and its characteristic bluffs.”

Just east of Arrow Rock village, the road enters Saline County:

The road is graded from here to Marshall, but not improved; in fact, the county once voted down a bond issue, though good roads sentiment has recently increased, and it is thought that a proposition for a new bond issue would pass.

Bruce explained that for through trips, motorists really had only one choice:

After a bit of rough going one comes to the center 4-corners at Arrow Rock village. On

the left-hand corner, at the turn, is one of the real old taverns now standing along the route in Missouri. It was built in 1830. A ferry was established at this point in 1812 and continued to run until 1911. Recently there has been talk of restoring it.

The north side route from New Franklin to Arrow Rock is said to be from six to eight miles shorter than the standard one through Boonville and La Mine, and to pass over more level ground; but it has not an intermediate point nearly as large as Boonville, and of course the lack of a ferry at Arrow Rock makes that old-time option impracticable today.

The Missouri D.A.R. had “taken a great interest in the old tavern at Arrow Rock, and in 1913 furnished one of its room with relics of pioneer days, largely for the interest it would have for increasing motor travel.”

For years, the towns in the area were “almost completely isolated, with no railway service; and often, as in the case of those on the direct line between new Franklin and Arrow, separated by a river without means of crossing for miles.” Bruce added that, “With poor roads added to these handicaps, the outlook on life must be small indeed.”

Three-tenths of a mile past the tavern, “the road turns right to leave Arrow Rock village, passing a Santa Fe trail marker at the turn.” Sixteen miles along, the route crosses the Missouri River and “ascends a winding grade into Marshall,” a prosperous town that, as of September 1916, was “entirely without signs by which the stranger may know one street from another.” The alternate route that left the Boonville line 22 miles from Columbia joins here with the alternative route and “the two coincide the balance of the way to Kansas City”:

The writer had no means of comparing the two; but from sifting reports has no reason to believe that one is materially better than the other, and suggests that each might be used one way on round trips. One choosing the Glasgow route in traveling westbound will notice the large signboard indicating straight ahead when the road to New Franklin and Boonville turns left.

Following a northwesterly direction from this point, the upper route passes through Fayette to Glasgow, where it crosses the Missouri by ferry, and continues generally southwest through Slater to Marshall.

Leaving Marshall, the route leads “past the court house to the next cross street and then left at the post office; there are several right and left turns within the next few miles, “but the travel and sign posts make the way clear.”

Malta Bend, 83 miles west of Columbia, was the start “of a rich and very prosperous belt of country,” in Saline and Lafayette Counties. The 3½ miles from Malta Bend to Lexington “are bad in wet weather; and the people along the line do not seem inclined to improve it on account

of having no rock in the localities through which the Old Trails route passes”:

Commenting upon this condition, a well-informed official of the State said to the writer that the people along that route could better afford to import sufficient rock from foreign countries to improve their main road than to leave it in the present condition.

Bruce employed a rare joke about Grand Pass, saying, “close observation on both the westbound and eastbound trips discovered no ‘pass’ and nothing ‘grand.’”

The line between Saline and Lafayette Counties was marked “by a large signboard,” after which a motorist would notice “evidences of recent grading”:

Running through Waverly and Dover, on some pieces of road none too good, the tourist shortly goes through a covered bridge over Tabo Creek After a long stretch of dirt road, it is restful to run on to a fine stretch of brick leading to the center of Lexington, an enterprising little city and the largest place along the line in this section of the State.

Once called Jack’s Ferry, Lexington had always “been a crossing point on the Missouri river, a steam ferry operating there now to connect the main roads north and south.” Bruce reported that:

Lexington is very active in [the] good roads movement, and was one of the first places to organize as a special roads district under the present Missouri law, voting \$125,000 in bonds, some of the proceeds of which are now being spent to close up the few poor gaps still remaining on the Old Trails route in Lafayette county.

Bruce was optimistic about the future of the next stretch of the route:

One making the trip in the fall of 1916 could see, with some temporary inconveniences, a naturally poor road being transformed into a good modern thoroughfare. There was still enough left of the original road to give the observing traveler some conception of the troubles that must have been experienced by the pioneers in working their way in all weathers over the trail that preceded the fast-disappearing old road. Much of the proceeds of the road bonds voted by Lexington are being spent on this section.

The road continued “bad” for a few miles beyond Wellington, “but it will probably be improved soon after the stretch nearer Lexington”:

Within ten miles after leaving Wellington the Old Trails route passes from Lafayette into Jackson county A short seven miles beyond, the route goes through a covered bridge across the Little Blue river, and a mile and a half farther on, it curves left past a brick church in a grove and then past a reverse fork with a Santa Fe trail marker in the angle (as one travels east). The remaining six miles to Independence are unmistakable, as the main travel shows the way to all points. But there are several very sharp curves, as if the modern road-builders had simply rounded the corners of the old section lines instead of cutting across them, and making an easy winding road, in place of one which needs to

be driven with considerable care, particularly by strangers.

On entering Independence, Bruce found “an unusually attractive aspect to the motor tourist approaching it from either of the principal directions”:

Entering by College street to Main street, the Old Trails route turns left on Main to Maple avenue, and then right on Maple avenue, running alongside the court house and post office, on the left, at the center of the city. A half mile farther along, Maple avenue comes to an end at River boulevard.

The Old Trails route continued with a right turn onto the boulevard and left turn on West Blue Avenue, named for the Blue River the route would cross half way between Independence and Kansas City:

The next three miles carry the route under a railroad viaduct, over a concrete bridge above another railway, meanwhile coming into the limits of Kansas City, past Mount Washington cemetery, and under a stone railroad arch, beyond which is a long, easy downgrade to a concrete bridge over the Blue river. Crossing the Southern and Frisco railroad tracks, at grade, at Centropolis station, the route picks up the trolley and follows it along Fifteenth street, a fine, wide asphalted thoroughfare, to the intersection of Grand Avenue.

Bruce concluded his narrative with a summary:

Probably no other trip of its length in the United States has so many reminders of the Old Trails as the approximate 300 miles between St. Louis and Kansas City. Taken with philosophical allowances for its remaining drawbacks, it is highly educational. Certainly none other has so much history and romance of both river and road, which combined in the early days to afford primitive transportation to the farther west. The chances are that one who has followed the Boone’s Lick road until it merges into the Santa Fe trail, and the latter to Kansas City, will not be satisfied until he has crossed into Kansas, and followed it still farther toward the setting sun. [Bruce, Robert, “Crossing Missouri by the Old Trails, Part 2 from Columbia to Kansas City,” *American Motorist*, February 1917, pages 23-27]

A Transcontinental Trip

The February 1917 issue of *American Motorist* included a brief description by Cecil Billup of Norfolk, Virginia, of his transcontinental trip to Los Angeles. Following a map provided by AAA in October 1916, Billup reported that his 3,600-mile trip took 3 weeks, “running only during the day.” He wrote:

I found the roads in Missouri and Illinois very bad indeed, due somewhat, however, to recent rains. In the other States, until I reached New Mexico, the roads were excellent, particularly in Kansas. The trail across the mountains from Pueblo to Raton and on to

Los Vegas [sic], Albuquerque, Springerville, Winslow, Flagstaff, and Seligman to Needles was not in any sense good, but when one would look on the hundreds and hundreds of miles of barren waste, one could hardly expect to find a good road across it, so I have no complaint to make.

My trip was rather remarkable in one particular at any rate – viz: that I did not receive as much as a puncture from the time I left Washington until I reached Los Angeles; neither did I make an adjustment of any kind of my engine. In other words, it was an absolutely clean performance from coast to coast.

Another remarkable feature, I think is that the car I drove was a 1910 30-60 chain drive Stearns. The remarkable part is not in its being a Stearns, but in the age of it. I count this motor trip across the country the greatest experience of my life, and I have had many.

He did not think anyone could “get any idea of the vastness of this country until one has motored across it”:

From Washington to Pueblo was about as simple as from Washington to Hagerstown – it was simply one lap after another of good sailing.

After we got into the desert land of New Mexico we commenced then to prepare against an eventuality, but none happened. I provided myself with an Egyptian water-bag, and after soaking it for twenty-four hours it was absolutely tight. We never lost an opportunity to pour a little in the radiator, and to keep it full, or to keep the gas tank full, as above stated not wishing to take any chances getting across the desert. We also carried an extra supply of oil and some light provisions.

I thank you very much for the assistance you gave me on the day I left. [“Virginian Writes A.A.A. Of Coast-to-Coast Trip,” *American Motorist*, February 1917, page 58]

The Arizona-New Mexico Connection

Dating to the April 1912 founding convention, the connection between Arizona and New Mexico had been debating. The convention, as described in part 1, adopted the most direct route, from Gallup, New Mexico, to Holbrook, Arizona, for the official location of the National Old Trails Road. However, in view of its poor condition, the association employed the Springerville alternative until an improved Gallup-Holbrook road was available.

Statehood for Arizona (February 14, 1912) and New Mexico (January 6, 1912) altered their highway functions. Through much of Arizona’s history before it became a State, the counties were responsible for its roads. A centennial history of the Arizona Department of Transportation explained:

Fortunately for Arizona, the lack of good roads was not a serious problem during most of the Territorial period. In many parts of the Territory, where the climate was dry and the

soils rocky, the mud that plagued road users in other parts of the country was blessedly absent for most of the year. And when conditions were bad, the horses and mules that Arizonans used for transportation were usually able to negotiate even the worst trails.

In 1909, the Territorial Legislature placed road construction and maintenance under a Territorial Engineer who was required to be a civil engineer. The engineer “was expected to set up a formal Territorial highway system, design and supervise the construction of all new Territorial roads, and provide engineering support to the counties.” County road districts were replaced by county road superintendents who were expected to give their full time to the job, ending the “part-time political road commissioners and overseers.”

The first Territorial highway system, adopted in 1909, included a cross-State road from Springerville to Topock via St. Johns, Concho, Hunt, Holbrook, Winslow, Flagstaff, Williams, Ash Fork, Seligman, Kingman, and Yucca. The system was, however, “a system in name only,” with most work on the roads done by the counties instead of the Territorial Engineer. “The location of these roads was determined primarily by the needs of local traffic moving in and out of towns, and secondarily by regional traffic moving between towns.” In 1912, upon statehood, the Territorial Engineer became the State Engineer. [Pry, Dr. Mark E., and Andersen, Fred, *Arizona Transportation History*, Arizona Department of Transportation Research Center, December 2011, pages 23-25]

In New Mexico, the Territorial Legislature created a Territorial Roads Commission to repair, construct, and maintain highways. The \$10,000 provided by the legislature for this purpose was “wholly inadequate,” as State Engineer James A. French explained in his first report. By a law approved on June 10, 1912, the State Legislature created the State Highway Commission with broadened powers to go into effect on September 29, 1912. It directed the commission to plan and construct a system of State highways; to confer with and advise counties, towns, and villages on road and bridge work; and called for county road boards, appointed by the commission, to handle the work carried out by the counties.

The 4,000-mile State Highway System included a route from Raton to Las Vegas, Santa Fe, Albuquerque, and Las Lunas, before a western turn to Gallup and the State line on the way to Holbrook – the preferred route of the National Old Trails Road. At Las Lunas, another route continued south to Socorro, where a route turned west via Magdalena, Datil, and Quemado on the way to Springerville – the alternative routing of the National Old Trails Road. However, these were lines on a map, not improved roads. French added in his report, “I suggest that an effort be made to have the Legislature designate these roads as state highways, and that funds from the Road Fund shall be expended only upon these highways.”

In fact, French had little good to say about the state of roads in New Mexico:

In its relation to traffic the situation throughout the state at the beginning of 1912 was deplorable; it was practically impossible to travel from county to county with any degree of comfort. Up to that time very little had been accomplished in systematic road building, due to the sparsely settled condition of the state, to the general misuse of county

road funds, and to the lack of a central, or state, organization. Practically no inter-county road work had been attempted, construction having been confined to small stretches here and there, of purely local importance, with no thought of eventually connecting them to form a district or state system . . .

Immediately upon the organization of the State Highway Commission a tentative state highway system, embracing county seats and other populous towns and communities, was outlined. [French, James A., *First Report of the State Engineer of New Mexico*, New Mexico State Highway Commission, pages 8-14]

With the two new States in early stages of organization, efforts to improve the National Old Trails Road continued. In Arizona, the new State Legislature provided \$5,500 for construction of a bridge across the rugged, 100-foot deep Chevelon Creek canyon in Navajo County to provide a link between Holbrook and Winslow. With State assistance and an allocation from the State road fund, the Navajo County Board of Supervisors entered into a contract on October 2, 1912, with the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas, to construct the bridge. The company completed the bridge in July 1913 at a cost of \$4,985. It was a single-span, steel Warren truss, with a Camelback configuration, (102 feet between the sandstone walls of the gorge), 12 miles southeast of Winslow. It replaced a “pin connected” Pratt truss. The new bridge was posted to the National Register of Historic Places in December 1983. [Chevelon Creek Bridge, National Register of Historic Places – Nomination Form, National Park Service, U.S. Department of the Interior.]

The Canyon Padre bridge in Coconino County near Flagstaff opened in April 1914. In *Great American Bridges and Dams*, Donald C. Jackson wrote:

In 1913 the newly formed Arizona State Highway Department requested competitive designs and bids for a span over the canyon. Shortly afterward, the Topeka Bridge and Iron Company of Kansas, acting as a western representative of Daniel Luten's National Bridge Company, received a \$7,900 contract to build a 140-foot-long, single-span, concrete arch bridge.

It remained in service on the road until replaced by a new bridge in 1937. [Jackson, Donald C., *Great American Bridges and Dams*, The Preservation Press, National Trust for Historic Preservation, 1988, pages 244-245]

In 1914, Arizona highway officials began surveys for a bridge across Canyon Diablo, about 9 miles east of the Canyon Padre bridge. The State acquired plans for the bridge from the Topeka Bridge & Iron company, again representing Luten. The bridge, which cost about \$9,000, opened on March 17, 1915, and remained in service until 1938 when it, too, was replaced. Coconino County “also improved much of the road from Flagstaff to Bellemont, built thirty-three miles of new road between Flagstaff and Winslow, and twenty miles of new road to the Grand Canyon.” The Canyon Padre and Canyon Diablo bridges were added to the National Register of Historic Places on September 30, 1988. [Mangums, page 66]

Navajo County erected a ridge over the Little Colorado River 2½ miles east of Winslow. It was a 620-foot long, four span truss. The bridge, which had a timber deck, was only 14-feet wide. According to the Historic Bridge Inventory for the State of Arizona, “With its timber deck, and 14-foot-wide roadway, the Winslow Bridge became a major bottleneck on the highway.” The State completed a replacement bridge in 1939. “It carried mainline highway traffic for some 20 years before construction of Interstate 40 to the north of the original highway.”

Despite these improvements, the Mangums noted, “There was still a weak link, however, the segment of the highway between Holbrook and Gallup. There was a primitive road between the two points, but it was not up to the standards expected of the national highway.” A road existed, but “very few drivers attempted it because it was so bad”:

From Albuquerque west, the route had been decided, but there was that pesky black hole between Gallup and Holbrook that rendered the chosen route unusable, forcing motorists to take the Socorro-Springerville route [Mangums, pages 60, 62-63]

Advocates for the southern route near the Mexico border heavily promoted their road by, in part, criticizing the Gallup-Holbrook link of the National Old Trails Road.

In 1915, as discussed in part 2, the National Old Trails Road Association held a convention at the Grand Canyon on July 15. Many delegates, as well as Judge Lowe, had attended a ceremony on July 14 for dedication by the D.A.R. of a plaque in Flagstaff “In Memory of the Pioneer Women of Arizona.” For local officials and advocates, the real purpose was to introduce the Walnut Canyon Bypass that would funnel sightseers to Flagstaff on their way to the Grand Canyon instead of a popular route between Townsend and Grandview that bypassed the city. [Mangums, page 79]

The agenda for the convention was largely noncontroversial, allowing delegates to spend much of their time enjoying the Grand Canyon. However, they did consider one important question: whether to drop Gallup from the National Old Trails Road. The Mangums quoted the *Coconino Sun* (issue of July 23, 1915) on the issue:

All of our present traffic is over the Springerville road and when the Automobile Club of Southern California commenced the signing of the National Old Trails Road with uniform signs from Los Angeles to Kansas City they found that the road from Holbrook to Albuquerque as designated by the National Old Trails Road was not passable and that all traffic was coming and going by the Springerville road.

At that time the Old Trails Association consented to the signing of the Springerville road, which made it in fact a part of the National Old Trails Road, and the maps of the association showed it to be such. A strong delegation from Springerville were present and they desired to absolutely abandon the Gallup road as a part of the Old Trails because there had not been any results in the way of road making.

Delegates from along the Gallup route maintained, however, that they were going to have

a road but were handicapped both in New Mexico and Arizona by the powers that be so the money which had been raised had been held and not expended when it should have been. There was evidently more poetry to this and there was some considerable argument among the delegates but the Springerville road was finally adopted as an alternate road and the same official recognition was given to it as to any other part of the National Old Trails.

The question of abandoning any part of the original line was not only a bad precedent but it might mean that a majority vote in any convention could change the route of the National Old Trails just to suit that majority when the majority voting might not be a representation of the section involved. It was the intention of the convention at Kansas City two years ago that when the route was chosen west from Santa Fe to Los Angeles that it was to be permanent and that there would be no changes of location thereafter.

It is wise that there should be no changes, as the possibility of the change in every convention would mean tearing down of the very foundation upon which the association was building its great work. Arguments were made and at times some of them were quite spirited. But in the end all parties met upon intermediate ground and settled the question by unanimously adopting the report of the committee on resolutions, which provided that the Springerville road be an alternate road and so recognized by the association.

The word "branch" which has heretofore appeared on the signs over the Springerville road will now show that this is part of the main line. [Mangums, page 81]

While Judge Lowe headed to California to attend a joint meeting of the Automobile Club of Southern California and the Los Angeles Chamber of Commerce, the delegates from New Mexico went home with the recognition that the Gallup-Holbrook line retained its designation but by only a few votes. The Mangums wrote:

The New Mexico delegation left the Grand Canyon, went home, and immediately began work to fix the gap between Gallup and Holbrook. The Flagstaff newspaper printed an account of their activities:

Gallup citizens have already made preparations to build two bridges over the Puerco and a good road to the Arizona line. It behooves our state and Apache County to spend the necessary money to make the road along the track by Navajo Springs to Holbrook travelable. We cannot have too many good roads through this part of the state. [Mangums, page 83; quote from *Coconino Sun*, August 6, 1915]

Work was underway on the route, as the Mangums wrote, "By September 1915 the road between Holbrook and Gallup was a reality at last." The *Gallup Independent* (September 9, 1915) wrote of travelers who reached Holbrook and heard of the dangers of the road to Gallup, compared

with the Springerville alternative:

They were confident that they had been misinformed as to the condition of the roads, and are more than pleased that they came this way. The roads are fine. The road between here and Holbrook now has guide posts on it two miles apart and it will be difficult for the tourist to lose his way in going or coming between the two points.

The Mangums quoted the Gallup newspaper from the next day on the condition of the road in late September 1915:

The work on the Old Trails, the road which will eventually be the great transcontinental highway, and which will go through Gallup, is rapidly going forward.

The McKinley County Road Commissioner has just now about completed the bridge work on the road between Gallup and the Arizona state line. The task has been no matter of small concern. In the neighborhood of one hundred thousand feet of lumber has been consumed in putting in the timber part of the bridges. Beside this there was a tremendous amount of stone and cement work that had to be done. A large force of men have been employed during the past couple of months which got the road gang pay roll up to about \$1,000 a week has just returned from that stretch of the road.

This work and all the work during the summer has been under the direction of . . . the engineer. He went to Houck [Arizona] this week to confer with and assist in every way possible the Apache [County] Arizona road commissioners who are at Houck planning and surveying to put a large and substantial bridge over the Puerco at that point which will be the main connecting link of the Old Trails road between the two states. The Arizona people will of course survey their own road and will connect up with the road from New Mexico as completed by the McKinley County Board. This is the reason for the bridge at this point at Houck, which is directly in line with the road which passes Manuelito and on to the state line but a short distance beyond.

The Apache County road board has a sum of \$12,000 which they intend to spend on the repairing of the road from Holbrook to the state line, which is immediately available and will be put onto the road before the winter weather comes on. This will line up the road so that it will be open early in the spring and will be a fine road in a very short time thereafter.

Besides the ready amount of money that the Apache County Road Board has at the present time in a month or so the county will vote another \$75,000 worth of bonds exclusively for bridge construction over the Old Trails way and a few other side routes that are necessary to repair, which will also assist materially in making the Old Trails route between here and Winslow one of the most popular roads in the southwest not only for transcontinental tourists but for interstate traffic.

Work was underway across Arizona. Navajo County was setting up a bond election for road

improvement. *The Winslow Mail* wrote, “One road that will be improved is between Winslow and Holbrook, and the Lord know it is needed, as in its present condition it is little better than a cow path.”

The straight-line route between Winslow and Flagstaff “crossed over the recently constructed Canyon Diablo and Canyon Padre bridges, although some travelers still preferred the old road via Leupp.” Westbound motorists reaching Winona “were directed to turn south, going past Walnut Canyon and entering the Flagstaff area at Cliffs”:

From Flagstaff to Williams much road work had been performed and the road was considered to be in good shape. The *Automobile Blue Book* for 1916, which used road test information gathered in 1915, said: “A very fine graded road, built by the people of Flagstaff, is followed as far as Williams. This is one of the best roads in the Southwest and is very fast.”

The guide described the road from Williams to Ash Fork as “also a good road thru timber, with a drop of 2,000 feet in about 209 miles.” The road from Ash Fork to Seligman was “a fair to poor natural road thru desolate country”:

Leaving Seligman, a graded road is followed to the [Mohave] County line. From here to Hackberry the road is rough and poor, but from there to Kingman, an excellent graded road is followed. The road is well sign-posted by the Automobile Club of Southern California.

The Mangums continued:

From Kingman, a major piece of work was done when the old road, which went through the bottom of Kingman Canyon, was replaced with a new, higher road, made possible by much blasting to make an essential cut through the hard rock of the upper canyon walls. This new cut carried the road to McConnico, from which point drivers could elect to go over the mountains through Oatman or around the mountains by Yucca.

The 1916 *Automobile Blue Book*, based on data collected before completion of the Topock Bridge, commented on the Yucca route:

This route is across the Mojave Desert with no sign of habitation, except at Yucca. Until the Colorado River is reached at Topock, the road is well-graded and of a natural gravel formation to Yucca. From there to the Colorado River, while the road is graded in most places, it is rather sandy and crosses numerous washes, and is very winding, making fast time impossible. At Topock the river is crossed on a plank RR Bridge (toll \$3.50 per car).

As the Mangums pointed out, the high country of northern Arizona experienced record breaking snow during the winter of 1915-1916, “crushing roofs, paralyzing traffic, and straining

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resources”:

On the road between Flagstaff and Winslow, all of the fill was washed from the surface of the road, leaving exposed stone ledges that made the important road segment a travelers’ nightmare for years to come. Even in the desert there was damage, with storms washing out the road between Yucca and Topock in several places. The damage on the Yucca road was so bad that months later the State Engineer reported that, “Although considerable sums have been spent on this highway for repairs it is not practicable to maintain as at present constructed.” [Mangums, pages 85-86]

Following dedication of the Topock bridge as described earlier, work continued in Arizona according to the Mangums:

In Navajo County state crews were building a new bridge across the Little Colorado River about four miles east of Holbrook.

Flagstaff got about a mile and a half of paving through the downtown district, the first on the National Old Trails Road in Arizona, in the spring [of 1916]

The citizens of Gallup were still struggling to build their road to proper standards so that autoists would turn west at Los Lunas instead of proceeding south to Socorro. In order to demonstrate that the road could be traveled, Gallup businessmen organized an excursion from Gallup to Albuquerque in May 1916 and were pleased to report that all eight of the cars that participated were able to make the trip and return. Blowouts hit the party in both directions, but the Gallup newspaper put a chipper face on the tire problems, saying that these “occasioned only a few hours delay to the party.”

On a road that was about 140 miles long, the Gallup vehicles took over 9 hours to reach their destination. Members of Albuquerque’s Commercial Club were somewhat surprised by the arrival of the Gallup eight. As quoted by the Mangums, *The Gallup Independent* wrote:

The Albuquerque people stated that they had never intentionally turned any tourists from Gallup, but at the same time very little attention had been given the route this way. They did promise to advise all travelers that the Gallup route is open and that traveling thereover is good, in the future.

There are many side roads leading from the main route of the trip which makes it very difficult for a stranger to keep the right road. Even the Gallup people who have been over it many times have difficulty in staying on the main road.

The Mangums also reported that to promote the road, “a race from Gallup to Albuquerque was organized in the summer of 1916, and improvement work was done in order to have the highway at its best. The race was held, with the winning time being six hours and thirty-three minutes.” The editor of the *Gallup Independent*, in the issue of October 5, 1916, “boasted that in another year the road between Gallup and Albuquerque would be a veritable boulevard.” Even so, the

Mangums wrote, “The problem that dwarfed all others was that of the terrible state of the road between Gallup and Holbrook.” [Mangums, pages 89-90]

Thomas F. Nichols, Office Engineer, Arizona State Highway Department, explained in 1917:

The laws under which the construction of highways is being carried on in Arizona have been in existence only about four years and will undoubtedly be modified in many ways within the next few years. They provide about \$400,000 annually for expenditure by the State Engineer. In addition to this amount the various counties, by bond issues and direct taxation, raise a much larger amount, which is expended under their own supervision.

Nichols also discussed traffic on the National Old Trails Road:

Even with the highways partially improved, as at the present time, the tourist travel is steadily increasing. During the entire calendar year of 1915 the number of cars crossing the state via the northern or “Old Trails” route was reported to be 1,400. In the first nine months of 1916, the number of such cars passed the 1,500 mark. In the first nine months of the year 1916 tourist automobiles carrying an average of 3¼ passengers each to the number of 1,200 had been accommodated at the garage at the Grand Canyon, and it was estimated that an equal number had passed through without patronizing the garage. [Nichols, Thomas F., “Road Construction in Arizona,” *Good Roads*, March 3, 1917, page 146]

In an Act of March 8, 1917, Arizona approved Senate Bill No. 101, assenting to the terms of the Federal Aid Road Act of 1916. An article in *Good Roads* summarized the bill:

. . . the State of Arizona placed itself in line for receiving its portion of federal appropriations made to the various states for road construction and for other purposes. The act vests the State Engineer, with the approval of the State Board of Control, with authority to proceed under the requirements of the federal law in the making of contracts and agreements with the Government in relation to highway survey and construction, and to do whatever is necessary to comply with its provisions. [“Road Legislation in Arizona,” *Good Roads*, June 2, 1917, page 324]

The centennial history stated:

Arizona’s initial share of federal aid funds was a modest \$68,500, but that share grew quickly, rising to \$890,000 in 1919 and to \$1.3 million in 1920. Not all of this money was actually received by Arizona and spent by the highway department, however. The states were required to match any federal aid they received, and in some years property tax collections and legislative appropriations in Arizona were insufficient to match the federal contribution. In 1919 and 1920, for example, Arizona actually received only \$573,000 in federal aid – much less than it was eligible to receive, yet still a substantial new source of highway funding. [*Arizona Transportation History*, pages 33-35]

Named and Marked Roads

In April 1917, *American Motorist* carried Robert Bruce's discussion of signing along the main named trails:

The signposting on many of them is remarkably complete and satisfactory, consisting usually of some characteristic letter or figure stenciled well up on the most conspicuous telegraph poles along the road. It is just enough to assure the tourist that he is on that one main road; and he either goes through the intersection, makes a turn or takes the proper fork without a moment's hesitation.

The Lincoln Highway leads all of its rivals in the mileage covered by those markers, which are now practically continuous across the continent. Next is probably that part of the Old Trails route signposted between St. Louis and Los Angeles by the Automobile Club of Southern California., So far as the writer's observations go, the latter would seem to be the most useful and complete type of signposting yet done to any considerable extent in the United States, as it not only identifies the route in general, but gives the distances both to the next town and the most important terminal city ahead.

Signs were vital in Kansas:

Out in the open Kansas prairie, about 43 miles west of Kansas City, the main road from the East comes to a dead end; and the route of the through west-bound tourist across the central portion of that State is decided by a right or left turn at that point. So far the road from Kansas City has been the main stem of the Santa Fe Trail; from now on there is a choice of two routes, the Old Trails through Osage City, Council Grove, Herington and McPherson, and the New Trail through Ottawa, Emporia, Florence, Newton and Hutchinson. The promoters of these rival routes have erected large signs in positions best seen as one comes to the final diverging point.

Slightly to the right, as if to indicate the way it would influence the turn, but still clearly seen before the turn need to be made, is the sign of the Old Santa Fe Trail. Upon it is painted a prairie schooner of the olden days, and an automobile, representing the change in methods of travel within the past 75 years. It is plainly an appeal to the sentiment of the west-bound tourist; and in few words does the utmost to impress upon him the superiority of the route it marks, particularly from the historic standpoint.

Over to the left, about the same distance from the turn, is an equally prominent signboard indicating the way to the new Santa Fe Trail. This one has no picture, but is strong on names of places, which the painter's brush has brought out most effectively. It also emphasizes the fact that the Santa Fe railroad goes that way. The motorist who has no special reason for going one way or the other will probably hesitate somewhat at this junction. Both have become heavily traveled routes through central Kansas to the farther west. They illustrate the competitive feature of many roads leading by different ways to the same principal destinations in that part of the country. Truly there is nothing left of

the old frontier; even its romance and traditions are rapidly fading from the memory of living men.

Even the organizations promoting the great transcontinental routes are now adopting similar methods; and attempting to reach out even hundreds of miles to draw travel into their channels. The rivalry between the central route, or the Lincoln Highway, and the southern or National Old Trails road, has come to be particularly spirited. At Big Springs, Nebraska, the Automobile Club of Southern California has erected the sign shown here upon a wood frame ten feet high and twenty feet wide. Both the reading and the outline map are meant to impress the tourist with the fact that he may leave the central route, go down through Denver, Colorado Springs and Pueblo to Trinidad, connecting there with the "all year route" to California via the Grand Canyon. Yet Trinidad, the nearest point on the Old Trails route, is over 300 miles from the big signboard along the Lincoln Highway!

The signboard depicted a map of the States from Colorado to California, with the National Old Trails Road shown in black line through Pueblo to Trinidad, Raton, Santa Fe, and Albuquerque, where the line split between the Gallup and Springerville alternatives from New Mexico to Arizona. The two lines connected at Holbrook to Winslow, Flagstaff, and Williams, with the road to the Grand Canyon is depicted between Flagstaff and Williams. The line from Williams continued through Kingman, Needles, Barstow, San Bernardino, and Riverside to Los Angeles.

The wording on the sign:

Thoroughly Sign Posted
ALL YEAR ROUTE
---- TO ----
CALIFORNIA
AND THE
PACIFIC COAST
BY THE
NATIONAL OLD TRAILS ROAD

BEST FOR	LEADING TO
IMPROVED ROADS	GARDEN OF THE GODS
SCENIC ATTRACTIONS	GRAND CANYON
CLIMATIC CONDITIONS	PETRIFIED FOREST
HOTEL AND GARAGE	INDIAN PUEBLOS
ACCOMMODATIONS	CLIFF DWELLINGS

SIGN POSTS ERECTED AND MAINTAINED BY
Automobile Club of Southern California
National Old Trails Association

Bruce continued to comment on signs in relation to one of regular gripes:

A district whose roads are laid out largely or altogether along section lines, quickly tests

the efficiency or any posting or marking system. On some portions of the Old Trails route across Missouri, there is frequently an average of some break in the direct road every mile, mostly short offsets, where the turns are square, very likely with unprotected ditches in close proximity. But when the signposting is effectively done, that and the principal travel, as shown by the wear on the road surface, soon enable one to take these corners with more speed and safety than might at first be considered possible. However, they will always be awkward places to meet a car coming at speed from the opposite direction.

Another problem involved the common practice of asking about road conditions. The tourist in western States may inquire about road conditions up ahead, but in many of those States, the counties were in charge of the road. Local residents, therefore, talk in terms of their own county, but don't know what is happening on the other side of the county line:

To the stranger, say from the eastern states, who knows nothing about where one country (sic) ends and another begins, such directions are absolutely unintelligible, unless the tourist first provides himself with a commercial map of the state, and lays out his route in a tentative way across the counties, which is not always easy to do.

It is interesting to observe that local parties with whom the tourist may talk in those sections consider that of course he is acquainted with the county lines; and really cannot understand why he should not be. When this is all the assistance one traveling without accurate running directions or a good system of signboards can secure, it is a bit of passing help to come across a well-marked county line, as at the boundary of Lafayette and Saline counties, crossed in making a trip between Marshall and Lexington, Mo., which a board on a prominent post has the name of one on either side. Where the county is still the unit of road activity, its limits should be marked much more generally than they are now.

Signing in the eastern States was not as advanced as in the western States, but they were making rapid progress:

The continuous improved roads on the National Pike between Baltimore, Washington, Hagerstown, Cumberland and the Ohio river at Wheeling, and also along the Pennsylvania division of the Lincoln Highway, between Philadelphia, Gettysburg and Pittsburgh, commonly known and referred to by their appropriate and widely accepted names, has given a needed impetus to the extension of that system in other states. [Bruce, Robert, "Named and Marked Roads," *American Motorist*, April 1917, pages 9-13, 58]

Declaration of War

By the end of February 1917, newspapers were reporting that Germany had secretly reached out to Mexico to aid in the war. Upon victory, Mexico's reward would be the return of Arizona, New Mexico, and Texas to within its new borders. Germany also invited Japan to join in the

war. That threat, the continued attacks by German U-boats on shipping in the Atlantic, and other factors, changed President Wilson's views.

He had done everything he could to keep America out of the European war, and had won reelection on numerous themes, but especially on keeping the peace. With the hope of maintaining peace, he addressed Congress on February 26 to request additional authority to arm merchant ships to protect them from submarine attacks. The House of Representatives approved the bill overwhelmingly, but 11 Senators launched a filibuster to block approval by the 66 Senators who said they would have voted for it. With the 64th Congress ending at noon on March 4, they had to delay the vote only a few days to kill the bill.

On March 4, 1917, a Sunday, President Wilson was inaugurated for a second term in a private ceremony. But he issued a statement denouncing Congress for not being able "to act either to safeguard the country or to vindicate the elementary rights of its citizens." In a time of crisis, the country was blocked from acting. "A little group of willful men, representing no opinion but their own have rendered the great Government of the United States helpless and contemptible." It was "the only legislative body in the world which cannot act when its majority is ready for action." He called for revising the Senate rules to allow cloture of a filibuster by a two-thirds majority vote of the Senate.

He held limited inaugural festivities on March 5.

On April 2, 1917, President Wilson and the First Lady drove through the rain along Pennsylvania Avenue to Capitol Hill to address Congress. "It is a fearful thing," he said, "to lead this great peaceful people into war, into the most terrible and disastrous of all wars, civilization itself seeming to be in the balance. But the right is more precious than peace."

Asking Congress for a declaration of war, he said:

To such a task we can dedicate our lives and our fortunes, everything that we are and everything that we have, with the pride of those who know that the day has come when America is privileged to spend her blood and her might for the principles that gave her birth and happiness and the peace which she has treasured. God helping her, she can do no other.

The European or Great War, now known as World War I, would affect every aspect of life in the United States, including the Federal-aid highway program that President Wilson had launched by signing the Federal Aid Road Act on July 11, 1916.

On September 1, 1916, construction had begun on California Federal Aid Road Project No. 3, which would be the first project completed under the Federal Aid Road Act. The road extended 2.55-miles from Albany at the Alameda County line to Richmond in Contra Costa County. BPR's unofficial historian Albert C. Rose wrote:

Construction began officially on September 1, 1916, and the certificate of completion

was issued by the District Engineer of the Bureau of Public Roads of the United States Department of Agriculture, on January 30, 1918. The total cost of the project, including the money allotted by the State, was \$53,938.85. [Rose, Albert C., *Historic American Roads: From Frontier Trails to Superhighways*, Crown Publishers, Inc., 1976, page 91]

(Congress, in the Department of Agriculture appropriation act for 1919 elevated OPRRE to bureau status as the Bureau of Public Roads (BPR) effective July 1, 1918.)

The program, however, faltered, partly because of defects in its conception but especially because of America's entry into World War I. The Federal Government shifted its many programs from whatever had been their peacetime goals to winning the war. From engineers to construction workers, many of those who were to implement the Federal-aid highway program went instead to the war in Europe or to support it.

At BPR, 79 of 189 men and one woman had entered the military by war's end. Four "gave their lives for their country." The FY 1919 annual report listed the four men and how they died, adding:

The bureau is honored that these men were among those who went out from its service, loyal and unafraid, when the call came to the greater service. ["War Activities – Number and Percentage of Employees in Military Service," Report of the Chief of the Bureau of Public Roads, October 15, 1919, Annual Reports of the Department of Agriculture for the Year Ended June 30, 1919, page 391]

Across the country, personnel shortages were compounded by shortages of road building material. Further, a shortage of railroad cars, already overburdened by wartime demands, made shipment of the available materials to construction projects difficult. With transportation paralysis near, the Federal Government took over the mainline steam railroads on December 26, 1917, for the duration of the war.

Meanwhile, rail shortages gave the fledgling trucking industry an opportunity to expand service to include interstate shipments. The roads that the States did not have the resources to improve deteriorated under the weight of the new loads they were carrying. Even the higher type pavements, cement concrete and brick on concrete, failed. [*America's Highways 1776-1976*, pages 90-97]

Auto racing was another casualty of the war. In December 1917, AAA's contest board, which set the rules for motor competitions, decided to cease issuing sanctions for motor contests while the war was underway. President Wilson appreciated the action, as he stated in a communication to his cousin, John A. Wilson, chairman of AAA's Military Preparedness Committee:

I am very glad indeed to learn that it is the purpose of the American Automobile Association to stop automobile racing until after the close of the war. It is so destructive of materials and involves so great a consumption of gasoline that I think every man who cares for the proper fulfillment of our duties during the war and the necessary

conservation of resources which the performance of those duties involves must applaud the action of the association in this matter.

Faithfully yours,
Woodrow Wilson

[“Ban On Auto Racing,” *The Baltimore Sun*, December 9, 1917]

D.A.R. Congress, 1917

Despite the shift to war time, the annual convention of the D.A.R. took place in Washington on April 17-22. Mrs. McCleary reported on the work of the National Old Trails Road Committee. After reporting on adding vice-chairmen to the committee, she reported:

Requests for information as to the exact route of our highway becoming more and more frequent, convinced us of the need of having maps for distribution among our State Chairman and members. Accordingly we had five hundred maps printed under the supervision of Mrs. John Van Brunt, who has always had charge of the map making of this committee This has been done with the hope that with a clearer knowledge of the historic roads to be perpetuated, we may receive greater support throughout entire society.

In the early years, “the National Old Trails Road was sign posted by stenciling on the telephone poles.” That “was the best means that could be afforded at the time,” but was “not durable.” The committee, therefore, established a subcommittee to design a permanent marker.” The subcommittee included Miss Elizabeth Gentry, former chairman of the committee as well as one of the originators of the National Old Trails Road:

The design we present today is the result of their work. It is of cast iron, one by two feet in dimension, painted red, white and blue, with the insignia of the Daughters at the top. The sign to be bolted to a T. cross section, seven feet long, to be buried two feet deep in a concrete foundation and painted white. The iron is one-fourth inch thick with border and letters raised one-eighth inch, which is sufficiently strong to withstand the attacks of small boys with rocks. The cost is about ten dollars per sign. We hope they will meet the approval of the Daughters. These signs are intended to be placed only on National Old Trails Roads. Where it does not exactly follow the original trail, other markers may be placed on the exact route.

She explained the importance of the old trails:

As a people we have been slow to realize how closely these paths hewed out by the pioneers through the trackless forests of the continent were interwoven with our history, and it remained for the Daughters of the American Revolution to arouse appreciation of these early routes of trade and war and strategic points they connected. They were the keys to the interior of the continent over which the pioneer, the missionary and the trader

journeyed westward, and they are being located and marked with tablets and monuments in every section of our country.

This work brings to light much that is of great interest in the life along the road in the pioneer days, in the later days of the stage coach and tavern life and of the mail and express systems and many interesting facts of early history that seem to have been overlooked.

Although time would not permit individual State chairman to provide their reports, Mrs. McCleary summarized some of them.

For example, Miss Anna Hollenbeck, chairman of the Ohio chapter, reported that her chapter had “completed plans for reclaiming the milestones along the Old National Pike or Cumberland Road from Bridgeport on the east to Belfast on the western boundary of the State, a distance of our three hundred miles. Many of these old milestones are almost covered with earth and some are back in the fields some distance from the main road, due to farms encroaching on the original highway. This road is a part of our ocean-to-ocean highway, and is the most historic road used today in America.”

The D.A.R. bill also came up:

In a meeting of this committee held here a year ago, we decided to present the bill for our National Old Trails Road at the next session of the U.S. Congress. This decision was embodied in our report to you and was accepted. Accordingly when Congress convened last December, we wrote our chairman of legislation, Mrs. C. L. Davis, requesting her to have our bill introduced in Congress. While waiting to hear from her, we procured the addresses of all the State presidents of the S.A.R., presidents of State Historical Societies, pioneer associations and other kindred organizations whose influence we intended to invoke in behalf of our bill. But when the chairman of legislation replied to our request, she wrote that the bill for the purchase of Monticello was already introduced and they were making every effort to secure its favorable consideration; that she considered it unwise to have another D.A.R. bill introduced at this time which might react unfavorably toward the passage of the bill for the purchase of Monticello, and that the President General fully concurred in her opinion.

But a few days later we received a letter from Hon. W. P. Borland, member of Congress from Kansas City, who had always introduced this bill for the committee and who with his knowledge of legislation felt that it should be kept before Congress stating that he had already introduced the bill and had spoken before the House in its behalf. We have placed a copy of this splendid speech of Mr. Borland's in the seat of each delegate today and hope you will take them home with you and read them. This speech describes each trail and pioneer road that goes to make up our ocean-to-ocean highway and gives a brief history of them much better than your chairman could do in the brief time that can be given to a report in our busy Congress. Having had so many requests for just the information contained in Congressman Borland's speech and feeling it could be used to

great advantage in our work we made inquiry as to its cost and found the first thousand copies would cost \$16.50, and each additional thousand \$4.88.

On January 4, 1917, Representative Borland had delivered a lengthy floor speech on the history of the National Old Trails Road. The speech summarized the history of each segment of the National Old Trails Road, as well as the Boston Post Road, the Oregon Trail, and the California cutoff. However, it began and ended with praise for the D.A.R. It began:

Mr. Chairman, there is one patriotic body which is devoting itself to the perpetuation of the great landmarks of American history – the Daughters of the American Revolution. The scope of their work is not confined to the stirring scenes and incidents of the War for American Independence, but embraces the victories, both of war and peace, by which the infant Nation gathered the fruit of its successful revolution in the conquest of the continent.

Among these achievements of the past, which have resulted in extending American civilization and American ideals from Plymouth Rock to the Golden Gate, there has been no more potent force than those historic trails or primitive highways by which the American pioneer advanced to the conquest of the wilderness. [Applause.] The interest of the Daughters of the Revolution has centered in the preservation of these historic highways, linked not by accident but by the hand of fate into a continuous route of travel from the infant settlements on the Atlantic coast to the Mississippi and into the great West.

He added of the historic roads and trails:

Their history is so deeply embedded in our national life that we can take no view of our progress as a Nation which leaves them out of account. [Applause.]

He said that he had introduced a bill in the past several sessions “which authorizes the Federal Government, after the trail has been constructed through a certain State, to reimburse the State for one-half the cost of building it and making a military highway,” noting the current bill was H.R. 4755. He presented a map of the National Old Trails Road showing the roads referenced in the speech. The map was reproduced in the *Congressional Record*.

Representative Borland concluded:

The Revolution, which made us a Nation, gave us also the opportunity for the conquest of a continent and set before us the manifest destiny which should extend the feeble and struggling fringe of settlements upon the bleak Atlantic coast across 3,000 miles of virgin territory to the wondrous South Sea and bring it all under one flag, with one civilization, one language, one literature, and one law. [Applause.]

It is to the credit of the Daughters of the American Revolution that, true to the great historic inspiration of their body, they are devoting themselves to the preservation and

perpetuation of these historic trails and that they have a right to expect to enlist the enthusiastic support of the Nation in this great purpose. [Applause.] [Agriculture Appropriation Bill, *Congressional Record – House*, January 4, 1917, pages 848-853; the map is on page 852]

Representative Borland had introduced the bill in the current session. The “Daughters of the American Revolution Old Trails Act, to provide a National ocean-to-ocean highway over the pioneer trails of the Nation,” now known as H.R. 3234. Mrs. McCleary said the bill had been referred to the Committee on Agriculture:

In an interview with Mr. Borland since coming to this city, he said the most effective aid we could give this bill would be by writing to our representatives in Congress. I urge each Daughter in this congress to do this in behalf of our National Old Trails Road. The building of this road is one of the greatest efforts ever undertaken by this Society. Each of us in gratitude to our forbears, and as a duty to our country, owes our best efforts to see that the Federal and State governments build an ocean-to-ocean highway of these trails of the pioneers whose struggles gave us the greatest heritage in the world’s history.

These roads have not come by accident, but they are the unwritten history of the growth and development of our great nation.

The present is a peculiarly fitting time for a patriotic society to actively engage in an effort for a highway across the continent. As we stand, we fear, on the very threshold of war, and our lack of preparedness sobers every thoughtful American citizen, are we not doing less than our duty if we fail to urge the building of this road as a military as well as a memorial highway. Good highways are one of a nation’s best assets in war as well as in peace. If the time should come when war must be, our trained soldiers could be transported in defense of the country secured to us by the pioneers, on a road builded [sic] on the trails they blazed with such difficulty and builded through the efforts of the Daughters of the American Revolution.

Such a road will be an object lesson in patriotism, not alone to us but to the generations who will follow and will help to inspire that love of country our ancestors possessed, and which is necessary for the perpetuity of our nation.

From a practical standpoint it is a valuable commercial asset. It is the natural highway across the continent. Traversable a greater portion of the year than any other road. This is an age of road building. The demand for an ocean-to-ocean highway is insistent and persistent. Build this road and it opens up a great territory and will give increased value to vast areas of land. Rural delivery of mail will reach thousands of homes, children will attend school over it. Farmers will market their produce, motorists will traverse it and will be amazed at the magnitude, the wealth and the beauty of our country. Any means that affords increased advantage for our citizens, that will make the boys and girls of today more intelligent, patriotic citizens of tomorrow is a wise investment for a Republic. And so we urge the Daughters of the American Revolution to interest themselves in the

National Old Trails Road as they never have before. It is too great a work to be accomplished by the committee without the support of the entire Society.

Grant this committee a sufficient appropriation to carry on the work. Make it the paramount feature of an administration and, with the support of the National Board and nearly one hundred thousand patriotic women, we can surely prevail upon our U.S. Congress to build this highway from the historic roads and trails over which the pioneers journeyed from the Atlantic to the Pacific Coast, planting American homes beside these trails and carrying the light of American civilization across the continent which they saved to our country. Build this road and generations yet unborn will rise up and call you blessed and honor the Society to which you belonged. [*Proceedings of the Twenty-Sixth Continental Congress of the National Society of the Daughters of the American Revolution, April 17-22, 1917, pages 1057-1061*]

Judge Lowe's Retirement

On June 1, 1917, Judge Lowe began a statement to the association's executive committee by recalling its origin:

This Association was organized April 17, 1912. The present officials were elected and have continually served since. The ambitious project was declared to be the permanent construction of a Trans-Continental Highway from the Atlantic to the Pacific – from Washington, D.C. to Los Angeles, California. At the time of its organization not one mile of the road was built and maintained in such manner as to be recognized as a good road, and there was not a dollar in the treasury for promotion purposes.

Since then, the association had received from all sources an average \$5,516.41 a year, “and have to show as results more than \$10,000,000 expended in the permanent construction of the road.” Every State through which the road passed had included it in its State highway system, a development that “assures its building even if no other incentive existed.” He summarized the progress:

It is practically completed from Baltimore and Washington thru the States of Maryland, Pennsylvania, West Virginia, Ohio and Indiana, and in Illinois its building is assured by a recent Act of the Legislature, providing that the State shall build it. In Missouri the legislature permitted us to suggest the adoption of the Maryland statute requiring the State to pay one-half the cost and the county thru which it runs the other half. In Kansas the Constitution prevents the State from contributing to any internal improvement, but the people with every indication of success are actively urging county and district bond measures; California has built nearly one-half the road, and the balance is provided for in State bonds already issued. Arizona, New Mexico and Colorado will finish their part within the year 1918.

He praised the sign posting work of the Automobile Club of Southern California, which had completed its work from Los Angeles to Kansas City. The association had then “signposted the

road to St. Louis, and has also contracted to finish the sign posting in the same uniform manner across Illinois and Indiana.” The work would be done by August 1, 1917. “In addition, we have expended thousands of dollars in maps, road logs, road literature, etc.”

Judge Lowe’s statement turned personal:

To myself I reckon the past years of my activities with this organization as the happiest, because the most useful, of my life – accentuated by my association with so many patriotic people devoted alike to the great National purpose of serving the common welfare of the country, with no element of self in it. This is compensation enough. It affords profound satisfaction to congratulate you on the assured fruition of all our hopes.

He recalled the 19th century leaders who had overseen the National Road to Vandalia, Illinois:

If the spirits of the mighty dead are permitted to watch over mundane affairs, how the hearts of Gallatin, Jefferson, Giles, Clay, Benton and others must thrill with pleasure over the successful accomplishment of their great undertaking. What an inspiration it is to recall the memorable Christmas Day of 1824, when Benton, the great compeer of Webster, Clay and Calhoun, sat down at Monticello to learn of Mr. Jefferson who had approved the Act establishing the National (Cumberland) Road, whether there was any precedent for extending that road on from the Missouri line to Santa Fe, the capitol [sic] of a Foreign State, and to be assured that such authority existed. On returning to Washington, backed by such high authority, he pushed the bill thru and thus established the Santa Fe Trail, as the western link in the only National and Inter-National Highway on this hemisphere. These with many other hallowed memories, spur us on with renewed energy and enthusiasm.

(Senator Thomas Hart Benton was a sponsor of legislation to advance the Santa Fe Trail. On March 3, 1825, President James Monroe signed “An Act to authorize the President of the United States to cause a road to be marked out from the western frontier of Missouri, to the confines of New Mexico” in the Republic of Mexico. The Act authorized the President to appoint commissioners to mark the road provided that they first “obtain the consent of the intervening tribes of Indians, by treaty, to the marking of the said road, and to the unmolested use thereof to the citizens of the United States, and the Mexican Republic.” The President also was authorized to cause the marking of the road, subject to “such regulations as may be agreed upon for that purpose between the executive of the United States, and the Mexican government.” For these purposes, the Act appropriated \$10,000 for surveying and marking the road and \$20,000 “to defray the expenses of treating with the Indians, for their consent to the establishment and use thereof.” The commissioners completed the survey from Missouri to Taos, New Mexico, between July 1825 and the summer of 1827. By then, however, traders had already found their own path, ending in Santa Fe instead of Taos.)

The “most righteous war” the United States was in “will but add impetus to the great internal development of the country”:

The permanent enhancement of values by reason thereof will go far toward offsetting the ravages and necessary wastes of war. And when it is over, and the Divine right of all the people everywhere to enjoy life, liberty and the pursuit of happiness, in a Government of their own selection is fully realized, established and guaranteed, then the people can sit down in absolute security under their own vine and fig tree, and rest content in “a house built by the side of the road.”

He praised the D.A.R., personally and in the name of the association, “for their untiring zeal and inspirational influence by monumenting and thus preserving the many historic features of the National Old Trails Road.”

The 72-year old Judge Lowe concluded with an unexpected announcement:

And now I regretfully must say that the impairment of my health admonishes me that I must retire from the position your partiality has so long bestowed, just as the "promised land" is so obviously and clearly in sight. I do so more cheerfully, however, because I know that nothing done or not done can prevent nor long delay the completion of this great memorial highway. To every member of this association I tender my thanks coupled with words of highest appreciation. The interests of the association could not be left in better hands than in those to whom it is now committed, and I urge for them your united and loyal support.

J. M. Lowe, President
 NATIONAL OLD TRAILS ROAD ASSOCIATION
 322 Railway Exchange
 Kansas City, MO. June 1, 1917

Judge Lowe included a brief financial statement covering the years since the association’s inception:

YEAR	RECEIPTS	DISBURSEMENTS	BALANCE AT CONVENTION
1912-1913	\$8,204.80	\$6,604.80	\$1,600.00
1913-1914	\$7,240.55	\$7,336.26	\$1,504.29
1914-1915	\$3,140.14	\$4,602.16	\$ 42.27
1915-1916	\$8,076.60	\$4,801.70	\$3,317.17
<u>1916-1917*</u>	<u>\$ 920.00</u>	<u>\$2,897.34</u>	
	\$27,582.09	\$26,242.26	\$1,339.83

*Covers the period from September 30, 1916 to June 1, 1917.

[National Archives at College Park, Maryland; “Judge J. M. Lowe Retires,” *Better Roads and Streets*, July 1917, pages 309, 328]

With the annual convention ready to assemble in Pueblo, Colorado, the Automobile Club of

Southern California issued a press release dated August 3 from Los Angeles:

Transcontinental touring was never so popular as it is to-day. There is a rapidly-growing tendency to get away from the old-time fad of crossing from ocean to ocean by Pullman, this being the day of the "motor way." A short time ago the Automobile Club of Southern California, to prove this fact, stationed a counter at the bridge at Topock, Ariz., over which all motorists making the trip in either direction over the National Old Trails highway are compelled to pass. According to this counter there are at this time twenty-five transcontinental motor parties starting from western for eastern point every day, while during the same period of time more than forty parties of eastern motorists are starting for California.

This being true, it would seem natural to believe that there are hundreds of residents of the east who have decided upon or are contemplating a trip to western points over this particular trail during the coming weeks and months. To these motorists the club has a message, this being in the form of a list of the prices that are being charged for gasoline at the various points along the route, as follows

City	Cost per gallon, cents
Kansas City	20
McPherson	22
Lamar	27
La Junta	27
Trinidad	26
Albuquerque	30
Magdalene	35
Datil	45
Quaemadeo	50
St. Johns	40
Springerville	45
Holbrook	30
Flagstaff	35
Williams	35
Ashfork	30
Kingman	30
Topock	30
Needles	30
Barstow	25
San Bernardino	22

["Price of Gas on National Old Trails," *Motor Age*, August 9, 1917, page 27]

Convention, 1917

On June 14, 1917, *The Herrington Times* reported the news about Judge Lowe's

retirement:

Dr. W. H. Mott was in Kansas City Saturday evening [June 9] attending a meeting of the executive committee of the National Old Trail Association [sic] of which he is a member. Other members of the committee present were: F. N. Hopkins of Lexington, Missouri, Frank A. Davis and Judge J. M. Lowe of Kansas City.

Judge Lowe who has been president of the Association since its inception five years ago, resigned at this meeting because of impaired health. The office devolves on R. A. Long who has been acting general vice-president.

The annual meeting of the Old Trail Association will be held about the middle of August, probably at Pueblo

Of Judge Lowe's resignation, the Kansas City Star of Sunday says:

Judge Lowe has fathered the National Old Trails Road since its inception, five years ago. In both the East and the West he is a national figure and is given credit for building one-third of the road that is already hard surfaced, giving his time free to the big movement for an ocean-to-ocean highway.

At the time of the organization of the road not one mile of road was built and maintained in such manner as to be recognized as a good road. There was not a dollar in the treasury for promotion purposes. In the five years Mr. Lowe has headed the work the Atlantic to Pacific Highway has been completed practically from Baltimore and Washington through Maryland, Pennsylvania, West Virginia, Ohio and Indiana. In Illinois its construction is assured. Every state through which the road runs has adopted it as part of its state highway system, which assures its construction, in absence of any other incentive.

Sign posts of enameled steel have been placed along the road from Los Angeles to St. Louis. The association has contracted for completion of the work in the same uniform manner across Illinois and Indiana by August 1. In addition, thousands of dollars have been expended in maps, road logs and road literature. ["Judge J. M. Lowe Resigns," *The Herrington Times*, June 14, 1917, page 7]

With Judge Lowe's retirement, one of the first orders of business for the association's convention on August 16-17 in Pueblo would be to elect a successor to what *Motor Age* called "the godfather, nurse and sponsor of the National Old Trails Association." Although the association had received only an average of \$5,516.41 a year for its operations, the organization's work had resulted in "more than \$10,000,000 expended in the permanent construction of the road." ["N.O.T. Boosters to Meet," *Motor Age*, June 28, 1917, page 10]

Touring Topics described him:

Since the organization of the National Old Trails Road Association in 1912, Judge J. M.

Lowe of Kansas City has served as president of the organization. He is known as president of the organization. He is known from the Atlantic to the Pacific for his unceasing work and his untiring efforts to bring about the building of the Old Trails Road from Coast to Coast. Much has been done under his guidance and the successful completion of this historic road is now in sight. [“Auto Club Officials Attend Old Trails Convention,” *Touring Topics*, August 1917, page 8]

In addressing the convention, he began:

When this association was organized it had scarcely a fairly good, permanent, one-mile stretch of road anywhere between the two oceans. It is to-day one of the most thoroughly well-built roads extending from Baltimore, in Maryland, entirely across the states of Maryland, Pennsylvania, West Virginia and Ohio (except about fifteen miles, which is tied up in court), and part of the way across Indiana. Indeed, the road all the way across Indiana is built of gravel, principally, and is better than the average road, but it is far from being ideal, and the highway board of that state has agreed to appropriate state money and pay for one-half the cost of construction if the counties through which it runs will provide the other half, and they have accepted this proposition, and the road will be speedily finished across that state.

The state highway board of Illinois has offered to pay two-thirds of the cost of completing the road across that state, and the counties through which it runs have agreed to pay the other third. So this will make it a completely hard-surfaced road from the Atlantic to the Mississippi.

The state highway board of Missouri pledges state and federal aid to pay one-half the cost of construction across this state, one-third of which has already been constructed. The counties through which the road runs will meet in coöperative convention at Columbia on the 6th of October to say whether or not they will accept this proposition, and there is no question as to what the result will be. This will bring the project up to the front door of Kansas.

Judge Lowe’s prediction proved correct. The November 1917 issue of *The Road-Maker* reported:

A meeting held in Columbia, Mo., on October 6 attended by over 300 delegates from counties traversed by the National Old Trails road from St. Louis to Kansas City, has resulted in a general movement all along the lines to hard-surface this important cross-state highway. Six of the counties through this road passes are located north of the Missouri river.

The state highway department is gratified to note this activity north of the river, since this section of the state has been somewhat slow to take advantage of the state and federal aid to which all counties are entitled as soon as they qualify by providing one-half the cost of constructing the state roads. [“Activity North of Missouri River,” *The Road-Maker*,

November 1917, page 51]

As for Kansas, Judge Lowe recalled the history of the Santa Fe Trail across the State, citing the role of Senator Thomas Hart Benton and his meeting with former President Jefferson. Judge Lowe said he had visited the National Archives in Washington and found the survey that Senator Benton had displayed in support of his bill to extend the Cumberland Road to Santa Fe, New Mexico. Judge Lowe had a photostatic copy of the survey in the association's headquarters:

Thus it came about that the National Old Trails Road, approved by Mr. Jefferson in 1806, was extended after being approved by Mr. Jefferson again, became an established national and international highway, extending from ocean to ocean.

He concluded:

There is no other road, either in or out of America, around which so much political, educational, commercial and military interest lingers as around this old road. Its full completion is now well assured. Already it is burdened with a greater amount of traffic than any road in the United States; already it is better advertised and better known than any other road in America. It is only here, in the great central West, where the people, it seems, have failed to appreciate the great good fortune which has come to them in the establishment of this road, where its construction seems to be slow of development. Both east of the great valley of the Mississippi, and west of it, the road is much more nearly completed, and is in better condition to-day than it is through this district. This is a shame, almost approaching a disgrace. But the lethargy hitherto existing in this regard is shaken off, and there is no question but what in the very near future it will be the great military and commercial highway about which Jefferson and Benton and their compeers dreamed; about which Clay devoted so large a part of his life, and over which the sturdy pioneers of a splendid people came to the mighty West and laid down their lives in its development and consecration. ["The National Old Trails Road," *Kansas Highways*, October 1917, page 9]

Although Judge Lowe had announced his retirement, the National Old Trails Road Association elected him president during the annual convention in Pueblo, and he would continue to serve energetically. Frank A. Davis, who had been with the association from the start, was elected Secretary-Treasurer.)

During the convention, Colorado delegates established a building committee consisting of one member from Bent, Huerfano, Las Animas, Otero, Prowers, and Pueblo Counties. They were "instructed to bring about with all possible speed the hard-surfacing of Colorado's 250 miles of the Santa Fe trail across those six counties and to co-operate with like committees from other states toward making this year-round road a paved highway from coast to coast."

The section of the road in Kansas had been concern for the association, but the importance of

improving the State's segment of the National Old Trails Road was illustrated:

Paving in Kansas received extra urging because several delegates got marooned in that state in heavy rains and missed the convention. Altogether, sixty delegates were reported unable to reach Pueblo in time on account of muddy roads at different points along the route, and this situation was employed overtime as an argument for paved roads for military emergencies and all other highway purposes.

Several committees reported on their work, including:

Favorable committee reports were made upon requests from the San Luis valley and Colorado Springs that the Spanish trail westward from Walsenburg through La Veta Pass, Alamosa, etc., be added to the National Old Trails system and that the Colorado Springs-Pueblo road be declared a branch of the Santa Fe trail. Final action by the convention was postponed, to depend upon interest shown by the local people interested in the further improvement of these roads. ["Hard Roads Are Urged," *Motor Age*, August 23, 1917, page 15]

Memorial for Jesse Taylor

During the Pueblo convention, the National Old Trails Association recognized the death of Jesse Taylor of Ohio, "one of its truest and staunchest charter members" of the organization. Taylor, who had attended the association's founding convention, was the founder and editor of *Better Roads/Better Roads and Streets*, which the first convention adopted as its official organ. Taylor, born in Green County, Ohio, devoted much of his later life to the good roads cause. He died on December 7, 1916, age 53, in Jamestown, Ohio, where the magazine was published.

During the 1912 convention, he had been introduced as secretary of the Ohio Good Roads Federation and as "the livest wire in Ohio on the subject of good roads." During the discussion of the Old versus New Santa Fe Trail, Taylor had explained his familiarity with the route:

I am happy to say that the Santa Fe Trail is not new to me, for twenty-six years ago this month when running from tuberculosis, upon the advice of a physician, I chased myself from where I now live to the southwestern corner of the state of Kansas, and there I was the companion day and night of the cowboy, the coyote, the prairie dog and the owl for two years and a half, until I returned to Ohio and there found a wife who is with me today After my experience in Southwestern Kansas for two years and a half, living fifty-two miles from a railroad, I spent four years in Garden City, Kansas, and at the beginning of the second administration of President Cleveland, by the invitation of Grover, I returned to the place whence I came, and there I have been ever since. [*Proceedings of First National Old Trails Road Convention*, April 17, 1912, page 23]

The association's resolution stated that, "Ohio has lost one of her most valuable citizens, and the cause of good roads everywhere, a pioneer advocate of good roads everywhere, a pioneer advocate of ability and genuine worth, known and loved throughout the length and breadth of

United States.”

Judge Lowe recalled his friend:

I met him first the day this association was organized. From that time to the day of his death he was my friend – and I was his. In all the crises of this association I leaned upon him most heavily, and found him ever staunch and steadfast, true as the needle to the pole; wise, cheerful and helpful in every time of need. Few – indeed I recall none – whose clarion voice and trenchant pen did more for this great cause than he. He was an unselfish friend, both personally and of the National Old Trails Road. He did not live beside it, nor did it run through his town or country, but when he saw the notice of a convention called to organize this association, five hundred miles beyond the limits of his own state, he attended at his own expense, and there became a charter member. True, noble, steadfast friend and patriotic citizen, hail and farewell!

If immortal spirits are permitted to take cognizance of mundane affairs then Jesse Taylor, in his home in the skies, looks down today upon this convention and bids us God-speed.

We shall miss, as all those who strive for the common good shall miss, the inspiring and masterful influence he so constantly exercised. When the angry clouds of opposition seemed ready to burst and destroy all our hopes for governmental aid – when the real friends and time-tried champions of good roads were maligned and blackguarded on the floor of the House of Representatives at Washington by the spokesman for that pestilential brood of pork barrel, pot-house politicians, who always hover around the national treasury, then Jesse Taylor stood, as he always stood, for clean, honest and efficient application of the national and state finances as now written in the national statutes, and especially as interpreted by the great Secretary of Agriculture in President Wilson’s cabinet. The pork barrel instinct is probably the most deep-seated in the congressional psychology; even America’s greatest international crisis, at a time when the very life of the nation is at stake, has not succeeded in stifling it.

If Jesse Taylor could speak to us today he would urge us to go forward in this great work, and never to trail the banner of the National Old Trails Road Association in the dirt and mire of disreputable politics, nor yet to smirch its clean folds in the slime of polluted commercialism. He would urge us, as I do now, never to pull down that banner, nor abandon our high purpose, until the National Old Trails Road is completely rebuilt, rehabilitated and rededicated from ocean to ocean to our pioneer ancestry who conceived and dedicated it to the holy purpose of “cementing the states and thus preserving the union.”

And let us, too, dedicate it to remotest posterity, as the strongest cable which can bind the Atlantic to the Pacific, and thus preserve the solidarity of the republic. In the last visit I made him, when he knew his sun was fast sinking to its final setting, he joyously recalled our many campaigns together, and spoke most hopefully of the future which awaited him “just over the hill.”

On the death of such a man even the great agnostic was forced to exclaim "Hope sees a star and listening love hears the rustle of a wing." Peace to his ashes, and peace to the great soul which throbbed and thrilled with the fine purposes of live to the very end." [National Archives at College Park, Maryland; "Resolution Commemorative of Mr. Jesse Taylor, Vice-President, National Old Trails Road Association, *Better Roads and Streets*, October 1917, page 453]

Judge Lowe contributed a memorial to *Better Roads and Streets*, where some of his convention memorial originated. In the magazine, he said:

Ohio will never know, nor the people of the Nation understand, what a mighty force he was for material and substantial betterments. The women and children alone, and especially those who lived, as he expressed it "on the back end of a mud road," could well afford to build him a monument of everlasting granite, and dedicate it with the prayers and tears of a grateful people.

The writer of this leaned most heavily upon him, and now realizes not only his own great personal loss, but that the country has sustained a national calamity as well. At such an hour human strength fails utterly, and we appeal instinctively to a Higher Power. Immortality needs no extraneous evidence to convince those who knew Jesse Taylor. Such a spirit as his proves its own right to live forever. The world is impoverished and heaven enriched by the translation of this noble soul, splendid citizen, and steadfast friend of humanity. [Lowe, Judge J. M., "Jesse Taylor," *Better Roads and Streets*, January 1917, page 27]

On the same page, Joseph Hyde Pratt, secretary of the North Carolina State Highway Commission, recalled:

Jesse Taylor was not a road engineer, or a road contractor, but the annals of the road movement in the United States have no mention of any one whose influence in the cause of good roads was greater or whose sympathy for this cause was more profound than his. As President, Secretary, and Director of the Ohio Good Roads Federation, he worked for a system of good roads in his State, Ohio, and the splendid results that are now being obtained in that State are due largely to the persistent and untiring endeavor of this man. The people of other States realized his remarkable ability, and he was constantly being called on to assist the road work in other States. In a short time he became a National figure in the road movement, and was connected with many of the National road associations.

He was Director of the American Association for Highway Improvement and Director General of the National Highways Association. As Director General of the latter association, Mr. Taylor visited a large proportion of the States of this country, making good roads addresses, and assisting in the organization of associations, which should carry on the good roads cause in their respective States. I believe it is due largely to his

influence that the cause of good roads has received such a tremendous impetus in many of the Middle West and Western States.

In order to have a still wider field for this good roads work, he organized and built up the road magazine known as "Better Roads and Street," and he not only made it a success, but has made it equal to the best good roads magazine that is published to-day.

It was through the cause of good roads that I became personally acquainted with Mr. Taylor and had the pleasure of knowing him intimately for several years. His enthusiasm and confidence in the ultimate success of the good roads cause was an incentive to me to take hold as never before the road work in the South, and I always found Mr. Taylor reading and willing to assist us in every way he possibly could. Tennessee, North Carolina, Kentucky, West Virginia, Florida, Texas, and other Southern States owe a debt of gratitude to this man for the interest that he took in their road work and the endeavors he made to assist them. [Pratt, Joseph Hyde, "Hon. Jesse Taylor – An Appreciation," *Better Roads and Streets*, January 1917, page 27]

On that same page, the magazine explained that since its founding, *Better Roads and Streets* had maintained a neutral policy. "Not controlled by any material or machinery interests, it has always been the policy of the publishers to be fair in their dealing with the several types of road and street construction":

Since the death of the founder, Mr. Jesse Taylor, through which BETTER ROADS AND STREETS has suffered a great loss, many inquiries are being received as to the future policy of the publication. To all those who are interested in BETTER ROADS AND STREETS, and its future stand in the road and street movement, we wish to say that the publication is being continued under the same management and no change whatever is being made in its proven neutral policy. ["Our Policy," *Better Roads and Streets*, January 1917, page 27]

A memorial in *Rock Products and Building Materials* recalled Jesse Taylor:

Personally Mr. Taylor was a charming companion. Sociable and kindly and generous, he was also an enthusiast and optimist. A man of means at one time, he cared nothing for money further than knowing that good roads could be built with money. If he possessed all the wealth of the world, he would have used it in paving highways.

The funeral was held at his home Dec. 9. ["Gave His Life to Good Roads," *Rock Products and Building Materials*, January 7, 1917, page 27]

The Marginal Military Highway

The proliferation of named trails continued in 1917, with the King of Trails Association forming with headquarters in Kansas City, Missouri, following 2 years of debate. The King of Trails ran from Winnipeg, Canada, to Galveston, Texas. The association's general manager was Frank A.

Davis, secretary of the National Old Trails Road Association. The purpose of the general office was “to perfect the large national organization and instill in the several communities the belief that this highway serves a unity of purpose,” as explained in *The Road-Maker*. [“Echoes from the Associations,” *The Road-Maker*, June 1917, pages 34, 36]

The Road-Maker summarized the association’s “largest and most enthusiastic convention” in Kansas City on July 12. Six hundred delegates attended from the communities along the 2,000-mile long road. The convention settled several routing disputes. Delegates were to return home and “enter upon a campaign in their respective counties to secure extensive improvements along the route”:

The returning delegates are very enthusiastic over the work of the convention, and will enter upon a campaign in their respective counties to secure extensive improvements along the route. An effort will be made to have part of the federal and state aid funds expended along this trail. [“King of Trails Convention,” *The Road-Maker*, August 1917, page 49]

Reporting on the convention, *American Motorist* explained that the new road “promises to be a strong contender for international highway honors”:

The route adopted by the constitution of the organization extends from Winnipeg, Canada, to the City of Mexico via Minnesota, South Dakota, Iowa, Nebraska, Kansas Oklahoma and Texas.

The general alignment of the road has been handled to locate it along natural lines of travel with the sole purpose of linking together centers of population along the shortest and best route. It connects 89 cities of more than 1,000 population each and has on its route nine military posts. [“New International Road,” *American Motorist*, August 1917, page 40]

Around the same time, advocates organized the New Santa Fe Trail Improvement Association at Emporia, Kansas. The object was “to promote the building of 365-day roads from Edgerton to Kinsley, passing through Emporia, Newton and Hutchinson.” The association would raise funds to hire a business manager who would devote his “entire time to the interests of this 200 miles of highway”:

While the old Santa Fe trail has a pretty good start, the officers and directors of the New Santa Fe Trail association expect to push the proposition as hard as possible and to win in the big race for the completion of the road.

The association designated O. M. Wilhite of Emporia as president. [“Echoes from the Associations,” *The Road-Maker*, June 1917, pages 36, 38]

An organization to promote the Pike’s Peak Ocean to Ocean Highway had been completed at a meeting on March 18, 1914, at a meeting in St. Joseph, Missouri. The goal was a highway from

New York City to San Francisco, termini already chosen by the Lincoln Highway Association. The new association chose a route to the south of the Lincoln Highway via Philadelphia, Pennsylvania; Baltimore, Maryland; Washington, D.C.; Cumberland, Maryland to Indianapolis, Indiana; Springfield, Illinois; Hannibal, Missouri; St. Joseph and Belleville, Kansas; Colorado Springs and Glenwood Springs, Colorado; Salt Lake City, Utah; Reno, Nevada; and Sacramento and Oakland, to San Francisco.

As was the case with many of the named trails, this new proposed transcontinental road followed the existing main roads in many locations. East of Illinois, a co-operative arrangement has been made with the National Old Trails Association to Washington and New York. West of Salt Lake City the route is not finally determined but temporarily the line of the national Lincoln Highway is to be used. [*Better Roads and Streets*, May 1914, page 66, 68]

Nearly 3 years later, *Motor Age* stated:

It is unfortunate that any transcontinental highway should, even in places, overlap other transcontinental trails, for the one which was first to get a name, usually gets the support. That is the case with the Pike's Peak east of Indianapolis, where it is the same as the National Old Trails for several hundred miles. Naturally the Pike's Peak organization cannot hope to get much support from the people along that part of the road; people look upon it too much as double taxation, which never meets with favor. This puts a bigger burden on the section to the west in Indiana in supporting the organization. [Gibbs, William K., "Pike's Peak Highway Workers Promise Greater Activity," *Motor Age*, February 22, 1917, pages 22-24]

The highway would eventually be shifted along an alignment to the north from Philadelphia.

Each of the named trails had advocates for its development, but one of the focuses of the Good Roads Movement during this period was legislation calling for a Military Marginal Highway. The bill grew out of a committee of representatives of national organizations, including:

- John A. Wilson, a vice president of AAA, chairman of its Military Preparedness Committee, a cousin of President Wilson, and a frequent visitor to the White House;
- George P. Coleman, commissioner of the Virginia State Highway Commission and president of AASHO;
- Samuel Hill, president of the Pacific Highway Association;
- John Craft, commissioner of the Alabama Highway Department.

The committee asked the following to draft a preliminary bill:

- George C. Diehl, chairman of AAA's Good Roads Committee;
- Henry G. Shirley, chief engineer of the Maryland State Road Commission and executive chairman of AASHO;
- Osborne I. Yellott, a Baltimore attorney who chaired AAA's legislative board.

With a preliminary version in hand, the committee consulted with Senator George E. Chamberlain of Oregon, chairman of the Committee on Military Affairs. He made some slight changes before agreeing to introduce the measure. He talked with Senator Bankhead, chairman of the Committee on Post Offices and Post Roads, who also supported the idea.

On June 18, 1917, Senator Chamberlain introduced the Military Marginal Highway bill, S. 2470. The bill directed the Chief of Engineers of the Department of War to prepare a “comprehensive plan of improved highways throughout the United States, designed primarily with a view to facilitating the movement of military troops, equipment, munitions, and supplies, in time of peace and in time of war, but at the same time, so far as reasonably compatible with said primary purposes, with a further view to accommodating the Postal Service, facilitating interstate and foreign commerce, aiding agriculture and manufacturing pursuits, and promoting the general welfare of the people of the United States”:

To these ends the Secretary of War shall confer with the authorities having in charge the construction of roads in the several States, and in such conferences shall disclose, so far as reasonably practicable, the outlines of his plans for roads designed for military purposes, to the end that unnecessary duplication of roads may be avoided, and that roads constructed for other than military purposes may be in strategic locations wherever reasonably possible.

The Secretary of War would determine the schedule for building segments of the proposed highway, “but the order of such completion shall be substantially as follows”:

First, A plan or plans for a continuous main national highway, to be constructed and maintained at the national expense along or near the Atlantic seaboard; thence along or near the southernmost boundaries of the United States and thence along or near the Pacific coast to a point at or near the Canadian line, with a further view to such marginal highway being extended ultimately along the Canadian boundary of the United States.

Second, A supplement plan or plans for important main radial roads in the several States intersecting said marginal highways at points and of locations and routes best calculated to serve military requirements; said main highways being such as have heretofore been constructed by the States, or as may hereafter be constructed by them either independently or with Federal aid if the Congress of the United States shall so determine upon the recommendation of the Secretary of War.

Third, A plan or plans for any other classes of highways which, in the judgment of the Secretary of War, are reasonably necessary.

After completing the plan or any portion of it, the Secretary of War shall report to Congress, explaining “recommended methods and means suitable for the construction and maintenance of said highways, and present estimates of the cost of such construction and maintenance.”

The bill authorized \$250,000 “for the purposes of defraying expenses pertaining to the

preparation of the plans and reports,” with the funds coming from the general Treasury “not otherwise appropriated.”

[“Military Highway Measure Introduced in U.S. Senate,” *Touring Topics*, July 1917, page 11; “Military Highway Bill Now Before the Senate,” *San Jose Mercury News*, June 24, 1917, page 19]

The Automobile Journal discussed the proposal shortly after Senator Chamberlain introduced the bill. At the top of the first page of the article was a map showing the general line of the proposed road, with sketches of military vehicles and marching soldiers along the entire line. The article began:

Within the protecting loop of a Marginal Military Highway, such as is now proposed to Congress, with the sanction of the American Automobile Association and other large and influential bodies, is located one of the largest, without a doubt the busiest and richest nation on earth. Of all the road proposals, which are legion, the marginal road appeals to the sober sense of the American people. It has interests to defend which stagger the mind to enfold.

For within the loop of the proposed marginal highway that may some day be built around Uncle Sam’s door yard, there are 100,000,000 people, owners of, custodians of and users of billions of dollars in money and property. A million dollars is a staggering amount of money; a billion dollars is a thousand million dollars, but the era is at hand when one must get accustomed to thinking in billions.

After discussing the unique strengths of each region of country the 12,000-mile highway would pass through, the article continued:

Put a military highway around all this. That is the proposition of the bill introduced by Senator Chamberlain. Nature gives us abundance to surround and protect. Most wonderful of all countries on earth is the United States. Back of man’s manufactures, back of human activity, the thing that makes the United States the marvel of the world, the banker of the universe, the hope of the Allies, the victor in the great war, the one country of all countries worth living in, is the abundance that nature has poured into our laps

A survey of the present situation is immediately convincing that the automobile is a necessary part of the present plan to increase production to the highest possible degree. Through many years the automobile has been advancing to take its place as a necessary mode of transportation and an effective means of arriving at quick results in the food production program The public is pertinacious in its opinion that the automobile is an essential element in the transportation system of modern life. Events of the past two years and every passing day confirms this idea. The railroads have failed more than once in the movement of necessities, and now, with war on the government’s hands, the burden on them is even greater. There is little use stopping to consider the things that

have brought about this condition. It is a staring fact which confronts the nation, and letting the railroads work their way as best they may, they place their dependence on the motor cars – light and heavy – to move what must be moved anywhere and any place. Motor touring is increasing as the season advances through the simple fact that the means of locomotion within the control of the traveler is capable of reliance. The automobile takes the owner where he wants to go, when he wants to go and with all that variety of detour which whim or fancy may dictate at any time or place. Good roads is all the motorist asks.

The Military Marginal Highway would give “greater impetus” to road building around the country than would be likely “under normal requirements and conditions.” After describing the contents of the bill, including the radials that would intersect it, the article continued:

On the marginal highway, however, the officials will keep in mind the fact that for military usages the roads will have to be of specially heavy and solid construction to stand the strain and abuse occasioned by the passage of long trains of heavily laden motor trucks and tractors pulling enormous field pieces, weighing up to 100 tons or more.

With the motor car and tractor rapidly succeeding the horse and mule as a means of transportation and locomotion in the army, the question of good roads assumes a position of premier importance and it is believed that it will take but little persuasion to make Congress take this view of the matter when it comes to a vote.

When our great army is trained and mobilized in France it will be a wonderfully effective unit, as the roads throughout that country are of the most perfect type, particularly in the various theatres of war. So an excellent road system will be needed to hold up its efficiency when the national army is mobilized here.

The United States with this marginal highway constructed, and a comprehensive system of intersecting roads leading into it at many points, when taken in conjunction with the several million automobiles at the government’s disposal and the fleet of 100,000 aeroplanes that is proposed, would be the most powerful nation in all the world from a defensive viewpoint. It would place the country for all time – if maintained – in an invulnerable position in so far as any other nation is at present prepared. The construction of this road by army engineers while the national army is in course of formation would be a good outlet for the constructive activities of thousands of men drilling for war. [“The Big Path for Freedom’s Defenders,” *The Automobile Journal*, June 25, 1917, pages 12-16]

As Dr. H. M. Rowe, president of AAA, discussed the importance of national highways in the October 1917 issue of *The Road Maker*:

The importance of highways that will permit of the free and expeditious movement of people and commodities through every part of the country is now fully admitted. There should be some half-dozen great trunk lines across the states east and west and a similar

number north and south.

For some time I have felt that the Federal Government should build a great national highway encircling the entire country, and the recent war requirements has brought that idea prominently before the people. Such a highway should begin on our northern boundary, extending the entire length of the Atlantic Coast; then along the southern border to the Pacific Ocean; then along the Pacific Coast to the Canadian Border, and – if need be – continued along that border until it connects with the starting point.

This should be a great military highway, flanked for its entire length by a series of fortifications which with an adequate naval equipment would make this country practically impregnable to invasion.

The economic value of such a national highway in times of peace would justify and pay for its cost many times over. The peculiar location of the United States makes it possible to have a unique national highway. To nationalize it, the road at its principal points might be named after our great men.

Rowe also envisioned interior roads “running off this this great boundary highway”:

Such a road should be built, controlled, and maintained by the Federal Government. This has been a dream of mine which I hope will come true. [“The Need for National Highways,” *The Road-Maker*, October 1917, page 56]

The advocates for national roads would promote the border highway and other proposed military roads throughout the war, but without success in Congress.

Under the Victory Arch to Everywhere

In mid-1917, *The Automobile Journal* featured a travel issue containing descriptions of several named trails. First up was the National Old Trails. The article began:

National Old Trails Under the Victory Arch to Everywhere

From all angles of interest the National Old Trails Road, an ocean to ocean highway, enjoys great popularity among tourists. The main route of this transcontinental highway has termini at Washington, Baltimore and Los Angeles. The section westward, as far as the Ohio river, is the oldest and most historic thoroughfare in the United States and should be of great delight to every American, as it passes through places identified by historic events in our country’s history which should serve to stimulate a strong patriotic sentiment. A tour along this highway takes the motorist through the heart of the country, from ocean to ocean, if he makes the complete itinerary, and leading by diversions, almost anywhere.

The article discussed the history of each segment, beginning with:

From Baltimore to Washington, a distance of about 39 miles, the route is over the road once known as the “Washington Road,” which was traveled by the stage coaches in the colonial days.

Leaving Washington via Wisconsin Avenue to the District line on the way to Frederick, travelers will come upon “one place of particular interest to every motorist.” The motorist will find a “section of road . . . to Rockville, which is maintained by the government as an experimental highway for determining the qualities of different kinds of surfacing. The different kinds of materials used in the various sections are designated by signs placed along the roadway.”

(BPR had initiated the Connecticut Avenue Experimental Road in 1911 between Chevy Chase Circle and Chevy Chase lake in Montgomery County. During 1911, 1912, and 1913, BPR had built numerous segments of pavement, including bituminous penetration macadam, surface-treated macadam, Portland cement concrete, and brick wearing surfaces on Portland cement pavements and asphaltic concrete and brick wearing surfaces on Portland cement concrete bases. As explained in a 1928 report, BPR maintained the road, which had been subjected to heavy traffic. Over the years, BPR kept careful records on maintenance costs and the behavior of each section. BPR published the results of this unique experiment in its research journal. [Division of Tests, “Report on Connecticut Avenue Experimental Road,” *Public Roads*, May 1928, pages 49-69])

After discussing the historic sites in Frederick, the article continued:

On the road from Frederick to Braddock Heights the mountains come into view for the first time and very soon the ascent of Catoctin mountain begins. In less than two miles the road rises about 460 feet between Braddock Village and Braddock Heights. From the latter elevation a beautiful view of all the surrounding country may be obtained, particularly South Mountain battlefields and the War Correspondents memorial arch.

(The 50-foot tall arch-shaped memorial was built by a Civil War correspondent, George “Gath” Townsend, and dedicated on October 16, 1896, to honor journalists killed during the war. The National Park Service now controls the memorial.)

From Middletown, “the road rises precipitately again.” Going toward Cumberland, the road “ascends a grade coming in view of Conococheague creek, which winds around in the valley with short turns. A view may also be obtained from here of the mountains in the distance, which appear so formidable that the tourist doubts whether it is possible to ascend them.”

The road runs along the Chesapeake and Ohio Canal for about 10 miles to Hancock, “where it turns northward across the mountains.” From Hancock to Cumberland, about 40 miles, “is the most picturesque part of the entire trip”:

While the road winds around like a path in a maze and goes up and down the most

precipitous grades of any well traveled thoroughfare in the country, it is easily followed. Out of Hancock the route leads up and over Tonoloway ridge, and further on over Sideling hill, where there is an ascent of 760 feet in a mile and a half. Down the other side of this range there is a descent of 495 feet in one mile.

The roads through this section are curved and contain many short turns, consequently, the motorist should drive very carefully, as while no danger exists to the machine that is under control, fast or reckless driving would be very foolish.

The west slope of Green Ridge was “the next high elevation on the road.”

After driving through Gilpin and Flintstone, a few miles would bring the motorist to “the ascent of Martin mountain . . . during which a rise of 535 feet in little over a mile is made to the summit, 1720 feet above sea level. Down the west slope the road leads through the valley into Cumberland on the Potomac river, the centre of transportation of that section”:

From Cumberland to Wheeling the distance is about the same as that traveled on the previous day and the route leads through the section which became prominent historically during the French and Indian war. This section was entirely constructed at the expense of the government. As far as Uniontown, which is half way to Wheeling, the road continues through the mountainous country, attaining much higher altitudes, however, the elevation at the summit of Big Savage mountain being 2880 feet and at Meadow mountain 2792 feet The remainder of the road into Uniontown is through a heavily wooded section.

The next city beyond Uniontown is Brownsville then Washington, “which is the nearest point on the National road to Pittsburg [sic].”

Between Washington and Wheeling, the road “is mostly down hill and crosses the panhandle of West Virginia into the valley of the Ohio river”:

Here the Ohio river is crossed into Ohio. There is now an unbroken stretch of brick paving 16 feet wide through Zanesville to Columbus.

From Columbus to the Indiana state line, on the old National road, there is much brick paving, and from there on to St. Louis rough dirt roads, about the worst of the trip, are encountered.

The author encountered “excellent roads through the wonderful Kansas wheat fields” before crossing the State line between Coolidge, Kansas, and Holly, Colorado. “The route crosses the Arkansas river at La Junta and shortly crosses the New Mexico line to Raton, to which it goes down through the Raton pass.”

Entering New Mexico, the motorist “breaks into the real land of enchantment”:

The nondescript is present on every hand and the further into this maze of marvels the

traveler goes the more the unexpected becomes the expected.

In Arizona, the motorist passed through the Petrified Forest, “one of the chief marvels of the world.” Several forests follow before the motorist reaches Flagstaff, where the motorist can take the road, 79 miles long, to Grand View Point at the Grand Canyon:

The greatest minds of the world, upon first viewing this wonderful country, were at loss for words [sic] in which to describe their impressions. The mountains and huge embattlements, seem to speak from a long gone past.

The road from the Grand Canyon returned the motorist to the National Old Trails Road at Williams. The article quickly concluded the trip:

Across the Mojave desert, once a great graveyard for travelers and their animals, a fine modern road, costing \$10,000 to \$15,000 a mile has been built. It is kept oiled most of the way and alkali dust is scarce on the run of 165 miles, which can be made at better than 20 miles an hour by almost any car. There are stations, too, where car supplies and food may be purchased. From Barstow, on the western side of the desert, it is a run of 78 miles to San Bernardino. El Camino Real, from San Diego to the north, connected the old Spanish missions, rare specimens of a distinctive architecture, with each other. Los Angeles is 68 miles from San Bernardino. [“National Old Trails,” *The Automobile Journal*, June 10, 1917, pages 1-6]

The same issue included several similar articles, including descriptions of the Dixie Highway, the Lincoln Highway, the Mohawk Trail, the Pikes Peak Ocean to Ocean Highway, and the Yellowstone Trail.

A Concrete Section

To comply with the Federal Aid Road Act of 1916, Indiana’s General Assembly passed the Dobyons-Duffy Road Act in 1917 creating the Indiana State Highway Commission. With the signature of Governor James P. Goodrich on March 7, 1917, the bill became a law. The legislation directed the Governor to appoint a four-member commission with the members serving staggered terms of 1 to 4 years initially, but eventually all commissioners would serve a 4-year term). The commission was to appoint a State highway engineer (“a competent civil engineer, experienced and skilled in highway and bridge construction and maintenance”), who was to supervise construction and maintenance of all highways, bridges, and culverts built with State-aid funds, as well as advise counties on request.

In addition, the law assented to the provisions of the Federal Aid Road Act of 1916 and offered the good faith of the State to make matching funds available to meet Indiana’s apportionment of Federal-aid highway funds. The law created a State highway fund that included the proceeds of the inheritance tax paid into the State treasury – approximately \$400,000. Appropriations totaled \$100,000 for 1917 and \$500,000 for 1918.

Further, the commission was directed to designate a system of State roads not to exceed 2,000 miles by 1920. The first mileage of a State main-market highway system included the National Old Trails Road and the Lincoln Highway as east-west components. ["State Highway Department for Indiana," *Good Roads*, April 7, 1917, page 220; "Hurrah! Indiana at Last to Have State Highways," *American Motorist*, October 1917, page 42]

In May 1917, however, a Hamilton County taxpayer brought a suit challenging the constitutionality of the law and seeking to enjoin its enforcement and issuance of bonds to finance its work. As *Good Roads* explained:

The plaintiff resided some distance from one of the roads it was proposed to build under the law, and one of the grounds upon which the suit was based was that the law was confiscatory in that it took money from him without giving him a return equal to that given to taxpayers living on the road or nearer to it than he lived. Another reason set forth was that the law was unconstitutional because it appropriated money from the state treasury for purposes other than those specified in the constitution.

The Hamilton County Circuit Court granted the injunction. Chairman L. H. Wright of the commission immediately appealed but the agency was forced to cease operations.

The State Supreme Court issued its opinion upholding the commission on January 10, 1919:

This action, it is stated, not only legalized the State Highway Commission and its acts, but also means that the road work which the commission was created to carry on will be resumed in the near future

The Supreme Court decision affirms the authority of the state to create a commission to build roads and to provide the funds by whatever method of taxation the Legislature may adopt. The decision says, in part:

There can be no doubt that improvements of a public nature, such as the construction and improvement of highways, waterways, bridges and other works of a like nature may be of such general benefit as to warrant the construction at Government expense in the exercise of Governmental power. Where the Legislature authorizes an improvement of the character mentioned to be made by the state or by any of its Governmental subdivisions, it has power to determine the manner in which the fund shall be raised for the payment of the costs and expenses.

By then, the General Assembly had repealed the 1917 law and adopted a new act that became effective on March 10, 1919, and established a new Indiana State Highway Commission.]"Indiana Supreme Court Upholds the State Highway Commission Law," *Good Roads*, January 25, 1919, page 32]

In September 1917, road building had been left to the counties, with restoration of State action

2 years off.

On Saturday, September 15, 1917, citizens of Marion County, Indiana, gathered for ceremonies opening a section of the National Old Trails Road from the city limits of Irvington to 3 miles east:

Three miles of concrete have been completed on this road in Marion County and three more miles are under construction. In Wayne County, Indiana, there are being built approximately thirteen miles of highway west from Richmond on the same road and much agitation has been started in the western part of the State for this improvement. It has been designated by the Indiana State Highway Commission as the main east and west road to be given State aid. ["Improving National Old Trails Road with Concrete," *Concrete Highway Magazine*, November 1917, page 14]

A couple of days before the ceremony, M. E. Noblet, Secretary of the Hoosier Motor Club, explained the importance of the project:

There are two things in particular that the Marion county public should take into consideration in connection with the road dedication, next Saturday. One is that it is cheaper and more satisfactory to build the main roads in Marion county with hard-surfaced material than continually to repair these roads as they now exist, or to rebuild them as they have been built in the past; second, it is cheaper in the long run to use the patrol system of maintenance on our county roads, than it is to maintain them under the present methods, and the patrol system would keep the roads in good condition for travel the year around instead of being in bad condition a greater part of the year, as is inevitable now.

By the patrol system is meant that men are employed to devote their entire time to keeping a certain mileage of roadway in good repair, and they have at their command materials and equipment for repair work. This would probably require more maintenance funds, but the roads would be kept in good condition and in some instances with less material, and would last many times longer than now, which would offset the increased cost in upkeep and give the public a good road to travel on the year around. Such a road would increase real estate values and save thousands of dollars to the traveling

Noblet pointed out that, "On some stretches of road, such as the National Old Trails road, the maintenance cost has been \$1,500 a mile for several years, which clearly shows that it is more economical and more desirable from any standpoint to build our main arteries of travel with hard-surfaced construction":

The county commissioners have used some of their maintenance money with which to build three miles of the new concrete road extending east from the city limits to the county line, and from the figures given it is plainly evident that they have used good judgment in spending their maintenance money for something worth while.

The Marion County Commissioners had planned the ceremony, which would begin with an automobile parade at 2 p.m. It would leave from the west side of the State House in Senate Avenue and move along a series of streets (Washington, Meridian, to the right in the Circle, Market, Delaware, and Washington) east from the city limits to the county line at Irvington. The parade was led by Police Chief Quigley, a mounted police squad, and the National Motor Car and Vehicle Corporation Band. ["Plans Completed for Dedication of Road," *The Indianapolis News*, September 13, 1917, page 7]

The day after the event, *The Indianapolis Sunday Star* began its front-page coverage:

The eyes of Indiana and the nation were upon Marion County yesterday afternoon, when three miles of the National Old Trails road, east from the city limits to the county line, were formally given to the people

The dedication was preceded by a parade from the west side of the Capitol at 2 o'clock. Streamers and banners announced one of the proudest achievements of the people of Marion County. The cars were draped in American flags and a band led the parade with martial airs. The road meant a closer relation between the county and the government, which is at present advocating good roads as one of the means of winning the war.

At the city limits the ceremonies took on a more traditional turn. Lieutenant Governor Edgar D. Bush scooped a little pile of dirt from the middle of the road with the silver shovel which has been wielded by two previous Governors in dedicating new roads.

Amid the cheers of the crowd the Lieutenant Governor took off his coat and rolled up his sleeves. While he was removing the small pile of dirt motion picture machines clicked away

(Governor James P. Goodrich, who had taken office on January 8, 1917, probably would have participated in the ceremony, but he was ill, prompting a brief front page article with the headline: "Governor, Hovering Between Life and Death, Shows Improvement." He would recover and complete his term on January 10, 1921.)

A large banner had been stretched across the road marked "Bad Roads." This was quickly clipped away by Mrs. Caleb S. Denny [representing D.A.R.], who has been an enthusiastic worker for the new hard-surface construction since its suggestion. This marked the end of bad roads in Marion County and Miss Dorothy Pettis christened the new road by breaking a bottle of champagne upon its hardened surface.

A telegram from Charles Henry Davis of the National Highways Association was read:

At the dedication of the first permanent concrete section of the National Old Trails road in Marion County, I wish I could have been present personally to say that I hope soon to see the day when the National Old Trails road will be a hard-surface road 365 days in the year from ocean to ocean and thus become a part of the great system of national

highways, only through which our people can get good roads everywhere for all nations.

Mayor Joseph E. Bell “lauded the county commissioners for finishing the road without outside co-operation. “The women, he said, were also greatly responsible for the completion of the road”:

“It took just such women as Mrs. Denny to awaken the sentiment which practical men later took up and worked out in concrete form,” the mayor declared.

Lieutenant Governor Bush, the next speaker, continued the thread of Mayor Bell’s speech by saying:

“No great achievement ever got very far without the aid of the women. That is just the more forcibly brought out here on this occasion.”

Mr. Bush said he was in hearty accord with the road project and that if the people wanted Marion County made into good roads they “should call upon the presiding officer of the legislature.”

“For next to defending the institutions of the United States nothing is more noble or patriotic than to provide satisfactory channels of commerce,” he said.

Judge Lowe was the featured speaker. A photograph in the *Star* showed him addressing the audience on a stage bedecked with patriotic banners. In addition to reviewing the history of the road, starting with the Cumberland/National Road section from Cumberland, Maryland, to Illinois, he said:

Indiana has struck fire here and the sparks have fallen into other states and fired the hearts of the population to good roads. We in Missouri have caught the spark and nursed it. It will burst into flame. The National Old Trails road will be run from coast to coast, one of the finest monuments that can be erected to the efforts of mankind. I have devoted the best part of my life to this road, and this day is a pleasant one for me.

The news report continued:

At the finish of his speech he was presented with the gavel made from the plank construction of the road. Turning it over in his hand, he said: “I can remember well the old plank construction of the road. Many is the time I have driven over it sixty-five years ago, and I always got off of it as soon as possible.”

The wood of the gavel was well preserved, although dug from the road bed during the recent construction. It was of Indiana oak.

At the end of the dedication Charles E. Cheney, county surveyor, directed a tour of the three miles of newly-finished road.

In the morning, Judge Lowe attended a good roads conference of officials of the counties the National Old Trails Road passed through. The conference took place in the office of the State Highway Commissioner in the State House, room 111. During the session, “the importance of the finishing of the road from coast to coast was pointed out.” [“Road Dedicated by Large Crowd,” *The Indianapolis Sunday Star*, September 16, 1917]

In the evening, the Marion County Commissioners held a banquet in the Claypool Hotel for those involved in the work:

Among those present were Judge J. M. Lowe, of Kansas City, president of the National Old Trails road and the recognized parent advocate of Interest in national highways.

Judge Lowe delighted the banqueters as much as he did the dedicators with his remarkable eloquence and pointed expressions concerning both historical and constructive work. The Judge declared that immediate action would result in the construction of the old trails road throughout its entire length within a period of two years.

In brief remarks, Superintendent of Highways S. E. Bradt of Illinois said the National Old Trails Road and the Lincoln Highway had been designated as the highways on which Federal-aid highway funds in the State would be spent. “Bradt declared that the people of Illinois recognized the fact that the National Old Trails road would be regarded of first national military importance and for that reason was chosen to receive a large part of the Illinois federal aid money.” [“Banquet After Dedication,” *The Indianapolis News*, September 17, 1917, page 13]

Roads for the War

The United States was not well prepared for war. The country had been shipping food and other goods to Europe, but a massive increase in production would be needed to fight a war.

A week after the declaration of war, President Wilson created a Council of National Defense, consisting of the Departments of War, Agriculture, Commerce, the Interior, and Labor, and the Navy; the Advisory Council of Industrialists, and other citizens to supervise every aspect of the war effort. Judge Robert S. Lovett, chairman of the executive committee of the Union Pacific Railroad system, was appointed chairman of the council’s priorities committee.

America’s Highways 1776-1976 summarized the initial activity:

On May 17, 1917, Congress imposed Selective Service, and the United States set out to build an army of a million men. This national Army was to be trained in 16 huge cantonments, each as large as a good-sized city, complete with railroad tracks and terminals, sewers, waterworks, streets, roads, and housing for 22,000 men. First, however, it was necessary to train the officers who would train the men; and for this job the Army built 12 officer training camps at existing military posts. All of this construction went on at such a pace that the 12 officer training camps and 9 of the

16 cantonments were completed by June 14, 1917 – just 30 days after the program was started.

A drastic industrial expansion paralleled the military mobilization. Steel mills were expanded. The capacity of Portland cement mills was increased to meet the spiraling demand triggered by an immense construction program. Brand new shipyards were built in eastern ports to build steel and concrete ships to replace the dozens sunk each month by German U-boats; and at Sparrows Point, Maryland, Bethlehem Steel built a city to house its shipyards workers, complete with sewage, water, and streets.

As the country shifted to a war-time economy, those interested in national roads promoted roads as critical to winning the war in Europe. However, the expansion of war needs frustrated the highway community:

The large highway bond issues of 1915 and 1916, plus the sizable road expenditures under the 1916 Federal Aid Road Act, led many experienced and inexperienced contractors into the road business. With the outbreak of war, they immediately began to encounter difficulties in getting materials, especially steel, and in retaining labor on the job. Within a few months material costs advanced 20 to 30 percent and wages for common labor went up to \$2.50 and even \$3.00 per day. Railroad car shortages made deliveries of stone and asphalt uncertain. Large numbers of contractors were forced out of business, and others, having completed their contracts, refused to bid for new work.

The virtual collapse of the highway construction industry created a desperate situation for States and counties struggling to keep roads open in the face of ever-increasing numbers of heavy trucks and devastating losses of personnel to war industry and the Army. What made the job particularly heartbreaking was the sentiment openly expressed in some segments of the war effort hierarchy that roadbuilding was nonessential work that should be discontinued for the duration of the emergency.

The Council of National Defense's Priority Order No. 2, effective November 1, 1917, prohibited the use of rail open top cars, other than flat cars, for shipping supplies, other than coal, for construction, maintenance, and repair of public and private highways, streets, and sidewalks, or for places of amusement, such as theaters. This order hit the road construction business hard. "This peremptory order, issued without public hearings or other advance warning, struck the States 'like a bolt from the blue,' at a particularly bad time":

It caught them with many miles of new road graded but not surfaced with winter approaching. Despite the fact that trucking had already released thousands of [rail] cars for war purposes and the roads in the vicinity of cantonments and ports of embarkation were being pounded to pieces by truck traffic, the Priority Board refused to recede from its position, and road work and road materials production that was dependent on rail transportation ground to a stop.

As a direct result of the widespread protests over Priority Order No. 2, the National

Council set up a Highways Transport Committee in Washington to represent the highway and highway transport interests, and appointed Roy D. Chapin, President of the Hudson Motor Company, as chairman.

The purpose of the new committee was to help the railroads and other forms of transportation in moving supplies during the war and to help highway authorities maintain the country's roads for that purpose.

Chapin, a wealthy Michigan native who had long been active in the good roads movement, would be one of Washington's dollar-a-year men. In 1901, at age 21, he had succeeded in a publicity stunt by driving a curved dash Oldsmobile, loaded with tools and spare parts, from Detroit to New York in time for the second annual New York Auto Show – the first motor car to make the trip under its own power:

Eight days and 820 miles later he arrived in New York, exhausted and mud-spattered but triumphant. The roads were so atrocious, he reported, that in crossing New York State he had taken to the towpath of the Erie Canal. [Sears, Stephen W., *American Heritage History of the Automobile in America*, American Heritage Publishing Company, Distributed by Simon and Schuster, 1977, page 36]

Chapin succeeded despite experiencing a broken main spring while trying to get around a slow-moving horse-drawn wagon – with success measured in over 1,000 orders for the Oldsmobile. Chapin was an original backer of the Lincoln Highway, helping to gain financial support from the auto industry for the road. Although he favored national roads, he helped gain support within the industry for the Federal Aid Road Act of 1916. (He would serve as Secretary of Commerce – August 1932-March 1933 – during the final months of President Herbert Hoover's single term in office. In 1972, Chapin was inducted posthumously into the Automobile Hall of Fame.)

Other members of the committee were Logan W. Page, director of the OPRRE; Henry G. Shirley, chief engineer of the Maryland State Road Commission; and George H. Pride, president of the Heavy Haulage Company of New York. Chapin biographer J. C. Long pointed out:

Neither Page nor Shirley could give extensive time to the work as each was dependent on his regular salaried job, while committee membership was in the dollar-a-year category.

Chapin and Pride were “the only full-time committee workers. As time went on, skilled staff men were engaged.” [Long, J. C., *Roy D. Chapin: The Man Behind the Hudson Motor Car Company*, Wayne State University Press, 2004 (originally published 1945), pages 151-152. The story of Chapin's ride to the New York State Auto Show is on pages 30-33]

On December 26, 1917, the Federal Government seized the mainline steam railroads and established a Federal Railroad Administration to operate them.

Judge Lowe Tries to Advance the Road

The National Old Trails Road Association was one of many organizations protesting the cutback on road work. On November 10, 1917, he wrote to Page to congratulate him and the Wilson Administration on the reorganization of the Council of Defense. "I am one of those who believes very strongly in the concentration of executive authority, especially during war times." He looked for great results from the change.

Judge Lowe wanted to refresh Director Page's memory. "You will recall that from the very beginning of the road agitation, I have clung tenaciously to the idea that the Government should build, supervise and control the National Old Trails road as a Military and National Highway." He mentioned his testimony in support of his bill for that purpose:

I was met at once with the objection that it provided for a single line of road, and no one not directly concerned would favor it. Then, I have agitated for a general system of National Highways, and during the last session a bill was introduced in the Senate for an outer belt highway reaching entirely around the United States. This was referred to the War Committee, and the Department sent Colonel McIndoe to this office to consult our maps and data, and compare it with all the National roads that have been suggested. After looking the question over, he said to me that no other road contemplated was in a class with this one, and that he should so report. I have not seen a copy of his report, although he promised to send me one.

(In 1917, Colonel James F. McIndoe was stationed in Kansas City, Missouri in charge of the Engineer District. In June, he was transferred to El Paso, Texas. He served in Europe and would be promoted to Brigadier General. General McIndoe died of pneumonia on February 6, 1919, a few months after the armistice brought the war to an end.)

Judge Lowe reminded Page of the history of the National Old Trails Road, including President Jefferson's role in initiating the Cumberland Road, and Senator Benton's role in the Santa Fe Trail:

Now, we have the road built and in splendid condition from Washington and Baltimore to Wheeling; completed across Ohio (except about 15 miles under contract and tied up in the courts); partially built across Indiana, and the last legislature adopted what is known as the Maryland Statute, by which the State agrees to pay one-half the cost of construction if the counties through which the road runs will pay the other half, and every county where the road is not finished has taken steps to comply with this requirement, and there is no question of the early completion of the road across that State. The Illinois legislature adopted an Act agreeing to pay three-fourths the cost of construction if the counties would raise the other fourth, and every county in Illinois has called a bond election for November 20th, except Cumberland, and that county has called it for December 11th. There is no question but what these elections will carry. In Missouri several sections of the road districts through which the road runs have called bond

elections, and there is no doubt of its building here. About one-third of the road across this State is already hardsurfaced [sic]. Several counties in Kansas through which the road runs are already in line and have provided the funds for its building. In Kansas, however, the State is prohibited by its Constitution from furnishing any aid, and the counties and road districts have to furnish all the money. California provided State bonds for building it, and have the road in splendid condition from Los Angeles 325 miles across the Mojave desert. This leaves only Arizona and New Mexico, and you will be greatly astonished to know that the two new States will not be behind some of the older ones in completing the road.

He concluded:

At this psychological moment, if you can write us a word of encouragement it will be most helpful in some of the counties and districts where elections are pending. Personally, my whole heart and soul is enlisted for winning this war, and, one of the great military instruments for such purpose will be the hard-surfacing of a road reaching from Washington or the Atlantic Seaboard to the Pacific. We believe that a very little effort at this particular time will accomplish this great result.

I need not say to you that entertaining these views you are at liberty to command me most freely in any way in which I can be of service.

Page replied on November 15. He greatly appreciated “your congratulations in connection with the formation of a Roads Committee under the Council of National Defense.” He was “much interested” in the facts about improvement of the “Old National Highway”:

Certainly there has been an immense amount of earnest effort put forth in this work and the results obtained are a vindication of those efforts.

I feel that in the present great crisis commendation of road building in general should be tempered by a consideration of the economic soundness of each individual project. In the absence of a detailed knowledge as to the various factors involved in the improvement of the Old Trails west of the Mississippi, it would appear to me best to avoid giving advice as to its immediate construction. [National Archives at College Park, Maryland]

On November 24, Judge Lowe again wrote to update Page on the recent elections:

We lost one county in Illinois by 185 votes, owing to lack of organization and information. We will immediately call another election, and there is no question as to the result. The proposition carried in all the other counties by a handsome majority.

The situation in Indiana, Illinois, Missouri and Kansas is very promising. I have no doubt that we shall win, and hard-surface the road, perhaps in its entirety. Anyway, I am now making a final campaign, and unless we win and win in the very near future, I may feel constrained to act upon the suggestion of slowing down in road work until the war is

over. I think this would be a fatal mistake, so far as the road movement is concerned, but it may be impossible to act otherwise.

He enclosed a letter he had received from William C. Markham, secretary of the Kansas Highway Commission, regarding progress in that State. Markham wrote:

We have received notification of this special committee that has been appointed in connection with the work of the National Defense Council and have directed our state highway engineer Mr. W. C. Gearhart, to attend the meeting of the American Association of Highway Officials at Richmond, Virginia, December 4th, 5th, and 6th, at which time it is expected definite suggestions will be made to this committee in reference to highway work.

Markham also addressed Judge Lowe's inquiry about progress of the road in Kansas. The State had offered 15 percent of Federal-aid highway funds "to a series of state roads that have been established by the commission," including the Old Santa Fe Trail across the State:

Up to the present time, Barton County has filed a petition and it has been accepted, for a brick road 20' wide across the entire county. We understand that petitions are now being circulated in Rice and Pawnee counties over the Old Trails, and while the board of county commissioners of Morris have signified their willingness to accept a petition, it will be necessary for the people in that county to go over their work again as they have prepared a petition for 9' road only. It will be necessary that the minimum width of a road to receive Federal Aid shall be 16'. We have also on file a written agreement with the board of county commissioners of Douglas county that the Old Santa Fe Trail in that county shall be hard surfaced during the five year period. A petition for a road across the north half of the county between Lawrence and Topeka has already been accepted by the commission.

There is considerable talk in Johnson County of adopting some method of surfacing their water bound macadam roads that are now in bad condition. There are two roads one mile apart running south from Olathe. The commissioner has eliminated one of them and it will be necessary to use the road that runs directly south to Bonita.

A couple days later, on November 26, Judge Lowe wrote to Page, yet again, this time to update him on the status of the road in Missouri.

From the inclosure [sic] you will observe that we are still in the field and hard at work. If your committee does not call us down, we are going to build this road, war or no war, for we consider that we could not engage in anything by which we could do our patriotic part so well and to such extent in furthering the military interests of the Government than in carrying forward this great project.

Judge Lowe enclosed a newspaper article titled "Votes Bonds for Old Trails:

Fulton, Mo., Nov. 24 – A bond issue of \$25,000 toward a fund of \$75,000 to be used in building sixteen miles permanent road on the Old Trails Highway east of Fulton to the Montgomery County line was carried almost unanimously in this district today. The vote was 125 to 4. It was also announced that \$7,200 had been collected by private subscription to be used in paying for work. The commissioner of the Fulton special road district and Callaway County court subscribed \$7,500 toward the fund November 7, and the state and federal governments will give \$37,500 as their part of the work. Plans have been made to use convicts to do the Callaway county work and also to obtain equipment next summer from the state highway department.

Page replied on December 1 with a perfunctory thanks for the letters of November 24 and 26 "giving information in regard to the progress in the construction of the National Old Trails Road." [National Archives at College Park, Maryland]

On December 21, Judge Lowe wrote to update Page on the status of the road in Ohio. At the request of Governor James M. Cox, State Highway Commissioner Clinton Cowen responded on December 12 to Judge Lowe's request for an update:

We are just now making every effort possible to clean up on this road in Ohio during the coming season. Everything from Columbus east is completed or under contract with the exception of 3½ miles in Guernsey county, and funds for this stretch have been provided for.

Yesterday we had a conference with the Commissioners of Madison and Clark Counties for the purpose of arranging to reconstruct the National Road through these two counties. I have no doubt but that we will arrive at a definite and satisfactory arrangement. We are determined to see this road completed through Ohio at the earliest possible date.

Judge Lowe also forwarded a letter he had received from "a citizen of Washington who is well informed on the road question, to another citizen in Boston, and was not intended for myself or any one else connected in any way with the National Old Trails Road Association." With the writer and addressee not identified, the enclosed letter referred to an article in the December 1917 issue of *Better Roads and Streets* that indicated Governor Cox had received a request "from the Federal government asking that the Lincoln Highway be put in condition for the transportation of freight across country by motor trucks in an effort to relieve the congestion of the railroads." The articles said that Governor Cox had assembled highway officials on November 16 to discuss the condition of the Lincoln Highway and "in his customary manner, went into the matter in a systematic way":

Commencing with the East line of the Lincoln Highway in Columbia County, Ohio, he asked a representative of each county to state briefly if there was any dispute over the route of the Lincoln Highway in their particular county. After crossing the State in this manner he then began at Columbia County and inquired how many miles of the Lincoln

Highway were improved, type of construction, etc. This report showed approximately eighty miles [of] unimproved roads. The State Highway Department will have in a few days the number of miles of brick, concrete, and other types for the Lincoln Highway across Ohio

Before the meeting closed each county had promised to do its share in seeing to it that the Lincoln Highway was completed across Ohio, and also promised to have complete information concerning the condition of the road in their respective counties within a few days. [*Better Roads and Streets*, December 1917, pages 563-564]

The letter from the citizen of Washington, not intended for Judge Lowe, asked, "Is it possible this is the Lincoln Highway that has been heralded so freely during the past few years?" He continued:

Eighty miles, or 30 per cent in Ohio, unimproved; and unimproved road in Ohio is pretty rotten from my own observation. And they now require the Governor of the State and the Federal Government to prod them into activity on those terrible eighty miles. Rather presumptuous on the part of the Federal Government, I should say, but stranger things than that will happen, no doubt. Anyhow, let us hope those "eighty miles" get speedy improvement. They surely do need it, as you know and I know.

This is a silent compliment to the National Old Trails Road and its organization, in that Gov. Cox has not had to call a meeting to ascertain its condition across Ohio.

Director Page replied on January 9 with a four-line double spaced letter to thank Judge Lowe "for the information which you enclose in regard to the efforts that are being made to complete the Old National Road across the State of Ohio. [National Archives at College Park, Maryland]

On November 23, 1917, Judge Lowe wrote to the Board of County Commissioners of each of the western States through which the National Old Trails Road passed, with blanks to fill with data from each county and State:

For fully seven years we have given every hour of our time, every work-day in the year, to the permanent building of the National Old Trails Road thru your county. This would be worth-while if it began and ended at your county lines, but when you consider that it is a part of a road across the State, it becomes of immensely greater value, and when you consider that this is a link in a national road reaching across the Continent, it becomes of inconceivable value. It has now been entirely hardsurfaced [sic], or the means have been provided for building it from the Atlantic seaboard to the Mississippi. Shall we let it stop there? The excuse that the time is not now opportune for carrying forward this great work because of the husbanding of our resources and the curtailing of our expenses does not hold good when applied to the work in hand. The railroads cannot be relied upon to furnish the transportation necessary in carrying forward the immense army supplies, nor can the products of the farmers and manufacturers be made available without building some of the great trunk line highways in contemplation. No other road suggested will

meet these requirements to the same degree as this road. It is central; runs thru the very heart of the greatest agricultural country on this Continent; reaches or readily connects with very many of the military cantonments, and, above all and everything else, it will be an all the year round road, ready at all times to facilitate the military and defensive interests of the country.

We must not weakly shut ourselves up to the conclusion that they will have to be built anyhow, and one of them is sure to come thru our neighborhood. Neither of these propositions is true. Slight divergence at many points along the line will be equally useful and as easily built.

I know of no movement in this time of stress which will do more to recoup the damages necessarily resulting from war than that of building permanent highways. This is true as a general proposition, but is emphasized when applied to a great National Trunk line road. I know of no project or improvement which will enhance values so surely and so rapidly as the building of hard-surface roads. I have said that the building of this road would go far toward recouping the damages resulting from war. Your county has ___ acres of land. If you confine the benefits to land alone, not taking into account any other values in your county, the building of this road will enhance the valuation thereon to an average of at least \$5.00 per acre. The average cost of this improvement per acre in your county will not exceed much, if any, ___ per acre annually for twenty years, or, a total of ___ per acre. If I am mistaken, and it enhances valuations to an average of only \$1.00 per acre, the improvements will pay for itself. Figure it any way you will, there is absolutely no risk, nor any possibility of a loss resulting from the levy of this tax.

This is the greatest opportunity which has ever come to your county, and one which, if you do not avail yourself of now will, in all human probabilities, never come again. "Opportunity may knock more than once at every man's door," but it is a safe prediction that this opportunity will never knock again. [National Archives at College Park]

Director Page on Wartime Priorities

Logan Waller Page, OPRRE Director, had been one of the first graduates of the highway engineering program at Harvard. He joined the Federal roads office in 1900, first as a special agent for the northern division and then as head of the road material laboratory. By 1905, when Page became OPR Director, the laboratory was the primary scientific laboratory on road building materials. Throughout his tenure, he emphasized the scientific approach to road building, in contrast with the we-always-did-it-this-way attitude of many road officials.

On November 28, 1917, Page sent a letter to the State highway agencies regarding the present situation and recommending policies for 1918. He began by acknowledging that road construction "has been seriously hampered by reason of excessive costs, scarcity of labor, and inadequate transportation facilities." The situation "would be serious even in normal times, but in this crisis when the public roads must, in addition to normal traffic, be depended upon to relieve the tremendous strain to which the railways are subjected, it becomes a matter of vital

importance that some means be found at least to deal with next season's work so as to assure better results than are possible under our present system."

Based on his discussion "with men who are identified with road work in various capacities," Page said he was taking the liberty of suggesting policies for 1918 to remedy some of the weaknesses the States were experiencing:

(1) The selective consideration of all of next year's construction jobs in all of the States and the preparation of a program of road work throughout the Nation, in which program each construction job would be listed in the order of its economic importance to the particular territory in which it is located and to the Nation as a whole. This arrangement would permit of the elimination of such work as may be omitted with least injury to our economic welfare. (2) A coordination of this selective process with the railway and water transportation facilities, with a view to insuring an adequate number of cars and vessels of suitable types, with proper distribution to transport materials for the construction of the approved jobs. (3) A coordination with the material industries, with a view to insuring supplies of materials in adequate amount, distribution, and deliveries to permit the construction program to be carried out. (4) The adoption by each State of such measures with reference to construction contracts as would best meet the needs and requirements of the state.

He concluded:

May I not ask that you advise me as to your views on the subject, and that you favor me with any suggestions, either as to policy or working plan, and also as to what extent your department may be able to cooperate in a movement of this character.

In addition to State highway officials, Page sent copies of the letter to contractors and others involved in road making to give them a better understanding of the seriousness of the situation and the need for all the good roads that could be built. ["Adopting Definite Road Policy," *The Road-Maker*, January 1918, page 64; "Reorganizing Nation's Road Work," *American Motorist*, January 1918, page 23]

AASHO's 1917 Convention

As noted earlier, AASHO held its annual convention on December 11-13, 1917, in Richmond. Delegates from 40 States attended the convention. The January 1918 issue of *American Motorist* summarized the main issues:

Down in Richmond during the first week in December the American Association of State Highway Officials held the annual gathering and dealt with big subjects, among them car shortage, the present chaotic condition of road construction, the operation of the Federal Aid Road Act, the construction of military roads, and the maintenance of the many types of high-grade roads which have been constructed by the States in recent years.

In addition to conducting AASHO business, the first day of the annual meeting included discussions of the railcar shortage and military roads. Roy Chapin was the featured speaker on the first day. *The Road-Maker's* January 1918 issue summarized his presentation:

In it he sketched the prospect work of the Transport Committee in its studies of the use of the highways in general and by the government. Mr. Chapin also brought a direct message from Judge Lovett of the Priority Board. The judge informed Mr. Chapin just before he started for Richmond that by April 1 the Judge believed that the Priority Board No. 2 would be done away with. He had looked for an early raising of the embargo, but the coal situation was still so critical that the order could not immediately be abrogated.

Chapin wanted AASHO officials to know that Judge Lovett considered road maintenance and repair of a higher priority than transportation of musical instruments and repair of theaters, for adjustments in priority expected to be made in the spring:

Mr. Chapin urged that the committee appointed to co-operate with the Highways Transport Committee [be] referred to the committee's studies of methods of relieving railroad terminal congestion. He closed his remarks by stating that the importance of highways will be much better understood after the war has ended.

The second day was devoted to the Federal Aid Road Act. Director Page presented a speech on "One Year's Experience in the Federal-Aid Road Law." He began by noting that the Act was "a measure unique in the annals of American legislation." It wasn't simply about granting financial assistance for public roads; "it went much further and placed on trial a far-reaching policy of cooperation between the Federal Government and each of the forty-eight states." The contemplated cooperation could work "only by broad and generous-minded dealing with each other." They both would have to "overlook the small troubles and difficulties which arise, and to consider whether the plan is working out in a fundamental sense." Only in that way "can a true perspective of the practical results be obtained.

The 1916 Act could not be measured in terms of miles of improved roads. That result, he said, was secondary. "The most important" result was "in the form of an immense amount of constructive state legislation, establishing and strengthening state highway departments, providing skilled supervision, systematizing road work in the states, establishing maintenance funds and in many other ways insuring the efficient and economical handling of the nation's road problems."

Many people, he said, expected that as soon as President Wilson signed the Act, "money would begin flowing into the states and the building of federal aid roads begun." Numerous administrative steps were necessary before the work could get underway. The Postmaster General had to determine the mileage of rural delivery and star routes, one of the apportionment factors. The Secretary of Agriculture had to formulate regulations, a task that was accomplished in cooperation with State highway officials on September 1, 1916.

The agency also had to undertake an exhaustive examination of State legislation to determine if

each State had a highway agency “within the meaning of the federal act.” OPRRE found that 11 States were without a highway agency, as required by the Act, and five others had agencies that “might be considered in the doubtful class.” The Act also required assent by each State legislature to the requirements for cooperation:

Few of the states were in position when the federal act was passed to begin immediate co-operation. The legislatures of most of them met last winter, and it was not until their adjournment in the spring of 1917 that the way had been cleared sufficiently to enable individual projects to be taken up.

Meanwhile, OPRRE reorganized “to take care of the new work” and established procedures for review of plans, approval of project agreements, determinations that completed projects met requirements, and for reimbursement of State expenditures up to 50 percent. Forms had to be developed for project development.

As State highway officials well knew, “I may say that almost as soon as the measure became effective widely varying interpretations of the term ‘rural post road’ were current.” Some thought it referred only to roads on which mail was actually carried, while others thought it meant roads over which it was physically possible to carry the mail or roads on which mail might soon be carried. “As you well know, we went to the Attorney General of the United States with our troubles and we asked him to advise us as to the eligibility of certain classes of roads which had been submitted:

These classes were: (1) where the mails were actually carried over the road; (2) where the mails were not carried, but where there existed a reasonable prospect that they would be carried within a reasonable time after the completion of the road; (3) where the proposed road was an entirely new location, but there existed a reasonable prospect that mail would be carried within a reasonable time after the completion of the road; (4) where the part or part of a project on which no mails were carried constituted an unsubstantial portion of the whole and it would be uneconomical to build the parts on which the mails were carried without building the other parts even though no prospect existed that these unsubstantial parts were ever to be used for carrying the mails. The Attorney General decided that all roads in those four classes were eligible as post roads.

Even then, the terms “reasonable prospect” and “unsubstantial part of the whole” had to be defined. Finally, with the help of the Agriculture Department’s solicitor, detailed instructions were provided to the State highway agencies:

In other words, gentlemen, we have tried in every way possible to find ways and means for making the post road provision of the federal act as reasonable as possible within the law. You can hardly blame us if we have had to do this in some measure step by step.

Despite the early troubles, only “a very small percentage of the projects submitted” had been disqualified. As of November 30, 1917, 228 projects had been submitted, 168 had been approved thus far, and only 6 have been disapproved. “You can see, therefore, that the trouble is

not so serious as a casual consideration might make it appear.”

Some officials contended that OPRRE should “take it for granted that the respective state highway departments are complying with the laws of their States” and hold them, therefore “only to a compliance with the provisions of the federal act.” The Act, however, called for certain conditions to be met, such as what constitutes a State highway department and that it must have direct supervision of the work. The Secretary of Agriculture had given “most careful study” of how to simplify oversight, “and I am glad to say that henceforth we shall be able to simplify the steps by which these requirements may be met.”

OPPRE had experienced difficulties in obtaining plans, specifications, and estimates promptly upon approval of a project agreement. “We have had inquiries from time to time from interested parties urging the government to allow the work to proceed without further delay, when as a matter of fact we were as anxious as the inquirer to have the work start, but we could not authorize the commencement of construction until plans, specifications and estimates had been submitted to and approved by the secretary as required by the act.” He considered the requirements “reasonable . . . and if they are reasonable, certainly there should be no difficulty on the part of the states in supplying the information which we seek.” If the requirements are burdensome, “I trust they will be freely and frankly brought to our attention.” He added:

I may say that of 168 projects approved only 88 sets of plans and specifications have been submitted. Of this latter number 72 have been passed by our engineers and recommended for approval, so that only 16 sets of plans and specifications submitted are now pending.

He concluded by expressing his “deep appreciation of the cordial spirit of co-operation which you have individually and collectively shown toward the representatives of the Department of Agriculture who are charged with the administration of the Federal Aid Road act.” State officials had been “patient in the face of delays, which however unavoidable, were exasperating” as they endeavored to meet all requirements. “I assure you that we shall reciprocate in every way possible and I predict that before long our difficulties will all be smoothed out and we shall be reaping the full benefit of this great co-operative measure.”

He did not mention the challenges imposed by wartime conditions, but did note that some subjects he might have addressed would be covered by other speakers.

Other OPRRE officials made presentations on the operation of Federal-aid (P. St. J. Wilson, chief engineer, and J. E. Pennybacker, Jr., chief of management). In the afternoon, Thomas H. MacDonald, Iowa’s chief highway engineer, addressed the topic, “Should an Effort Be Made to Amend the Federal Aid Road Law?” As discussed in part 2, MacDonald played a key role in a special AASHO committee to develop a draft of what became, to a large extent, the 1916 Act. According to *American Motorist*, he “ably analyzed” the topic and “called attention to the important principles contained in the federal act and to the remarkably few limitations in the application of those principles.” He “urged that no steps be taken to amend the act.” *The Road-Maker* added that “those who spoke to this question agreed with Mr. MacDonald.”

AASHO adopted numerous resolutions. Resolution No. 3 stated that every industry and occupation must be directed to winning the war, but “the prosecution of highway work is essential, both as a war measure and as an economic measure, and that the adoption by the nation, by the states, or by other municipalities of a policy of a half-hearted prosecution of highway work would be an irreparable blunder.” Experience thus far demonstrated that “it seems inevitable that the present means of transportation will become utterly inadequate and must be supplemented by motor transportation over the main arteries and every step must be taken to put these arteries in condition to take and to withstand this traffic. The resolution urged the States to take care in the selection of improvements “so that there shall be first improved those roads of the greatest economic value in the present crisis.”

Resolution No. 4 recommended that all highway officials employ “an intensive program of maintenance.” Once built, roads “must be saved.” The resolution urged AASHO’s executive committee to “use every effort to insure that the national authorities give especial consideration to the movement of all materials to be used in maintenance.”

Resolution No. 6 recommended that all highway departments engage in education and publicity campaigns, “so that all the people may be fully informed of the necessity, particularly at this time, of continuing a sane program of road construction and intensified maintenance, and of the important place these matters have in the program of prosecuting the war.

Resolution No. 9 cited the importance of State and other municipal bonds to road improvement. The executive committee should “take such action towards enlarging the salability of such bonds as they may find advisable and necessary.”

Resolution No. 10 recommended “most earnestly uniform legislation regulating motor traffic over public highways in the United States to the end that these highways may be constructed and maintained without unnecessary expense to the public.”

[“Fourth Annual Meeting of the American Association of State Highway Officials,” *Better Roads and Streets*, January 1918, pages 12-16, 42; “State Highway Commissioners In Convention,” *The Road-Maker*, January 1918, pages 34-35; “Highway Officials Hold Meeting,” *American Motorist*, January 1918, page 26; Page, Logan Waller, “One Year’s Experience in the Federal-Aid Road Law,” *The Road-Maker*, January 1918, pages 28-31]

The Road – 1918

The January 1918 issue of *American Motorist* also carried an article by AAA’s touring expert, Robert Bruce, titled “Many Travelable Highways in 1918.” He began:

The war, with its almost universal consequences, is naturally having its effect upon the road development situation throughout the United States; but less relative effect than as if it had come a few years ago. Rapid strides in building and maintenance, in nearly all sections, have already given the country something akin to a national highway system, in fact, if not in name. Already the public roads are being put to uses entirely unforeseen

twenty years ago; if they had been allowed to remain up to this time in the state they were in 1900, the situation of the country today would be indescribably critical. The tests to which they are now being put, alongside the railways and principal water routes, are making a more sure and permanent place for them in the economics of life and transportation than their most far-seeing advocates may have ever before realized.

Nor, broadly speaking, are the really important and useful projects being halted. Never before have logical or necessary enterprises been carried through with as much high spirit and great speed, and with so little hesitation on account of expense, as today. But they must prove their strategic value and economic utility while the general tightening up process has side-tracked, probably for a long time to come, the nonessential and incidental.

He examined roads around the country that were suitable for touring. On the National Old Trails Road, Bruce reported that work between Zanesville and Columbus, Ohio, "ought to make a high-class thoroughfare next year from Baltimore or Washington to the Ohio Capital." The rest of the road west of Columbus across Indiana was "already in good shape, and after long delays some progress is being made across Illinois, the most backward link of that length in that great natural route across the continent."

Work had been started on a new alignment across the Mineola Hills in central Missouri, "at present the worst single short piece on the route in the Central West, with the expectation that relief from former conditions there may be had by the late spring or early summer of 1918.

Across Colorado, New Mexico, and Arizona, the route "presented some difficulties at times," but had "already been robbed of any such dangers as may have existed in the early days of long-distance motoring." This stretch of the road provided access to many side trips of "great scenic and historic interest . . . while accommodations, not always high-class but greatly improved, are to be found almost anywhere a tourist is likely to want to go."

Bruce switched from the National Old Trails Road to follow the new Ridge Road via the new "wonderful road over Tejon Pass," which he called "a notable achievement in modern engineering practice."

Bruce also commented on the Lincoln Highway:

The Lincoln highway, in excellent shape across Pennsylvania, from half to three quarters of the distance from Detroit, Toledo and Cleveland to the seaboard, will probably soon be a United States military road in fact if not in name.

He added that the National Old Trails Road east of the Ohio River "is equally good and travelable, though it is less convenient of access from the manufacturing center of the Great Lakes, and has no direct, completely improved connection down from Pittsburgh into its main line east of Uniontown."

Bruce's article was accompanied by a two-page "General Map of Projected Highways, Compiled by the A.A.A. Touring Bureau, Washington, D.C." The key listed the following routes, in order:

Lincoln Highway
National Old Trails Road
Dixie Highway
Pikes Peak Ocean to Ocean Highway
Yellowstone Trail
Atlantic Highway
Pacific Highway
Meridian Road
Midland Trail
Bankhead Highway
Arrowhead Trail
Jefferson Highway
Jackson Highway
National Park Hwy
National Park to Park Highway
King of Trails Highway
Old Spanish Trail.

[Bruce, Robert, "Many Travelable Highways in 1918," *American Motorist*, January 1918, pages 9-15, 48]

While the war affected the National Old Trails Road and, more generally, road building around the country, the Automobile Club of Southern California continued to cover highway activities through its magazine, *Touring Topics*.

In January 1918, the magazine included an article on tourist travel along the National Old Trails Road, beginning:

Under normal conditions in the United States it could be safely predicted that this year Southern California would receive an influx of automobile tourists over the National Old Trails road that should lay all previous years' records far in the shade.

But conditions are far from normal. No man knows what effect the war may have upon transcontinental automobiling. It may be very large and, in that event, a steady flow of eastern cars will drift over the long miles of the N.O.T. highway onto the boulevards of Southern California. Why not assume that such will be the case and furnish to these prospective visitors a brief description of the route and the country which they will traverse.

The article began its description in Chicago, which "marks the eastern limits of the road mapping activities of the Automobile Club of Southern California." From Chicago, a motorist bound for southern California would travel via Joliet, Bloomington and Springfield to a junction with the

National Old Trails Road in East St. Louis, where the motorist crossed the Mississippi River into Missouri. "Across Missouri extend fairly well maintained dirt roads, interspersed with paved stretches."

Crossing into Kansas, the motorist would find that the State "is making remarkable progress in hard surfacing the Santa Fe Trails, new and old. Much brick and macadam highway already has been laid and in a comparatively short time the entire mileage of this route through Kansas will be a paved road." The article added, "The route presents fairly good going, even in the severest rainy weather."

The route entered Colorado "in the midst of a great sugar beet country, near Holly." The route moves northward to La Junta, "the juncture point of the New and Old Santa Fe Trails." The mountain roads of Colorado are "among the finest" in the country:

For instance, Pueblo county, which does not possess one foot of paved roads, ranks foremost in highway improvement among all the middle and western states. Native materials have been so brought together that roads of perfect riding quality and great durability have been produced. This is also the case with the great mileage of mountain highways in other Colorado counties, much of which has been built with prison labor.

The National Old Trails Road continued to Trinidad at the eastern approach to Raton Pass at an elevation of 5,200 feet:

By many motorists Raton pass is approached with fear and trembling and is supposed to form an almost insurmountable highway barrier. This is in nowise the case, however. The road at all points is amply wide and with the exception of a few places affords generous space for passing. The grade in few places exceeds fifteen per cent and for the most part the highway lies along a series of well defined and broad ridges.

About eleven miles west of Trinidad there is a pronounced pitch for something less than a mile, then a short distance of fair gradients and a winding roadway of one and one-half miles to the summit with its 8790-foot elevation.

Beyond the summit the descent toward Raton is inspiring and affords a wonderful view of great, sweeping mesas and prairies typical of New Mexico.

The road continues for 116 miles to Santa Fe, New Mexico:

Slightly more than seventy miles of New Mexico State Highway of good, well graded road of native material and varying from six thousand to seventy-five hundred feet in elevation, brings the traveler to Santa Fe, and traverses a rugged, mountainous country dense in the growth of shrub trees, pinon, juniper and majestic pine.

The motorist passed through country that "may well be likened to an immense park produced by the genius of a landscape artist and colored to blend in all true harmony." The "approach to

Glorieta summit is gradual and made with but little effort and the descent through Apache Canyon is not particularly precipitous, but a more pronounced grade.”

Leaving Santa Fe, “the route leads to Albuquerque, distance about sixty-five miles, in which distance the roadway descends by approximately three thousand feet.” Between the two cities, the motorist encounters “the famous La Bajada hill, a sheer cliff of malapi rock that forms the western and northern wall of an immense mesa which extends for miles in a northerly and southerly direction”:

The roadway zigzags to the foot of the grade, but with several acute turns. The surface is excellent for the entire roadway is composed of volcanic rock which provides secure footing for automobile tires.

Leaving Albuquerque, the motorist reaches Las Lunas, “which is a junction point of two alternative routes of the National Old Trails, one known as the Gallup route and the other as the Springerville route”:

Of these two roadways the Springerville, or southern roadway, is the more practicable route for the stranger because of its general good road conditions at all seasons of the year. On the Gallup or northern route much good road exists and much effort has been exerted in improving the highway but there still remain treacherous rivers and arroyos to be forded and for this reason eastern motorists usually follow the Springerville road notwithstanding its sixty-seven miles disadvantage in distance.

Between Las Lunas and Belen, motorists will encounter “a good roadway,” before veering southeast and crossing the mesa diagonally and rising gradually “to the distant mountains that form the eastern rim of the valley of the Rio Grande”:

In this far stretching straight-away the road leads to the abrupt ascent and descent of Johnson grade and thence to Socorro, a typical New Mexican village that slumbers undisturbed with the Rio Grande at its door-yard and the mountains reaching down from towering heights behind it.

The road leaving Socorro “follows a gradual slope to the foot of the mountain thence through Blue Canyon over a well constructed grade and then downward over a broad plain to Magdalena.”

The road reaches Springerville, about 17 miles from the Arizona-New Mexico line, and crosses the White Plains before “engaging the summit of the trans-continental divide at an elevation of 8500 feet.” The ascent is gradual, bringing “the traveler to the summit of the divide without impressing upon him the fact that great altitude is attained.”

The road from Springerville to Holbrook is “an interesting and easy drive.” The motorist continues on through Winslow and Flagstaff, where many “motorists westward bound make the trip to the Grand Canyon of the Colorado, one of the wonders of the world.” Even if the traveler

has visited the Grand Canyon by rail, “the full measure of its grandeur cannot be appreciated except by motoring to it through miles of towering pines and across shallow meadows and over entrancing mountains.”

Returning from the Grand Canyon, the motorist can reach the main road at Williams, “from which point westward, a gradual but continuous descent characterizes the country to the Colorado river, which forms the boundary between Arizona and California.”

Between Williams and Ash Fork, “many are the motoring parties that here forsake hotel life for a camp fire in the pine scented woods.” Continuing west, a “good road spans the waste of the desert,” with the highway closely following the Santa Fe Railroad, with its Harvey Houses, “and this keeps one in the line of civilization through this tedious portion of the journey.”

The article ends:

As the summit of Cajon Pass is reached the traveler comes upon the fine paved roads that characterize Southern California and as the western descent begins the tourist has his first glimpse of orange groves and palms and vineyards and flowering shrubs that are typical of this whole favored region.

Thus has the trans-continental tourist reached Southern California in which great region he has thousands of miles of paved highways at his disposal and thousands of points of interest to visit and a wealth of semi-tropical scenery to view. [“Following the Tourist Trail to California,” *Touring Topics*, January 1918, pages 7-10]

Highway Industries Association

On January 21, 1918, 160 representatives of industry met in the Florentine Room of the Congress Hotel in Chicago for what promised “to be the greatest and most practical move for efficiently co-ordinating the highways of our country, developing the means for transportation and ultimately linking up our main lines of travel.” They formed the Highway Industries Association, to be headed by S. M. Williams, sales manager of the Garford Motor Truck Company. The meeting took place after preliminary meetings with representatives of highway industries, including AAA, OPRRE, AASHO, and the Highways Transport Committee.

Williams, in a speech to the gathering, explained that it was only a year ago, “our National Government gave any real recognition or acknowledgement of their obligation in the development of our system of highways.” That initiative was thanks to AAA, AASHO, and OPRRE:

When we become involved in the present war, inquiry was made of certain officials, prominent in Washington, as to whether they were considering the use of highways from either a military standpoint or in the movement of freight. We were informed that the highways were not being considered and that in their opinion the railroads would be equal to all demands for transportation.

He referred to the advance notice he had published in *The Manufacturer's Record* on January 17, 1918:

More highways and better highways must be built and existing highways improved in order to strengthen the nation in the great world contest which it must face for several years to come.

Every day proves that the country must largely depend upon motor trucks and automobiles for a vast amount of travel and freight traffic. The railroads are wholly unequal to the business. Traffic will grow more rapidly than the railroad facilities, even under government domination, can be expanded. Highways must be improved in all parts of the country and motor trucks and automobiles must come into large use to help overcome the breakdown of the railway system.

Build more highways and build them promptly, even at the expense of tens of millions, or of hundreds of millions, if necessary, must be the order of the day, or else the nation will be tremendously handicapped in this great contest.

Williams outlined the steps necessary for this “considerable work.” First, the group must “convince official Washington that the highways of our country are a real economic necessity and they must be developed to the highest possible degree consistent with surroundings, conditions and demands.” Second, they had to “educate those who do not realize the importance of highway transportation – because they do not come in direct contact with the necessity and, therefore, do not realize what is necessary in road construction to meet the growing traffic demands of our country.”

Official Washington, he said, seemed to be overlooking the need to feed the army abroad and the people of our allies, with enough left over for the home front. Increased planting was essential, but so was moving farm produce to market:

Crops cannot be moved to advantage over mud roads. Our rich agricultural districts should be provided with roads over which their products may be moved promptly and with the least expense. We are organizing to conserve food, but we are wasting more than we save through all our conservation on account of not only the excessive cost of marketing our food products, but also from the inability to market, in many sections of our country, due to the miserable condition of the roads.

He had been gratified during AASHO's annual meeting in Richmond “to see a thorough appreciation upon the part of the highway officials that road construction must continue in a manner to meet the demand for heavy traffic over the highways”:

Their experience during the last year has also convinced them there must be some change in the attitude of official Washington towards the marketing of road bonds.

They also realize that if the highway is to become an important factor in transportation

there must be uniformity in the laws governing traffic over the highways.

He was encouraged by several of the resolutions, cited earlier, adopted during the AASHO meeting. Unfortunately, many State highway officials were discouraged by Washington's effort "to curtail road improvement, and, therefore, did not accomplish what they desired." They could not be blamed for not building roads "ahead or beyond the desire of their constituents," but highway officials properly asked "for a campaign of education that the public may be fully informed of the necessity of continuing a sane program of road construction and intensified maintenance"

Williams concluded:

In view of these requests from highway officials for cooperation, who should respond more quickly than the industries represented here today? You are all directly interested in road improvement because it has a direct influence on the promotion of your individual interests, and, therefore, it is only right for such industries to unite in securing a safe and intelligent road building program, and in doing this we will be directly aiding all industry throughout the country.

During the meeting, letters of support were read from Secretary of War Newton D. Baker, Secretary of Agriculture Houston, OPRRE Director Page, Roy D. Chapin of the National Transport Committee, and Chief Engineer A. R. Hirst of the Wisconsin Highway Commission, vice president of AASAHO, and 1st Vice President of the association. ["For United Highway Co-Operation and Development," *The Road-Maker*, February 1918, pages 50-52; "Highway Industries Association Organized," *Good Roads*, January 26, 1918, pages 41, 46-47]

Judge Lowe would join the association's crusade, which would come close to toppling the Federal-aid highway program after the war.

National Old Trails Road in Kansas

The National Old Trails Road Association's executive committee met on February 23, 1918, at The Coates House in Kansas City. Members from Colorado, Kansas, and Missouri attended.

Judge Lowe opened the meeting by explaining that its purpose was to consider contested routes in the three States to adopt resolutions for consideration during the annual meeting. In Missouri, the issue was consideration of alternative cross-State highways. The summary of the meeting reported that, "The Southern Cross-State Highway in Missouri made a remarkable and a very strong showing." Representatives from the counties discussed bond issues approved or pending to hard-surface the road. The executive committee agreed on a resolution:

A CHALLENGE

WHEREAS, The time is at hand for prompt and decisive action in Government aid, permanent road building in Missouri; and,

WHEREAS, There are now two cross-state roads, namely, the Central Route, known as the "Old Trail Route," and the Southern Highway, known as "Midland Ocean to Ocean Trail," connecting with the metropolis of the East, and the state metropolis on the west: THEREFORE. BE IT RESOLVED, That it is the sense of this meeting that the route guaranteeing first within the next ninety days to build such route complete, from end to end across this state, shall be officially designated as the "Ocean to Ocean Transcontinental Highway," to connect with and be a part of the Old Trail Route or other Ocean to Ocean Trail, subject to be named by this convention "The Official Old Trail Route."

The routing issue in Kansas was contested. Reports from the counties began with Will Townsley of Great Bend in Barton County stating that county and State commissioners had provided for and approved a 20-foot brick road across the county:

Mr. Townsley criticized sharply and very pointedly the action of certain agents of the Government traveling up and down the line urging people not to vote bonds to make any kind of internal improvements during the war. The alarmist to whom he referred is quoted as saying: "That any man who would build a house at a time like this was a traitor." The convention applauded Mr. Townsley to the echo for his criticism of this kind of patriotism.

State Highway Engineer W. S. Gearhart "assured the convention that the movement for hardsurfacing the National Old Trails was timely and patriotic and congratulated them on the progress being made."

During the discussion, United States Senator William H. Thompson of Kansas was quoted as saying, "Now is the time to prosecute the movement of means for transportation; that the national Congress was ready to do anything in its power to assist in the movement."

The summary of county reports concluded that, "Marion County being called, no one was present to report."

C. W. Journey of Boonville offered a resolution that was seconded and carried:

WHEREAS, By priority order of the Federal authorities, the use of open top railway cars for the carrying of material necessary for road building is forbidden; and,
WHEREAS, Such a condition will seriously interfere with the proposed improvement of the National Old Trails Road;
NOW, THEREFORE, BE IT RESOLVED, That this convention memorialize the Railroad Division of the Council for National Defense, Judge Lovitt [sic], Chairman, that restrictions against the use of cars for carrying road building material be removed, unless such action will unquestionably interfere with the greater needs of our Government.

Mr. C. A. Freeland of Leota, Kansas, discussed the Central Kansas Boulevard in that State, while Mr. Percy Devereux of Eades, Colorado, "spoke for the Colorado end of the Central Kansas

Boulevard, saying that on the eighty miles across Kiowa County, Colorado, there were only five road crossings and give bridges, and that twenty-three miles of the eighty were shale road”:

At this point Colonel E. W. Stephens again took the floor and made a very earnest and enthusiastic appeal to the Missouri delegates along the Old Trails road to throw off their coats and go to work; that it would be a shame and a disgrace if this road, with one hundred years of history behind it, appealing as it does to every patriotic social, religious and commercial interest in the whole country, should be permitted to lag behind in this great enterprise. He warmed the convention to a high pitch of enthusiasm, and closed by predicting the road would be finished across this state before the snow flies.

At that point, according to the summary of the meeting, Mrs. John Van Brunt of D.A.R.’s National Old Trails Road Committee “was then called upon unanimously and made a very pronounced patriotic appeal to the convention to build the National Old Trails road.”

One named trail lost its chance to be included in the National Old Trails Road:

The Golden Belt in Kansas lost its opportunity in not having as many delegates present as it should have had and in not making the strong showing that they could have made. Perhaps they will profit by this action by being more in evidence at the April meeting of this committee.

(The Golden Belt Road was initiated in 1910 to connect Junction City and Salena via Abilene. The following year it was extended from Kansas City to Colorado Springs, Colorado. [Habegger, Arman J., *Out of the Mud: The Good Roads Movement in Kansas, 1900-1917*, Submitted in partial fulfillment of the requirements for the degree of Master of Arts, Department of History, Graduate School, University of Kansas, October 1971, page 195]

The committee recessed to prepare a report on the routing issues:

It appearing to the satisfaction of this Committee that there is a very general and a very honest and earnest effort now being made along the line of the National Old Trails Road, as heretofore established in the states of Missouri, Kansas and Colorado, and that steps are being taken to comply with the requirements of the law, and it also appearing that similar activities are at work along the roads to which it has been suggested this road should be diverted;

Therefore, It is ordered by this Committee that we recommend a change in the location of the road as at present established from St. Charles east to the Mississippi at or near Alton, Illinois, and, we also recommend that the location as now established from Kansas City, Missouri, through Johnson County, Kansas, be changed to go through Kansas City, Kansas, and thence over the “Fort to Fort” road to the city of Lawrence, and thence south to a connection with the road as now established at Baldwin, Kansas; thence via Overbrook, Burlingame, Osage City, Council Grove, Herington and Lindsborg, connecting with the line heretofore adopted at McPherson, Kansas.

At present we are not prepared to suggest any other changes, but we notify all parties interested that this Committee will meet again on the 16th day of April, 1918, and upon that day we will take final action as to whether the road as now located shall remain as established, or whether it will abandon the present location in the state of Missouri from Fulton in Callaway County and adopt a line from thence across the Missouri River to a connection with the South Cross-State Highway and thence via Sedalia, Warrensburg, Pleasant Hill, Lees Summit, etc., or through Hustonia, Lexington, etc., to Kansas City, and, also, whether it shall remain across the state of Kansas as now located, except as above suggested, or whether it shall adopt the Golden Belt road from Lawrence through Topeka, Manhattan, Junction City, Salina, Little River, etc., to a connection with the Old Trails Road as now established at La Junta, Colorado.

The committee arranged for members to report to the association as soon as possible on actions in their counties and road districts. Similar arrangements were recommended for the Southern Cross-State Highway in Missouri and the Golden Belt and Fort to Fort roads in Kansas, with backers of each to report in time for the annual meeting in April.

On February 25, Judge Lowe sent a letter to all members regarding the meeting of the executive committee. He began:

I am mailing you copy of the decision reached by the Executive Committee last Saturday, by which the committee has unanimously recommended to the annual convention to change the route of the road as at present established, leaving out Johnson County, Kansas, and re-locating it via the "Fort to Fort" road to Lawrence, and thence south to Baldwin to a connection with the road as now established, and re-locating it from Herington west to Lindsborg, etc., thus leaving out Marion County, and changing the route of the road as now established by adopting a line from St. Charles, Missouri, to the Mississippi at or near Alton, Illinois, and thence to a connection with the Old Trails Road in Madison County, Illinois. These were the only direct changes adopted by the committee.

He referred to the gathering as "perhaps, the most remarkable road meeting, in many respects, ever held in this country":

It was the most determined and enthusiastic body of men ever assembled. Every county through which the road runs in three states, was represented except two, and these two lost the road. They reported wonderful and rapid progress, in almost every instance, and all, including the contested routes, pledged themselves to renewed activities and determination to be in condition to make final report to the committee at its April meeting. This meeting in April, which is the anniversary of the birth of this Association, will have the destiny of the road from beginning to end before it for final action.

Judge Lowe could not overestimate the importance of the meeting. "The whole destiny of this

entire proposition is at stake”:

The committee has given ample time for the completion of your work. Its spirit and determination is manifested by its action at the February meeting. This office will keep in constant touch with the people, not only along the road as now adopted, but of the new lines suggested, as well.

He noted a “point frequently referred to in the convention, and often exploited in the newspaper press, and that is the alarm over the labor situation”:

May it not be that the scarcity of agricultural labor has been brought about by the young men of the country abandoning the dreary, monotonous life on the farm because of the condition of the roads of the country, and not because they have joined the army.

Let us do our part (as much an act of pure patriotism as to enlist in the army) by raising the funds with which to build at least one great Transcontinental Highway, and never doubt for one moment that the labor will be available for its construction.

He pointed out that building the road would not affect farm labor. “Whoever saw a farmer boy working in a rock quarry, or pounding rock on a road, or in a cement mill or brick kiln?”:

The same class who built the railroads will build the wagon roads. They are not eligible for military service, nor farm work. They will willingly work on a road ten hours a day with the mercury at 100 degrees in the shade. They like camp life. Road building has much in common with military life. They are the sappers and miners in the vanguard of civilization. They cut down the mountains, bridge the rivers, and drain the swamps. They do not carry their wages away, but spend it like Princes in the vicinity of the camp. They bring a market to the farmers’ door; and when his work is done he slips into oblivion, and is forgotten. This class of labor is as abundant now as it ever was. Its scarcity will only appear in the contractor’s estimates. He knows just where to find it. Some types of road building call for expert labor, and this is as abundant as ever. The ideal time to give employment to this labor, and thus to enhance values of all kinds, and bring rest and contentment everywhere, is during the seasons of depression. It is foolish and almost criminal to suggest waiting until the war is over. Build roads now, keep the wheels in motion, and thus have things doing when the boys come back to a smiling, prosperous and happy home, with all its old isolation gone forever. Let’s not wait to impose this additional burden upon the soldier who is making a supreme sacrifice for his country.

He closed the message with this encouragement:

The governors of the states through which the road runs cannot do a more patriotic service than to make the prison labor of the country available for work on the roads. I have often said, and now repeat with emphasis, that the transportation question is the great, overwhelming question in winning this war. Roads over which armies and their

supplies can be transported are just as essential as railroads and ships. The common roads are the very foundation of the whole transportation problem. Let us then, unite patriotically and whole-heartedly in making this supreme effort; and if we do, before the snow flies again we shall have a splendidly constructed National Highway from Coast to Coast. He who counsels otherwise, is unpatriotic, and so densely ignorant of affairs as to entitle his opinion to little weight. [National Archives at College Park, Maryland]

Judge Lowe followed up with a letter to OPRRE Director Page on March 1, 1918:

If you have patience to look thru the stuff I sent you under separate cover, I believe you will agree with me that we have the National Old Trails Road practically financed as far West as New Mexico. I therefore apply for and urge that the interned Federal prisoners, or such number as may be practicable, be put to work on this road in the States of New Mexico and Arizona.

I think you appreciate the fact that this is the one road established and located by Acts of Congress throughout its entire length as a National Highway, and that it is in truth and in fact, or will be when completed, an “all the year round” road.

Page reply on March 6 with a brief letter indicating he was “very greatly obliged for the information which you sent me concerning the National Old Trails Road.” [National Archives at College Park, Maryland]

Government Shifts on Road Building

In early 1918, the Federal Government began to adjust to conditions that had threatened road construction around the country. With the railroads unable to meet demands, trucks began to carry more of the freight needed for the war and the home front. The result was that roads built mainly for automobiles were chewed up by the flow of heavier vehicles.

Roy Chapin’s greatest accomplishment as chairman of the Highways Transport Committee illustrated the shift. As automakers rushed to produce the trucks needed to support military operations in France, the vehicles were transported by rail to the Atlantic Coast ports of embarkation. Chapin’s idea was to drive the trucks to port, freeing the railroad cars for other freight. Even before becoming chairman, he obtained approval for an experimental convoy, described in *America’s Highways 1976-1976*:

On November 22, 1917, a trail-blazing party consisting of representatives of the Ohio Highway Department, the Army, the Lincoln Highway Association, and the OPRRE left Toledo enroute to the East Coast. The route they selected crossed Ohio via Toledo and Akron to East Palestine, where the Pennsylvania Highway Department picked it up, continuing on to Pittsburgh and across the Allegheny Mountains to Harrisburg, Lancaster, and Philadelphia. This became the main military truck route. Later, other truck routes were designated by Ohio, West Virginia, Pennsylvania, and Maryland over the Old National Road, and by Ohio, Pennsylvania, and New York via Cleveland, Erie,

Buffalo, and Albany to New York City.

In December, the Army's Quartermaster General adopted the policy that the trucks would be driven to the coast to relieve railroad cars, with the first convoy leaving on December 14, 1917:

The first Army truck convoy left Toledo early in December 1917, at the beginning of one of the most severe winters in recent U.S. history. Three weeks later, on January 3, 1918, 29 of the 30 vehicles that began the trip rolled into Baltimore. This grueling trip was testimony to the durability of the war-model trucks and the endurance of the drivers, but most of all, to the superb maintenance efforts of the Pennsylvania Highway Department, which, as a result of careful preplanning, had kept the road open over the Alleghenies in the face of blizzards that left drifts 3 to 6 feet deep. In some places the crews worked around the clock to keep the road open. Teams and drags broke a track through the drifts, followed by horsedrawn road machines and homemade plows mounted on trucks. Altogether, 7 trucks and plows, 22 road machines, 20 drags, 105 teams, 3 tractors, and 200 men were thrown into this massive maintenance effort.

Through the remaining war, the Army sent 30,000 trucks to ports on the truck routes, "each loaded with 3 tons or more of spare parts and munitions," thereby releasing 17,250 railroad cars to carry other freight:

From a historical viewpoint, the main accomplishment of the truck routes was to demonstrate that it was possible to keep long stretches of highway open to traffic through a severe winter and that dependable long-distance interstate travel on the highways was desirable and even necessary. [*America's Highways 1776-1976*, pages 94-95]

A contemporary account of that trip stated that, "One of the thirty trucks starting the journey failed to finish, having been struck by a train en route," adding:

The snow was bad in Michigan and Ohio, but the highway transports committee believes both these states have learned complete lessons from this trip in regard to snow organization. Pennsylvania and Maryland, however, had their roads in excellent shape, using only men and shovels, because the snow plows did not arrive in time. The Highway Transports Committee wants all highway departments to remember that trucks demand wider clearance on roads than passenger cars. The committee is taking up this matter and also the further clearing and repair of roads enroute

The trip is remarkable in view of the fact that none of the drivers ever drove any truck before but were men taken from an infantry camp and placed at the wheels. Weather conditions were the most adverse possible. The convoy left Detroit at 4 below zero and fought through snow all the way up to Pennsylvania. Schools let out along the route, business men, military men and professional men turned out to give welcome to the trucks and the Red Cross had hot meals ready for the soldiers at every stop.

The trip completely proves the feasibility of motor truck transportation in all kinds of

weather. [“Truck Train Ends Trip,” *Motor Age*, January 3, 1918, page 11]

Of course, other goods, including food, could be carried on the roads, as top officials in Washington were beginning to understand. Around the time of the initial convoys, Herbert Hoover, the future President, was the United States Food Administrator during the war. He sent the following telegram to Chairman O. E. Carlson of the Board of county commissioner of Twin Falls County, Idaho:

Sincerely hope you will be able to carry election for bond issue intended for permanent roads, as all improvements of this sort tend for general betterment in any community, and particularly for efficient transportation, which is one of the problems we face in our endeavor to reduce the cost between the producer and the consumer. [“Hoover on Road Improvement,” *Good Roads*, January 5, 1918, page 2]

On February 2, Secretary of War Newton D. Baker responded to a January 31 letter from J. A. Bennett, president of the Arkansas-Louisiana Highway Improvement District. Bennett had informed Secretary Baker of the district’s plans. Baker replied:

The construction of such roads will undoubtedly be of great value to the community, and incidentally to the state and nation, and in my opinion should receive proper encouragement. Furthermore, I may state that it is my opinion that the roads will be of considerable military value in case of military operations, or preparations for military operations in this vicinity. [Quoted in letter from Judge Lowe, March 18, cited below]

The issue of *Good Roads* for February 2, 1918, reported that Secretary of the Treasury James G. McAdoo, who also served as Director General of Railroads during the war, had requested Agriculture Secretary Houston “to curtail all federal aid work except that which is vitally important to the development of the transportation system of the country or to the opening up of territory for increasing important agriculture products.” [Bishop, H. K., “Effect of the War On Road Improvement,” *Good Roads*, February 2, 1918, page 60]

In response to the resolutions adopted by AASHO’s executive committee met in Richmond, Secretary McAdoo wrote to George P. Coleman, chairman of the executive committee:

Your letter received enclosing the resolutions adopted at the Richmond meeting by members of your association, requesting an outline of a policy defining the character of roads or streets for the construction or maintenance of which cars will be furnished for the shipment of materials.

The United States Railroad Administration will cooperate with the Secretary of Agriculture by transporting materials for the construction of national highways designated by him as a military or economic necessity, for which the equipment is available and not needed to move supplies for the Army, Navy, Shipping Board, or other governmental activities. [“Position of the Railroad Administration on 1918 Road Work,” *Good Roads*, March 2, 1918, page 127]

The same issue reprinted a communication from Secretary Houston to AASHO:

So far as it is practicable to do so, this department will urge the maintenance of the highways already constructed; the construction and completion of those highways which are vitally important because of their bearing upon the war situation or for the movement of commodities; the postponement of all highway construction relatively less essential or not based upon important military or economic needs. The department is preparing to suggest to the state highway departments the preparation of a schedule of work for the federal aid projects for 1918 in line with this policy.

OPPRE's Page had informed State highway agencies of this shift in November 1917, as noted earlier. Now, *Good Roads* reported, OPPRE had "sent out schedule forms, on which the states are requested to set forth the proposed federal aid work for the 1918 working season":

Included in the data called for by these schedules are: Descriptions of each road; the character, quantity and rail haul of the material to be used; the probable total cost; the amount of federal funds desired; the specific purpose of the improvement; its bearing upon the war situation, and a statement as to what would be the effect of delaying the work until 1919 or later.

The Agriculture Department released a statement that noted the uncertainties involved in the transportation of road materials, but added, "the expectations are that the transportation situation will be improved, and that the shipment of such materials for essential projects can be made." ["Government Position on 1918 Road Building Defined," *Good Roads*, February 2, 1918, page 61]

On March 18, Judge Lowe replied to a March 13 letter from C. W. Black, chairman of Building Commissioners at Council Grove, Kansas, and vice president of the National Old Trails Road Association. The reply began with a discussion of the general situation regarding construction of the National Old Trails Road which, he said, "could not well be more encouraging":

Since our Executive Committee Meeting of the 23rd of February, Ohio has let a contract for the construction of the last 13-mile section of the road in that state, and the last county in Illinois through which the road runs, has voted bonds for its construction. This completes the financing of the road, and insures its construction from Washington to St. Louis.

It is but simple justice to call attention to the fact that in both Indiana and Illinois, the counties through which the road runs have appropriated the general road funds of the county to its construction. When it is considered that in many of the counties the road runs on the extreme edge of the county, this indicates very strongly their appreciation of its value. Of course, any road would be of some value to every county, but when it is considered that this is indeed and in fact, a national road, then it becomes of inconceivable value to the people along its line, and, to a large degree, to all of the people in every county and state through which its [sic] runs.

Can it be true that the people of Maryland, Pennsylvania, West Virginia, Ohio, Indiana and Illinois are in a class by themselves, and that they appreciate its value, while the people of Missouri, Kansas and Colorado fail to understand its importance. I cannot believe that this is true, but I fully appreciate that at our annual meeting of April 17th and 18th, we shall be able to announce to the world that the building of the road is completely financed all the way to the Rocky Mountains, if not indeed, to the Pacific.

Black had asked Judge Lowe to state the position of the Federal Government on “Road Building”:

I answer this as well as I have been able to ascertain: Mr. Hoover, the greatest living expert in the line of food production and conservation, comes out squarely in favor of the building of such roads as this, viewed from the standpoint of marketing the food supplies of the country. Secretary of War Baker emphatically urged the building of roads which will be of military and commercial value. Secretary McAdoo has the financing of the greatest war in history resting upon his shoulders, which is indeed “some job,” and has not, so far as I know, actually passed upon this question; that is, to say whether he will encourage the sale of road bonds and certificates, in general, but there can be no doubt as to his position regarding the sale of such securities appropriated to the building of this road.

Judge Lowe quoted Secretary McAdoo’s letter to AASHO and Secretary Baker’s letter to Bennett. Having done so, Judge Lowe added:

Of course disquieting rumors will continue to come out of Washington. This is to be expected, but shall we “take to the woods” every time some disgruntled, pessimistic old fossil bursts a cap?

Pessimism never won a fight on any of life’s battle fields. It never gave birth to a great purpose, nor added anything to the general good. Its congenial habitat is in swamps and fens, where lizards and cotton-mouthed snakes abound and luxuriate on its miasmatic poison. It never offered cool water to parched lips, nor planted hope in the heart of the dying. It never cuts the brambles and thorns, nor smooths the rough places in life’s pathway. It has neither inventive genius nor imagination. It never inspired a line worth remembering, nor added anything of value to the world’s literature. If this had been the only principle to escape from Pandora’s box,—If optimism, hope, imagination, etc., had not opposed it from the beginning, the world would have indeed and in fact been nothing but a mad-house. All the joys of life, all the hopes of the future would have been destroyed. Man, now “but little lower than the angels,” would then have been but little higher than the brute. Let him go “with his head in the clouds,” if you will; it is infinitely better than burrowing in the earth. Keep your eyes towards the sunrise, and your “wagon hitched to a star” is the only safe and sane rule of life. *Ad Astra per Aspera*.

(“*Ad Astra per Aspera*” is the motto of the State of Kansas, and means “to the stars through hardships.”)

In times of peace it produces gloom and discouragement, and in times of war is the fruitful source of treason and the sure precursor of disaster. Hiding behind pretended loyalty, it throws its slimy tentacles around the soldier, and breaks down the morale of the army.

If I had the power I would drive it out of all hearts and back to its native hell from whence it came, its only congenial abiding place.

One Henry Ford, in times like these, is of greater value to the world than 10,000,000 such men.

No one need have any fear but that the federal government will contribute the share to which this road is entitled, under the Appropriation Act of the last Congress, nor need they fear that any obstruction will be placed in the way of selling securities by counties, districts, etc., for building this road. Those who seek to leave this impression are simply seeking a way to find out how not to do anything. The thing for us to do is to “go forward,” never doubting for one instant that we shall succeed. An opportunity like this rarely comes to any people. No vision is broad enough to comprehend its full meaning.

Victor Hugo’s hero of the French Revolution, in his dungeon cell the night before his execution, exclaimed: “My motto is: Always forward. If God had wished man to go backward, he would have put an eye in the back of his head. Let us always look towards the sunrise, development, birth.” These were prophetic words, and entirely apply to the situation of today. “Go forward” should be the motto of everyone. Let the “dullards,” the “pull-backs,” the “do nothings,” “objectors,” the “pessimists,” whine and complain as they may, but this Association has long since adopted the motto of Hugo’s creation, and say to our people: “Go forward! Look toward the sunrise, development, birth,” and the 17th and 18th of next April will witness our triumphant victory. It is up to Kansas, Missouri and Colorado now, and I know just what their decision will be.

(The Victor Hugo quote is from his final novel, *Ninety-Three*, published in 1874.)

Judge Lowe concluded:

The Capital Issues Committee of Federal Reserve Board, at Washington says, that every application for approval of bond issues must stand on its own merit. We are perfectly satisfied with this ruling of the Committee. It may not be wise for this Committee or any Committee to tie its hands in advance, but when we are ready to make application there can be no reasonable doubt of its approval. [National Archives at College Park, Maryland]

Judge Lowe, in his reference to a contract in Ohio, was referring to one of the worst sections of the road east of Columbus. Despite the obstacles to road construction, *Motor Age* for March 28, 1918, reported that Ohio planned to complete its section of the National Old Trails Road east of

Zanesville:

Instructions have been issued by Ohio officials to finish the gaps of the National highway between Columbus and the Ohio river. Recently a tour of the road was made by Governor Cox and other state officials, and it was found that several stretches are still to be improved to make an ideal highway to the east. Convicts will be used to complete the work, which will be rushed as rapidly as possible. It is said forty Army trucks will be moved from the West to the Atlantic seaboard from the West to the Atlantic seaboard and the National highway will be used. In Muskingum County a stretch of 12 miles will be paved with brick and in Guernsey County crushed stone will be used. ["Ohio to Complete National Highway," *Motor Age*, March 28, 1918, page 48]

As described in *Dependable Highways*, paving over the past 5 years had repaired "much that was practically impassable":

The entire length of the road in Belmont County, westward from Wheeling, is brick paved, 16 feet wide for 28 miles. Some paving remains to be done in Guernsey County, but the worst section for many years has been east of Zanesville.

The work underway involved an approximately 14-mile section from Zanesville to New Concord, which was being graded for a brick pavement, with new culverts:

The work . . . is being carried on in three parts. Grading is nearly completed, curbing is in course of construction, and more than a third of the 5,000,000 paving bricks required have been delivered. Original plans required that the work should be completed by the Fourth of July, and it is not too much to expect that these plans will be realized.

The new pavement will be 16 feet wide, with a 6-inch concrete edging on each side. The foundation is to be rolled stone or slag 6 inches deep. Stone and slag will be supplemented to some extent by crushed brick bats and other material suitable for the purpose from a neighboring brick plant. Changes of grade have made it necessary to alter or replace many of the old stone culverts. New culverts are mainly vitrified clay pipe with concrete head walls.

For the most part no great amount of filling has been necessary. The country through which the road passes is sharply rolling, and where grade changes have been necessary the length of haul has been short, in many instances only a few hundred feet.

Consequently most of the grading is being done with plows and drag scrapers. Sub-grade is being rolled with 8 to 10-ton rollers. ["Dirt Flies on National Road in State of Ohio," *Dependable Highways*, May 1918, pages 5-7]

The same issue described the use of convicts for the project:

Ohio is using convicts in the construction of the National Road in Guernsey and

Muskingum Counties. Governor James M. Cox declared the situation an emergency. The highway must be finished for the movement of thousands of government trucks now under construction in the middle west.

Prisoners live in an essentially war-time camp. Two barrack buildings, one a mess hall and the other a dormitory, are now in use; another dormitory is being built. A bath house and cold storage plant will follow. Provisions are being made for welfare work. Baseball equipment will be sent to the camp and reading matter is provided. There will be no Sunday work, and religious exercises will be held.

The contractor pays the State \$1.50 a day for each man. The men, in turn, receive 5 cents an hour, their regular rate of pay for prison work. The State furnishes subsistence.

Guards are provided from the same penitentiaries from which the men came, but prisoners wear no distinguishing marks. Contractors report that the plan is proving valuable at the very onset. ["Ohio Uses Convicts on National Road," *Dependable Highways*, May 1918, page 10]

On the same day as Judge Lowe's letter to Black, March 18, 1918, the Council of National Defense made public, at Chapin's insistence, a policy statement on the use of motor trucks for relieving the transportation situation:

The Council of National Defense approves the widest possible use of the motor truck as a transportation agency and requests the state councils of defense and other state authorities to take all necessary steps to facilitate such means of transportation, removing any regulations that tend to restrict and discourage such use.

Motor Age added:

Such announcement of policy, bearing as it does the stamp of Federal authority, will have most important effect on widening the use of the motor truck and highways for transportation of freight, as it will tend to restrict ill-advised measures of state or local authorities, such as unwise taxation and load regulations. ["Council O.K.'s Trucking," *Motor Age*, March 21, 1918, page 15]

Work was underway, of course, in other States. For example, OPRRE approved 11 Federal-aid projects in New Mexico, including two on the National Old Trails Road:

Project No. 3 calls for the construction of a road 9 miles in length, extending from Santa Fe southeastward to Glorietta, and forms a portion of an ocean-to-ocean highway. The improvement forms a part of State Highway No. 1 and of the National Old Trails Road. The road will be improved with a gravel surface and about \$14,000 of Federal Aid has been granted.

Project No. 4 involves the improvement of a road between Sandia and Armijo station on

the National Old Trails Road in Valencia county, the total length being 34.7 miles. The character of improvement will be a graded and drained earth road surface with gravel where needed. Federal Aid to the extent of about \$19,000 has been granted. [“New Mexico Roads Get Federal Aid,” *American Motorist*, March 1918, page 25]

The 1918 Convention

The Seventh Annual Convention of the National Old Trails Road Association was held in the convention room of the Kansas City Chamber of Commerce on April 17 and 18, 1918. Judge Lowe’s call for the convention explained:

The Executive Committee will meet the day previous (the 16th), pursuant to the order made at its meeting on the 23rd day of February, and will then make final decision touching the re-location of the road at points along its line, where the people have been derelict in providing for its construction.

This will perhaps be the most important annual meeting of this Association, as the whole future of this enterprise will be up for final decision. [National Archives at College park, Maryland]

Two hundred representatives from nine of the Old Trails States attended. Reports from the States indicated that, as *Better Roads and Streets* put it, the road “was either completely hard-surfaced, or the funds were provided for completing it from Washington to St. Louis, and from that point to Los Angeles probably one-third was completed in detached sections, and every county through Missouri, Kansas, and Colorado, not now completed, was actively and enthusiastically engaged in holding bond elections and thus securing funds for its building.” The convention set the date of June 27 “for final report from the three States last mentioned. There is scarcely any doubt but what the road will be financed by that time through these three States.”

Many of the States and counties represented at the convention, according to *Motor Age* “came with fear in their hearts that their earnest work in promoting bond issues would go for naught.” They were “given aroused enthusiasm” when a telegram was read from Henry C. Flower, a member of the Advisory Committee to the Capital Issues Committee of the Federal Reserve Board:

This board has not intended by anything heretofore given out to leave the impression that we are opposed to good roads. On the contrary, we are unanimously and enthusiastically in favor of good roads everywhere. Especially do we favor the construction of such roads as will be of imperative military or immediate marked economic value. Entertaining these views, we, however, reserve the right in the present dire emergency to pass upon each individual proposition according to its merits with the view in each case of submitting everything to the acid test of helping to win the war.

The article continued:

The road project that received immediate stimulation was the improvement of the National Old Trails road from East St. Louis across Illinois, bonds for a third the cost of which have been voted by the counties, the state having already promised, with Federal money available, the other two-thirds. The Illinois delegates to the convention were urged to appeal to Governor [Frank O.] Lowden and to Federal authorities and committee, for the release of this project, and the national association will help where possible.

Mr. E. R. Moses of Great Bend, Kansas, represented the Kansas Highway Commission, offered a testimonial to Judge Lowe's efforts:

Now, my friend President Lowe has been for six years giving his time to the National Old Trails road fight; and if it shall be built throughout this country it will be largely due to his courageous persistence. I think he has been long in the position described in the telegram, as the story goes, that was sent in the Russian-Japanese war. Telegrams were being sent from the front to the government at home as to the condition of General Kuropatkin, and it was said that Kuropatkin was in *statu quo*. And they scratched their heads over what that might mean, and finally one sage volunteered the explanation that it meant that he was in a hell of a fix. Now, there have been times when that described the situation of our President here, and it is up to your people and all of us to marshal our forces and put this over the top, and it must be done I want to see it accomplished, so that before President Lowe dies he can ride all along over this road, not as a conquering hero, but one who loves his fellow men and one who had marshaled the forces of progress to bring about that result – a man who believes in the fatherhood of God and the brotherhood of man.

As for the condition of the road in Kansas, he explained his philosophy:

You need not be afraid about Kansas not doing her part. She will have her roads built just as quickly as any state in the Union; and I want to say to you, more cheaply and at less expense [But] it is not altogether the help that men receive that counts. The man or boy that is constantly looking for help never accomplishes anything; but those that are put upon their own resources and energy in competition with their neighbors, and who go to work with the best they have, are the ones who accomplish things So let me tell you, gentlemen and ladies, if this road is going to be built in your state or in your county, it is going to be built by your push and energy. It means that you, as has been done in every county through which these roads have been built, shall rally the people of your communities and see that the thing is done.

He did not specify when Kansas would complete its section of the National Old Trails Road.

The delegates debated the proposal to change the routing of the road through several the States, but the convention retained the current routing after delegates from those States demonstrated sufficient improvements had been completed and others were under construction. Partisans of

the present route were able to show sufficient road building progress accomplished and under construction to retain the routing as it has been during the past year.

The convention reelected Judge Lowe as president, C. W. Black as vice-president, and Frank A. Davis as secretary.

The convention also unanimously endorsed Judge Lowe to succeed the late Senator Stone. *Better Roads and Streets* reported that “A resolution urging Governor Gardner to appoint him was adopted by the convention to the accompaniment of deafening cheers”:

This is indeed good news and Better Roads and Streets joins in endorsing Judge Lowe and urging his appointment by the governor of Missouri. We know the sterling character of the man and have admired his unceasing efforts as president of the National Old Trails Road Association. Surely he would be an able representative of the “Show Me” State [May 1918]

(Instead, Governor Frederick D. Gardner appointed an attorney and Democratic party official, Xenophon P. Willfley. He took office on April 30, lost election to a full term, and left office after November 5, 1918.)

The magazine added:

In order that the delegates might get back home and at work in helping feed the nation the convention was confined to one day. The work was speeded up and all unnecessary business was omitted.

[“National Old Trails Road Association’s Convention,” *Better Roads and Streets*, May 1918, pages 210, 212; “N.O.T. Meeting,” *Motor Age*, April 25, 1918, page 22; “The National Old Trails Meeting,” *Kansas Highways*, July 1918, pages 18-19]

New Conditions in Transportation

By spring 1918, the Federal Government was acknowledging the role of good roads to the war effort. The U.S. Chamber of Commerce held its sixth annual meeting in Chicago on April 10-12, 1918. Roy Chapin was among several speakers on the topics of motor truck transportation and highway improvements. His subject was “New Conditions in Transportation.” He began:

In the past six months there has come to our view an entirely new picture in transportation in America. We are standing at the threshold of wonderful new developments. We have seen the railroads taken over by the United States government, and, simultaneously, we have seen the highways of the country taken over by the people of this country to haul goods which could not be hauled during this period of railroad congestion by the railroads themselves.

In the whole history of transportation, highway transportation has been the patient

drudge. Suddenly the motor truck has come forward and has supplied for the highways what the steam engines supply for the railroads and the electric car supplied for the interurban systems – rapid transit. This has brought about, as you realize, many, many new conditions.

The conditions which I shall hope to discuss in my paper are not only conditions as pertaining to the roadbed itself but as pertaining to the development of types of traffic which we, I think have not yet seen or pictured in our imagination.

Highways, Chapin said, “must play their part, especially in this war condition,” resulting in the Council of National Defense creating the Highways Transport Committee, which he chaired. It was “the first committee or organization of any authority under the Government which has ever paid any attention to highways traffic.” The committee had been trying to “keep abreast with the times, with these rapid new things that have come to pass within the last six months, due to the utter necessity of war transportation needs.”

Highway traffic was “coming fast now”:

No limitation has been placed, I am glad to say, on the use of gasoline for highway vehicles, but we are leaving the stage in this country when you and I and possibly all the rest of us have in the past rather looked on the roads of this country as for the use of pleasure cars, as some of you like to call them, and passenger cars as the rest of us like to call them. The carrying of passengers, due to the great growth in the motor car industry, has developed to the point where millions and millions of people are riding daily over the roads of this country, but suddenly we come to a new picture where the traffic of the country, the freight that must travel and the express that must travel are now seeking the highways as an additional opening due to the fact, partly, that the railroads are congested; and due also to the fact that the time was just right, the dawn is just breaking on highway transportation. What the years to come will show no one can predict. I am going to outline to you as well as I can what we see in Washington today in the way of possibility, new possibilities in the highway transportation field.

At present, 100 percent of all commodities move on the roads at some stage. In fact, “the highways of our country carry more, carry a great deal more tonnage in a year’s time than do the railroads.” The greater efficiency of motor transportation, compared with horse-drawn movements, prompted the committee to direct its efforts to the “study of the possibility of motor transportation, and that is for this reason that the motor transport fills a niche that is not filled by any other means of haulage.”

As a result, in the last 2 weeks, the Council of National Defense had “recognized the utility and the necessity of motor transportation.” He was referring to the resolution, cited earlier, about approving “the widest possible use as a transportation agency of the motor truck.” This resolution put “the stamp of Governmental approval on the new means of transport.” It was recognition that the motor truck could provide what the railroads, interurban lines, and waterways could not, namely “transportation from door to door.”

The committee was working with railroad officials to “take off of the railroads the short movement, which is congesting their terminals, and place that movement on the highways, where I might say it legitimately belongs from every economical standpoint, which would be helping them just that much in this present serious situation.”

Especially in the heavily congested eastern zone, every large city had “established intercity truck lines, plying back and forth on a regular schedule, carrying goods out at a more rapid rate than either the railroads or express lines, and in many instances taking them right from your door and delivering them to the door of your consignee.” The motor lines would soon “form a perfect net work throughout our whole United States, and they will live not because they are well financed, not because they are run by an enthusiast, they will simply live on a competitive basis where they can prove that they will carry that traffic more quickly, more expeditiously and more safely than any other means of transportation.”

One problem the committee found was that motor trucks were entering the city fully loaded, then returning empty. In the fall of 1917, an experiment was undertaken in Connecticut based on experience in England. Fourteen local return loads bureaus were established, “all listed in the telephone books as return loads bureaus.” That way, the drivers could find loads to carry to their originating city or area. The idea was spreading to nearby States, including New Jersey and Rhode Island. “This coming week a transport return bureau is to be established in New York City.” Philadelphia was next.

One of the committee’s special interests was the shipment of food. “Out about the various cities of this country are thousands and tens of thousands of acres of land which could ship into the city a very large amount of food if any means were obtainable to get that food in easily and on a daily basis.” The previous fall, the committee “found in Maryland a very wonderful system of rural express wagons was in operation”:

These rural express wagons start from the farm and they run into Baltimore. They run into Washington, but most of them run into Baltimore Those lines in the main reach farms that are not on the railroads or not upon any interurban line.

After study of systems around the country, the committee concluded that the rural express system in Maryland was “the best system of any state in the country.” It “supplies transportation to the farmer and gives it to him daily, economical and efficient transportation that he can count on, to do the work and a convenient transportation.”

The committee was working with the Food Administration and the Department of Agriculture to expand rural express systems:

No one can sit here and predict at the moment where the highway transportation is going and how big it is going to get. But, I can say this, I look for it to come just as surely as can be. That highway transportation is going to link up the farms of this United States on a regular service and on their main highway in this country, and that within a space of a very, very few years; in conjunction with the Quartermaster Corps of the Army and the

Engineering Corps our committee was called on to assist in laying out the so-called military motor truck routes.

He discussed transport of trucks, under their own power, to the ports for shipment to France:

The greatest difficulty in bringing those trucks east this winter was not the men or their lack of training, nor was it the trucks. It was the snow upon the roads. I do not know whether you realize it or not. We have rather been in the habit of, in this country, taking it for granted that when snow fell on our country highways we might just as well wait a while to use them, but when you are in war you cannot wait for snow to melt. These trucks had to go through, and they went through. They went through, I might say, from Detroit to Baltimore over roads that were in the main cleared, and cleared quite well, by the various state and county and township officials living along the line, who did that as a patriotic duty. They said if they want to go through we will clear those roads so that they can go through. And they cleared the way.

Based on experience with the trucks-for-France trips, Chapin predicted “we are coming to a point in this country and I hope it won’t be long, when the highway traffic will be of such importance in our nation that the main highways in our state will be cleared 365 days in the year.” It was inefficient to spend \$20,000 a mile to build roads that could not be used in winter. “It is inefficiency, and it is something I think possibly the army trucks by the examples that they have set and the experience that they have had is going to change.”

Another lesson learned from the extraordinary snow removal is that “where snow is removed, the experience of the highway engineers is that it is shown that the break up of that road in the spring is not anywhere near as heavy as the break up would have been if the snow had stayed on that road until spring comes.”

Local conditions, of course, varied around the country among the modes of transportation:

Traffic over the waterways very frequently must come to the boat over the highway. I am full of predictions to-day, but we are going to match up the waterway system – inland waterway system – with the inland highway transportation system, which will take freight from the stations, and take it down to the waterway system and deliver it to the boat and the boat will take it and then again the motor truck will take it from the boat at destination and deliver it to the final destination.

The result “means much for the commerce of your particular communities.” He urged creation of local committees to study the topic:

Such a committee could give the whole matter their intelligent thought; such a committee might develop a very excellent point of contact [sic] with which our committee might work, and many of the questions which are coming up in the city from which you come. It is something I would like to have you take home and consider and if such committees are appointed just advise the Highway Committee [of the] National Council of Defense,

Washington, and we will see that you will be kept in touch with what we are doing.

Unlike in France, the United States did not own any roads or highways except within public land:

Whether that condition will come where we will have routes similar to the main roads of France, maintained and controlled absolutely by the French government, whether the time will come when we will have those roads in the main highways of this Government, whether that time will ever come I cannot say. It rests with you. You are the Government. The government takes over what it should take over. So that really in a matter of that sort it is impossible to predict.

It is simply a question of what the people of this country want.

Either way, a “new type of transportation carrying every year millions of tons of freight is coming into being, and it has possibilities you cannot put down on paper. It has perhaps the greatest potentiality or potential possibility of any form of transportation that we have. We are going to have a net-work of good highways in this country. If we cannot have them during this war, we can have some of them. We ought to have all those highways which are essential to the conduct of business – the conduct of our military establishment. All of these highways will help to win the war.”

He concluded:

It seems reasonable to me that the movement of all the freight in the future in America for moderate distances is going to be over the highways from door to door. This is certainly worthy of your careful study. You are going to see articles and literature of all sorts, and you will have all sorts of opportunities to become more familiar with it, because the development of highway transportation is looked up as news to-day.

I want to impress on you that you can help guide this form of transportation. This is your opportunity to be in at the beginning of the wonderful new form of transport in these United States, and to each one of you individually to help guide the future of this wonderful new mode of transportation. [Chapin, Roy D., “New Conditions in Transportation,” *Motor Age*, April 18, 1918, pages 18-20]

The U.S. Chamber of Commerce adopted a resolution calling for:

Whereas, it is apparent that the present traffic burden is beyond the capacity of the railroads, and that the vigorous and successful prosecution of the war is hampered thereby; it is therefore imperative that our great rivers, canals and intercoastal water routes, as well as our main highways, should be forthwith used to move freight; be it therefore

Resolved by the Chamber of Commerce of the United States that the Government,

through the president and Director-General of Railroads, be petitioned:

1. To organize and operate existing equipment and construct new equipment for use upon the inland and coastwise waterways in accordance with the authority recently conferred by Congress in the Transportation bill.
2. To complete trunk highways for heavy traffic where they can be useful in relieving railroad congestion.
3. To adopt a permanent policy, assuring co-ordination of railroads, water routes and highways for traffic service. ["U.S.C. of C. Meeting," *The Road-Maker*, May 1918, page 41]

Adapting to Highway Transportation

Highway development, to a large extent, depended on bond issues by State and local governments to pay for their own work and to provide revenue to match Federal-aid highway funds. Members of AASHO's executive committee met in Washington with Federal officials to discuss the limitation of highway bond issues in a way that will be most helpful to the country during the war. F. H. Goff, a member of the Capital Issues Advisory Committee, represented the Federal Reserve. OPRRE Director Logan Page participated in the meeting.

The AASHO representatives quoted a letter from Secretary McAdoo in which he said:

We are engaged in a great war, a war in which the very safety of America is seriously imperilled. We can not win this war unless every resource of the Nation is carefully husbanded and used with the utmost intelligence. The great financial operations of the government, greater than those ever undertaken by any government in the history of civilization, make it essential that every unnecessary expenditure by the Government, by the States and municipalities, and by private corporations, and individuals be avoided while the war is in progress. Unless this is done it will be impossible for the people of the United States to support its soldiers and sailors who are shedding their blood for us upon the battlefields.

Goff made clear that in the Federal Reserve's view, State, county, municipal, corporate, and individual "financing should be strictly limited to projects which will contribute to the successful prosecution of the war, or which are necessary for public health and welfare." Local and personal interests must be subordinated to the public welfare. Only by enforcing "the most rigid economy" in all such matters, could the United States "hope to bear its part of the financial burden of the war and to release sufficient labor and materials for war purposes without depletion of our resources."

An account of the meeting in *Better Roads and Streets* added:

Highway construction and maintenance calls during normal times for an outlay of some three hundred million dollars annually. The Federal Government co-operates directly with the States through a large Federal appropriation and pays fifty per cent. of the cost

of selected roads. L. W. Page, director of the Bureau of Public Roads, explained that already his bureau was co-operating with all of the forty-eight State highway departments in a most rigid selective consideration of all highway projects under the provisions of the Federal Aid Road Act, to the end that only those which are of military or special economic importance should be approved. That the people should be taken fully into the confidence of the State and Federal officials and asked to co-operate in the weeding out of unnecessary public improvements, was the unanimous sentiment of the officials present. [*Better Roads and Streets*, April 1918, pages 150-151]

Highway Transportation Jeopardized

S. M. Williams of the Highway Industries Association addressed the Highway Traffic Association of the State of New York on April 16, 1918. Williams began:

Are we as a people serious as to the importance of highway transportation? Do we believe that highway transportation is necessary for the building up of the great industrial and agricultural industries of our country? It will be necessary for us to come to a definite conclusion as to these facts before we are in a position to consider highway transportation as being jeopardized.

Because transportation is "the foundation of civilization" in any country, neglect of the roads "would mean that they would be left behind in the race by more enlightened localities." The importance of roads at present differed from the past only "in the increased demand":

Official Washington has for many years closed both eyes and ears to the public highway, and their refusal to allow the highways of our country to be improved so that they might take their proper place in our great system of transportation is to-day penalizing the country many times the cost of highway improvement.

In this time of war, he believes citizens had a duty to support the government "in whatever it undertakes," but also to "frankly and fearlessly" call attention to its "errors in judgment when we conscientiously believe they exist and are of great importance to the welfare of our country."

Notwithstanding the importance of good roads to the war effort, "we find ourselves facing a second year of retrenchment in highway improvement, and only a few months ago the public was astonished to read that the highway construction of our country was placed in the same classification as the manufacture of musical instruments and the building of theaters." Given that attitude, those who understand the importance of good roads must "join together and place their collective experience and energy at the disposal of the country and back of an intelligent campaign of highway education":

It is time that our National Government should assume its own responsibility in highway development, and should build and maintain certain classes of roads without obligating States and counties. In this I do not mean that States or counties should be relieved of their own individual responsibilities in highway development.

There should be co-ordination of responsibilities based upon definite policies that will insure an intelligent highway program upon the part of the Nation, State, and county.

Williams pointed out that nine government departments were “directly interested in highway development – the departments of Agriculture, War, Post Office, Commerce, Interior, Labor, the Food, Fuel, and Railroad Administration – and that notwithstanding our highways are just as important to our country as our railways, we find the highways without similar consideration or representation.”

State highway officials complained that they had no centralized national authority with power to act. “The Office of Public Roads is doing all they can, but they are without either authority or power.” The agency was “subordinate to another branch of the government, which should not be the case.” The time was “fast approaching, if it is not here, when the people of the United States will not stand for further subordination of the highways of our country to the interests of other agencies of transportation.”

The warring countries of Europe would, “for years at least,” look to the United States “for a large part of the enormous quantities of materials of construction that will be required in repairing the hundreds of millions of dollars’ damage from shell fire” and other sources. Demand in the United States also will increase. “It is safe to say that in the minds of the people of the United States there must be many changes and more efficiency in all transportation of our country”:

They will no longer be satisfied with its development upon a single trackplan – that of the railroads; they will demand that every form of transportation, including the highways, waterways, and railways, steam and electric, be developed to their highest point of efficiency so that each type may take its proper place in the general system of transportation.

With regard to the “dilatatory and negligent policy of general highway development,” he cited the difficulty of road building “because labor must be considered for the industries, the farms, and lumber camps.” Williams considered this assumption a misunderstanding. Many workers who left the road field for war-related work had returned to their original field. This reality illustrates “that labor to a degree only is mobile and that a workman skilled in one line, mastered in from ten to twenty years, cannot quickly, if at all, become proficient in an entirely new craft.” In addition, prisons had many “able-bodied and sound-minded male prisoners” who could be used in highway construction.

The other issue affecting road construction was the shortage of rail cars for the movement of roadbuilding materials. It demanded “serious consideration”:

What the result will be, I am not able to predict, but I am sure as necessity of road construction and maintenance is forced upon Government by the complete breaking down of our highways under the excessive traffic demands, ways and means will be found for the movement of necessary materials.

Williams stated that railroad officials had told him that if the question were left to them and the communities they serve, “in most cases the equipment can be furnished in such a manner as to not seriously interfere with the movement of other commodities.”

He also noted the “considerable comment” from officials about the need to curtail road construction “on account of finance and great emphasis is placed upon the passing of the Capital Issues committee upon all bonds for road improvement in amounts over one hundred thousand dollars”:

They fail, however, to tell the public that from eighty to eighty-five per cent. of all road construction in the United States is financed by tax levy, automobile and motor truck fees, and that only fifteen to twenty per cent. comes from bond issues. They also overlook the fact that the money from tax levy or fees is raised regardless of war and that it cannot be used for any other purpose than road construction or maintenance.

Williams concluded the speech with a brief discussion of the situation in New York State that had been in the news recently. In 1916, the New York State Highway Commission had failed to meet its road construction quota for the first time. It finished only half the mileage completed in 1915. The high cost of labor was partly responsible, a problem that worsened in 1917 because of the war. Michael R. Fein, in his book about the State’s road building program, explained that Highway Commissioner Edwin Duffey, an attorney and political operative, was concerned about labor costs:

Duffey recommended a decreased appropriation until the price of labor stabilized. After the United States declared war on the Central Powers in April, the legislature made no highway appropriations at all. The wartime emergency sharply reduced the supply of men and materials and limited the availability of transportation service. Highway work ground to a standstill. Completed mileage (primarily projects begun in 1916) totaled about a third of the peak 1915 mileage. No new construction was begun in the wartime year of 1918. [Fein, Michael R., *Paving the Way: New York Road Building and the American State, 1880-1956*, University Press of Kansas, 2008, page 73]

Williams asked, “Does it not cause you to wonder whether the policy of road construction in your State has not been to secure the greatest number of miles with the money available rather than the building of such highways that will meet the traffic burdens awaiting them?” He could not agree with a “non-go-ahead program in highway building,” explaining:

Traffic will not stop growing because we stop highway work. We might just as well talk about stopping railroad development, and then expect the railroads to meet the traffic demands upon them.

He concluded:

While highway transportation, through the use of the motor truck has already reached some proportion, it is really in its infancy and we must provide for it in no uncertain

terms. We must build roads and more roads, and they must provide for a very heavy increase in heavy tonnage in the near future.

We must also give consideration to adequate bridge construction. A road is only as strong as its weakest link, hence a heavy tonnage highway with weak bridges would be of little value

We should remember that our highway officials cannot build roads beyond the expectation and demand of their constituents and therefore if we do not support them in the building of roads that will be adequate for the traffic demands of to-day with safe margin for future traffic development, we will fail in our duty as good citizens. [Williams, S. M., "Highway Transportation Jeopardized," *Better Roads and Streets*, May 1918, pages 198-201]

Signs That Signify

In May 1918, *Motor Age* published an article about the value of signs. Signboards helped motorists find their way, but also assisted them in finding needed services and sights worth seeing:

Naturally, the motorist could halt his car and make inquiry, provided he is within inquiring distance of some one or some place. The difficulty with this plan is that in addition to loss of time, the person he directs this question to may not know the answer. Many disappointing replies have been received in answer to questions made by transcontinental or even local motorists. The source of information may be honestly mistaken or he may give data as to a turn at this tall tree and the passing of that school house, another turn at the white church, "not the brick church, just beyond, you understand."

The author cited several examples from a recent tour from Chicago to Colorado:

The National Old Trails, of which the Boone's Lick Trail is a part, served for most of the course across Missouri. In most localities it is pre-eminently well marked as to banded telephone poles and metal corner signs mounted usually upon metal posts and indicating the main trail, as distinguished from tributary roads, also giving distances to the nearest small towns and the most important large cities, as Kansas City. Columbia has in the middle of a business street an excellent sign of this route, mounted upon a pedestal, naming the city itself, with a westward arrow showing the direction and distance of Boonville and Kansas City and an eastward arrow pointing, with the terms of mileage, to Fulton and St. Louis.

The state of Missouri has co-operated with the Daughters of the American Revolution to place red granite monuments further marking this trail at scattered intervals. Among the most elaborate of these is one at the Salt Creek Church site. Beside it a high arch, borne by pillars, crosses the road, indicating the cemetery beyond, established in 1817, just a

century before these markers were photographed. The site is a "heaven-kissing hill" with an inspiring outlook, an ideal spot for a halt to meditate upon the past of a fair land. The old church is gone, but the mossy, toppling gravestones remain and the grass is kept cut. Most of the burial dates were about 1844.

At New Franklin, not far from the mid-state channel of the chocolate-brown Missouri, this same body of patriotic women has erected an even larger monument to the pioneers who trod this road before us. The inscription is, "Capt. William Bicknell, of Franklin, father of the Santa Fe Trail, with four companions led the first organized trade expedition to Santa Fe, Sept. 1, 1821 This trail, one of the greatest highways of the world, stretched nearly 1000 miles from Franklin, Mo., to Santa Fe, N. Mex. From Civilization to Sundown. Marked by the Daughters of the Revolution and the State of Missouri, 1909."

A justifiable mention of family pride and a feeling of public spirit seems to have prompted one farmer. Framed by a high background of trees, shrubs and vines a large sign at the fence reads, "Old Homestead settled by J. F. Rice, 1852. Best Wishes to All. J. D. Rice."

Along the Santa Fe trail occasional stone monuments appeared, as upon the other historic trail to the eastward. At Buckner three of these stones are grouped.

One progressive farmer had painted his silo as a landmark using three broad bands, the red, white and blue of the National Old Trails group of connecting old roads, now modernized.

Educative signs picked up in the Sunflower state, including those giving the altitudes of cities. Those who had never visited the state before may have a mistaken idea that the high plain begins in Eastern Colorado. Successive city signs teach the error, for the western portion of the state is much higher above sea level than the eastern. Among signs of interest Bonner Springs warns, "Ten dollars' fine for hallooing and disturbing the peace." The Ogden monument marks the geographical center of the United States. At Brookville was the first signs of a free camp ground. Wilson placards, "Tourists welcome. Wilson Club. Telephone Building." Near Ellinwood is a stone Santa Fe marker. Pawnee Rock does a worth-while act in placarding on its main street the existence and direction to Pawnee Rock State park, a few blocks away." Here a monument in a neatly kept square, surmounting a little hill where pioneers, with several famous scouts, held the Indians at bay, is dedicated, "In honor of the brave men and women who, passing over the old Santa Fe Trail, endured the hardships of frontier life and blazed the path of civilization for posterity."

LaJunta offers camps at 25 cents per night per car, fuel and water to boot. Rocky Ford advertises to wayfarers a free camp site at her fairgrounds. ["Signs That Signify," *Motor Age*, May 16, 1918, pages 5-7]

New Restrictions

In OPRRE's annual report for fiscal year (FY) 1918, Director Page explained that in the early spring, "it became apparent that unless positive action was taken, serious difficulty might arise in obtaining the necessary bituminous materials for highway work during the season of 1918." He worked with the Fuel Administration to establish a permitting plan that was released to road and street officials seeking bituminous materials for use in road and street work. The message began:

In order that the fuel oil requirements of our Allies, as well as our own Army and Navy and essential war industries, may be fully satisfied, it is found necessary to limit the use of petroleum and coal in the manufacture of road products, such as asphalt, road binders, road oils, tar binders or dressings.

The United States is now being drawn upon to an ever increasing extent for petroleum products, especially fuel oil. It will be appreciated that this demand must be satisfied. Commencing this date we request that all highway work in your state of any character, including municipal work involving the use of the above mentioned materials, be passed upon by your State Highway Department. A special permit of the Fuel Administration, Oil Division, will be required before delivery of purchases will be authorized

Preference will be given to material for maintenance and repair work. The supply of the above materials is so limited that it is requested that all new construction involving these materials be deferred this year except in cases where such work is necessary toward winning the war.

He included the forms for approval to use the oil-based materials for maintenance, reconstruction, or new construction. The forms were to be approved by the State highway department and mailed to Page, "acting as chairman of a committee which will consider the necessity of the material being supplied and make their recommendations to the Oil Division of the Fuel Administration, which will issue permits in accordance with the recommendations when the necessary material is available." The State's certificate would indicate that State officials were fully aware of the project and that "a genuine and urgent necessity existed for the work therein described."

Page requested that each recipient of his letter "give this matter full publicity, so that all parties concerned will be familiar with the procedure necessary to procure supply of these materials." ["Government Restrictions on Bituminous Materials for Roads and Streets," *Good Roads*, May 18, 1918, page 254]

Page summarized the result in the annual report:

Under that arrangement several thousand applications for approval of highway projects were submitted to the office and permits were issued by the Fuel Administration in line with the arrangement for amounts of bituminous materials equivalent to upward of 100,000,000 gallons. This work, however, was merged in June 1918, into the work of the

United States Highways Council, and the totals to June 30, inclusive, cover in addition to results obtained under the original arrangement, those obtained under the operation of the United States Highways Council for the period from June 8 to June 30, inclusive. To the close of the fiscal year, a total of 2,235 applications had been received, calling for the equivalent of 75,000,000 gallons of bituminous materials, of which 58,000,000 gallons had been approved and permits issued. [Page, L. W., Report of the Director of the Bureau of Public Roads, October 14, 1918, *Annual Reports of the Department of Agriculture* for the Year Ended June 30, 1918, page 374]

On May 31, the Council on National Defense altered Priority Order No. 2 to allow open-top freight railcars to carry sand, gravel, and other road material according to a ruling of the Railroad War Board. Suitable open-top cars “should be furnished preferentially” for transportation of coal, coke, and ore. Those not suitable for the preferred use “may be furnished for the transportation of stone, sand and gravel, and when so furnished shall be used preferentially for highway maintenance materials.” The suitable cars, on return trips to mines or ovens “should be utilized wherever practicable in furnishing car supply for stone, sand and gravel.” Every effort should be made, “consistent with keeping up the production of coal, coke and ore, to furnish shippers of stone, sand and gravel with a minimum of 40 per cent of their normal weekly transportation requirements.”

The revised order added:

Where the transportation needs of essential road construction or maintenance projects cannot be met by car supply furnished in accordance with the above rules, the state, county or municipal officials in charge of the work should, through their proper state highway department, apply to the Director of the Bureau of Public Roads, United States Department of Agriculture, Washington, D. C., for assistance. Such applications will be considered by representatives of the Department of Agriculture, the War Department, the War Industries Board, the Fuel Administration and the Railroad Administration, and in accordance with the recommendations of such representatives, the Car Service Section will endeavor to furnish car supply necessary for approved essential road construction or maintenance.

It must be understood that car supply for stone, sand and gravel must not be permitted to jeopardize the essential production of coal, coke or ore. If at any time such a result is apparent on individual roads, or generally, orders will immediately issue to curtail the car supply for stone, sand and gravel. [“Road Work Gets Cars,” *Motor Age*, June 6, 1918, page 13]

Still, coordination remained a problem, as Director Page explained in his 1918 annual report:

It became apparent early in the fiscal year that some method of coordinating the various powers of the Government with reference to highways was essential, not only to the appropriate regulation of highway work during the period of the war, but to enable really essential highway work to proceed. Evidence of this existed in the fact that the Capital

Issues Committee passed upon the highway bond issues; the Railroad Administration controlled cars which were required in the transportation of highway materials; the War Industries Board had power to control essential highway materials, such as steel, cement, brick, crushed stone, etc.; the Fuel Administration exercised control over bituminous materials, such as oil, asphalt, and tars; the Department of Agriculture exercised the direct power of the Government with reference to highways under the terms of the Federal aid road act, and the appropriation for the Office of Public Roads and Rural Engineering; the War Department was directly interested in highways which serve military purposes, such as Army truck routes, etc. Any highway project which required several of the facilities controlled by these various Government agencies was compelled, therefore, to be subjected to the delay and hazard of securing approval separately from each Government organization.

To resolve the situation, Secretary of Agriculture Houston as well as the Secretary of War, the Director General of Railroads, the chairman of the War Industries Board, and the Fuel Administrator each named a representative to serve with Page on a council to coordinate these activities. "In accordance with the Secretary's suggestion, the United States Highways Council was formed and held its first session on June 8, 1918." Director Page served as chairman, while OPRRE's Chief of Management, J. E. Pennybacker, served as secretary:

An immense amount of regulatory work has been done by the council since its organization The office provided engineering and clerical assistance to the council as well as office room, necessary stationery, and printing. Engineers of the office made inspections of projects on which the council desired information. [*Report*, pages 374-375]

To explain the attitude and policies of Federal agencies on road building and maintenance, the Council of National Defense transmitted a letter from Secretary Houston to the State councils in late June:

Fully recognizing the vital military and economic importance of the highways of the country, the council has emphasized certain important policies set forth therein, and urged the state councils to cooperate with the state highway departments to the end that consideration be given to the following in connection with all road construction and maintenance:

1. All plans for road construction and maintenance should be viewed in the light of war conditions and expenditure of labor and materials should be directed only to those roads which are of prime importance for economic and military purposes.
2. It is desirable to avoid offering to the market issues of bonds which are not urgent from the point of view of aiding the nation in winning the war.
3. As far as practicable important highways already constructed should be maintained, and only those should be constructed and completed which are of vital importance because of their bearing on the war situation. They may be summarized as follows:

- a. Those which are utilized or will be utilized by the military establishment.
- b. Those which carry considerable volume of material and supplies essential to war industries.
- c. Those which have a bearing on the production and distribution of food supplies, connecting population and shipping centers with surrounding agricultural areas.
- d. It is especially desirable to use, wherever possible, local road materials in order to simplify the rail transportation problem. ["Road Construction Urged by Council of National Defense," *Good Roads*, June 29, 1918, pages 325-326]

The Impatience of Judge Lowe

Judge Lowe wrote to Roy Chapin in what *Better Roads and Streets* called "an excellent argument in favor of a go-ahead road building policy at this time." After referencing "some literature" he was sending under separate cover "which may or may not interest you," he got to the point:

I write chiefly for the purpose of protesting most seriously against the attitude of the Federal Reserve Board, etc., regarding the marketing of road bonds. While I concur heartily in the position that these boards should adopt a selective system and approve only such issues as will tend to the immediate advantage of the country both as to military needs and commercial interests, yet I do sincerely protest that the situation should be handled in such a way as to not only further the best interests of the Government, but so as not to put an everlasting "quietus" on the road question.

History teaches how easy it is to destroy a movement even after it has reached such headway as the road question has at this time. There is a world of people not much inclined at best, to do anything, who will immediately become inoculated with so much patriotism that they dodge behind a situation like this and proclaim with much fervor that all these matters ought to be postponed until the war is over. The most important question in my poor judgment, that we are facing, next, of course, to winning the war, is the situation that will confront us when the war is over and our boys all come home. They reply to this that we should go ahead and get ready, carry bond elections, etc., and then hold up until the war is ended. The complete answer to this is that when you tell us to stop now, it is foolish to urge our people to go ahead. As I see it, unless we take immediate steps to get this situation ironed out and put properly before the public, our movement is going to suffer very serious damage. [*Better Roads and Streets*, June 1918, pages 241-242]

On July 3, Judge Lowe wrote to members of the National Old Trails Road Association, "particularly in Missouri, Kansas, Colorado, New Mexico and Arizona:

The National Old Trails Road is either completely hard-surfaced or its permanent

construction is completely financed from Washington to Saint Louis. A few counties and road districts have been slow to take final steps for financing the road in each of the states west of the Mississippi River.

The final adjourned meeting of the executive committee will be held at this office on the 17th day of August. Immediately thereafter, a new map of the road will be gotten out with such revisions and possible local changes as may be ordered at that time. A complete set of plates have been ordered and it only remains for each county or subdivision thereof, where permanent action has not been taken, to be ready with final reports at the time. It is squarely up to you whether the road through your county or district shall remain on the map as now established. No added days of grace will be permitted; you have had ample time, and the committee will be slow to consider any excuse or apology.

I repeat a statement often heretofore made, that the policy of "slowing down" in road work does not, and I am assured will not apply in building the National Old Trails Road. The "wild-eyed" and "blind-fold" policy adopted by many of the state and road associations has never been the policy governing this association. We have adhered logically and consistently to the building of this great National Highway. We have no "shotgun" system of firing money in the air and letting it fall where it will. We have opposed with all our might, the "pork-barrel" principle of scattering money in building little patches of road. We feel perfectly assured that this policy and purpose consistently pursued by this association, takes it entirely out of that class of propaganda, and insures us that no opposition will be made in our effort to finance the construction of this road. Each state through which the road runs will be reported as a whole, to the proper authorities at Washington, and there is no question of their approval; therefore, there is no excuse for dodging or hiding behind a general policy adopted by some of the committees at Washington.

Keep in mind that the 27th day of August will soon be here, and that no added days of grade will be tolerated. [National Archives at College Park]

Many highway critics considered the Federal-aid highway program established by the 1916 Act to be a pork barrel program. Politicians, in this view, would spread each State's money over every political subdivision to secure votes rather than the long-distance roads that were needed.

On July 11, Raymond Beck, field engineer for the Highways Transport Committee of the Council of National Defense in Washington, wrote to Judge Lowe:

It probably is of interest to you to know that the writer was largely responsible for the immediate completion of the National Old Trails Road in Ohio, and that the stretches of fourteen and twelve miles of unimproved road will be completed before the end of August this year.

I attach hereto a copy of the "Official Bulletin" with regard to the Government policy of

road building this year, and call your particular attention to Paragraph 4, enumerated therein.

Judge Lowe included the letter at the top of his July 15 letter to association members:

The above letter drives the faint-hearted and lukewarm from hiding behind the general policy of the Advisory Committee regarding the continued construction of the National Old Trails Road. There has never been any doubt regarding the attitude of the Government toward this road. If the people earnestly desire it, and your State Highway Boards are ready to cooperate with the General Government, then there is no excuse for delay. There is no record that bonds for this road have been discouraged, nor are they likely to be. The completion of the road in Ohio is conclusive evidence that no obstruction has been or will be contemplated.

Paragraph 4 referred to by Mr. Beck, copied from the Official Bulletin of the Council of National Defense, reads as follows:

“It is especially desirable to use, wherever possible, local materials in order to simplify the rail transportation problem.” In the states west of the Mississippi it is easy to comply with this request as there is abundance of local road material at hand. There is no excuse for getting tangled up with the transportation problem.

Both Federal and State money will be turned back into the treasuries because the people have not accepted the proffered assistance. The materials at hand may not build the ideal road some people have in mind, but it will build a good road – such as the Federal and State authorities will be glad to approve. I repeat, no bonds issued for the building of this road in any of the States have been discouraged anywhere, and are not likely to be. More than one-half the mileage is built or provided for; and instead of discouraging, both the State and Federal authorities urge us to go ahead and complete it. The Federal money is appropriated and waiting, and so is the States’ share in some of the States. In Missouri, the State Highway Board is begging for the opportunity to pay one-half the cost of construction. The money is in the treasury. Why wait? The State Boards of Kansas and Colorado will go the limit of their authority in the effort to build. Why wait! [National Archives at College Park]

The August 1918 issue of *Better Roads and Streets* published a bulletin from Judge Lowe under the headline “We Are Making Progress.” In it, Judge Lowe returned to his longstanding opposition to the Federal-aid concept:

One of the most hopeful indications at present is that, notwithstanding the discouragement of active road work, because of the action of certain boards and individuals at Washington, yet there has recently been a road organization established with headquarters in the city of Washington, known as the Highway Industries Association, composed of some of the leading and most prominent men of the nation.

For many years we have been constantly urging that the true, if not the only solution of the road problem in this country was, for the Government to establish, build, and maintain a large system of national highways. This solution, notwithstanding the circumstances of the present, is making rapid progress throughout the country.

This new organization above mentioned seems to comprehend the situation and is taking hold of it with that degree of vigor which insures success.

The bulletin issued by this [Highways Industries] association, July 26, ought to be in the hands of all the people. After showing that we have about three million miles of roads in this country, they show in this bulletin that it will take about 166 years at the present rate of progress to build all these highways, and they show conclusively that this cannot be done unless the Government shall build and maintain, at least, the great leading trunk-line roads of the country. This bulletin says, "Our highways must be lifted out of the mud, and we must be up and doing and add at least three times as much fuel as heretofore has been used to the smoldering embers."

He reprinted a resolution adopted at a meeting of the Virginia Council of National Defense, "at which were present citizens from twenty-four counties and nine cities":

Resolved, That this meeting hereby recommends the adoption by the National Government of a definite highway policy, and the establishment of a National Highway System; this system to include only the main arteries of travel, and to be constructed and maintained by the National Government.

Judge Lowe also reprinted a similar resolution adopted by the National Real Estate Board at its eighth annual convention in St. Louis:

Be It Further Resolved, That we recommend to the Government, the creation of a prominent highway commission, for the purpose of preparing plans for the construction of a national highway system.

Judge Lowe continued:

The action of these two conventions, and of many others recently held, is emphasized by the Highway Industries Association, above mentioned, and indicates most clearly that the wild-eyed, pork-barrel system has come to an end.

If this war has taught us anything, it is that all industrial and development work must be organized and carried on in the most sensible and efficient manner possible. This great purpose can only be achieved by fixing the responsibility and carrying forward the work in a well-grounded, systematic manner. This can only be done when the Government builds and maintains its own roads under the supervision of its own engineers, and when the States and counties pursue a like policy.

Day is not only dawning, but the sun is high up toward the meridian, and the light is shining in full effulgence on all the dark and obscure places in the country. This is no time for any one to sound a note of discouragement. When farm lands are paying for themselves twice over with the produce of two or three crops, why say the time is “inopportune” for road development? Why slow down when there is every encouragement to go forward with renewed energy? Pile high the fuel on the “smoldering embers,” and it will burst into a flame of prosperity and wealth such as this country has not seen. [Lowe, J. M., “We Are Making Progress,” *Better Roads and Streets*, August 1918, page 314]

The Road-Maker published the bulletin in slightly different form. It added that Henry Shirley, secretary of the Highway Industries Association, indicated that the association appreciated Judge Lowe’s statement “and wishes to amplify what has been heretofore said in the efforts it proposes putting forward to accomplish that which seems most important to the welfare of the country, viz: The laying out and construction of a national system of highways by the national government.” (Shirley had resigned as chief engineer of the Maryland State Roads Commission until on April 15, 1918) [“We Are Making Progress,” *The Road-Maker*, September 1918, pages 29-30]

On August 14, Judge Lowe addressed the Young Men’s Division of the Chamber of Commerce of Kansas City, Missouri, at the Baltimore Hotel. He told them:

We are facing a crisis on the road question much more serious than is generally considered. It is simply astounding that with a full realization of the important part which transportation bears in this war we should have deliberately and premeditatedly struck down at a single blow the principal factor, that of building and maintaining the common highways of the country.

An editorial in the *Manufacturers’ Record* aptly stated the true situation as follows:

All that has been done by all the bureaus and departments in Washington on this subject has been negative rather than positive as compared with the needs of the time. We had negation instead of positive aggression, with a chaos in highway work that must have delighted the heart of every pro-German in the nation.

We are spending a billion dollars for railroad betterments, a sum wholly inadequate with the actual needs of the hour, but we are spending almost nothing in the development of highways for motor truck hauling, though motor trucks are increasing in every part of the country where a passable highway is to be found. The government itself has depended upon motor trucks for work which the railroads cannot do. The Government is wearing out existing railroads; it is shipping stuff all over the country by motor trucks and yet it makes no solitary move of any significance whatsoever toward the maintenance of existing highways or to the building of new highways adequate to meet the needs of the hour.

It looks as though no hope can come from any of the existing governmental activities which control and suppress highway improvements. We can see no hope except through an organization formed by President Wilson himself, in cooperation with Congress, or by Congress taking the lead for creating a commission committed wholly and absolutely to the one great issue of building highways.

Judge Lowe continued:

Consider for one moment that the appropriation of a billion dollars to rehabilitate the railroads would, if a like amount were appropriated to the building and maintenance of the common roads, which belong to the people, if the average cost of construction be estimated at \$10,000 per mile, would build 100,000 miles of roads, and if the average cost be placed at the high estimate of \$20,000 a mile, a billion dollars would build 50,000 miles of road.

Moreover, when this money appropriated to the railroads is expended, however important and necessary such expenditure may be, it will not have added one dollar additional value to our national wealth. Whereas, if 100,000 miles of common roads were built and maintained by the government, they would absolutely pay their entire cost before the roads could be completed, in the increase of additional values, thus adding immensely to the national wealth.

I know of no other scheme of internal improvements that would add so much to our betterment, would add so much to the wealth and prosperity, and accomplish a greater amount of good toward winning the war. If the government cannot see its way clear to do this great work, and do it *now*, by all means it ought to at least get out of the way and let the people, who stand ready and willing, build their own roads. But we are facing the amazing spectacle of the government refusing to contribute to this great cause and, through these committees, bureaus and departments, absolutely discouraging and suppressing the effort of the people to build them at their own expense. We have waited with patience because no man or association of men desire to be placed in the attitude of criticizing or opposing any plan designed to help forward war measures, but all the dictates and impulses of genuine patriotism require that we should speak out plainly and emphatically even at this late day, and undertake to reverse this Washington attitude.

When we shall have 4,000,000 or 5,000,000 men on the battlefields of Europe it will tax our productive and transportation energies to the very utmost to keep them supplied with necessary provisions, arms and ammunition. Under such circumstances, facing such a condition as this, shall we halt or hesitate. No, a thousand times no! Every patriotic impulse, every drop of American blood, should be enlisted in this, the world's greatest and world's most glorious and righteous war on the part of the Allies, and no other act on our part can do more to bring a speedy and righteous verdict than going forward in this great work, so necessary in the solution of war problems. ["The Crisis of the Road," *The Road-Maker*, September 1918, page 28]

The Young Men's Division adopted resolutions calling for "a definite highway policy and the establishment of a national highway system – this system to include only the main arteries of travel of the nation, and to be constructed and maintained by the National Government." The Federal Government should establish "a permanent highway commission" to build the system. Given the importance of roads to the war effort, President Wilson and Congress should take immediate steps "to encourage, expedite, and promote the building of such a national system rather than to continue the policy of discouragement and suppression as heretofore practiced." If it was "practical and profitable" to appropriate public funds for the railroads, which "belong to individuals and corporations," it was "practical and important" to use public funds for building and maintaining the common roads of the country, "which belong to the general public." In short, the division called for creation of an "organization in Washington, committed absolutely to the building of highways and nothing else." The resolution concluded:

The chaotic condition which now prevails throughout the country in highway work, at a time when every mile of bad road of main highways lessens our fighting power and increases the cost of our food and fuel situation, and lengthens the duration of the war, is intolerable.

The railroads of the country have absolutely broken down, and proven their utter incompetency. It has been demonstrated that the utmost stretch of work that can be given to their expansion will scarcely more than take care of their deterioration under the strain under which they are working.

Motor trucks over our highways can materially aid the situation, supplemented by waterways and railroads, but it is arrant nonsense to encourage the building of trucks if there are no roads over which they can run. ["RESOLUTIONS," *Better Roads and Streets*, September 1918, page 339; Judge Lowe's speech is on pages 338-339]

The Road Evolves

On August 5-7, 1918, the Spanish Trail Highway Association held its annual convention in Durango, Colorado, with over 600 delegates in attendance. (The name referred to a trail pioneered by American and Mexican traders from Santa Fe, New Mexico, to Los Angeles, via Colorado, Utah, and Nevada, not the 19th century trail known as the Old Spanish Trail or the rival trails in Kansas.) One of the important resolutions adopted was to change the name of the organization to the Spanish Trail-Mesa Verde Highway Association. As a report on the convention observed, "The addition of the words 'Mesa Verde' immediately places the location of the Spanish Trail-Mesa Verde route in the mind of the stranger, and the convention no doubt acted wisely in making the change." The report added:

Probably the most important business transacted by the convention was the acceptance of a proposition made by the National Old Trails Road Association to this association, wherein the former offered to place upon its maps and in its road guide the route of the Spanish Trail-Mesa Verde highway, and to declare it the summer route for all transcontinental automobile traffic between New York and Los Angeles along their

national line. The Old Trail route touches the Spanish Trail-Mesa Verde route at Pueblo, where the latter begins, and instead of passing down thru New Mexico, would traverse the La Veta pass, the San Luis valley, Wolf Creek Pass and the San Juan basin, again touching its former line at Gallup, New Mexico.

Life memberships in the Old Trails were offered at \$5.00 each, and since the date of the convention in Durango, the membership campaign has been vigorously pushed, and 1,000 members will be secured during the present month. Thru this action, the Spanish Trail-Mesa Verde route will have as additional backing, the influence of one of the strongest good roads associations in the United States, and it is expected that the time is not far distant when the entire route will be hard surfaced and become a part of a great transcontinental route, leading from New York to Los Angeles. ["Spanish Trail-Mesa Verde Holds Great Convention," *Colorado Highways Bulletin*, September 1918, pages 5, 22]

The August issue of *Dependable Highways*, published by the National Paving Brick Manufacturers Association, featured an article on the surfaces of the historic National Road from Cumberland to St. Louis, all of it incorporated in the National Old Trails Road. An editor's note explained:

Data for this article are compiled chiefly from reports to the editors made by surveyors of counties through which the National Road passes. While the information disclosed is not alarming in the sense that it is unexpected, it is alarming as indicative of the lack of progress really made in highway improvements. The National Road affords a striking example of the error of the restrictive policy toward road building during the war, as well as a basis for demanding Federal participation in highway improvement on a large scale as a national necessity in war time. The National Road should awaken us to the fact that, so far, nothing has been done. How much farther will we get in the next 110 years?

The comment about 110 years referred to the origins of the Cumberland/National Road, which dated to when President Thomas Jefferson signed legislation on March 29, 1806. The initial construction from Cumberland to Wheeling was completed in the late 1810s, built to the highest standards of the time, but by then already deteriorating from heavy use. It would eventually be converted to the innovative macadam type of pavement. In 1820s, Congress approved extension of the road to the Mississippi River, but stopped funding the work after a final appropriation in 1838, so the western section was never completed or, from mid-Ohio west, built to a high standard. Piece by piece, the States took over and converted it to a toll road even as the spread of railroads became the primary mode of interstate travel. (The limited federally funded work in Illinois ended in Vandalia, then the capital of the State. Disputes on whether the road would cross the Mississippi River at Alton, Illinois, or St. Louis prevented further progress and was unresolved when Federal funds came to an end.)

Even with this history, the magazine pointed out, "there is yet no completed thoroughfare":

Control over the highway and its improvement reverted to the states and counties through

which it passes, and at no time in its history has it been a passable thoroughfare from end to end; improved sections have been interspersed with stretches of mud; the improved portions themselves vary in type and quality. Altogether the road is a veritable Joseph's coat and its history has been one of sloth and dawdling.

The National Road passed through 29 counties from Cumberland to St. Louis, a distance of 725 miles. Based on condition, the mileage was classified as:

	Miles	Percent
Brick	96.89	13.4
Concrete	48.00	6.6
Gravel	53.98	21.2
Macadam, all kinds	185.89	25.7
Unimproved*	<u>240.48</u>	<u>33.1</u>
Total	725.24	100.0

*Includes a few miles sparsely improved.

The article continued:

Fitness for travel most concerns the country at large and it is through lack of it, from end to end, that a large measure of the usefulness of the National Road fails to be realized upon. One Indiana county deplores the fact that "the road is unfit for military use until permanently improved." Another, near the metropolis of Indiana, complains that an unimproved section is "rough and full of holes." Over in Illinois a county surveyor remarks that "some of the creeks are not bridged." Another county in the same state describes what is universally true of dirt roads: "unimproved mileage good from nine to ten months in the year." Many sections once improved are much in need of repair, if not of entire reconstruction. An Indiana county succinctly declares that "eighteen miles of gravel and stone are in poor condition; six miles are rotten."

Only 20 percent of the National Road is surfaced with materials capable of bearing traffic without constant and perpetual maintenance; reports reflect the quality of brick and concrete improvements by a predominance of "excellent" and "good" and some "fair." Belmont County, Ohio, paved with bricks entirely across the county, claims "the honor of having the best brick road between Pittsburgh and Kansas City."

Macadam and gravel sections show the need of early repairs, maintenance or reconstruction if previous expenditures are not to be irrevocably lost. We read from an Ohio county: "surface rough and almost worn out"; from another in the same state: "very bad condition." The National Road is virtually unimproved across Illinois, excluding 20 miles in Clark County. It is difficult of travel and in many places impassable in the winter and spring months, helping to account for the hundreds of thousands of bushels of old corn stored on the farms of eastern Illinois that could not be marketed earlier in the year. Improvement of the road in Illinois is contemplated

however.

The article included a table showing the composition of surface through the road:

State	Counties	Miles	Brick	Concrete	Macadam	Gravel	Unimproved
MD	1	13.30	1.25	3.00	8.80	None	.25
PA	3	80.80	6.22	None			
			.80*		8.00*	None	5.66
WV	1	15.00	8.50	None	4.00	None	2.50
OH	9	220.24	46.74	25.10	46.32	62.48	3.60
					11.15*	9.35**	
IN	8	151.90	18.25	16.00	35.00	79.15	2.50
				1.00*			
IL**	<u>7</u>	<u>244.00</u>	<u>1.50</u>	<u>2.90</u>	<u>12.50</u>	<u>3.00</u>	<u>224.10</u>
Total:	29	725.24	96.89	48.00	183.89	153.98	240.48

*Under Construction

**Approximately only, 3 counties report, balance derived from other sources.

[“National Road Is Like Patchwork: Demonstrated Need of Federal Participation in Road Building,” *Dependable Highways*, August 1918, pages 5-7]

American Highways

The new role of motor trucks in the country’s freight network prompted *Sinclair’s Magazine*, founded by the Sinclair Oil and Refinery Corporation, to publish a series of articles beginning in March 1918 until the general title “American Highways.” The articles, most written by Victoria Faber Stevenson, covered a wide range of topics, including several on named trails. In addition to articles about the Lincoln Highway/Dixie Highway and the Yellowstone Trail/Pike’s Peak Ocean-to-Ocean Highway, Stevenson wrote about the National Old Trails Road in the sixth article of the series.

The article in the September 1918 issue began:

“There are no dirt men present, I see. That is because we are looking forward, not backward,” announced Judge J. M. Lowe, the president of the National Old Trails Association [sic], when he presided at the recent convention of that organization in Kansas City. Evidently dirt men are becoming scarce among the members of that Association, the president of which is a leader in advocating modern resurfacing of the road, extending from Washington, D.C., to Los Angeles. Unlike most lengthy highways, the National Old Trail Road was not “routed.” It is a continuous transcontinental thoroughfare, made by joining shorter highways which grew as the Republic expanded westward, each road representing an epoch in the Nation’s history.

After describing the historic roads included in the national highway, Stevenson continued:

A story of the various conditions of these trails since they first became useful would cause the tourist to wonder why his ancestors ever traveled, but the condition of this highway to-day encourages him to take to the roads as thousands have done before. The efforts of "hard surface men" are rebuilding this path from coast to coast so that the road may tell its story to a greater number of Americans who are tempted to take long journeys. Already this highway is hard surfaced as far as the Mississippi River, or funds are provided for that kind of construction. Across Missouri, Kansas and Colorado the greater part of the road has been rebuilt, or funds have been procured for the work, for Kansas alone is represented on this highway by nearly four hundred miles of road costing from twelve thousand to thirty thousand dollars a mile, with more such roads planned. An account of the progress which has been made in grading and hard surfacing in Arizona shows what live interest can do. A description of three hundred miles of California's rebuilt road with its veritable boulevards through the Mohave desert is an allurements to the motorist to start across the continent on the National Old Trails Road and thus to turn the pages of United States history as he proceeds to follow the course the infant Republic took as it toddled west and grew to its giant strength of to-day.

She began a history of each segment, starting with the Cumberland Road:

The restless young Nation's demand for a practical outlet west found its earliest satisfaction in the Cumberland Pike, or the old National Road. It was from a plank taken out of the middle of this road where it was placed about eighty years ago that the gavel was made which Judge Lowe used at the April convention. No road in the United States has received as much attention from a historical standpoint as this one, for it was the only road of any length built and maintained by the Federal Government.

The article concluded with the Santa Fe Trail segment, noting:

This eleven-hundred-mile trail, passable at all times, for no bridges were needed on its entire length, was later surveyed by a road commission appointed by the United States through the efforts of Thomas Hart Benton, of Missouri, who made a trip to Monticello to enlist Jefferson's support in the undertaking.

The article concluded:

With mention of the acquisition of the far southwest, the National Old Trails Road closes its story of national history; but he who seeks natural beauty may find further interest in the highway on the section recently added to include a road to Mesa Verde, where a sunset alone is considered worth a trip to southwest Colorado.

Other articles in the American Highways series included "Uncle Sam as a Road Builder," about BPR's work implementing the Federal Aid Road Act of 1916; "A Challenge to Battle," about the fight to clear the main roads after snowstorms; "Wanted – A Master System of Highways,"

discussing the need to develop a plan for a national system before the war ends; “Highways: An Opportunity for Returned Soldiers,” about post-war employment opportunities; “Road Building with Convict Labor,” which pointed out that, “The man who toils at this useful work of road-building and who does his best during his term of punishment to provide for his dependents gains courage and strength to ‘come back’ to the big world to share its responsibilities and joys”; and “Highways of Tomorrow,” which included this observation:

Tomorrow’s trunk lines must be broader as well as thicker than those of to-day. Officials believe road-beds should be twenty or preferably twenty-two feet wide with substantial, well-built shoulders of from three to five feet on each side Broad thoroughfares allow traffic room for unexpected maneuvers and provide safety in case of skidding as well as affording sufficient space for the repairs of vehicles in case of accident when motor-cars are passing in both directions. Another safety precaution is the careful attention to be given to the banking of curves. The skilful [sic] management often required by the operator of the heavy truck should not be unduly taxed by preventable hazards of the road.

[Stevenson, Victoria Faber, “National Old Trails Road,” *Sinclair’s Magazine*, September 1918, pages 10-15. The first American Highways articles, including those cited here, were collected in Stevenson, Victoria Faber, *American Highways*, Vol. 1, Winship Publishing Company, 1919, but the series continued through January 1921.]

Tightening the Wartime Restrictions

The United States Highways Council issued Bulletin No. 1 on August 5, 1918. All proposed highway and street work should be submitted to the council through the State highway departments. The council urged that highway and street work “be confined to the most essential needs. If this is done there will be a far greater probability that the work thus selected can be promptly and effectively carried through to completion than if an amount far in excess of available facilities were to be undertaken.” Further, “No manufacturer will furnish any road building material until the project has been approved by the United States Highways Council.”

First consideration would go “to maintenance with a view to conserving all the highways already completed if possible.” Reconstruction of a highway would be “favorably considered by the Council only where it is clearly established that maintenance is no longer possible except at prohibitive cost.” New construction would be considered if the work was of military or national economic value. The bulletin defined military value:

A highway of military value is one used regularly for the transportation of military supplies in considerable quantity; for the movement as an established practice of army truck trains, or which is essential to the efficient operation of a military cantonment, post or plant.

It also defined national economic value:

A highway of national economic value is one which serves or will serve, if properly improved, directly to promote the welfare of the Nation, and not merely the local welfare. As examples it may be stated that in this class would be placed (1) highways which although not directly used for military purposes, yet serve to help win the war by greatly facilitating the output or movement of war munitions and supplies; (2) highways which can clearly be shown to relieve congestion on railroad lines in a territory which is actually in need of such relief; (3) highways which give access to or promote the output of natural products needed by the Nation to a marked degree; (4) highways which further housing operations undertaken by the Federal Government or by other agencies with the approval of the Federal Government would justify at times this designation.

The council recommended that State highway departments “give most careful consideration to each application on its merits in the light of the policy announced.” In addition, the council planned to work with BPR and the State highway departments to prepare “a program of road and street construction, reconstruction and maintenance throughout the United States for the working season of 1919.” The council urged officials to “so materially eliminate the less essential projects as to make it possible for the Council to render active aid on the projects it approves.”

The bulletin, which went into effect on September 10, 1918, attached forms for carrying out the stated procedures, including:

HC-3 – Application for approval of projects

H-C-4 – Schedule for use in submitting program of proposed highway and street work during the working season of 1919. [“New U.S. Highway Council,” *Better Roads and Streets*, September 1918, pages 354, 356]

On August 27, the council issued Bulletin No. 2 on “Petroleum, Asphalt, and Tar Products as Road Materials.” The general policy was based on “the enormous increase in the demand for fuel oil due to war activities.” As a result, the supply of petroleum, asphalt, and tar products had to be regulated. “Most of these materials are made from raw products which are either directly or indirectly available as fuel.” Each product “logically should be used where it will be of the greatest benefit to the country as a whole.”

During the war, the use of petroleum products for dust abatement on macadam, slag, or gravel was “considered the least important use of petroleum, asphalt, and tar products.”

However, no “hard and fast rules can be applied; every application “must be considered on its own merits in the light of existing fuel conditions at that time.” All applications had to be approved by the State highway department, except for those for direct Federal purposes; they required council approval. The bulletin explained the steps for securing approvals via application forms HC-3.

Further, any violations should be brought to the attention of the Fuel Administration, “giving the

name, and address of the producer who sells material without permit, and the location to which the material has been shipped.” The bulletin added, “Cases have come to notice where fuel, oil, for which no permit is required, has been sold as such, and illegally used for treating roads.”

[*Better Roads and Streets*, September 1918, pages 334-335]

On September 26, the United States Highways Council issued Bulletin No. 3, which covered highway bridge work during the war:

In view of the absolute necessity of providing for military and naval purposes such large quantities of steel and iron that the use of these materials even for the indirect war needs of the Federal Government has been necessarily curtailed, often against the strong protests of Government engineers. It is the opinion of the United States Highways Council that the street and highway bridge policy of all sections of the country should be based until further notice upon the following principles.

Every endeavor should be made to keep existing structures in service by all available means, such as (a) effective supervision, (b) suitable repairs, (c) control of traffic, (d) prohibition of use of bridges by street car, road rollers, traction engines, and other heavy vehicles.

The bulletin cautioned officials to remember that because products such as cement and bricks require fuel for their production, they cannot be produced in peace time quantities for civil purposes. Consequently, public officials are not justified in assuming that if they change their plans for proposed structures from steel to concrete, it will be possible for them to build new bridges without any difficulty.

If a bridge cannot be maintained or replaced by a temporary bridge, officials should apply to the council, through the State highway department, for approval of a new bridge. “Public officials are reminded that the United States Highways Council looks to them for assistance in reducing to the absolute minimum the bridge materials required.” Three classes of bridge projects were considered worthy of consideration during the war:

- (1) A bridge urgently required as a military necessity and so recommended by the representative of the War Department to the United States Highways Council.
- (2) The replacement of an unsafe bridge which can not be made safe through suitable repairs, traffic regulations, or detour.
- (3) Replacement of a bridge which has been destroyed and which is essential as a direct or indirect war need. [“Highway Bridge Work Under War Conditions,” *Good Roads*, October 5, 1918, page 131]

Also on September 26, the council advised the State highway departments that the Priority Commissioner had issued a ruling that contractors and others engaged in construction of streets, pavements, and roadways “now substantially on the way” were authorized to continue such construction and materials suppliers and distributors “may continue to furnish same for such

construction work up to November 1, 1918”:

Application for permits should be promptly made to the United States Highways Council through State Highway departments for the completion of all such work now under contract, and under construction which cannot be completed prior to November first. No new contracts for the maintenance, construction, or reconstruction of streets, pavements, and highways should be entered into, or no new construction not now in progress undertaken, either prior to or subsequent to November 1, without first obtaining a permit from the United States Highways Council through the State Highway department. [*Better Roads and Streets*, October 1918, pages 378-379]

On September 17-19, the regional chairmen of the Highways Transport Committee of the Council of National Defense met in Washington. They heard addresses from Roy Chapin, chairman; R. C. Hargraves, secretary; Food Administrator Herbert Hoover; Labor Secretary William B. Wilson; Commerce Secretary William C. Bedford; Interior Secretary Franklin K. Lane; Navy Secretary Josephus Daniels; Major General George W. Goethals, and others.

Chapin told the regional chairmen that the purpose of the Highways Transport Committee was to provide more transportation to advance the war effort. He outlined the committee's efforts to move military supplies, speed up war-related work, increase food production, and relieve railroads of short-haul traffic. The committee divided the country on the basis of highway centers and 11 regional chairmen, and 15,000 committeemen who were relied on to expand the country's war program.

Hoover warned of present and future food conditions:

The world never is more than 60 days ahead of famine between harvests, and in consequence of the draining of men from the usual occupations of food producing large areas of Europe today are facing starvation. In the coming winter the deaths from starvation probably will exceed the deaths at the front.

He estimated that after the war ends, the United States would be called on to supply food to millions of hungry Europeans. “If we are to do our duty by the world and ourselves, we must utilize every means to increase production and distribute food efficiently.”

He spoke of the role of highways:

One of the results of a perfected highways use would be to cut down the waste of perishable foods. Fifty per cent of our perishables never reach the consumer. We lose from 40 per cent to 60 per cent of our potatoes yearly. Not only is the producing area of our perishables congested, but in general the producers are too remote from the markets.

Besides stopping this terrific waste a highly developed rural express would work to establish lower prices. Europe has an intimate system of railway lines and canals to transport these products to nearby markets. Where the rural express has been developed

in this country it has operated to these ends. I should say that the failure of public markets in this country is due to the tremendous loss of perishables shipped from remote distances. A network of rural deliveries will provide the economic basis for a successful public market.

A further effect would be to bring into productive activity the large potential of labor now on the farm but not actively producing. Wherever mechanical transportation can be employed there will be a decrease of work animals necessary. Our 25,000,000 to 40,000,000 work animals are eating the crops of an acreage, that, planted to food, would sustain 40,000,000 more people. I believe the Highways Transportation Committee in its brief career has demonstrated the value of rural express, returns loads and generally more efficient use of the country's highways. Let me pledge you the support of my administration and of the local organizations we have the country over in any way we can assist you in promoting your work.

(The Post Office Department had begun using motor vehicles for rural mail delivery on July 1, 1915 at Quarryville, Pennsylvania. In July 1916, Congress authorized experiments to determine "the most practical means of extending the operations of the parcel post in the direction of promoting the marketing of farm products and furthering direct transactions between producers and consumers." The department operated the initial eight routes in the Baltimore-Philadelphia-Washington area with 19 government-owned 1-ton trucks. In May 1918, Postmaster General Albert S. Burluson reported to Congress that the routes were profitable, except for the route between Philadelphia and Atlantic City, New Jersey. Projecting gross revenues of \$80 million if the network were extended throughout the country, Burluson estimated a surplus of \$40 million that he recommended could be used to improve a 10,000-mile rural express network to reduce transportation costs and increase speeds. He suggested roads of concrete or brick should be at least 16 feet wide and 9 inches thick. They would cost about \$20,000 per mile or \$200 million for the network.

(The experimental routes proved popular. As in the quoted comments, Administrator Hoover praised the service as a way of saving food. However, in July 1918, a Senate bill to launch the network failed in committee and Congress, instead, included \$300,000 in the Post Office Department's FY 1919 appropriation act for experiments in motor truck delivery in the vicinity of large cities "to promote the conservation of food products and to facilitate the collection and delivery thereof from producer to consumer, and the delivery of articles necessary in the production of such food products." Before progress could be made, the war ended and private enterprise soon filled the vacuum the experiment was designed to cover. [*America's Highways 1776-1976*, pages 99-100])

Secretary Lane anticipated that the government would give returning soldiers farming opportunities that would be united by rural expresses operated on the highways. The Highways Transport Committee would be invaluable in developing these farming communities. He said, "you can judge the civilization of a nation, of a people, of a continent, or any part of a nation, by

the character of its highways”:

If you will think over that proposition you will realize that what I have said is true, that those parts of this Nation are most backward, where people live most alone, where they develop those diseases of the mind which come from living alone, where they develop supreme discontent with what is done at Washington, or what is done in their own State legislatures, where they are unhappy and discontented, and movements that make against the welfare of our country arise, are those parts where there are poor highways, and consequently a lack of communication between the people.

Regarding the war, he observed:

And why has it been possible for France to carry on for four years, a successful war against the greatest military power that the world has ever seen? Because France had the benefit of the engineering skill, and of the foresight of two men who are 1,800 years apart – Napoleon and Caesar. Those men built the roads of France. Without those roads, conceived and built originally by Caesar for the conquest of the Gauls, and for the conquest of the Teutons, without the roads built by Napoleon to stand off the enemies of France, and to make aggressions to the eastward, Paris would have fallen at least two years ago. So that you gentlemen, who are engaged in the business of developing the highways of the country, and putting them to greater use may properly conceive of yourselves as engaged in a very farsighted, important bit of a statesmanship, work that does not have its only concern as to the farmer of this country, or the helping of freight movement during this winter alone, but may have consequences that extend throughout the centuries

It is not sufficient to pay \$25,000 a mile for a concrete foundation, but you must put aside ten cents out of every dollar for the maintenance of these roads, or your money has gone to waste, and your conception is idle. And you gentlemen know if you continue, as I hope you will after the war, you will have not merely a function in the securing of the building of good roads, but will have a very great function in the maintaining of these roads as actual arteries in the system of transportation of the country.

Secretary Redfield explained:

The transportation system of the United States is not a unity. It cannot be run on what we may call unitarian lines. It is a trinity, and has to be run on trinitarian lines. You must link up railroads and waterways and highways to get a perfect transportation system for this country.

The railroad, for many years, dominated transportation to the detriment of waterways and highways:

Then came into the world a new tool: The internal combustion engine, destined to work almost as great a change in the human life as the steam engine in its time, making

possible a tool for the waterway that the waterway had never had before, making it possible to use for the highway what the highway had never had before, making necessary the alteration of the highway to suit the new tool built for it.

He was concerned that some States had forbidden motor trucks because of the damage they did to the roads. If the States, he said, had taken the same attitude toward the railroads, locomotive development would have stopped 40 years earlier:

Up to a very few years ago, all of us who are not far-seeing would have thought of public transportation as meaning essentially the railroads. Yet so rapidly in the last five years has the law of transportation been developed that it is a little bit difficult for us to keep up with the rush of this movement.

He said in closing:

So many are familiar with the automobile, not as familiar, I believe, as they are going to be, that it seems hard to think it can work as revolutionary a change in their life as it is going to do. But I am perfectly certain that there abide these three elements of transportation, railway, waterway, and highway, that they are one, and that none of them will reach its full value to the community without the other and that each is the friend of the other.

Joseph D. Baker of the Priorities Division of the War Industries Board discussed the possibility of Federal licensing of motor car and truck licensing. The idea was to conserve fuel, lubricants, steel, and workers employed in service stations.

Senator Chamberlain address the meeting as well. He discussed the problems the railroad had experienced during the war, but as for highways, he said that the "strict doctrine of state rights is not contended for as it used to be," leading to new possibilities for Federal cooperation "for purposes undreamed of in the days gone by":

The subject of the utilization of the highways of the country is, or ought to be, near to the heart of everybody and there is no reason why you should not find active co-operation everywhere in your effort to develop this system of transportation of state and interstate purposes

We are just beginning to realize the uses to which the highways of the country may be utilized to aid in the great work of motor transportation. The war has compelled a resort to it, and I believe that congress may be induced to aid the movement by large appropriations to be spent in cooperation with the states and by placing these highways used for interstate purposes under the control of a federal agency with power to prescribe rates and unify the licensing system so that no handicap will be placed upon the utilization of those highways by conflicting laws of the several states.

You have but to present the matter as forcefully as I am sure you can to your

representatives in congress and I predict that good results will flow from your efforts.

When the conference ended on September 20, participants called on President Wilson at the White House. The President extended his thanks to Chapin for his important work and for organizing the nationwide movement for developing rural motor express services, including return loads bureaus, and the use of the highways. The regional directors expressed their thanks to Chapin by presented him a loving cup.

[“Regional Highways Chairman in Meeting,” *Motor Age*, September 26, 1918, page 10; “The Food Situation,” *The Washington Post*, September 19, 1918, page 6; “Declares States Delay highways,” *The Washington Post*, September 20, 1918, page 4; Lane, Franklin, K., “A Story of Why Our Highways Should Be Greatly Developed,” *Better Roads and Streets*, October 1918, pages 369-370, 394, 396; Redfield, William C., “Highway Development as Important as Railroad and Waterway Development,” *Municipal and County Engineering*, November 1918, pages 170-172]

On September 18, the Council of National Defense announced it was creating a Field Division that would merge the State Councils section and the Woman’s Committee of the Council. In accordance with President Wilson’s idea that the whole people should be involved in war activities, the move would put men and women of the council under one Washington body. The combination would help channel the widespread desire of the country’s women to be of service in the war effort. The new Field Division began operations on October 1. An article in *The Baltimore Sun* said of the new division, “The part which women are playing in this war, and the increasing part which they are taking in making it possible to maintain it, make this consolidation no more than the recognition of a fact – all men and women are making, and are to make, common sacrifice and effort.”

[“United Women’s War Bodies,” *The New York Times*, September 19, 1918, page 14; “To Arouse Nation Upon War: Field Division of Council of Defense Begins Work,” *The Baltimore Sun*, October 2, 1918, page 2]

Progress on the National Old Trails Road

While road officials adapted to changes in wartime conditions, Judge Lowe continued to promote construction of the National Old Trails Road.

He publicized a letter he received from W. B. Cauthorn, a civil engineer of Columbia, Missouri. “You will be interested to know that the plans for the National Old Trails have been completed and that the money is available for the Millersburg district, in Callaway county, Missouri, approximately \$44,000.” Work was planned for several other locations:

Harg district, in Boone County, will advertise for bids immediately. We hope to have this construction under way by September 15. Columbia special road district is to be widened to 18 feet; bituminous macadam; estimate \$33,000; work to begin at once. Midway district surveys under way and will be completed about September 10, when

funds will be available for immediate construction; estimate approximately \$40,000.

That part of National Old Trails in Boone county not lying in special road districts will be taken care of by the county court. Surveys will be completed in the next 10 days or two weeks.

This finances and assures completion of the new hard surface road from Rocheport on the Missouri River to Fulton. This means substantially a new road, including new bridges of modern type, from Rocheport to Fulton.

Cauthorn concluded:

Know you will be glad to learn of the real progress in this vicinity. This is not enthusiasm alone, but dirt, concrete, and real hard dollars. [“Real Progress in Missouri,” *The Road-Maker*, October 1918, page 60]

On October 22, 1918, Ohio staged an elaborate ceremony for the opening “of the Nation’s most modern and substantial highway” on what was known as the East Pike out of Zanesville, Ohio. The State highway department had submitted it to OPRRE in August 1917 as Ohio’s first Federal-aid highway project. When the plan for driving new trucks to East Coast ports for shipment to France proved viable, this road became especially important. BPR’s magazine *Public Roads* stated:

On account of its importance as a direct route for trucks between Detroit, Cleveland, Columbus, Cincinnati, and other points west, to Washington, it has been kept in very good shape, with the exception of a few stretches. One of these unimproved sections was this section presented by the State of Ohio as a Federal project under the Federal aid act.

It was proposed at the time the project was submitted to proceed with the work in the regular fashion, letting the work to contract after duly advertising for bids. Early in 1918, however, the Federal Government advocated the early completion of this contract in order to facilitate the movement of Army trucks and other war munitions east. The matter was taken up with Gov. Cox, of Ohio, and through the State highway department, with the approval of the Secretary of Agriculture, a contract was let on a cost-plus basis with a time limit, and a bonus for completion under this time limit, and a penalty for failure to complete within the time limit

The contract was dated the 22d day of March, 1918. Work was started about the 1st of May, 1918, and practically completed about the latter part of October. It may be said that the entire 14 miles were completed in approximately six months. The cost was undoubtedly more than it would have been by the usual form of contract, but it was considered that the time gained was well worth the difference. [“Work on Ohio Project No. 1 Rushed to Move Army Trucks,” *Public Roads*, March 1919, page 28]

American Motorist covered the opening ceremony:

Simultaneous celebration of the 100th birthday of the Ohio section [of] Old National Highway and the completion of its most modern link was effected October 22, when, in the presence of approximately 5,000 persons, Governor James M. Cox put into place the final brick of the new 16-mile stretch between Zanesville and New Concord, in Muskingum county

A photograph of the event depicted “Little Harriet Dodd,” about 2 or 3 years old, presenting the final brick to Governor Cox. They and others stood around the opening where the brick was needed to complete the project:

Ohioans from every walk of life made the opening of the Zanesville-New Concord highway a gala occasion. In each direction along the road – as far as the human eye could reach – motor cars were parked, while the human freight they had brought to witness the consummation of a great construction plan surged against the last brick-hole and cheered the beginning of a new era in Muskingum county.

The Road-Maker explained the project:

The improved road is a 13¾ mile section of the National Highway between New Concord and Zanesville, Ohio, and was rebuilt by order of the United States government as a necessary war measure

Actual work of regrading was begun March 22 and the urgent need of the highway for motor-truck transportation of army supplies called for an early completion of the job.

First, the original worn earth road was carefully graded by wheel scrapers after the low grades were filled and the necessary cuts made, with the use of plows, in higher elevated sections. Then forms for concrete curbs were built to form a curb 30 in. deep by 6 in. width.

After the removal of the forms, there was laid between curbs a 15-in. course of run-of-crusher slag from the Bellaire furnaces of the Carnegie Steel Co. When this had been thoroughly rolled and bonded, sufficient granulated slag from the Riverside furnaces of the National Tube Co. at Benwood, W. Va, and Wheeling Steel & Iron Co., Wheeling, W. Va., was placed to fill up the interstices in the slag base. This course was then also thoroughly rolled and compacted.

On the slag bed thus prepared was laid a 2-in. cushion course of the same granulated slag carefully leveled, on which was placed 4 by 9 paving brick. Bricks were laid in record time, the crew of two bricklayers and helpers laying as many as 54,000 bricks a day.

The advantages of run-of-crusher slag for road work are excellent bottom drainage, complete interlocking of the materials and the perfect consolidation and maximum

density of the structure under the brick paving.

This type of base with a 2-in. layer of granulated slag forms a resilient cushion of great flexibility to take up expansion. This expansion in the brick is taken up by the tar joints.

Under the personal supervision of R. C. Burton, of Zanesville, who was appointed to represent Ohio, a record in modern road construction was established by completing the improvement early in October, although handicapped by the severe weather conditions and a critical labor shortage that materially delayed operations earlier in the season.

After recalling the history of the road dating to the first half of the 19th century, the article concluded:

It is natural therefore that the National Highway, the greatest factor in the development of the Western states – harmonizing and strengthening the Union, and so vital in the present crisis – should be proclaimed the Nation’s most important roadway.

The project cost between \$500,000 and \$600,000. [“Ohioans Add Strength to Old Road,” *American Motorist*, December 1, 1918, pages 16, 27; “East Pike Improvement – National Highway,” *The Road-Maker*, January 1919, pages 18-20; “National Road Completed in Muskingum County, Ohio,” *Dependable Highways*, October 1918, pages 5-7;]

About the Highway Industries Association

In early August 1918, Henry Shirley addressed the North Carolina Good Roads Association about the activities of the Highway Industries Association. Shirley, who had been AASHO’s first president, had played key roles in development of the Federal Aid Road Act of 1916 and development of OPRRE’s initial regulations for implementing the program. Now, he explained that the manufacturers of road material machinery and “etc.” had formed the association to “promote good roads and nothing else.” The association sold nothing but “the idea of good roads and the benefits derived therefrom.” The association would help any road organization “in supplying literature and speakers in any campaign for better roads, or for larger appropriations, and in every way possible for the advancement of the good roads subject.”

The association had focused its efforts:

The time has arrived when there should be a Federal System of roads, a State System of roads, and county and township systems, and it is the object of the Highway Industries Association to co-operate with all these bodies to the end that this most beneficial result will be obtained

The time is here when it is necessary for the Federal Government to take over, build and maintain the trunk lines of this Nation, both east and west, and north and south; the State Highway Departments to take over, build and maintain the main State arteries leading into the federal system, and the counties and townships to take over those roads of local

importance.

Similar proposals had been defeated in 1916 when Congress passed the Federal Aid Road Act. The ideas, however, had not disappeared, only placed on hold during the war:

The war has only emphasized the close and logical co-operation between the State and Federal Government to secure the very best results, and the same co-operation must exist between the counties and townships, and the Highway Departments to secure similar results.

The State highway departments “have come to stay,” he said, but “their usefulness may be delayed by petty jealousies, small politicians and sectional narrowness, but it is such an important constructive unit that it is bound to take a most active part in the State and National road affairs.” Each State had people “who seem to think it is their special mission in life to object to everything that goes to the promotion and advancement of the general welfare of the State, or changes the condition that existed twenty years ago . . . especially in road matters.” He had seen how these people work against the State highway departments that were “legislated out of existence, or their appropriations and powers so restricted that they would be practically useless, and while struggling under such handicaps and burdens it was being attacked and criticized in the most vitriolic and scathing languages.”

Out of “the embers of the destroyed structure, restricted laws or burdens,” the modern State highway departments had emerged. They were essential, especially because the Federal Government “undoubtedly will undertake to assist in constructing the main trunk lines of the country, and you may rest assured that they will not deal with a smaller unit than a State, and for this reason it is most essential that each State clothe its Highway Department with proper powers and appropriations to meet all the requirements that may be placed on such road construction by the National Government.”

He concluded:

I can not impress upon your minds too forcibly the great necessity of formulating a plan, and system of State and county highways, for the development and returns from such development that will take place in the State when such a system has been constructed will far exceed the cost of such a system, not considering the recreational and many other advantages that are derived therefrom. [“The Highway Industries Association,” *Better Roads and Streets*, October 1918, pages 375, 397-398]

By then, the long-distance road advocates who had not carried the day in 1916 saw an opportunity to renew the old fight in the country’s deteriorating roads amid the growing importance of motor trucks. In October, the Highway Industries Association and AASHO announced a Joint Highway Congress for December in Chicago. AASHO was to meet on December 2 and 3 at the La Salle Hotel. The Joint Highway Congress would take place on December 4 and 5 at the Congress Hotel in Chicago. On December 6, the Highway Industries Association and AASHO would hold separate meetings. The invitation stated that, “Your

presence at the convention will greatly assist in meeting the conditions our country will face in highway development and control after the war.”

The invitation included a copy of S. 4993, which Senator George E. Chamberlain of Oregon had introduced in the United States Senate on October 17. It was, the invitation explained, “a very important measure especially to those States on whose roads is a great deal of Army motor truck traffic as well as the abnormal traffic that is now being carried by a great many roads on account of war activities.” The bill would give “the Secretary of War the right to take over, and establish those highways that will be of greatest military value to the country.” In meetings with State highway authorities, the Secretary would “disclose, so far as reasonably practicable, the outlines of his plans for highways designed for military purposes to the end that unnecessary duplication of highways be avoided, and that highways constructed for other than military purposes may be in a strategic location wherever reasonably possible.” The Secretary would construct the system “in such installments or divisions as may seem . . . expedient and desirable”:

That the Secretary of War shall forthwith proceed to take over, improve, construct, and maintain such roads of said system of highways as are most necessary to the welfare of the people of the United States.

The bill would appropriate \$100 million “for the purposes of defraying the expenses pertaining to taking over, improving, constructing, and maintaining of said highway system.”

The invitation advised, “Everyone interested in this Bill should write his representative in Congress asking for aid in having it speedily passed.” [“Important,” *Better Roads and Streets*, October 1918, pages 386-388]

Numerous organizations endorsed the Joint Congress, including AAA and the National Old Trails Road Association, the Lincoln Highway Association, and several other named trail associations. “The program will be devoted to the most important phases of highway development, both National and state, covering such subjects as:

Development of the motor parcel routes, and the great possibility of their future usefulness.
Neglect of highways during the war.
A suggested National highway policy and plan.
Highway transportation, present and future.
Underlying principles of laying out, marking and maintaining a state trunk highway system.
Proper license fees for motor vehicles and drivers.
Motor trucks and trailers as transportation essentials.
Regulation of speed, weight, width and height.

The road situation has become so critical that aggressive measures are considered necessary to put it on a sensible and constructive basis. The amount of highway traffic is increasing at a much greater rate than highway construction, and it is necessary to

provide for this traffic by increasing the amount of road construction. At least 450,000 miles of roads today should be surfaced, but they have not been improved. Economical development of traffic demands that at least a third of this mileage should be built quickly and plans are to be formulated and worked out, if possible, at this convention whereby the country at large can undertake the work immediately and push it to completion. ["Road Organizations Endorse Meeting," *Motor Age*, November 14, 1918, page 11]

The Armistice

In September, President Wilson kicked off the Fourth Liberty Loan drive to raise funds for the war. On September 27, he explained that, "The common will of mankind has been substituted for the particular purposes of individual states." He said:

Individual statesmen may have started the conflict, but neither they nor their opponents can stop it as they please. It has become a peoples' war, and peoples of all sorts and races, of every degree of power and variety of fortune, are involved in its sweeping processes of change and settlement.

The drive raised \$7 billion.

As Wilson biographer A. Scott Berg described:

Two days later, Bulgaria became the first of the Central Powers to surrender; and independence spread across the region. Within eight days, Poland declared itself an independent state; the following week a provisional government of Czechoslovakia formed; and eleven days later a council established itself in Budapest to create a Hungarian nation separate from Austria. The Germans, recognizing the inevitable, realized that their best hope for rational terms of surrender was with the opponent they had fought for the shortest time.

On October 6, a representative of Germany formally asked President Wilson "to take steps for the restoration of peace, to notify all belligerents of this request, and to invite them to delegate Plenipotentiaries for the purpose of taking up negotiations."

Germany accepted President Wilson's terms on October 12, "but their army kept fighting":

Days later, Germany agreed to cease submarine warfare; and by the end of the month, the Allied commanders met to discuss means of rendering Germany militarily impotent. While the Kaiser went into seclusion in Belgium, refusing to abdicate, Sultan Mehmed VI of the Ottoman Empire requested terms of capitulation, as did the Emperor of Austria. At the end of the first week of November, Prince Max [von Baden, the German Imperial Chancellor] sent a delegation of diplomats to France to negotiate specifics of his nation's surrender and then announced his resignation.

Although President Wilson had brought the country through what was known as the Great War, voters did not reward him during the November 5 mid-term elections. Republicans took control of both Houses of Congress, a reality that would have major implications for the peace:

Despite his joy that the war was ending, Wilson privately revealed that he was “of course disturbed by the result of Tuesday’s elections, because they create obstacles to the settlement of the many difficult questions which throng so on every side”

While it was Woodrow Wilson’s intention to lead his nation into a millennium, he now faced a hostile incoming Congress. Notwithstanding, he remained confident that “by one means or another the great thing we have to do will work itself out.” After all, he reminded one junior member of the Administration, “I have an implicit faith in Divine providence” [Berg, A. Scott, *Wilson*, G. P. Putnam’s Sons, 2013, pages 502-507]

Germany and its allies signed the Armistice on November 7. Word spread around the world. It was to take effect on the 11th hour of the 11th day of the 11th month.

On that day, November 11, 1918, President appeared before a joint session of Congress at 1 p.m.

Wearing a black tailcoat and light gray pants, he strode before the Congress. A standing ovation welcomed him, the audience’s cheers extending to the gallery as the presiding officers permitted the spectators to join in the demonstration. Wilson quieted the chamber and launched into defining the terms to which the Germans had agreed in “these anxious times of rapid and stupendous change. [page 514]

After spelling out the conditions of the Armistice in detail, he continued:

The war thus comes to an end; for, having accepted these terms of armistice, it will be impossible for the German command to renew it.

It is not now possible to assess the consequences of this great consummation. We know only that this tragical war, whose consuming flames swept from one nation to another until all the world was on fire, is at an end and that it was the privilege of our own people to enter it at its most critical juncture in such fashion and in such force as to contribute in a way of which we are all deeply proud to the great result.

He discussed the impacts on the countries and people freed from “the yoke of arbitrary government and who are now coming at last into their freedom.” He concluded:

There are some happy signs that they know and will choose the way of self-control and peaceful accommodation. If they do, we shall put our aid at their disposal in every way that we can. If they do not, we must await with patience and sympathy the awakening and recovery that will assuredly come at last.

Berg described public reaction to the Armistice:

Washington celebrated all day, sweeping even Wilson into the festivities. November 11 happened to be the birthday of the King of Italy, and the Italian Ambassador was celebrating the occasion that night with a ball. A little before 11 o'clock, the President proposed to [First Lady] Edith that they crash the party. The Ambassador was only too happy to welcome a giddy Wilson, who toasted the King and lingered for another hour. Back at the White House, Woodrow and Edith sat on a couch by her bedroom fireplace, where he read a chapter from the Bible before retiring. [pages 514-515]

As a headline in *The Baltimore Sun* put it on November 12:

THE WHOLE COUNTRY GOES WILD WITH JOY AT ADVENT OF PEACE

The Post-War Period Begins

The highway business soon felt the impact of peace.

Automobile Topics declared in its November 16th issue:

Brightening skies in world events have brought with them something of immediate relief to industrial conditions in the United States, so far as supplies of raw materials are concerned. That is in effect the substance of a statement given out by the War Industries Board this week in Washington. Priorities, which heretofore have imposed relentless restrictions on all industries in the greater need of materials for war manufactures, have been so altered as to allow tentative steps to be taken toward production of non-war products on a larger scale than has been possible during the past few months

Restrictions are entirely removed from some of the activities which have been held tightly in check heretofore. In this class are included construction and maintenance of highways.

The War Industries Board's action would benefit the automobile industry as it converted to peacetime production. ["Priorities Change To Usher in Peace," *Automobile Topics*, November 16, 1918, page 121]

Before the Armistice, BPR Director Page had written to State Highway Departments on November 4 in anticipation of the war's end:

The Secretary of Agriculture, having in mind the return of our soldiers after the war, and wishing to assist in providing employment for such of them as need it, is anxious to ascertain as early as is practicable, the number of returned soldiers who may be employed to advantage on road repair, construction and maintenance. The co-operation of the State Highway Departments is earnestly sought in the matter.

It is believed, with minor exceptions, the soldiers will naturally desire to return to the localities they came from. Unquestionably, such a wide distribution would result in a more ready absorption into the industries in which they will be needed. It would seem, too, that they should be given the preference by employers.

For the purpose of determining the value of highway work as a field for such labor you are requested to furnish a statement in letter form, of the approximate number of men your State Department could use in connection with either force account or contract operations. It would be convenient to have the statement indicate separately the number of skilled and unskilled men that could probably be employed, including in the skilled labor, carpenters, masons, stationary engineers, roller-men, quarry bosses, etc., and also the period of the year for which they would be employed.

We, of course, wish to get this information together as soon as practicable, because, although the need may not be immediate, it will be necessary to compile the data and correlate it with similar information obtained for other activities. This will probably take considerable time. ["Government Asked to Aid Colorado Roads," *Colorado Highways Bulletin*, December 1918, page 12]

After the Armistice, Page convened a final meeting of the United States Highways Council on November 13. To that date, the council had held 25 meetings for the transaction of business. Now, as chairman, he sent a telegram after the meeting to the State highway departments conveying the council's decisions:

United States Highways Council announces no further applications need be made to it for approval of highway projects, and that previous disapprovals are revoked, and pending applications require no further action. Procedure in securing materials and transportation should follow normal practices. Removal of restrictions does not affect highway bond issues which are by law under control of Capital Issues Committee. State Highway Departments will not be asked to submit programs for next year's work.

Chairman Page followed the telegram with a letter to the State highway departments later in the day:

This action has been taken as a result of the general release of bituminous road materials by the Fuels Administration and the general release of other materials except steel, by the War Industries Board. The use of steel in highway structures is still under restriction, and it is impracticable at this time to furnish information concerning the future control of the use of this material for road purposes. The suggestion is made that if steel and iron products are required for highway purposes, it may be practicable to obtain them with minimum difficulty if the dealer from which they are ordered will state that he will not replenish his stock for the remainder of the year, provided he is authorized to fill this order.

State Highway Departments will please notify all applicants of this decision and not

transmit copies of HC3 to the Highways Council after this. [“Embargo Raised on Road Building in U.S.,” *Colorado Highways Bulletin*, December 1918, page 3]

BPR’s annual report for 1919 summarized the council’s work:

Applications for approval, including those which had been submitted to the Office of Public Roads prior to the establishment of the council, reached a total of 7,307. Many of these applications were considered several times by reason of requests for reconsideration or by reason of requirements by the council of further information, so that the total number of considerations aggregated 9,712. No statement as to the exact number of approvals or disapprovals can be given, as many cases were merely deferred and not disapproved, others were conditionally approved or disapproved, others were reconsidered, and still others were affected by an amendment issued September 16 by the War Industries Board to circular 21 permitting the completion to November 1 for projects substantially under way. Still other projects were pending at the time the council ceased its activities, and in consequence it is impossible to segregate those applications which might be considered as definitely disapproved.

On capital issues such as road bonds, the Capital Issues Committee had jurisdiction, with the council serving as an aid. Overall, the committee had considered requests for \$49,538,075, but overall approvals totaled to \$7,334,821. [*Annual Reports of the Department of Agriculture for the Year Ended June 30, 1919, page 395*]

Secretary of Agriculture Houston expressed his views, including on road building, to agriculture editors at a meeting in Washington; he released the remarks to the public on November 27. *The Evening Star* in Washington summarized the remarks in a front-page article:

Reconstruction plans, in the opinion of Secretary Houston, should include resumption of highway construction under the Federal Aid Road act, creation of a system of personal credit unions for farmers, systematic supervision of land settlement, provisions for safeguarding the rights of tenants and encouragement of farm ownership, continuation of government supervision of stockyards and related industries, and extension of the benefits of modern medicine and sanitation.

He predicted that because the agriculture sector in the United States “probably was the best-prepared interest in the nation when the war came,” it would be the first to adjust to peacetime. He anticipated that many of the returning soldiers would go back to the farms or want to start their own farms:

The public highways, the secretary told the editors, will be a vital factor in the reconstruction period. For that reason, he said, highway construction should be started as soon as possible. Under the federal aid road act federal and state funds, appropriated for road building and not expended owing to the stoppage of construction by the war, will amount this year to about \$75,000,000. Road building he termed a worthy project for employment of the surplus labor supply expected to result from demobilization of the

Army.

He indicated that about \$20 million would be available in the following year, but added that “it seems to me that we should take a further step It would be in the public interest to make available larger appropriations from the Federal treasury to be used separately or in conjunction with state or local support”:

It seems to me that we should take a further step – take this step not only because of the importance of good roads, but also because of the desirability of furnishing worthy projects on which unemployed labor during the period of readjustment may be engaged There need be no delay in the execution of such a program; the nation has already provided the machinery in the Department of Agriculture and in the state highway commissions. The Federal Aid Road Act was fruitful of good legislation, and each state in the Union now has a central highway authority with power and funds to meet the terms of the federal act. The two agencies, in conjunction, have been engaged in devising well considered road systems and in making surveys, plans and specifications. The task will be one of selection, and those roads should be designated for improvement which are of the greatest economic importance, with due regard to such military and other needs as are proper for consideration.

There is no necessity for any departure from this scheme. The suggestions made have been canvassed with the President, the Secretary of War, and the Postmaster General, and they are in accord with the view that additional funds should be made available to this department and that they should be expended through the existing machinery.

By letter, Secretary of War Baker agreed with Secretary Houston "that there should not only be a prompt resumption of road construction under the Federal Aid Road Act . . . but also that additional funds should be made available to your department for the extension of such work.”

President Wilson also supported the idea in a letter to Secretary Houston:

I heartily agree with you that it would be in the public interest to resume in full measure the highway construction operations under the Federal Aid Road Act, and to do so as speedily as possible. I understand the necessity which existed for their contraction during the stress through which we have been passing, but that obstacle is now removed.

I believe that it would be highly desirable to have an additional appropriation made available to the Department of Agriculture, to be used in conjunction, if possible, with any surplus state and community funds, in order that these operations may be extended. It is important not only to develop good highways throughout the country as quickly as possible, but it is also at this time especially advisable to resume and extend all such essential public works, with a view to furnishing employment for laborers who may be seeking new tasks during the period of readjustment. Knowing that the Department of Agriculture and the state highway authorities in each state have been carefully working out road systems and developing plans and specifications, I have no doubt that all

activities in this field can be vigorously conducted through these two sets of existing agencies, acting in full accord.

News of the official favor for road construction was widely reported around the country and in the good roads magazines of the day.

E. J. Mehren, editor of the weekly *Engineering News-Record* and a strong supporter of the Highway Industries Association, prepared an editorial that focused on one word in Secretary

Houston's speech:

The important word in this statement is the word "separately," which we have taken the liberty to put in italics. Later in the interview the secretary stated that he had canvassed his various suggestions regarding highway work with the President, the Secretary of War, and the Postmaster General, and had found them in accord with regard to the appropriation of additional funds. He does not say in the latter connection that he specifically canvassed the matter of separate expenditure of funds by the Federal Government but it is presumed from the context that such was the case.

The statement does not commit the secretary to the policy of building a national highway system, but, by considering it as an alternative of Federal aid, he shows at least that he is not averse to such a proposal. The Government attitude in the past has been strongly set against a national highway system, to be built and maintained by Federal funds. In thus taking a step forward, the President and his cabinet advisers are merely reading, and reading aright, not only the public demand but the new conditions which had made necessary the adoption of a policy of national highway construction. *Engineering News-Record* in the past has been opposed to a national system, but new conditions introduced by motor trucking have so changed the situation as to leave no doubt of the necessity of completing the highway net of the country by adding to our county and state systems a national system tying in the various states just as efficiently as rail lines now do for the bulk of our transportation.

Secretary Houston's views lend added importance to the highway congress which will convene under the joint auspices of the American Association of State Highway Officials and the Highway Industries Association in Chicago next week. The subject will be among the other broad questions of policy discussed. The meeting, taking its cue from Secretary Houston, should do much to crystallize the nation's thinking on highway work, particularly as to the advisability of building a national highway system.

["Deems Good Roads Vital to Farmer," *The Evening Star*, November 27, 1918, page 1; "Would Expedite Highway Development," *Engineering News-Record*, December 5, 1918, page 1045; "Cabinet Attitude on a National Highway System," *Engineering News-Record*, December 5, 1918, page 1010; "Wilson for Early Resumption of Construction Work," *The Road-Maker*, January 1918, page 16; "President and Cabinet Officers Favor Additional Federal Road

Expenditures,” *Good Roads*, December 7, 1918, pages 222, 224]

On the Road to Chicago

Around this time, BPR Director Page was in Denver, Colorado, for several days before heading to Chicago for the AASHO/Highway Industries Association meeting.

Page was in Denver for conferences with BPR’s western district engineers, each of whom oversaw work in several States, and the U.S. Forest Service. He also met with State road officials to get a sense of road conditions in the west, “in which he was keenly interested,” according to an article in *Colorado Highways Bulletin*. He also inspected the new State road from Denver to Littleton built under the Federal-aid highway program.

Like Secretary Houston, Page anticipated increased Federal-aid funding. He said:

Everywhere in the United States the demand for good roads is crystallizing, people who had not thought of the subject a few years ago, today recognize the economic value of better highways, and it is my belief that this sentiment will soon find its reflection in Congress.

At the present time the Post Office and Post Roads Committee of the Senate has under consideration amendments to the Federal Aid act which will, if passed, add some \$500,000,000 to the road fund to be expended over a term of years, which with the state and local funds will aggregate probably \$1,000,000,000.

Thus it is proposed to make immediately available the sum of \$50,000,000, the sum of \$75,000,000 which will become available July 1, 1920, and in the four years following the sums of \$100,000,000 annually are to be provided for road work.

These expenditures, the bill provides, will be made under the Federal Aid act provisions with two new amendments.

The first of these would make possible the expenditure of these funds on other than roads designated as rural post routes, thus eliminating the limitation which has worked much hardship on state departments in the past since there are many important highways which do not come within the post route definition.

The second and more important of the two refers to the clause which now provides that the states shall meet each government appropriation on a dollar for dollar basis. There are seven mountain states which cannot meet the provisions of the new appropriation, since a limited valuation does not give them enough funds. There are other states not quite so badly situated but still unable to cope with the proposed increase.

Accordingly the senate committee has under consideration a classification of states

according to their valuations and mileage, under which it is probable that there will be roughly speaking, four classes as follows:

First, states where the government will spend not more than 80 per cent. to the state's 20; second, states where the government will spend not more than 70 per cent. to the state's 30; third, states where the government will spend not more than 60 per cent. to the state's 40, and fourth, where the government will spend not more than 50 per cent.

With these amendments and with the greatly increased funds, so made available, it is my belief that the government will be in a position to aid the states very materially in one of the most important constructive works now facing Union.

Asked about the "enormous increase in heavy motor truck traffic," Page said he was "unalterably opposed" to heavy trucks using roads not designed for them:

The solution to this question rests in remedial legislation. Motor trucks should possibly be limited to about 450 to 500 pounds dead weight to every running inch width of tire, which would provide a reasonable factor of safety on roads with a 6-inch base. It is unfair, unjust, to expect the taxpayer to pay for roads, then stand by and see them torn to pieces by commercial vehicles operated for the profit of the individual. Sooner or later this legislation will have to come or we may expect to see road work stopped. And that, of course, is impossible if the future prosperity of the nation is considered.

He also commented on proposals for a national highway system that would be the central issue of the Chicago joint congress. He thought the Federal-aid highway program contained ample authority for construction of such a system by agreement between State highway officials and BPR:

The road problem is a state and local one. We are not building our highways for transcontinental transportation, because the cost of such operations is too great to ever permit them to become competitors to the railroads.

What this country needs is better county highways, better state highways. Each one reflects material benefit upon its community, and accordingly, upon the nation. Give us good county and state highways and immediately you have not one but a series of transcontinental highways if you care to designate them as such, since you will have complete communication across the country. But road building is not carried on for pleasure travel. We want that of course, but the fundamental economic reason for the road, is its commercial value, which is and will always be local.

While in Denver, Page also addressed the Civic and Commercial Association, where he praised Colorado's system of roads in contrast with his visit to the State 12 years earlier when roads existed more in name than reality. ["May Increase Federal Aid Appropriations," *Colorado Highways Bulletin*, January 1919, pages 9, 27]

President Wilson's Annual Message

On December 2, President Wilson appeared before a joint session of Congress to deliver his sixth annual message before leaving for peace talks in Paris. (Wilson was the first President since John Adams to routinely deliver the annual message as a speech that is today known as the State of the Union Address.) According to news accounts, he received strong applause from Democratic Members of Congress, and silence from the Republicans who would take control of Congress in 1919. *The Baltimore Sun* commented on the Republicans' response:

Their much-discussed purpose to take him off the high horse which they say he has been riding, and to bring him to his knees, found expression in silence.

They wanted to challenge him, but thought better of it. "So, the best they could do seemed to be an occasional faint grunt of derision"

Berg summarized the reaction:

By the time Wilson tried to rally the Congress behind him in his sixth Annual Message on the State of the Union, the lawmakers felt marginalized. He entered the overflowing chamber on December 2, 1918, to what one onlooker called an "ominous silence." Even delivering a patriotic speech did little to thaw his audience. Starting with an evaluation of the nation's war effort, Wilson attributed most of its success to "the mettle and quality of the officers and men we sent over and of the sailors who kept the seas, and the spirit of the nation that stood behind them." He singled out various bureaus and constituencies that had contributed to the nation's success – especially America's women. He spoke of the specific challenges ahead as the country returned to a peacetime economy. Still, little received applause, even when his supporters tried to incite an ovation. [Navy] Secretary Daniels found the Congressional reserve nothing short of "churlish." But one diplomat's wife, who viewed the proceedings through her opera glasses, wrote in her diary that "the President's *complete* disregard of the Senate following on top of his very tactless appeal to the country to return a Democratic Congress, has made him about as thoroughly and completely unpopular in his own country as any president has been or could be."

Speaking of the returning soldiers, President Wilson said that private initiative could not employ all of them. Those with technical training, others who could return to their peacetime work, and those willing to return to farm work "will find no difficulty, it is safe to say, in finding place and employment":

But there will be others who will be at a loss where to gain a livelihood unless pains are taken to guide them and put them in the way of work. There will be a large floating residuum of labor which should not be left wholly to shift for itself. It seems to me important, therefore, that the development of public works of every sort should be promptly resumed in order that opportunities should be created for unskilled labor in particular and that plans should be made for such developments of our unused lands and our natural resources as we have hitherto lacked stimulation to undertake.

In the course of the remarks, President Wilson discussed the future of the railroads after the Federal Government relinquished them to the private sector. “It was necessary that the administration of the railways should be taken over by the government so long as the war lasted.” Otherwise, the country would not have been able “to establish and carry through under a single direction the necessary priorities of shipment.”

Now, he called on Congress for their counsel on the subject of what to do about the peacetime railroads:

The one conclusion that I am ready to state with confidence is that it would be a disservice alike to the country and to the owners of the railroads to return to the old conditions unmodified. Those are conditions of restraint without development. There is nothing affirmative or helpful about them. What the country chiefly needs is that all its means of transportation should be developed, its railways, its waterways, its highways, and its countryside roads. Some new element of policy, therefore, is absolutely necessary – necessary for the service of the public, necessary for the release of credit to those who are administering the railways, necessary for the protection of their security holders. The old policy may be changed much or little, but surely it cannot wisely be left as it was. I hope that the Congress will have a complete and impartial study of the whole problem instituted at once and prosecuted as rapidly as possible. I stand ready and anxious to release the roads from the present control and I must do so at a very early date if by waiting until the statutory limit of time is reached I shall be merely prolonging the period of doubt and uncertainty which is hurtful to every interest concerned.

This section drew considerable comment about the future of the railroads. *The New York Times* gave the issue front page coverage with an article under the headline “Approve Wilson’s Railroad Ideas” that began:

The President’s statement, in his address to Congress today, that he had no policy with regard to the future disposition of the railroads, and that unless, before the expiration of the statutory period, there was a clear prospect of a legislative solution of the problem he would turn the roads back to their owners, caused some surprise here.

The expectation, as recently as 2 weeks earlier, was that until the peace was signed, the Railroad Administration would retain “the unification of the system with the improvements of the various [rail]roads in so far as funds could be obtained, in order to show to the full the advantages of some form of centralized control.”

The article’s subheads were:

Avowal That He Has No Policy Regarding the Roads Surprises Congressmen

Quick Action Looked For

Advocates of Public Ownership Find Themselves With a Champion.

At the same time, the highway community, about to meet in Chicago, took heart in the reference to public works and to highways and country roads as evidence of the sentiment he had expressed in his letter to Secretary Houston about the need for increased appropriations for road building. [Berg, pages 518-519; Owens, John W., "President Says It's His Paramount Duty to Attend Peace Conference; Republicans Hear Him In Silence," *The Baltimore Sun*, December 3, 1918, page 1; "Approve Wilson's Railroad Ideas," *The New York Times*, December 3, 1918, page 1]

On December 4, President Wilson set sail on the *George Washington*, arriving in France on December 13.

A Southern California Perspective

An article in the March issue of *Touring Topics* reported that California had 2,225 miles of highways that were portions of transcontinental routes, including "the National Old Trails Road, the Midland Trail, the Ocean-to-Ocean Highway, the Borderland Route, the Old Spanish Trail, Lincoln Highway and Pacific Highway." Collectively, these routes brought an estimated 10,000 automobiles into southern California in 1917. The National Old Trails Road brought the most, approximately 4,000 automobiles:

Twelve hundred cars were driven into Southern California over the Midland Trail, 800 arrived over the Lincoln Highway, 1000 over the northern routes, and three thousand reached California over the various southern routes. ["Total of 4,467 Miles of Paved Road in California," *Touring Topics*, March 1918, pages 20, 24]

The club's signposting crews remained active during 1918. The October issue reported that the sign posting truck had covered a "record of 6,228 miles of eastern highways since July 1st" before returning to Los Angeles on September 21. The crew completed location and replacement signs on the Lincoln Highway and the National Old Trails Road, as well as on the Midland Trail, which ended in Los Angeles.

The Lincoln Highway, with its terminus in San Francisco, was "carrying an increasing proportion of transcontinental automobile traffic," with 75 percent of the traffic on the highway reaching Los Angeles by the Midland Trail. The National Old Trails Road "has likewise carried an increasing amount of travel in the past six months and with the return of pre-war conditions there is no doubt that the amount of motor travel California-bound over the National Old Trails route will be several-fold larger than it has been in any past year."

The sign crew followed the Lincoln Highway before turning toward southern California at Trinidad, Colorado. "The roadway, like all Colorado roads, is very good." From Trinidad to La Junta, "the route is being changed to parallel the Santa Fe railroad, and by late Fall this work will be completed and will furnish a first class highway that will be good the year round."

Between Trinidad and Albuquerque, "the construction crew found fair dirt roads with short stretches rutted from recent rains." Of the alternative routes between Albuquerque and

Holbrook, the crew placed signs on both. “The route by way of Gallup is sixty miles shorter than the Springerville alternative, but is not in quite as good condition as the latter roadway”:

Between Holbrook and Flagstaff, Arizona, there is considerable mileage between the first named town and Winslow that is very rough with the exception of the last ten miles into Winslow. A new alternative road has been built on the northside of the Santa Fe railroad between these points which has just been opened and which will be in very good condition within a few weeks, or as soon as there is rain which will permit the roadbuilders to sand and roll the highway. The stretch from Winslow to Flagstaff is now rough but is being repaired.

From Flagstaff the car was sent into the Grand Canyon and much rough roadway was encountered near Christmas Flats, due to a recent cloudburst that had washed out the dirt from the road and left the boulders protruding. The more westerly roadway into Grand Canyon from Williams is in excellent condition. It has been recently worked and is in better shape than at any time within the past few years.

The road between Flagstaff and Williams “has been recently worked by the State Highway Commission and is a veritable boulevard.” The new road was “constructed from disintegrated gravel which has been well graded and rolled and which will make this particular piece of highway travelable the year round except during heavy snows.”

The road was in good condition between Williams and Kingman, “except in Nelson Canyon, where it has been badly washed out for a distance of about 10 miles and is in urgent need of improvement”:

From Kingman to Topock the road is good and between Topock and Needles it is very bad in places, due to recent heavy rains. From Needles to Barstow the highway is good except for a distance of about eighteen miles between Amboy and Ludlow which is badly washed out and very rough. From Barstow on into Los Angeles the roadway is in excellent shape. [“Club Posts 6228 Miles of Eastern Highways,” *Touring Topics*, October 1918, pages 9-11]

In December 1918, with the war at an end, the magazine reported that eastern car owners were “flocking to the Land of Motor Roads and Sunshine by the thousands”:

The reasons for this unprecedented influx of eastern motorists are not difficult to understand. Surcease from war worry, long postponed vacations, generally prosperous business conditions – all have had their effect in turning the eastern motoring public Californiaward [sic] this winter. And, the final impulse that was needed in really getting these tourists started on the journey out here, has been the nationwide advertising that has accrued to California through the fame of its motor boulevards and the publicity that has been given to the activities of the Automobile Club of Southern California in signposting the Lincoln Highway and the National Old Trails Road.

Where a few years ago a scant hundred or two automobiles were driven over the National Old Trails highway, now there is literally a procession of cars westward bound. The numbers of automobiles that have entered California over this transcontinental road in the past six months run into the thousands and each day new arrivals are reporting at the Touring Information Desk at Club Headquarters.

The same was true for the Lincoln Highway but to a lesser degree, despite the signposting. "Travelers over this route have to contend with more severe winter weather conditions than do those over the southern route and for this reason comparatively few machines will arrive over the Lincoln Highway during the remaining winter months."

The article concluded:

And these trips, taken together, will serve to inform the visitor why it is that Southern Californians are so proud of their land and also why the residents of each portion of it are such keen partisans of their particular locality. There is no sameness to Southern California. It is varied as the colors of the prism, and the man is indeed hard to please who does not become keenly enthusiastic over some one of its manifold aspects. ["Eastern Motorist Flocking Into California," *Touring Topics*, December 1918, page 12, 14]

A census by the Automobile Club of western cars over the previous 7 years documented the value of the signposting along the National Old Trails Road:

This count shows that in 1912 there were only 113 automobiles driven through Springerville into California over the N.O.T. In 1913 the number was 194. During the next year the number of cars increased to 419. This increase was directly due to the signposting work of the Club and the attendant publicity given to this all-year transcontinental highway to Southern California. In 1915 the work of locating signposts as far east as Kansas City was completed and that year the number of California-bound cars that passed through Springerville jumped to 1367.

In 1916 the number of machines increased to 1774 and in 1917 cars to the total of 2607 had passed through the Arizona gateway enroute to California. During the year of 1918 the full fruits of the Club's signposting work on the N.O.T. and the resulting publicity to this highway is shown in the tremendous use of the highway by eastern motorists. Up to December 24th of last year 4240 motor parties were checked at Springerville and that number is probably 100 less than the total number of transcontinental west-bound machines, since a number must have passed through at night unnoticed.

The value of this travel "runs into the millions" for southern California "and this is a benefit that has accrued to this territory through the work and efforts of the Club . . ." ["Nearly 40 Times Increase in Travel Over National Old Trails Road," *Touring Topics*, January 1919, page 15]

A Plea for the Joint Congress

With peace at hand and the stated attitude of President Wilson and other government leaders in support of increased highway construction, highway officials and supporters were looking forward to the Joint Highway Congress in Chicago where the long running battle among advocates of Federal-aid could debate those who favored national roads.

The congress, however, had been delayed so some participants could attend a previously scheduled War Emergency and Reconstruction Congress under the auspices of the U.S. Chamber of Commerce on December 2 at the Traymore Hotel in Atlantic City. Participants included members of AASHO, AAA, the Highway Industries Association, the Highways Transport Committee, Logan Page, and others. In a speech to the group, S. M. Williams began, "It was extremely unfortunate that it became advisable for a change in the date of the Highway Congress in Chicago and unfortunately I am afraid that some of the highway officials did not realize the importance of the change, but I hope by the end of the meeting here this week they will fully appreciate that it was proper."

He commented on Secretary Houston's statement about increased Federal funding for roads. He called it "the most significant statement ever made in this country regarding highway work in detail. But he urged his listeners to "not be carried away in enthusiasm over this statement from Mr. Houston." He recalled the enthusiasm that greeted creation of the United States Highways Council "because we believed it was the solution of our problems" after being assured that those in charge of highway work "need have no fear" that the country's essential work would be halted. "The work of the council proved otherwise and we were well satisfied when the time came for their retirement."

Secretary Houston had said that the "necessary machinery already exists" in the form of the Federal Aid Road Act of 1916. He did not believe that highway construction should be under the control of an agency "where they will always be of secondary consideration and where they may again be ignored." Instead, delegates should favor "a separate commission whose sole duty shall be the administration of the highway problem of our country and be directly responsible to the President of the United States."

He urged his listeners to remember that choice when the indications in the Secretary's statement "fail to become realizations":

The safest plan is, for those who have the highway interests of this country at heart, to make it their business to see that there will be no doubt in the matter, and make this statement without any intention of reflection upon the words of Secretary Houston.

I would sincerely congratulate him upon his final awakening to the country's needs in highway development, but I feel I am in position to say to you, without fear of contradiction, that I do not believe the Department of Agriculture believes the country will be satisfied to allow the highways to remain under their present control, nor from public expression in Washington, I do not believe Congress will agree to any

considerable increase in our highway program involving a national highway system, or any extension of federal aid to states, so long as the highways are a second or third consideration of any one department of the government.

I thoroughly believe it is our duty to demand and work for a definite and intelligent solution of the *entire* highway problem *regardless* of individuals or departments.

We are fortunate to be here and to take part in this great meeting. Let us send a highway message from here that will meet the approval of the entire country. [Williams, S. M., "A Plea for the Chicago Road Congress," *The Road-Maker*, December 1918, pages 32-33]

The road congress considered numerous general resolutions, but one, introduced by Major Group 10, Industrial Professionals, was specific in recommending "suitable action on the part of the Federal Government to secure the construction and maintenance of a modern system of well built trunk line highways connecting the Atlantic and Pacific coasts, and the northern and southern sections of the country as well, utilizing existing highways where available and suitable." Further, the resolution recommended "that this action be taken as quickly as possible, so that if there be a surplus of available labor from the demobilization of our troops and war industries' employees they may be utilized upon this work." ["National Road System Recommended," *Engineering News-Record*, December 19, 1918, page 1150]

AASHO's Resolution

The shape of the postwar program was the primary theme when the Chicago meetings of AASHO and the Highway Industries Association began a week later than planned.

AASHO held its fourth annual meeting in the La Salle Hotel on December 9 and 10. The executive committee considered two resolutions that embodied the point of the Joint Congress, as described in *Good Roads*, relating to Federal participation in road work:

Two quite different proposals for such participation were placed before the officials. The first recommended increased appropriations by Congress and the administration of the work by the Bureau of Public Roads of the Department of Agriculture, under the existing federal aid law. The other plan called for a system of national roads, built and maintained by the Government through a federal commission of seven members appointed by the President. It also called for a federal appropriation of \$500,000,000.

A long debate on these two measures followed their introduction and after a close vote had been taken, the matter was referred to committee with instructions to bring in a modified measure.

The result was a compromise favoring Federal-aid, with some elements added to satisfy supporters of national roads. AASHO endorsed Page's legislative proposals, introduced by Senator Claude A. Swanson of Virginia, for consideration during the third and final session of

the 65th Congress (December 2, 1918 to March 3, 1919) calling for a revamping of BPR:

BE IT MOVED, by the American Association of State Highway Officials, assembled in convention, at Chicago, on December 10, 1918:

That the so-called Page Bill, introduced by Senator Swanson, amending the present provisions of the Federal Aid Road Act, be indorsed by the Association, and its immediate passage urged without further referendum to the various states.

That the executive committee is requested not to submit any further legislation to the present short session of Congress.

That the executive committee formulate and submit to the various state departments, as soon as may be, a separate bill providing for a federal body or officer with adequate power and funds to administer all federal aid highway laws, which are now, or may hereafter be, in effect. It is the sense of this meeting that the law should be so drawn as to take the fullest possible advantage of the experience and personnel of the present federal administrative body, the effectiveness of the work of which is hampered by the present limitations on salaries and the present too great centralization of the administrative functions, especially as concerns construction matters.

We favor an adequate federal highway system upon which the federal aid funds may be concentrated. The federal system should be selected by the various states and connected at the state lines by the federal department in cases where connections are not made by adjoining states. Nothing in any federal enactment should prevent any state from gaining all the federal aid accruing to it nor deprive any state of the full administrative and legal control of all highways within its borders, and of the location of the improvements on the federal highway system. ["The Road Meetings in Chicago," *Good Roads*, December 21, 1918, pages 243-244]

According to a recollection of these events, written in 1943 by Iowa State Highway Engineer Fred R. White, AASHO "began to waver on the principle of Federal-State cooperation conceived by its founders and written into the Federal Aid Road Act of 1916." He described what occurred during the 1918 annual meeting in Chicago:

It was inevitable that the battle of Federal-aid versus National Highways would come to a show-down at that convention. And it did. On the show-down resolution to endorse the National Highway plan, the convention voted 50-50. It was a tie. With the delegation present and voting from every State represented at the convention, we were split exactly even. By that slender margin and with not a single vote to spare, did this Association cling to its ideal of Federal-State cooperation laid down by its founders.

You will find no account of this incident in the official records of the Association. With rare judgment and foresight the presiding officer suggested that in a matter of this importance and with the Association so evenly divided, it would be well to expunge the

record from the Minutes of the convention. Both sides readily agreed. The record was expunged. [White, Fred R., "Federal-State Road Building Plan vs. Complete National Control," *American Highways*, January 1943, pages 11-12.]

The Joint Congress Convenes

AASHO joined the Highway Industries Association for joint sessions at the Congress Hotel on December 11 and 12.

During the first joint session, the first speaker after welcoming speeches was to be BPR Director Logan W. Page on "Highway Control by the Federal Government Under War Conditions." On December 8, 1918, while at the La Salle Hotel for a meeting of AASHO's executive committee, he became ill during dinner. Page retired to his room, where he died a few hours later on December 9.

Illinois Governor Frank O. Lowden greeted AASHO and the Highway Industries Association to the Congress Hotel in Chicago. *Engineering News-Record* reported that economics and ultimate service were the burden of his address in Illinois, "where a \$60,000,000 bond issue has recently been voted":

"Keep the good-roads idea sold like good salesmen," was his advice to those who would stop the good-roads propaganda. That appointing officials must keep out incompetents, that engineers must recognize their heavy responsibility to build the roads as economically as private companies would, that material men must be satisfied with a fair profit (for upon this factor largely depends the beginning of the building in Illinois) – these were sentiments upon which the Governor elaborated.

One of the speakers on the first day was Roy Chapin, whose topic was "The Present and Future of Highway Transport in America." He said:

A year ago highways transport had arrived nationally, though few of us knew it. Today it is known, discussed, praised, criticized, encouraged, and every month sees it grow in volume by leaps and bounds. The war pointed out that our highways could greatly supplement all other forms of transportation, and who can tell just how much our share in the war was speeded by highway transport, not only here but in France?

Today it is our duty to develop broadly this mighty, new form of transportation, properly coordinate it with others, safely guide it through these early stages of growth and make it responsible for opening up every nook and corner of our land.

There must be regulation of highways transport. Its full development is dependent, partly, on the elimination of irresponsible operators, the stabilizing of rates, the working out of uniform bills of lading, and methods of insuring loads. Analysis must be made of the desirability of exclusive franchises to operate over certain highways. It is the present thought of our committee that such franchises are not conducive to the best interests of

the people. Provided rates for traffic are properly stabilized, competition over the highways would seem far better for the shippers, and only in this way will rates finally come down.

During the post-war period of readjustment, Chapin thought that Washington should have a comprehensive organization to administer Federal road funds, but also for an exhaustive study of the possible growth of highways traffic during the next decade. The outcome should be recommendations to highway officials on which types of roads should be built to handle evolving traffic patterns.

Editor Mehren of *Engineering News-Record* delivered a speech on national highway policy that began:

Ten years ago the highways of this country were subjected to a traffic scarcely different from that which they had borne in Revolutionary days. In fact, the traffic was not much different from that which the Romans had imposed on their roads nineteen centuries ago. Indeed, highway transportation has changed to a greater extent in the past 10 years than it did in all the nineteen hundred years preceding. The motor vehicle is responsible for this revolution in conveyance, and to it is due the stress to which our roads are subjected.

The new reality was reflected in total annual expenditures for highway work. BPR indicated that total cash expenditures for roads in 1915 totaled \$267 million. "This already large sum is sure to be rapidly increased because of the attitude on highway improvement in every part of the country." The change is reflected in New York State's \$50 million bond issue and comparable issues by Pennsylvania for \$50 million and Illinois for \$60 million.

To understand the Federal attitude, he cited BPR, "which cannot be charged with anything but the utmost conservatism." In the Federal Aid Road Act of 1916, Congress authorized \$85 million to be spread over 5 years. "This law, making a great stride forward in our highway policy and constituting the first step toward a national highway system, is in itself merely the culmination of a movement that has been going on for a quarter of a century" (dating to the Bicycle Craze of the late 19th century).

The question now was whether the next step should be taken. He recalled Secretary's Houston's statement on November 27 that "it would be in the public interest to make available larger appropriations from the Federal treasury, to be used separately or in conjunction with state and local support." As Mehren had done at the time, he suggested that the word "separately" could refer to a national system to be built by the Federal Government. "Note that the Secretary does not commit himself to that system. He does, however, place it on a par with the Federal-aid plan."

Based on wartime experience, especially the growth of motor truck traffic, Mehren did not believe that an extension of the Federal-aid plan would suffice. By his canvass of State highway engineers, he said, "I can assure you the opinion is overwhelming that the Federal-aid system is

inadequate to secure the building and proper maintenance of through trunk routes of a single high standard, conformable to the traffic that must be borne.”

He proposed a plan for a 50,000-mile system, consisting of 5 east-west routes and 10 north-south routes. The system would include 2 percent of all roads, would pass through every State, and could, Mehren estimated, be built for \$1.25 billion, or \$25,000 per mile. At \$100 million a year, the Federal Government could build the system in about 12 years. “Surely, this is not a heavy strain upon the resources of a country which has raised over \$15,000,000,000 in Liberty Loans in 18 months’ time.” (More than \$17 billion had been raised to support the war effort.) He also discussed how to administer the plan:

There is but one plan, in my judgment, adequate to the national importance of the highway problem, and that is through a national highway commission. In the past our Federal road bureau has been buried as a subordinate office in a great Governmental department, whose chief interest lies in another direction. It would be as logical for me to advocate the abolition of all state highway commissions and the putting of their work under the respective state departments of agriculture, as to advocate the continuance of the Bureau of Public Roads under the Department of Agriculture

Some will say that Congress will not appoint a highway commission. I submit that Congress will be glad to do that which the people of this country really want.

He described the agencies created by Congress during war time, in each case “because the problems had grown to be of such a magnitude that their broad-gaged consideration and administration could no longer be trusted for efficient handling to administration departments”:

I submit that the highway problem has now come into the same class, and that it is of such national importance that broad-gaged consideration can be secured only by putting the problem in the hands of a separate board.

He concluded:

To sum up, then, I come to you with a plea that the United States Government shall take the final step to rounding out the highway system of the country, by superimposing upon our excellent county and state systems a national highway system, to be built, maintained and controlled by the national Government itself. In its effect upon the farm, in its effect upon the cost of living, in its influence on national morale, no single transportation agency is as important as the highways, and I urge that the Federal Government, as the only agency capable of building and administering an adequate system, embark on this great project. It will return in increased property values, and in lower transportation costs, all that is invested in it, and it will contribute very materially to the further welding together of all the people of the country.

During the joint session with the Highway Industries Association, AASHO's Federal-aid supporters were far outnumbered by representatives of AAA, the National Automobile Chamber

of Commerce (NACC), the trucking industry, and other interests favoring a national highway system constructed by the Federal Government. The delegates, according to an account in *Good Roads* magazine, "were overwhelmingly in favor of the more far-reaching plan of federal participation." *Engineering News-Record* stated that the discussion "waxed strongest on the question of proposed Federal legislation" and noted AASHO's resistance to "any bill which might curtail or restrict the powers of state officials."

Despite AASHO's concerns, the Joint Highway Congress approved a resolution based on Mehren's proposal that began by quoting President Wilson's recent statements.

WHEREAS, the President of the United States in his recent message to the Congress recognized the value of improved highways in the general transportation system of the nation and definitely recommended and urged their rapid development; and

WHEREAS, this work is necessary to give employment to our returning soldiers and also to furnish worthy projects on which unemployed labor can be engaged during the period of readjustment; and

WHEREAS, we recognize the necessity for a well-defined and connected system of improved highways in order to expedite the distribution of large volumes of foodstuffs now wasted on account of the lack of prompt and adequate highway transportation and to better serve the economic and military needs of the nation;

Therefore, Be it resolved: That a Federal Highways Commission be created to promote and guide this powerful economic development of both highways and highway traffic and establish a national highway system.

Be it further resolved: That the present appropriations for Federal Aid to the States be continued and increased, and the States urged to undertake extensive highway construction so as to keep pace with the development of this country and its transportation needs and that in carrying out the provisions of the present Federal Aid Act, or any amendment thereto that the State Highway Departments shall co-operate with the Federal Highway Commission.

Be it further resolved: That all governmental activities with respect to highways be administered by the Federal Highway Commission.

The Resolutions Committee of the Highway Industries Association consisted of many representatives of member groups, including Judge Lowe.

The Highway Industries Association held its annual meeting the day after the Joint Congress. *Engineering News-Record* reported that in addition to routine matters, the meeting endorsed the resolution of the Highway Congress in favor of increased Federal-aid funds, a national highway commission, and a national highway system, and authorized the president of the association to appoint a finance committee and a membership and organization committee." The association retained S. M. Williams as its president, with Mehren as the third vice-president.

S. M. Williams, in a closing address to the Joint Congress, said:

You have, during the last two days, witnessed a gathering unique in its formation and

exception in the history of our country. For the first time you have witnessed cooperation on the part of the state highway officials as an association with an organization promoting highway development. For the first time in the history of our country you have witnessed a willingness to drop their own individual projects and to join hands in a united effort for the general cause of highway development.

Every national highway association in the United States was represented in the meeting this week. Forty-eight such associations are registered. Again, for the first time you have witnessed a very large representation of chambers of commerce and other civic organizations throughout the United States gathered together in the interest of highway development. I am sure you will agree that in bringing together the various representatives to which I have referred, the Highway Industries Association has gone a long way toward the active and far-reaching campaign in favor of a radical change in the policy of our country toward highway development and control both national and state.

["The Road Meetings at Chicago," *Good Roads*, December 21, 1918, pages 243-244; "State Highway Officials and Highway Industries Association to Meet at Chicago, Illinois," *Good Roads*, December 7, 1918, page 218; Loomis, Fred M., "Wanted: A Federal Highway Commissioner," *Motor Age*, December 19, 1918, pages 22-22; "National Highway System Gets Strong Backing" (page 1108); and from *Engineering News-Record*, December 19, 1918: Mehren, E. J., "A Suggested National Highway Policy and Plan," pages 1112-1117; "Representative Highway Congress in Chicago Unit for National System," pages 1145-1146, 1149; "Highway Industries Association Holds Annual Meeting," page 1146].

Judge Lowe at the Joint Congress

On December 12, Judge Lowe addressed the Joint Congress about the past, the present, and the future:

Mr. Chairman and Gentlemen of the Convention:

We meet under most favorable conditions. The nightmare of war is over, and the Dove of Peace is hovering over all the land.

Wisely, or otherwise, the Federal Government ignored the economic value of highway construction in its plans for winning the war, but with the coming of peace, all restrictions were removed, and we were urged to go forward with our work. We are losing millions because of the inability to market the products of the country. There is high authority for the statement that fifty per cent of our perishable products are wasted through inability to get them to market. One of the great causes for this condition of affairs has been brought about because official Washington has had both eyes and ears closed to it's [sic] importance, and all our energies have been buried in one of the branches of our government, from which I have always believed it must be rescued, if our country is to retain its place among the civilized nations. Indicating that this is in no sense a late or a capricious conclusion, you will pardon me if I quote from a letter written

to the Kansas City Star in August, 1911. I was then making an automobile tour across the country, studying the road situation, and wrote a letter from Decatur, Illinois, in part as follows: "The Department of Roads under the direction of Logan Waller Page, has done much valuable work, but there should be a Department of Highways, just as there is a Department of Agriculture, of the Interior, etc."

We have all looked toward this Department to lead the way, but the work is so vast, and the duties of the Department so comprehensive, it is evident that if we are to have a vast system of National Highways, we should have a commission, divorced from all other departments, whose supreme business it will be to have charge of the construction and maintenance of such system.

Those only who have been engaged in this work the longest can realize the slow, but at the same time the vast, progress we have made.

Congress has found no difficulty in appropriating billions of dollars to the railroads. A like appropriation will build, if the average cost be ten thousand dollars per mile, one hundred thousand miles of National Highways. Moreover, the billion dollars appropriated to the railroads, however necessary it may have been, did not add one dollar to the National wealth, while every dollar invested in roads increases the wealth of the Nation. Or if the system, as outlined by my good friend, Charles Henry Davis, President of the National Highways Association, of one hundred and fifty thousand miles, as mapped and contended for by him and others, shall be adopted, then at an average cost of twenty thousand dollars per mile, three billion dollars will be required; and this, if strung out for twenty years, would require an appropriation of one hundred and fifty million dollars per annum.

Any way you may think of it, we shall never accomplish the great work that we should, until we have a large, instead of a small, system of National Highways, built and maintained out of the National revenues; supplemented by systems of State roads, built and maintained by the State Governments, and supplemented again by systems of county and township roads. These systems to be under the supervision and control of these different departments; but if, in addition, a more inefficient idea shall prevail, and the General Government shall furnish a part of the cost of a State system as well, leaving the balance of such cost to be raised by the States, then by all means, if the money is to be mixed, the construction and supervision of such State roads ought also to be mixed. This, in my judgment, is unwise, and will lead to conflicts and delays among the various Departments; as it has already. Nothing is quite so helpful in material affairs as *fixed responsibility*. Of course, there are patriots anxious for "Federal Aid," provided Uncle Sam will let them have full supervision in spending it, and this fits the "pork barrel politician," who wants it applied where it will do the most good – to him.

I desire to congratulate you most heartily upon the organization of the Highway Industries Association, under the direction of my good friend, Mr. S. M. Williams; I have

known him long and well. This is no afterthought or scheme of his, to make himself a place in this great work. I will state, that as far back as 1914, he and I had repeated conversations on this subject. The thought was then incubating in his mind as to the value of such an organization. He has thrown his whole heart into this great work, and you will pardon me for saying, that it is high time the various industries, who shall reap great profits from this enterprise, were taking a more pronounced and effectual stand on this question. Let me emphasize the fact that the farmers and the people of the small towns have gone far ahead of you in this work.

Illustrating again, by mentioning the National Old Trails Road Association, let me say that at the time of its organization in 1912, not one mile of it was in good, usable condition. We organized the people all along this line, never received one dollar from any manufacturing or material industry, but derived all of our support from the people along it's [sic] line, and we have built and rebuilt the road, or have it's [sic] building fully financed, from Washington and Baltimore, to the Mississippi river. And within the next sixty days we shall have it completely financed from the Mississippi to the Rocky Mountains. If we could do that, under most adverse circumstances, what may we not expect when two such great organizations as those assembled here to-day, shall put their shoulders to the wheel and concentrate their mighty energies to this great purpose?

I congratulate you further, that so many of the National Associations have united behind your Association for a *National plan*, each forgetting for the moment our individual projects, because we now realize, as perhaps never before, that the success of a National plan will necessarily include, sooner or later, any road to which our hearts are devoted, provided it has merit; if it has not, it ought not be included. If this war has taught us anything, it is the value of co-operation.

In conclusion, I congratulate you above all things that this cruel and unnatural war is over; and that the American Army, under the gallant John J. Pershing, so gloriously turned the tide of battle at Chateau Thierry, and won a victory to rank in history far above Waterloo or Gettysburg. Discredit our country all you can – call it but “two per cent. of achievement,” if you will, and it still remains the greatest in the annals of war.

The three most marvelous months in the history of the human race were from July 15 to October 15, 1918. Of the earlier date, even the stout-hearted British warrior, General [Douglas] Haig, cried out, “Our backs are to the wall,” and shells were falling daily in Paris. More than a million inhabitants had fled from Paris; men sat down and looked at each other in sullen gloom and despair. Teutonic dreams of World Empire were well nigh realized. Thus it was in July; but in October came the American Army, and three million of the picked veterans of Germany were in full retreat, and suing for Peace.

I congratulate you further that the American President has today arrived in Paris, and will take his place as the presiding genius over the greatest convention that has ever assembled in the history of all the ages – a convention, assembled, in part, for the purpose

of translating into practical reality, the inspired vision of Tennyson, when he exclaimed:

For I dipped into the future, far as human eye could see,
Saw a vision of the world, and all the wonder that would be;
Till the war drum throbbed no longer, and the battle-flags were furled
In the parliament of man, the federation of the world.

We are living in a brand new world – the most gloriously inspiring epoch of all time. Let's stop talking of military roads, built by military despots, for military conquests. Any road good enough for Peace is good enough for War. *No road is good enough for either War or Peace which does not meet the demands of modern traffic.*

Judge Lowe concluded with familiar language from earlier correspondence:

Let's stop pessimistic lamentation. Pessimism never won a fight on any of life's battlefields. It never gave birth to a great purpose, nor added anything to the general good. It never offered cool water to parched lips, nor planted hope in the heart of the dying. It never cuts the brambles and thorns, nor smooths the rough places in life's pathway. It has neither inventive genius nor imagination. It never inspired a line worth remembering, nor added anything of value to the world's literature. If this had been the only principle to escape from Pandora's box – if optimism, hope, imagination had not opposed it from the beginning, the world would have indeed, and in fact, been nothing but a mad-house. All the joys of life, all the hopes of the future, would have been destroyed. Man, now, "but little lower than the angels," would then have been but little higher than the brute. Let him go "with his head in the clouds," if you will; it is infinitely better than burrowing in the earth. I would, had I the power, drive it out of all hearts and back to it's [sic] Native Hell, it's [sic] congenial habitat. Keep your eyes toward the sunrise, and your "wagon hitched to a star" is the only safe and sane rule of life.

Victor Hugo's hero of the French Revolution, in his dungeon cell, the night before his execution, exclaimed: "My motto is: Always Forward! If God had wished man to go backward, he would have put an eye in the back of his head. Let us always look toward the sunrise, development, birth." It is the sunrise of Hope which has no night, and will lead us on to Victory, Prosperity and Happiness. ["Our Motto is: Always Forward," *Better Roads and Streets*, January 1919, pages 7, 33-34. The poetic excerpt is from Alfred, Lord Tennyson's *Locksley Hall*, written in 1835 and included in *Poems*, a collection published in 1842. As noted earlier, the Victor Hugo quote is from his final novel, *Ninety-Three*, published in 1874.]

In several editions of *The Great Historic Highway*, Judge Lowe's reprint of the speech is slightly different and includes a lengthy history of the Cumberland Road and creation of the National Old Trails Road Association. In his published version, the speech ended:

We cannot dwell further upon the historic features surrounding it but hasten to a

conclusion by saying that today it is completely hard surfaced from the Atlantic Seaboard to the Mississippi at St. Louis. It has now been taken over practically throughout its entire length across this state as the first interstate highway to be built under the late Act of the Missouri legislature. This insures its completion in the near future to Kansas City. Very much of the road between Kansas City and Los Angeles has already been built, and is in good travelable condition.

It is hoped that the road West of the Mississippi will be 24 feet wide, and this road from Kansas City west will be uniformly 24 feet wide. It is already practically all graded and bridged. It is the only road you can take at the Mississippi River and reach the Atlantic Seaboard over a hard surfaced road. It is the only National road ever established in the history of this country, and will be the first to be completed. [“The Amended Federal Aid Act,” 1924, pages 160-167]

This version did not include the “My motto” conclusion.

Chapin Resigns

While the Joint Congress was underway, Roy Chapin announced that he was resigning as chairman of the Highways Transport Committee and would return to his duties as president of the Hudson Motor Company. His biographer, J. C. Long, explained Chapin’s attitude after Germany surrendered:

Germany gave in on November 11, 1918, and the car manufacturers immediately began to plan for reconversion to peace time; but Roy’s work in Washington was not yet completed. He wrote to [his wife] Inez on November 19:

“Am working hard now on the bill for Congress and expect to put in most of my time on this from now on. If we can get it through this winter and I think we can – it will more than repay all the hard work we have put in and will start the country off on a sane, logical policy for highways and highways transport.

“After that is accomplished my work is done and I hope we can go somewhere this spring with our kiddies and get into balmy weather – or stay in Detroit together or do whatever *you* would like to just so it doesn’t separate us.”

Every day, however, Roy found it more difficult to persuade himself to stay in Washington. “So many are leaving here now,” he wrote home on November 23, “it’s mighty hard to stick out and finish the job – or try to.” Things were winding up rapidly. Roy had various conferences with Secretary Baker on maintaining the highway work in peace time. The Council of National Defense decided to continue its various state groups until the next Spring which provided some degree of organization for promoting the highway transport work. With this much assured and with an able paid staff keeping on at Washington, Roy felt that at last he might go home. On December 14, 1918 he returned to Detroit, as he wrote to Inez in advance, “happy in the thought that the war is

won and we can again plan our future along more definite lines.” [Long, page 172]

The work of the committee would continue with John S. Cravens, chief of the field division, Council of National Defense, serving as chairman. The announcement of Chapin’s departure indicated, “It is thought that the development of roads is as important if not even more so in time of peace as in the days of war, and in consequence the complete nation-wide organization built up by Mr. Chapin will be maintained.”

A brief article about the resignation in *Automobile Topics* noted of Chapin:

Being a good roads enthusiast, he eagerly applied himself to the difficult task of demonstrating the practical urgency of the good roads proposition as a factor in winning the war. The rural express movement, relating both highway and automobile movements, was a popular outgrowth of this effort. Of far more direct importance was the work of his committee in planning routes and otherwise facilitating the movement of Army trucks. [“Chapin Back to Hudson,” *Motor Age*, December 19, 1918, pages 16-17; “Roy D. Chapin Returns to Detroit,” *Automobile Topics*, December 14, 1918, page 520]

Returning to Detroit, Chapin unveiled a new moderately priced car, the Essex, in January 1919, and it would remain in production until the early 1930s. Chapin, however, could not turn fully away from his good roads advocacy. The Highway Committee of the NACC became his means of continuing the work he had begun on the Highways Transport Committee. Pyke Johnson, the executive secretary of the Highways Transport Committee, joined Chapin in his new forum for advancing the good roads cause. Chapin was chairman, with S. M. Williams a member of the committee. [Long, pages 174, 176-177]

Judge Lowe on Paying For the National Highway System

On January 3, 1919, the chairmen of the War Service Committee of the Chamber of Commerce of the United States met in New York City. Among issues addressed, the chairmen adopted a good roads amendment drafted by S. M. Williams:

Whereas, the President of the United States in his recent message to Congress recognized the value of improved highways in the general transportation system of the nation and definitely recommended and urged their rapid development; and

Whereas, this work is necessary to give employment to our returning soldiers, and also to furnish worthy projects on which unemployed labor can be engaged during the period of re-adjustment; and

Whereas, we recognize the necessity for a well defined and connected system of improved highways in order to expedite the distribution of large volumes of foodstuffs now wasted on account of the lack of prompt and adequate highway transportation, and to better serve the economic and military needs of the nation; therefore, be it

Resolved, that a Federal Highways Commission be created to promote the guide this powerful economic development of both highways and highway traffic and establish a National Highway System; therefore, be it further

Resolved, that the present appropriations for Federal aid to the states be continued and increased and the states urged to undertake extensive highway construction so as to keep pace with the development of this country and its transportation needs, and in carrying out the provisions of the present Federal Aid act or any amendment thereto that the State Highway Departments shall co-operate with the Federal Highway Commission; be it further

Resolved, that all Government activities with respect to highways be administered by the Federal Highway Commission. ["For Better Highways," *The Baltimore Sun*, January 19, 1919, page CA12]

Better Roads and Streets, in its February 1919 issue, published what was basically one of Judge Lowe's bulletins. It recalled the resolution of the Joint Highway Congress in support of a National Highway System, adding:

At a meeting of Chairmen of the two hundred and sixty-five War Service Committees of the Chamber of Commerce of the United States in New York on January 3, they unanimously endorsed the resolution of the Highway Congress calling for a Federal Highway Commission, a National Highway System, and an extension of the present Federal Aid System.

The Pioneer Good Roads Statesman, Senator John H. Bankhead, has introduced a Bill to appropriate \$600,000,000 in Federal Aid to the States, in addition to the \$75,000,000 appropriated two years ago, \$50,000,000 of which shall immediately become available, and \$75,000,000 available July 1, 1919. This Bill is quite likely to pass. It has received the approval of President Wilson, and Secretaries Houston and Baker.

The article asked:

Are you ready for it? You have had two years in which to draw down your part of the \$75,000,000 heretofore appropriated. How much has Missouri and Kansas and the other States through which the National Old Trails Road runs, west of the Mississippi, drawn down of that appropriation? Why continue "Federal Aid" appropriations if the States, counties, and road districts do not take the necessary steps to reciprocate.

Judge Lowe was referring to how the States would provide their 50-percent match of the Federal-aid funds. Some States used State resources to pay the matching share, but in other States, the funds had to come in whole or part from counties or road districts:

There is but one way by which we can receive any Federal Aid under these bills, and that is by Bond issues. We urged State Road Bond issues, based upon capitalizing the automobile license tax seven years ago, and Illinois voted a \$60,000,000 road bond issue at the last election, based on this idea, and will build five to six thousand miles of State Highways without levying one dollar of additional taxes upon the people. The Kansas City Journal, May 1, 1912, contained a news item from which is taken the following

excerpt:

A plan by which motor car owners, without increasing their present license taxes, can build great trunk highways in every State in the Union, has been devised by Judge J. M. Lowe of Kansas City, president of the National Old Trails Road Association. In behalf of the plan, it is urged that the farmer would get much of his road building done for nothing, and the motorist would have the satisfaction of seeing his license fees applied to a purpose that would benefit him.

“I propose that the amounts collected in license fees on motor cars in each State shall form the basis of bond issues,” said Judge Lowe yesterday. “The long and short of the plan, which, so far as I have been able to learn, is an entirely new one, is the capitalization of the motor car tax for good roads purposes.”

On May 3, 1912, the Journal published an editorial, in part as follows: “As an advocate of good roads J. M. Lowe of this city, president of the National Old Trails Road Association, makes a suggestion that is at least extremely practical, and is worthy of serious consideration. Of course, there may not be much left of it by the time the lawyers get through with it, but for the purpose of showing how it can be aided, Mr. Lowe’s suggestion that the state motor car license be used to pay the interest on good roads bonds is at least worth considering. When people begin to hunt for ways of doing things, a way is usually found sooner or later.”

The Missouri Old Trails Association, in 1912, had called for a \$50 million State road bond issue, “which was favorably received. And now we are at last ready to take action in both Missouri and Kansas”:

The Bills will undoubtedly provide for those progressive communities where bonds have already carried, and will provide for refunding to any county or road district any funds already voted to any state highway, whenever the automobile tax shall be sufficient, which it will be, long before the bonds mature.

It has been said that conditions are different in Illinois from those in some other States. There may be some difference, as for instance: roads can be built in Missouri or Kansas at less than one-half the cost of those in Illinois. But it is said Illinois has more licensed automobiles. Who will say this will be true when the bonds mature?

But, if instead of this plan, a different one shall be adopted, no matter, the automobile and truck taxes will take care of it, in any event. Moreover, the enhanced values of real estate alone will take care of the bond issue, before the roads are completed. Let me repeat, if the “Federal Aid” plan is to prevail, then there is no other way to obtain it except by issuing bonds. The Government has signified its willingness to co-operate. \$60,000,000 of the last appropriation remains in the treasury, subject to call. [Untitled, *Better Roads and Streets*, February 1919, pages 51-52]

Hopes Delayed

Despite the hopes raised by the Joint Highway Congress, little time remained to consider a major policy shift in the highway program in the short post-war Congress, meeting from December 2, 1918, to March 4, 1919, after which Republicans would take over control of Congress from the Democrats. Congress and the Administration were eager to resume highway construction on a large scale, but facing many other post-war questions, time to debate major changes in highway policy was not available.

Several measures had been proposed in addition to Page's ideas, embodied in the Administration bill introduced by Senator Swanson. Senator Bankhead, chairman of the Committee on Post Offices and Post Roads, and several members of the Senate and House introduced nearly identical bills to modify the definition of "rural post road," increase approved funding levels, and extend funding through FY 1925. Senator Smoot, a member of the same Committee, had introduced a bill that would establish a United States Highway Fund by issuing 50-year bonds to generate up to \$1 billion that would be loaned to the States for road construction. Another bill, also sponsored by Senator Swanson, embodied a proposal by the Postmaster General to use revenue from motor parcel post to improve a Federal network of motor express routes.

In the end, an amendment introduced by Senator Bankhead was incorporated into the Post Office Appropriation Bill for 1920, which President Wilson approved on February 28, 1919. The Bankhead amendment authorized additional funds to supplement current authorizations (\$50 million more for FY 1919, and \$75 million each for FYs 1920 and 1921). It also carried appropriations of \$3 million for FYs 1919-1921 as a continuation of the forest roads provision in the 1916 Act. Bankhead explained the increase funds for the 1916 Act programs:

By reason of the fact that highway improvement has been held back during the past two years, large amounts of money have accumulated in State and county treasuries, many bond issues have been held back, and many improvements which ordinarily would have been made during the past two years will be undertaken in the near future. This will insure a much larger outlay in 1919, and it would seem that if the Federal Government is to become an influential factor in highway work, its contribution should be very materially increased. ["Senator Bankhead on Federal Road Legislation," *Southern Good Roads*, March 1919, page 102]

In addition to increased authorizations, the legislation amended the Federal Aid Road Act of 1916 to address concerns about the program. It increased the limitation of payments to \$20,000 per mile to aid States with higher traffic volumes. Another key change involved the definition of "rural post road," which the Bankhead amendment changed to read:

... any public road a major portion of which is now used, or can be used, or forms a connecting link not to exceed ten miles in length of any road or roads now or hereafter used for the transportation of the United States mails.

This definition retained the "post road" concept from the Constitution, but essentially made every road, including the long-distance roads, eligible for Federal-aid highway funds regardless of whether it carried the mail. Senator Charles S. Thomas of Colorado objected to the revision, saying it "commits the United States to the improvement of every cattle trail, every cow path, and every right of way in the United States." *America's Highways 1776-1976* observed:

This, of course, was exactly the effect desired by the Administration when it proposed the amendment. The new post road definition ended the pretense that Federal aid for highways rested even in part on Congress' constitutional power to establish a postal system. [*America's Highways 1776-1976*, page 102]

The amendment also authorized the Secretary of War to transfer war materials no longer needed by the War Department to the Secretary of Agriculture. The Secretary of Agriculture was to retain 10 percent of the material for BPR's work in National Forests, while distributing the balance to the State highway departments for use on Federal-aid highway projects. Each State was entitled to material valued in amounts on the same basis as apportionment of funds under the 1916 Act. BPR established a special division to receive the War Department's lists of surplus war materials. The division forwarded the lists to the State highway departments, which then requested the items they could use. The States received only the equipment they requested, but because total value for each State was limited to its Federal-aid percentage, not all requests could be satisfied. [Holt, W. Stull, *The Bureau of Public Roads: Its History, Activities, and Organization*, The Johns Hopkins Press, 1923, pages 22-24]

Although the outcome was disappointing to advocates for a Federal Highway Commission, Senator Charles E. Townsend, a Republican from Michigan, introduced S. 5626 on February 18, 1919:

To create a Federal Highway Commission, to establish a National Highway System, to promote efficient and economic highway transportation, and to amend an act to provide that the United States shall aid the states in the construction of rural post roads and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, that there is hereby created a Federal Highway Commission, and to provide a connected system of main highways adequate to sustain the demands of interstate commerce to provide adequate post roads for the transportation of the United States mails and parcel post, and to provide for the common defense and promote the general welfare of the people of the United States, there is hereby authorized to be established, constructed, and maintained a system of highways, hereinafter referred to as the National Highway System, to comprise not less than two main trunk-line roads in each state, and joining the National Highway System in the adjacent states and counties.

The commission "shall determine the types of construction and reconstruction and the character of improvement, repair and maintenance of all highways included in the National Highway

System.” However, only “durable types and adequate widths of surface shall be adopted for any highway as will effectively meet the traffic conditions thereon and the probable future traffic needs.” A “highway,” within the meaning of the bill, “shall be deemed to include the necessary bridges, drainage structures, signs, guard rails, protective structures and housing”:

In consideration of the benefits to be derived by the state from the construction, reconstruction, improvements, repair and maintenance of the highways comprised in the National Highways [sic] System, and as a condition precedent to the construction of any such highways in any state a right of way therefor, not less than 60 ft. in width, except at such points where existing buildings or structures are of such value that the cost of their removal would, in the opinion of the commission, be excessive, shall be furnished to the United States without expense to it by, for, or on behalf of such state or any civil subdivision thereof.

In introducing the bill, he said:

I desire to introduce a bill for printing in the Record and reference to the Committee on Post Offices and Post Roads. The object is Federal highway aid and construction. It is not because I expect to bring it up or that it will receive any consideration at this session of Congress, but it illustrates in general the principles upon which I believe Federal highway activities should be based, and I introduce it at this time in order that it may receive that criticism and attention on the part of those people and organizations throughout the country who are interested in highway construction that will enable us at the next session of Congress to act intelligently upon the matter. Our Government has entered the good-roads field, and it will not retire therefrom. It is my desire to assist in directing the Federal activities along lines at once scientific and practical. I believe that the National Government should construct a national system of roads through the States connecting all the Commonwealths, and then should maintain these roads, and the States should construct and maintain all the other roads within their boundaries. The powers of the two governments should be as separate and distinct as possible. I present this bill for general consideration.

S. 5626 was read twice, referred to the Committee on Post Offices and Post Roads, and ordered to be printed in the Record.

Highway Engineer and Contractor reprinted the bill in full and suggested that, “Everyone interested in the betterment of our highways and the development of our country should give this bill their most active support when it comes up in the next Congress. [“Federal Highway Aid,” *Congressional Record – Senate*, February 18, 1919, pages 3635-3636; “National System of Highways – The Townsend Bill,” *Highway Engineer and Contractor*, May 1919, pages 39-40]

Chapin on Roads

Roy Chapin outlined his views in a Highways Committee bulletin on March 6, 1919. After

recalling the \$100 million added to the Federal-aid highway program the month before, he wrote:

When you consider the fact that it took years of educational work to get Congress up to the passage of the first Federal Aid Law, and this year the President, his Cabinet, and practically a unanimous Congress were behind a very great increase in that sum, you can realize that a great change has come to pass in highway sentiment. And this vast amount is available for road building only during the coming three years; it calls for the expenditure with that amount, of an equal sum on the part of all the different states. That is, the two hundred and seventy-odd millions for highways that is now available to the states of this country out of the Federal Treasury must be matched dollar for dollar by the various states.

He described the work of Pyke Johnson in Washington as well as Chapin's own effort "to spend as much time as possible in Washington, and is down there practically once a month, and as much oftener as it is necessary." He expected to increase his time in the capital "because we are going into a highways campaign of another type":

The time has come when we must have a more comprehensive plan. The Government should help direct the states as to the type of highways they should build. Lack of proper guidance has so far been one of the greatest faults in the construction of American highways. As a matter of fact, the Highways Committee is informed that of the projects approved by the Department of Agriculture, which comprise at the moment, I think, some five thousand miles of highway, much of which will be built this year, 80 per cent of these roads to be built from Government funds are to be of sand clay, gravel or dirt. And surely, I think that all of us will agree that the time has come when from our main highways at least, we must have a better type of service.

He illustrated the point by examples from the Army truck convoys organized by the Highways Transport Committee to East Coast ports for shipment to Europe:

We found, for instance, that the State of Ohio had no connections running into Pennsylvania, leading to Pittsburgh. There was no road on the eastern end of Ohio that was any good, and that there was no road from Beaver Falls [Pennsylvania] running over to the Ohio line that was worth while. And neither state seemed to be particularly interested in connecting up the two states by good routes. Pennsylvania was very much absorbed in building roads to connect up her own cities, and Ohio the same.

But we have come now, gentlemen, to a time when we know that interstate highway commerce is taking place and motor vehicles are running between the cities and passing through a number of states. We have known for years, of course, that the passenger car was an inter-state vehicle, and we have now come to a time when there is vast inter-state commerce by motor truck over the highways, and when the Federal Government, we believe, should step in and control a Federal system of highways.

He was “glad to say” that these thoughts had been “crystalized into” Senator Townsend’s bill, “calling for a Federal Highway System, Federal Highway Commission and a thorough study of the new problems of highway traffic and highways transport.” He continued:

We had in the last month, a letter from the Department of Labor asking the National Automobile Chamber of Commerce to cooperate with it by using all our influence to urge the building of highways, that the slack in labor may be taken up

I can say to you frankly that this is the Golden Age of highway construction. The automobile industry has helped it arrive by putting six million vehicles upon the road, and naturally the users of every one of those vehicles want better highways. The war has given tremendous impetus to good roads, and the returning soldier is going to add to that impetus for he has seen what fine highways mean to Europe. It is the time that we have all been waiting for, and it is here at least

I think we can congratulate ourselves that we have reached the point that we have so long hoped for and wished for, for roads are going to be built in this country, built on an enormous scale, and must be built to last.

It is our duty to see that these vast sums are wisely spent and full value is received in the right type of road mileage. [Long, pages 177-179

George R. Stewart on the National Old Trails Road, 1919

Author and historian George R. Stewart wrote many books, including his classic highway book, *U.S. 40: A Cross Section of the United States*, published in 1953. As mentioned in the book, he had traveled part of the National Old Trails Road in 1919.

In 1917, shortly before graduating from Princeton University, he enlisted in the U.S. Army following the country’s entry into the European War. As biographer Donald M. Scott explained, Stewart was assigned to the U.S. Army Ambulance Corps, but the unit never received orders to go to Europe. Instead, he spent much of the war in Pennsylvania. In 1918, as the Spanish Flu pandemic hit the world with devastating impact, he contracted pneumonia, which he never completely recovered from. However, as he headed back to home in Pasadena, California, Stewart decided to hitchhike west on the National Old Trails Road created in 1912 by the initiative of Miss Gentry. Scott wrote that Stewart was “coughing from lingering effects of his pneumonia”:

Never one to let adversity or ill health hold him down, Stewart headed out, hitchhiking west, as soon as the spring of 1919 opened Miss Gentry’s new transcontinental road.

The National Old Trails Road, with its terminus in Los Angeles, was “the logical route for George R. Stewart to use on his hitchhiking trip” to Pasadena. During the “month of pilgrimages . . . he put on his army uniform, gathered up his kit, and stuck out his thumb.”

Stewart, in his book about U.S. 40, described the trip along the eastern portion of the National Old Trails Road:

In 1919, freshly discharged from the army, I hitchhiked westward from New York, and traveled along the National Old Trail [sic], as it then was known, from Washington, Pennsylvania, to St. Louis. The old S-bridges were still in use. As far as Terre Haute the road was, according to standards of the time, well paved and heavily traveled. But at the Illinois line the bottom dropped out of it. Only an occasional Model-T braved the morass, and the ruts, between towns. The redbud was in bloom and beautiful along the streams, but the road itself was unspeakable merely bogged down in the prairie gumbo

At its best, in time and in place, [the Cumberland Road to Vandalia] attained greatness. Moreover, it is safe for the future. From Columbus to Indianapolis and from Indianapolis to Vandalia the original route, whether called U.S. 40 or something else, will furnish the main traveled road until someone disproves the geometrical proposition that a straight line is the shortest distance between two points. [Stewart, George R., *U.S. 40: A Cross Section of the United States*, Houghton Mifflin Company, 1953, pages 120-121]

Along the way, he took photographs, including one of the Automobile Club of Southern California's National Old Trails Road sign near Indianapolis:

Years later, when his friend Charles Camp asked him if it had been hard to get a ride, he answered that it wasn't hard to get a lift, but "in those days there weren't very many cars. If you made a hundred miles in one car that was a Big Ride. You rarely did that."

He didn't make it all the way home to Pasadena. The after-effects of the pneumonia finally caught up with him in Kansas and he abandoned his hitchhiking at Garden City. He took the train the rest of the way, a prudent choice

Even though the trip was cut short, it had been a fine adventure. Stewart hitchhiked more than halfway across the United States, through towns with names like Old Peculiar, Greenup, and Kingdom City, and across the Hundredth Meridian, gateway to the West He traveled the old trails, the National Road and the Santa Fe Trail, and the new automobile road that followed them. It was good preparation for books he would later write about place names, trails and highways. [Scott, Donald M., *The Life and Times of George R. Stewart: A Literary Biography of the Author of Earth Abides*, McFarland & Company, Inc., 2012, pages 35-41]

A National Approach

Judge Lowe, from the start, had sought every opportunity to encourage officials of the Federal Government and States, counties, cities, and road districts to complete their segments of the National Old Trails Road. In this effort, he had embraced a national

approach to road construction. He eagerly supported Charles Henry Davis' National Highways Association's Good Roads Everywhere campaign and his proposed 50,000-mile National Highways network. Now, Judge Lowe also strongly supported the Highway Industries Association's proposed national highway system that inevitably would include the National Old Trails Road.

On January 21, 1919, Judge Lowe was prominent in creation of a new organization, the Associated Highways of America. Representatives of dozens of named trails met in Kansas City, Missouri, to establish the organization. *Motor Age* reported:

Its purpose is to promote the establishment and construction of a national highway system, to encourage highway associations in constructive work, to bring about establishment of a highway commission at Washington and to stimulate the utilization of the present Federal Aid act in highway improvement.

American Motorist stated that the new association made Kansas City "the working headquarters of a group of inter-State road associations which promise to be a forceful factor in the now country-wide effort to obtain a Federal system and a Federal commission from the Congress at Washington":

There was a whole day of earnest discussion as to the place which the new organization might fill, its methods of conduct, and who should be its officers.

Of course, resolutions were passed endorsing the plan of a Federal system and a Federal commission, and it is the hope of the various road associations represented that their lines of travel will be included in the great national plan when it is finally accomplished. No road association that did not pass through at least three States was given voice and vote.

Overall, 37 of the 47 associations participating in the meeting were admitted to membership, representing over 40,000 miles of named trails traversing 45 States:

Judge J. M. Lowe, of the National Old Trails Road, living in Kansas City, was naturally prominent in the day's proceedings. "Coin" Harvey, of the Ozark Trails Association, was another who figured. H. O. Cooley, of the Yellowstone Trail Association, entitled to the real credit for the calling of the meeting, insisted that having done this work, his part was more or less played, and he held that a place on the board of directors was all that should be given to him.

For president, the new group selected C. F. Adams, president of the Pike's Peak Ocean to Ocean Highway Association, "and there is no question as to his fitness for the position." The article added, "His administration is certain to be active and resultful, and, luckily, he has the time and the money so that he can afford to ride his favorite hobby." Frank A. Davis of the National Old Trails Association was picked as secretary. *American Motorist* pointed out that Davis "has been active in the promotion work of the National Old Trails Road, and also a moving factor in the King of Trails, reaching from Canada to the Gulf of Mexico and possessing the hope to find an ultimate terminus in the City of Mexico." ["Associated Highways Now," *Motor Age*,

February 6, 1919, page 12; “Associated Highways of America Organized,” *American Motorist*, March 1919, page 36]

On April 12, 1919, the organization announced a touring bureau for all named trails associated with the organization:

H. O. Cooley, secretary of the Yellowstone trail, is developing the bureau plan, with the basis of the seven bureaus now operating along the Yellowstone trail. It is expected that this year one or more bureaus will be opened on each of the thirty or more routes in the A.H.A., the information on each route to be cleared through a central office for the benefit of all. It is the plan that each highway association employ a man on full time to collect and handle routing information. When the program is in operation, any bureau will be able to give touring information on any route in the A.H.A system.

Weather bureaus already are assisting materially in collection of road information in some districts, and this source of help will be cultivated. In Kansas City Patrick Connor, weather observer, gets information daily from his weather reports on condition of roads in eastern Kansas, western Missouri, northern Oklahoma. This information is given to inquirers, and is available for the local offices of the A.H.A. Frank A. Davis, secretary of the A.H.A., is securing from local members of road associations names of members who will report daily on road conditions to the local weather reporters, so that road data can be telegraphed with the weather report

The association also established a department to “assist highway associations affiliated with the A.H.A. in perfecting and financing their organizations”:

There are now thirty associations in the A.H.A., many of which are thoroughly organized; others, however, need help to get members and funds, and to put the work on a strong basis throughout the length of their routes. The A.H.A. itself operates on a small budget, paying no salaries, but stimulating the member highway associations to activity and acting as a clearing house for co-operative work. [“Touring Bureaus for All Highways,” *Motor Age*, April 17, 1919, page 14]

National Roads and National Aid

On March 15, 1919, Judge Lowe issued a revised bulletin in support of a national highway system, that compared “National Roads and National Aid,” beginning with a discussion of national aid:

No school is quite so instructive as the School of Experience. We have tried the National Aid plan for three years with the result that less than forty-five miles of roads, in widely detached sections, from 3 to 9 miles in length, have been built under its provisions, in the whole of these United States. But, it is fair to say that Federal money has gone into some 700 miles of roads not yet completed. At this rate it will take six thousand, six hundred and sixty-six years to build 100,000 miles of roads. (There are 2,500,000 miles of roads

in the United States.) Results thus far are that we have built 8 to 9 miles in length, scattered all over the United States – “radial roads,” beginning nowhere and ending nowhere! We have tried it out in absolute good faith for three years with the result as stated. Now we have another three-year period provided for, with \$260,000,000 of Federal money appropriated, and if we accept it, by putting up dollar for dollar as we must, we shall have \$520,000,000 with which to build National Aid Roads. Let’s give it the sincerest possible support, as a final test of this experiment. The Government is urging us to co-operation. Will we do it? Not by scattering and wasting the funds but by building **real roads**.

Next, Judge Lowe discussed national roads:

A system of National Highways, to be built and maintained by the General Government, is the additional plan we shall undoubtedly adopt under the Townsend Bill now pending, or some other. Under the “National Aid” plan above mentioned we shall have to raise \$260,000,000 before we can get the \$260,000,000 of “Aid” apportioned to the States. Assuming that we shall do so, as we should, then we shall have \$520,000,000. If the average cost per mile be \$25,000 this sum of money will build 20,000 miles of roads.

Suppose the 65th Congress had taken prompt action after the war, and we were ready to build an equal mileage (20,000) of continuous, through roads – 4 East and West and 4 North and South – the Labor question would have been solved, values would be greatly enhanced, and universal prosperity would be reigning. These National roads would have served as State and local highways in the States through which they would run, and thus relieve them of the cost of their construction and maintenance. National Aid, State and local road funds, could all be applied on State and local systems.

An objection to National wagon roads has been that, like railroads, they would be of special benefit to adjoining land, and to the towns through which they might pass, while not of immediate value to those not so fortunately located. There is some truth in this contention. This is always true. Abraham Lincoln met this objection in a speech made in Congress June 20, 1848, as follows:

Now, for the second portion of this message – namely that the burdens of improvements would be general, while their benefits would be local and partial, involving an obnoxious inequality. That there is some degree of truth in this position, I shall not deny. No commercial object of government patronage can be so exclusively general as to not be of some peculiar local advantage. The navy, as I understand it, was established and is maintained at a great annual expense, partly to be ready for war when war shall come, and partly also, and perhaps chiefly for the protection of our commerce on the high seas. This latter object is, for all I can see, in principle, the same as internal improvements. The driving a pirate from the track of commerce on the broad ocean, and the removing a snag from its more narrow path in the Mississippi River, can not, I think, be distinguished in

principle. Each is done to save life and property, and for nothing else

The just conclusion from all this is that if the nation refuse to make improvements of the more general kind their benefits may be somewhat local, a State may, for the same reason, refuse to make an improvement of a local kind because its benefits may be somewhat general. A State may well say to the nation, "If you will do nothing for me, I will do nothing for you." Thus it is seen that if this argument of "inequality" is sufficient anywhere, it is sufficient everywhere, and puts an end to improvements altogether. I hope and believe that if both the nation and the States would, in good faith, in their respective spheres, do what they could in the way of improvements, what of inequality might be produced in one place might be compensated in another, and the sum of the whole work might not be very unequal.

But suppose after all, there should be some degree of inequality? Inequality is certainly never to be embraced for its own sake; but is every good thing to be discarded which may be inseparably connected with some degree of it? If so we must discard all government. This capital is built at the public expense, for the public benefit; but does anyone doubt that it is of some peculiar advantage to the property holders and business people of Washington? Shall we remove it for this reason? And if so, where shall we set down, and be free from the difficulty? To make sure of our object, shall we locate it nowhere and have our Congress hereafter to hold its sessions, as the loafer lodged, "in spots about"?

When we have a system of National highways, supplemented by State and National Aid roads, and by Benefit District roads, the inequality of benefits will largely disappear.

We delight in saying, "We are the richest Nation in the world." And that is true, and it might be added, with the poorest roads.

Look at the situation today, at the close of this world war. Europe is prostrate, and the universal cry is for raw material, raw material, raw material. We are ready to furnish it. We, the United States, have but six per cent of the world's population, and own but seven per cent of the land, yet we produce seventy per cent of the world's copper, sixty-six per cent of the oil, seventy-five per cent of the corn, sixty-seven per cent of the meat, sixty per cent of the cotton, fifty-two per cent of the coal, thirty-three per cent of the silver, 40 per cent of the iron and steel, twenty-five per cent of the wheat, twenty per cent of the gold, and forty per cent of the railroads, totaling one-third or more of the total wealth of the world. At the beginning of the war we owed four billion dollars to foreign nations, and now foreign nations owe us ten billion dollars! We had no ships. In 1920 we will have twice as many ships as England with which to carry this immense commerce, unless the backward looking, political obstructionists, prevent it. Fifty per cent, however, of our perishable products never reach the markets on account of bad roads. We need but one additional factor to complete our felicity, and one, too, that will not impoverish, but

greatly enhance both private and National wealth, to-wit: National highways, supplemented by State, County and local roads, all connected, forming a complete system of good roads everywhere.

Our total railroad mileage is 231,177, distributed as follows:

The Eastern District has 59,080 miles. The Southern District has 42,752 miles.
The Western District has 129,345 miles, capitalized at \$22,000,000,000.

Less than one-third of this sum will build an equal mileage of dependable, hard-surfaced, wagon roads.

More than two-thirds of our railroad mileage is in the South and West, and more than four-fifths of the raw material, while the 9 Eastern States of New York, Pennsylvania, New Jersey, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut, having only 5 per cent of the area of the United States, have **one-half the national wealth**, and will, therefore, pay one-half the cost of building and forever after maintaining National Highways in the other thirty-nine States of the Union – therefore:

The people of Alabama, Arizona, Arkansas, California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming would each pay, each year, for their National Highways, only one dollar and fifty cents for 20 years, and you would never know how or when you paid it.

These thirty-nine States of the West, Middle West and South have 390 Senators and Representatives in Congress – a majority of 124 votes. Therefore, the West, Middle West and South have the power to gain National Highways at one-half their cost, and maintenance forever, by simply **waking up**.

And this is absolutely fair, equitable and just. It taxes all property equally, no matter where produced or owned. This purpose is not sectionally advocated by the West or South, but because it is fair, just and equitable, is warmly advocated by the far-seeing, enlightened, progressive and constructive statesmanship of many of the Eastern States. No National improvement is so general as not to be of some local advantage, and never so local as not to be of some general benefit. [National Archives at College Park, Maryland]

Federal Highway Council

On April 8, 1919, backers of a national highway system met in Chicago to form the Federal Highway Council. The council's goal was a national system of interstate highways and a Federal Highway Commission to build it. Participants elected S. M. Williams as chairman. The

advisory committee for the council included representatives of many organizations:

One of the first things the council will give its attention to is the passage of the Townsend bill now pending in Congress, which provides for an appropriation of \$425,000,000 for highways. More than 720 organizations have endorsed this bill which provides for a Federal highway commission to control highways and highway construction, and the Highway Industries Association has received 365 acceptances of membership for the Federal Highway Council which will endeavor to co-ordinate the efforts for the national highway development.

Some opposition has developed to the Townsend bill also, there being some objection on the grounds that the bill would take away the control of road building entirely from the states and that the work of the various organizations would be superseded by national control. Opponents of the bill claim to have the support of President Wilson, Secretary of Agriculture Houston, and the highway officials of nineteen states. [“Road Council to Push Townsend Bill,” *Motor Age*, April 17, 1919, page 15]

The group was an outgrowth of the Joint Highway Congress held in December 1918. An account in *Highway Engineer and Contractor* explained:

Since then this Federal plan has received the endorsement of 425 Chambers of Commerce and Boards of Trade throughout the country. It has also received the endorsement of 350 other organizations, such as Rotary and Kiwanis Clubs, Traveling Men’s Associations, and all of the national and state good roads organizations.

The nation-wide demand for a Federal Highway Commission and a national system of highways, as recognized in the recommendations of the Chicago Highway Congress, and later covered by the Townsend Bill, introduced in the last session of Congress, would assure the country of a definite national highway plan.

State highway officials, representing 40 states, have gone on record strongly in favor of a Federal Highway Commission and a national system of highways.

Williams said:

The time is here when we should not only consider the cost of highway development, but along with the cost we should consider and determine the value in dollars and cents of the highway to the community it serves or the country at large, if national highways. If we do that, the cost of any highway properly designed and constructed to carry the traffic upon it, with a safe margin for increased traffic, will fall into insignificance. Unfortunately we have not, as a country, awakened to the fact that our highways have an earning capacity which can only be increased with the improvement of the highways. [“Federal Highway Commission,” *Highway Engineer and Contractor*, May 1919, pages 53-54]

The question, a second article in *Highway Engineer and Contractor* explained, was whether BPR was “efficient, unbiased and so formed as to achieve the objects desired.” If so, a separate commission was not needed, “but if it can be shown that the formation of a Federal Highway Commission will hasten the construction of good highways, and that through its operation better roads will be constructed for less money in less time, then the Commission would be advisable.”

The magazine printed Secretary Houston’s views expressed on the subject in response to a May 2 inquiry from a city chamber of commerce:

I have been unable to see the need for the creation of a separate Federal highway commission or the wisdom of substituting for the present co-operative program a plan which would commit or limit the Federal Government to the construction of two federally owned and maintained trunk lines in each state of the Union.

He added that under the Federal-aid legislation, “there is no special obstacle, so far as I can see, to the construction in the different states of the Union of those roads which serve the greatest economic needs.” He pointed out that, “In the first place, the definition of the kind of roads that can be constructed has been greatly broadened and, in the second place, the limitation on the Federal contribution for any one road has been increased from \$10,000 to \$20,000 a mile.”

Moreover, under the 1916 Act, as amended in February 1919, the machinery was in place to implement the law. He called BPR “one of the largest and most effective organizations of its kind in the world,” which worked with the 48 State highway departments, “the two agencies working in close co-operation.” The States, which initiate projects, had planned State highway systems. “Of course, in formulating these systems, the engineers gave due regard to interstate connections, that is, to roads connecting the system of one state with that of another, and it is difficult to see why, as progress is made, the construction of through roads will not follow as a matter of course.”

Nearly \$300 million was now available from the Federal treasury. Given the amount already available, he wrote, “It seems scarcely likely . . . that the Congress, in the light of the financial situation, will make additional large appropriations, and it would be impossible, without creating many complications, to divert the existing appropriations from the purposes and plans already under way under the co-operative arrangements with the states.”

Secretary Houston concluded:

The road construction movement is growing very rapidly. The Federal Aid Road Act has done much to promote it. It has stimulated financial aid and has caused many state legislatures to create central highway departments. Experience has brought about amendments to the law and helpful changes in administration. Comprehensive road programs have been inaugurated. They are being pushed vigorously. They will result, in a shorter time than most people imagine, not only in a network of good substantial roads in the various states of the Union, but also in the requisite interstate highways.

Why at this stage introduce complications and embarrassments? Why should not the friends of the movement for roads to serve the people co-operate? It is difficult for me to see why all who are animated by high public spirit in their thinking concerning highways should not co-operate in the development of present programs and in the perfection of the existing processes and machinery, instead of attempting to overthrow them. I believe that many of those who are backing the proposed change do not know the facts and are not aware of existing conditions and possibilities. I believe also their proposal stands very little chance of being enacted into law.

The magazine followed Secretary Houston's letter with a short commentary by Dr. H. M. Rowe, former president of AAA and current member of its Good Roads Board, "which will devote much time to federal highway legislation." Rowe explained:

Highways should be considered in the same class of public activity as railways, waterways, merchant marine, the national banking system and, in fact, any of the great distinctly national undertakings. It seems a self-evident proposition that the building of a national system of highways will form an enterprise of such magnitude and such complexity as to put it entirely beyond the sphere of a single bureau or other subdivision of an executive department and if, therefore, it be considered in the class of these great national enterprises I have named, we should naturally expect to see the same kind of administrative machinery established for highways.

He cited examples, such as federalized railroads under the Director-General, who is not subject to the control of any cabinet officer," and, when free, under the independent Interstate Commerce Commission; the merchant marine industry was managed by the Shipping Board and the Emergency Fleet Corporation, "both functioning apart from executive departments"; and the banking system by the Federal Reserve Board "instead of a bureau of the Treasury Department":

There is no existing executive department which could legitimately take over the entire task of building a National Highway System. It might be contended that the Department of Agriculture should do the job because of the agricultural interests affected by highways, but immediately the counter-contention might be made that the War Department should build the system because of the military and national needs of the nation. The Post Office Department might very logically claim that its rural delivery and parcel post service should entitle it to control. The Department of the Interior being almost entirely a public works department, might contend that a constructive engineering task should fall in its domain.

In the end, all these possible claims lead to the "realization that highways are of such an all-embracing and of such general importance as to make it impracticable to entrust the task as a minor undertaking to any single government department. A commission would consider the needs of all of the departments."

Rowe concluded:

From the standpoint of directness, of responsibility, timeliness of action and comprehensiveness of knowledge, a commission devoting its whole time to the one single task could not fail to accomplish far greater results than would be possible through the medium of a cabinet officer who would be devoting the greater part of his time and attention to matters wholly foreign to highways. It would seem that the commission plan is unassailable. ["Federal Highway Commission Bill," *Highway Engineer and Contractor*, June 1919, pages 35-37]

The magazine also reported that Senator Townsend had held a conference in Washington on May 20 to consider the bill he had introduced in the 65th Congress to stimulate discussion. It had prompted much constructive thought about how the bill could be adjusted to meet all future needs:

Constructive suggestions have been brought out to such an extent as to assure a comprehensive and well-balanced measure which if enacted into law will result in a national system of highways, built and maintained by the Federal Government under the supervision of a commission dealing exclusively with this one phrase of national activity.

Participants in the meeting included Roy Chapin and Pyke Johnson of the Highways Committee of the National Automobile Chamber of Commerce; A. R. Hirst, president of AASHO and George P. Coleman, chairman of its executive committee; S. M. Williams and Henry G. Shirley of the Highway Industries Association; J. E. Pennybacker, formerly of BPR, now Director of Roads with AAA and George C. Diehl, chairman of AAA's Good Roads Board; W. O. Rutherford of the Motor and Accessory Manufacturers' Association; and the top executive of State highway departments from Alabama, Maine, Oklahoma, Pennsylvania, and Utah.

In addition, the magazine reprinted the resolution that the Chamber of Commerce of the United States adopted during its annual meeting on May 1, 1919, endorsing the national highway plan and policy of the Joint Highway Congress. The resolution endorsed a Federal Highway Commission to work with "any Federal agency that may have functions of articulating rail, trolley, water and highway transportation." Congress should approve "substantial appropriations" for construction of the national system and its maintenance. "Expenditure of funds should be permitted only for highways which are of permanent type having thorough drainage, substantial foundations, sufficient width and a capacity for traffic which will be reasonably adequate for future needs." [Ibid, page 37]

D.A.R.'s 1919 Congress

During D.A.R. April 1919 annual congress in Washington, Mrs. Van Brunt, chairman of the National Old Trails Road Committee, was "unable to be present." Mrs. George Edward George, the committee's second vice-chairman, reported on its activities:

Reports this year of the work of the National Old Trails are not very numerous, but some

of those that have been received are very excellent and bespeak the interest in and loyalty to this beautiful and worthy undertaking of preserving to posterity the historic trails and roads of our own beloved country. Many and unforeseen things have arisen in the past two years to cause work on the old trails to be side-tracked for the time being – urgent demand for immediate war-relief work along various lines, and later a country-wide visitation of the influenza epidemic that completely paralyzed the efforts of entire communities for weeks and even months. But for all that, courage was undaunted in many directions, keeping alive the hope of those to whom this work is distinctly paramount.

One of the most vital tasks facing the country was “the re-absorption of war labor with peace industries, and one method of solving that problem seems to be universally thought of. It is the building of national roads”:

All of us have a vivid recollection of last winter’s freight blockage and the failure of the railroads to relieve the situation. We must build highways; that has been one of the lesson [sic] of this war. Men from every State in the Union meet in Chicago today and tomorrow to strive to formulate a plan for a national roads system.

She was referring to the Chicago meeting to create the Federal Highway Council.

The Daughters of the American Revolution had pledged their support to the National Old Trails Road, and were keeping that pledge:

This road, carved out of the wilderness by our fathers (our road) is not only the most practical road proposed, but has the sacredness that anything made by those who have gone on beyond the touch of our hands must always have for us.

This is our chance to preserve it, to make it our first great National Highway. We can do it if we – 100,000 earnest, patriotic women – will only stand together. Will you do it? [*Proceedings of the Twenty-Eighth Continental Congress of the National Society of the Daughters of the American Revolution, April 14-19, 1919, pages 95-96*]

The society adopted a resolution directing the National Old Trails Committee to work to include footpaths at the side of such roads for the safety of pedestrians. *The Baltimore Sun* explained:

The resolution calls attention to the fact that recently several school children were run down by an unidentified motorist while on their way to school near Towson, one of the children being killed and two others seriously injured. The tragedy would not have occurred, the resolution recited, had a footpath for the use of pedestrians been provided in building the road. [“D.A.R. Not to Change: Amendment to Reduce Representation Beaten,” *The Baltimore Sun*, April 18, 1919, page 3]

Construction in Illinois and Indiana

As if to drive home the point about the effectiveness of the Federal-aid highway program, BPR's magazine, *Public Roads*, reported in its July 1919 issue that:

In June the record of Federal-aid statements approved surpassed that of all previous months in the numbers of projects, the mileage involved, the estimated cost of the roads to be built and the amount of Federal aid allowed. This is also true in regard to the record of the project statements for which agreements were signed by the Secretary of Agriculture.

During June, BPR considered 239 projects, with 133 new statements approved, 60 agreements executed, covering 1,426.84 miles at an estimated cost of \$25,611,314.99 (Federal share: \$11,725,500.61). The June statements approved "bring the total amount of Federal aid applied for up to \$54,654,984.44, almost \$5,000,000 in excess of the amount which would have been available up to the close of the fiscal year 1920 under the original Federal aid law."

The article illustrated the point by citing two projects in Illinois. One, project No. 8, involved construction of the East St. Louis-Springfield Highway (the portion from Granite City to Springfield). The other, project No. 9, "will undoubtedly hold the record for length and cost for some time to come [and was] of unusual interest aside from its great length and cost":

It contemplates, after the lapse of nearly a century, the completion of the Old National Road, extending from the Potomac to the Mississippi, which already has been largely improved as far west as the Indiana line. The Illinois improvement will extend from East St. Louis across the State to the Indiana line, traversing St. Clair, Madison, Bond, Fayette, Effingham, Cumberland, and Clark Counties.

The proposed type of surface is monolithic brick and concrete pavement, the average cost of which is about \$30,000 per mile. The proposed improvement includes also the construction of 40 bridge structures of lengths ranging from 22 feet to 300 feet. At present the highway is generally an unimproved earth road which becomes nearly impassable at certain seasons of the year. There are, however, near some of the villages short stretches of macadam pavement, generally in very poor condition. The local traffic consists of approximately 60 trucks, 700 motor vehicles, and 50 horse-drawn vehicles per day, to which is added during the summer months a through traffic of about 20 trucks, and 200 passenger motor vehicles.

The article summarized the history of the highway, dating to legislation that President Thomas Jefferson signed on March 29, 1806, through the final appropriation for construction purposes in 1838. The article did not mention that the National Road was part of the National Old Trails Road.

Indiana's participation in the Federal-aid highway program had been delayed by court challenges

to State law. However, that issue had been resolved, and the Indiana State Highway Commission was able to begin operations. “The first evidence of this fact was in June, when six project statements were submitted to the Bureau of Public Roads which were approved before the end of the month”:

Two of the projects are very large ones, among the largest projects so far submitted from any State. The larger of the two is for 35.3 miles of road in Hancock and Henry Counties, and has an estimated cost of \$1,419,928, or about \$40,225 a mile. The other is for 35.1 miles in Vigo, Clay, and Putnam Counties, and its estimated cost is \$1,394,016.80, or \$39,713 a mile These two projects are for stretches of the Old National Road in Indiana, the former lying between Indianapolis and Richmond and the latter between Terre Haute and Indianapolis. A third project for a stretch of this road submitted is for 14.7 miles between Terre Haute and Indianapolis, in Hendricks County, estimated to cost \$610,606. These three projects will practically carry the rebuilding of the Old National Road across Indiana, and with the big Illinois project will about complete the reconstruction of that road from St. Louis to the Ohio-Indiana line. [“June a Record-Breaking Month for Federal-Aid Allotments,” *Public Roads*, July 1919, pages 19-21]

State Exposition

Dr. S. M. Johnson of New Mexico was one of the good roads movement’s prominent promoters. Perhaps his most famous contribution to the cause was the founding of the transcontinental Lee Highway as a southern counterpart to the Lincoln Highway. (Although Dr. Johnson had been involved with other southern routes, the Lee Highway Association was not formed until December 3, 1919.)

In mid-1919, he promoted the idea of establishing in Washington, D.C., “a great national permanent exposition to be composed of 48 State exhibits in which would be shown the individual resources of each of the States, its history, traditions, institutions and its local characteristics.” The idea was not new, “but it took the stirring days of war to kindle the national spirit to a full appreciation of the wonderful possibilities of this mutual undertaking”:

The State boundaries would be clearly marked, while the main avenues would correspond to the great transcontinental highways and would be clearly marked accordingly. Thus the “Lincoln Highway,” the “National Old Trails,” “the Bankhead National Highway,” and other great cross-continental roads would be featured and their locations would become better known to those who visit the exposition

The proposed birdseye view of the national domain will help in familiarizing visitors to the National Capital with the geography, the political units of Government, the avenues of communication, the topography and the vast productive power of the land that saved the world from starvation and democracy from destruction. [“Highway Plan for States Exposition,” *American Motorist*, June 1919, page 21]

Although many of Dr. Johnson's creative ideas were adopted, this one was not. (In addition to the Lee Highway, Dr. Johnson was largely responsible for the Zero Milestone installed in the Ellipse south of the White House; was the good roads speaker during the U.S. Army's first transcontinental motor-truck convoy in 1919; and played a key role in promoting construction of Arlington Memorial Bridge connecting the Lincoln Memorial and Arlington National Cemetery.)

Westgard's View

In June 1919, the *Kansas City Star* featured an article about the National Old Trails Road. It began:

Many motorists who have noticed the red, white and blue markers along certain roads in the vicinity of Kansas City fail to appreciate their significance. They blaze the route of the National Old Trails Road across the continent from Baltimore to Los Angeles.

The article quoted A. L. Westgard, a pioneer pathfinder of the early automobile era and then director of transcontinental highways of the National Highways Association:

The National Old Trails Road gets its name from following old historic trails, more or less closely, all the way across the continent. Thus it follows the National Pike, the first highway built by the nation, along a route reminiscent of the history of Washington, Braddock and of the French and Indian wars, from Washington or Baltimore to St. Louis by way of Cumberland, Wheeling, Columbus and Indianapolis. From St. Louis it follows the Boone Lick Road, named after the doughty Daniel Boone, to Kansas City. From Kansas City to Santa Fe it traces the famous Santa Fe Trail, gory with the blood of the pioneer hunters, trappers and traders who between 1872 and 1882, when the completed railroad caused its abandonment, plodded their weary way across the plains

From Santa Fe to California it trails the paths of Spanish conquistadors and the indomitable padres, who brought the gospel to the Pueblos. The length of this route is 3,030 miles from Washington to Los Angeles. Everything considered, it is the most scenic and by far the most historic route, besides offering the flavor of a trip into a foreign land on account of the Mexican population and numerous interesting tribes of Indians who in New Mexico and Arizona dwell contiguous to the route.

Hard surfaced roads will be found as far as Terra Haute in a continuous ribbon. While most of the balance of the route is financed for improvement, it is, aside from occasional stretches of macadam, a dragged dirt road good in dry weather. Substantial bridges and culverts are found along the entire route, even in sparsely settled sections of the Southwest and it is well sign posted. This route is provided with excellent hotel accommodations at the [sic] most of the natural night stops. Though open for traffic practically the entire year, except in January, February and March, the best time to travel this route is in the early autumn, leaving the East between September 1 and October 7.

[Reprinted as "National Old Trails a Historic Route," *The Baltimore Sun*, June 22, 1919,

Promoting the Federal Role

Despite disappointing results in the short third session of the 65th Congress, the Highway Industries Association and other advocates had high hopes for the 66th Congress. It would meet from May 19 to November 19, 1919; December 1, 1919, to June 20, 1920; and December 1, 1920, to June 5, 1921.

As a result of the mid-term elections in November 1918, Republicans controlled both Houses of the 66th Congress. Senator Townsend was chairman of the Committee on Post Offices and Post Roads. Born August 15, 1856, in Jackson County, Michigan, he was admitted to the Jackson bar to practice law in 1895. After serving in the House of Representatives from 1903, he was elected by the State legislature to join the Senate in 1911 and had won reelection in 1916. He was the sponsor of the bill most heavily favored by supporters of the Federal Highway Commission. Representative Thomas B. Dunn was chairman of the House Committee on Roads. Born on March 16, 1853, in Rhode Island, he had lived for many years in Rochester, New York. He was a businessman who had served in the State legislature and as State Treasurer before winning election to the House in 1912. He joined the Committee on Roads upon its creation in 1913. In 1916, he had been one of the leading opponents of the Federal Aid Road Act. In New York, he had been “an advocate of the general proposition connected with the question of good roads” and had been associated with good-roads legislation. However, he said he was troubled by the 1916 bill because there was, “to my mind, a very great difference between Federal aid for roads and Federal construction of roads.” The Federal-aid funds the bill authorized would be a “gift distribution” to the States, after which “control of the same is lost to the Federal authorities.”

He might have supported “an initial system of Federal trunk-line roads,” but “it does not appear to me that it is an opportune time to enact the measure now reported.” He explained his concern about the timing:

[The] subject of good roads is not a vital question at the present time nor is it one that has to be solved immediately. This Chamber is supposed to be the financial office as well as the legal office of this Government. We are expected to be careful of our own expenditures and to be rather more than careful about voting away the money of other people.

If instead of a minus Treasury we had a plus Treasury, if we had large revenues that provided for a surplus that could be fairly divided, if we were not confronted with complications throughout the world that may call for large appropriations to be made by this Congress, to be expended for what might be called involuntary expenditures, it possibly might be a proper time to consider this measure; but in view of the fact that we have little or no surplus, that we are already considering increasing our present internal taxation, I believe this entire subject should be deferred until matters of much graver importance are definitely settled. Believing as I do that this is not a good business measure to present at this time I can not, under the circumstances, justify myself in

supporting the same. [“Rural Post Roads,” *Congressional Record-House*, January 24, 1916, page 1470; mini-biographies from “New Chairman in 66th Congress Whose Committees Will Handle National Roads Legislation,” *American Motorist*, June 1919, page 30]

With these new chairmen in place, advocates for a Federal Highway Commission and a national highway system had every reason to be optimistic about congressional action. The new leader for BPR was another matter.

Although AASHO and the Highway Industries Association disagreed on the Nation's highway needs, they agreed on the need for a strong new leader of BPR. An editorial in *Engineering News-Record* for December 26, 1918, foresaw "a new era in highway work," one in which "an engineer of vision and strength" was essential for BPR, even though a Federal Highway Commission "should be created soon." The editorial stated, "Lack of vision and of sympathy with new conditions have been the chief deficiencies in the bureau in the immediate past."

AASHO recommended Thomas H. MacDonald for the job. Born in Leadville, Colorado, in 1881, MacDonald moved as a child with his family to Iowa in 1884. He became State Highway Engineer in 1907 and Chief Engineer of the Iowa State Highway Commission when it was formed in 1913. In this role, he worked with the small AASHO committee that drafted the Federal-aid bill that Senator Bankhead introduced and became the model for the Federal Aid Road Act of 1916. He had been an ally of Logan Page and was dedicated to the Federal-aid concept.

In a letter to Secretary Houston on March 20, 1919, MacDonald said he wanted to ensure he would be able to make adjustments to "assist in changing the present attitude of criticism toward the Department and to insure the cordial co-operation of the state highway officials" The changes were decentralization of responsibilities to BPR's multi-State District Engineers; increased salaries for the District Engineers to retain their services; adoption of the "most liberal policy possible" in interpreting existing laws to get construction underway rapidly; and provision for an advisory committee, to be selected by AASHO, to help improve Federal-State relations. MacDonald also conditioned his move to Washington on an increase in the position's salary of \$4,500 a year.

These conditions being acceptable, Secretary Houston appointed MacDonald on April 1, 1919, "engineer in immediate charge of the work under the Federal-aid road act." When the salary of \$6,000 was approved, he was appointed "Chief of Bureau" on July 1, 1919. [“Thomas H. MacDonald” in *Clearly Vicious as a Matter of Policy* on this Website at <https://www.fhwa.dot.gov/infrastructure/hwyhist02.cfm>]

With his firm commitment to the Federal-aid concept, MacDonald would be a strong opponent of the concept of a federally constructed national highway system.

Further, the rapid spread of Federal-aid highway projects around the country raised concerns among State highway officials that adoption of the Townsend bill would end the Federal-aid

funds they were receiving. Aware of this concern, Senator Townsend said late in 1919:

The object of the bill introduced by me is to establish and maintain a national system of highways according to a national plan connecting the different states of the union, and affording an example of proper highway construction, which will be beneficial to the states. The bill does not in any manner injuriously affect existing law, in fact it provides that the commission created under it shall have charge of the Federal Aid Law, and shall make reports annually to the Congress as to what is being accomplished under existing law, and to make such recommendations for the future as the operation of the law and its results seem to be necessary. The two systems of road building are separate and distinct, except that they are under control of the same Federal Commission. The appropriations, however, cannot be mingled and the results will be known and properly appraised by the people from time to time. If the present Federal Aid Law proves satisfactory, it will as a matter of course, be continued, and probably enlarged. If the proven results are not satisfactory, that law will be discontinued. And what I say of the Federal Aid Law will be true of the bill now pending before the Senate. The commission appointed under the Law, it may safely be presumed, will be high grade men, representing different sections of the country, and their life-work will be to serve the people by furnishing the best possible highway transportation facilities. ["To Strengthen Present Plan of Federal Aid for National Highways," *Highway Engineer and Contractor*, November 1919, page 52]

As these comments implied, 1919 had seemed to be the year of the Federal Highway Commission, but it was not to be, as Bruce E. Seely explained in *Building the American Highway System*:

Quarrels among the various backers of the Townsend bill over who should lead the campaign hampered genuine coordination of the public relations effort. A more serious problem was the continuance of federal aid, for even highway engineers who supported a national commission hesitated to jeopardize the money already appropriated. Congress in 1919 certainly had no desire to consider a plan that would not take effect for two years. So in spite of warnings that waiting until federal aid expired in 1921 would jeopardize their chances, most supporters of the commission favored such a delay. As a result, the sense of urgency about a national highway commission palpable in early 1919 was frittered away. [Seely, Bruce E., *Building the American Highway System: Engineers as Policy Makers*, Temple University Press, 1987, page 53]

True Principles

Advocates of the National Highway Commission understood that in the short session ending early in 1919, Congress had not had time to consider the idea. They had high hopes for the session that began December 1, 1919.

Victoria Faber Stevenson summarized the situation in her "American Highways" entry in the November 1919 issue of *Sinclair's Magazine*. At one time, she began, the main road problem was the "farmer trying to drive a balky mule over an impassable road!" Farmers were the main

road users; the average city man “felt justified in eliminating the subject from his worries.” That view had changed:

Today the question of good roads is everybody’s business. This change of attitude has come about because more than six million automobiles travel the roads, carrying their owners to work or about their business. Every motor-driven passenger car and truck has been a recruiting agent in assembling volunteers in the campaign for better highways. As a result the people of the United States have come to realize that the condition of the highways has a vital bearing upon the food supply, and also upon general industrial prosperity and national security in times of peril.

State and local governments understood the need:

Since the armistice was signed various state legislatures have voted such bond issues as fifty, sixty and seventy-five million dollars for road work. Counties, too, have voted many millions of dollars for like purposes, St. Louis County, Minn., alone obtaining seven and a half million dollars in this way. It has been calculated that in all a fund of more than a billion dollars has been appropriated by such methods.

As the funds become available, “road finances will permit highway officials of many states to plan for the future.” BPR reported that “practically every state is planning a continuous system of connecting roads.” Under the Federal Aid Road Act of 1916 as supplemented by the Post Office Appropriation Act of 1919, the amount of funds available to BPR was “the largest ever established by any government for such internal improvements.” With \$125 million dollars now available, “the Bureau of Public Roads estimated that it has in September a working fund of about one hundred-sixty-nine million dollars and a surety of one hundred millions more next July.”

Although funds at all levels were abundant, more was wanted. The activity of Federal agencies, “efforts of state organizations and the energy which road and automobile associations have been persistently exerting for national road improvement, have had a marked influence on the Congress of the United States.” With the next session about to open, more than 40 highway bills had been introduced:

Senator Wesley Jones of Washington has presented a bill providing for the creation of a Department of Public Works which would have charge of the nation’s road building. Senator Morris Shepherd of Texas advocates the building of a military highway along the southwestern border. The idea of surveying and investigating the needs of military roads is embodied in several proposals to Congress as well as the actual construction of highways for military coast defense. Representative Robison of Kentucky [sic, John M. Robsion] has asked that Federal aid funds be increased a billion dollars, while Representative [Scott] Ferris of Oklahoma would add four hundred millions for Federal aid work. Several of the Rocky Mountain states favor national legislation allowing them to sell portions of their public lands to supply funds for highways.

Perhaps the most important highway bill now in Congress is the measure introduced by Senator Charles E. Townsend of Michigan. This proposed legislation has attracted nation wide attention because it provides for a national highway system of such type as will meet the demands of the future as well as the present. It would create a Federal Highway Commission of five members appointed by the President with the consent of the Senate. Upon this Commission would rest the scheduling of the national highway system and its management. It would, in addition, supervise the appropriation of four hundred twenty-five million dollars set aside for the project.

No highway bill has ever been considered more seriously than this one throughout the whole country, because of the enthusiasm for a national highway system

Stevenson pointed out that the Chamber of Commerce of the United States supported the Townsend Bill, while many State highway officials supported the bill through the efforts of Associated Highways of America. AAA was “doing much to arouse the interest of its branch organizations in this cause”:

Members of the American Association of State Highway Officials are strong in their endorsement of a highway system which would connect all states. Nevertheless many of these road officials believe it would be a serious mistake to discontinue Federal aid.

With the farmer in mind, the National Grange “has an especial interest in improving highways leading to city markets; and as no industry could continue prosperous without agricultural prosperity it is difficult to understand how anyone could remain indifferent.” In addition, the Federal Highway Council, “which has its headquarters in Washington, is represented throughout the United States by large organizations of national importance as well as by commercial clubs, rotary clubs, good road associations and others united in the interests of transportation and traveling in the various states. Many of the members are anxious to see Federal aid extended beyond 1921 when the appropriation ceases.”

Stevenson concluded:

American wealth is being applied to her highways as never before; American roads are being constructed more substantially, and public sentiment is demanding that further progress be made by adopting a national highway system. [Stevenson, Victoria Faber, “America’s Road Program,” *Sinclair’s Magazine*, November 1919, pages 38-42]

Senator Townsend revised his bill for 1920 and renamed it the National Highway Act, but its prospects were dim. As Professor Seely wrote:

Townsend reintroduced his bill in January 1920, only to have debates over the peace treaty and League of Nations delay committee hearings until May. Publicity efforts resumed with the Firestone Ship-by-Truck transcontinental caravan and an accompanying program of speakers, films, tours, advertising, and handbook. But with a presidential election upcoming, Townsend saw little prospect of pushing the bill to the floor in 1920.

[Seely, page 53]

(May 17-22, 1920, was National Ship by Truck-Good Roads Week. Initiated by the Firestone Tire and Rubber Company, the week featured promotional activities around the country, including parades of trucks, speeches, a motion picture titled "Ship by Truck," and a student essay contest. ["To Hold National Good Roads Week," *Better Roads and Streets*, May 1920, page 224; "Ship By Truck – Good Roads Week," *The Motor Truck*, May 1920, pages 202, 203])

Judge Lowe continued to advocate for the Federal Highway Commission, as reflected in his bulletin of February 25, 1920:

It matters little who first suggested a system of National Highways, but it matters much whether the prevailing sentiment shall be translated into such system now, or whether it shall be permitted to fade out by inaction, as it did after winning in a National election in 1824 – and it matters much more whether or not this is the true solution of this question. May we not appropriate the following from Henry Ford's page in the Dearborn Independent, as confirmatory of the propaganda and accomplishments of this association:

"What kills propaganda is the obvious purpose behind it. One little admixture of self-interest and your effort is wasted."

That has been the foundation principle upon which this Association has stood from the beginning. It has no axe to grind, no selfish interest to serve, no salaried officers, no one trying to make this a stepping stone to political preferment or to "something better." We make no appeal for support in order that some one may be personally benefited thereby; nor has this Association any selfish interest behind it to sustain it, nor has it received one dollar knowingly, from any selfish source, unless the contributions of those along its line be thus classified; and this can not be truthfully claimed, because our work has always included the general good of the whole country.

The man or Association bottomed on a great truth "need not worry about the indifference of the multitude; let them tie their fortunes to this fact. In due time it will find its place. Agreement does not make facts. But facts make agreement. People who don't agree with the truth get bumped by it. It is not our place to do the bumping – the truth takes care of that."

The only legitimate propaganda along all lines of material and spiritual endeavor is the ascertainment and establishment of true principles. A true solution of any worthwhile question is as permanent as the fixed stars. Winter, nor indifference, will not freeze it; Summer, nor heated opposition, will not melt it; apathetic Pessimism will not destroy it. It may be neglected for ages, and men may abuse and falsify it, indeed may smother it under mountains of error and misconception, but by and by truth, ever working unweariedly, will dig itself out, and rise to the top. No falsehood, however insignificant, did it rise Heaven-high and cover the earth, but truth, sooner or later, will sweep it down, for so it is written in the doombook of God. During the march of the Ages, the advocates

of Truth have been immolated, but this did not destroy Truth.

If this Association is founded upon **true principles** it will deserve to live in history. This principle was declared in 1806 when the Cumberland – (National Road) now a section of the National Old Trails Road – was established by Act of Congress, and was reaffirmed by repeated acts of Congress extending it to St. Louis, and finally, by the adoption of a bill in 1824 extending it to Santa Fe, a capital of a foreign State. Thus the National Old Trails Road is not only National in character, but it is the first and **only** road in the United States established by Act of Congress as a National Road throughout its length. No need for additional legislation is necessary to make it so. This can not be said of any other road sought to be promoted in the United States.

All that remains to be done is **to build the road**. We prepared a Bill to this effect, and had it introduced in Congress in 1913, but it was refused upon the ground that it applied to a single road, and not to any general system of roads. Whereupon, we drew up a Bill establishing a **general** system of National Highways, covering some 32,000 miles. This was the first measure of this character brought forward since 1824, but public sentiment was not yet ready for it. Four years ago Congress adopted what is known as the “Federal Aid Law,” the direct result of the agitation for National Roads, and which provides for the co-operation of the Federal Government with the States in building roads. This was recognition of the **authority** and **duty** of the General Government to apply Federal funds to road building. Its obvious defects are, that it mixes both money and management, neither of which are defensible.

And now we have the pending Townsend Bill, and other bills, recognizing the long established principle of a General system of National Highways, to be built and maintained by the General Government, and **this** is the principle to which we have always adhered. It took three generations to devise a plan to build the Panama Canal. We were wise enough finally to adopt it as **a National undertaking**, and placed the responsibility for its construction upon a single individual, and we shall finally come to some practicable, business-like plan in building roads.

Any National system adopted will serve as, and take the place of, State and County roads in all the States through which they run, thus relieving such States, Counties, etc., of the cost of their construction and maintenance; and will leave for construction more than any State or County is likely to build. The National road will serve as an object lesson in all the States; and the State roads, by a well defined system, can connect with such National System, and the County and Township roads with such State systems, all under separate supervision, thus establishing a United system of **Good Roads Everywhere**. By such system we can get “through roads,” roads that begin and go somewhere. By such system we will get “State” and “County seat roads,” and by such system we will get “Main Market roads,” “radial roads,” “roads from farm to the market,” etc., and we can bring this about **in no other way**. What kind of a system of Railways would we have if the “feeder roads” had been built before the trunk lines? J.M.L.

P.S – Since the above was written, this office has received the following special from Harrisburg, Pa.; “Only one large Pennsylvania highway is open to automobile traffic through its length, the State Highway Department announced today. That road is the National Pike, which passes through Washington, Pa., Brownsville and Uniontown.”

The leading editorial in the Ohio Motorist in last October number said: “Now try to cross Ohio on a continuous hard-surfaced road and see what you will find. There is but one, and that is the Old National Road.”

Also from the State Highway Board of Illinois: “Entire Old National Road across this State is under contract.” At a cost of about \$5,000,000. This alone is more than one-half the amount expended on any other road in the United States during 1919. The Chicago Herald-Examiner of January 25, after mentioning all the trans-continental roads, says: “The best all-year route is the National Old Trails Road from Washington, D.C., and continued westerly through Indianapolis, St. Louis, Kansas City and Pueblo, penetrating the desert of New Mexico and Arizona into Los Angeles. Practically the entire stretch from Terre Haute to St. Louis will be closed, however, during summer on account of road construction.”

J. M. Lowe, President
National Old Trails Road Association

Judge Lowe’s last paragraph citing Good Roads Everywhere was using terms Charles Henry Davis had been using throughout the 1910s in his crusade for national highways.

The Road in 1920

While Congress considered the future of Federal road activities, State and local officials continued to improve sections of the National Old Trails Road.

The Arizona State Highway Department had issued a call in January 1920 for bids for construction of the State Highway through Petrified Forest. The segment was known as Section 3, Holbrook-St. Johns Highway, and Arizona Federal Aid Project No. 3, part of the National Old Trails Road:

A project agreement had been executed about a year ago with the United States Bureau of Public Roads covering this section of highway, but before proceeding with the construction a change in the alignment was deemed advisable. This change results in a shorter and more direct road, at considerably less expense, and is entirely within the forest.

The State Highway Department is acting on the theory that there is not sufficient money available to go to any extra expense to reach any particular point in the forest. The highway, as now located, places within a very short distance of the highway practically the entire part of the forest that would be of interest to tourists, and will open up one of

the most wonderful natural phenomena to be found anywhere.

This highway is a link on the Old Trails Highway passing through the northern part of the State by way of Springerville, St. Johns, Holbrook, Winslow, Flagstaff, Ashfork and Kingman.

It is expected that work will start as soon as weather conditions will permit, and that the section will be completed by the beginning of Summer.

The grading and drainage work will be done by contract, but the surfacing will be done by the State Highway Department, using equipment recently acquired from the War Department. ["To Build Road in Petrified Forest," *Western Highways Builder*, February 14, 1920, page 10]

In February 1920, the Arizona State Highway Commission issued a call for bids for construction of a section of the National Old Trails Road between Oatman and Gold Roads. An article about the call stated, "The section of the highway to be constructed traverses a very difficult country and has taken considerable engineering investigation in order to reduce the cost as much as possible." The State was advancing the project under the Federal Aid Road Act of 1916. "The State's share of the cost will be paid for out of Mohave County's 75 per cent portion of the State road tax fund, which is handled jointly by the Board of Supervisors and the State Engineer." ["To Start Work Soon on Oatman Highway," *Western Highways Builder*, February 14, 1920]

Work was underway to grade the National Old Trails Road in Illinois. An article about the work described the road, which ran parallel to the Vandalia railroad, in the State:

This trail was established in the early days and the founders sought the most likely route to St. Louis. At the time of the location of the trail the land had little value for any purpose and the country through which it runs was unsurveyed.

Consequently the trail runs without regard to section lines, in a zigzag fashion, seeking the natural high land in most cases, but generally at an angle of about 30 deg. from an east to west line. In some places the state highway engineers have changed the route slightly, substituting a curve for two sharp angles, and in other places have changed the route to avoid railroad grade crossings. In general, however, the Old Trails follows very closely the original route. It is about 165 mi. from the point of entrance in eastern Illinois to the outlet at East St. Louis, and in this distance there are five crossings on grade of the Vandalia and nine grade crossing of other lines of railroad.

Grading of the road was "much of interest":

Contracts were let last summer and, with a slight interruption due to cold weather, has been in progress ever since. The movement of earth varies from relatively slight, the amount required to establish the subgrade on the level stretches, to cuts varying from 3 to 15 ft., where the country becomes more broken.

Grading must precede all other forms of road work. Grades once established and a hard-surfaced road built, the grade will remain as long as the surface, and in all probability the road will not be touched with respect to grade for a number of years, if then. Some grades on the National Old Trails are as steep as 7% for a very short distance, but in general these extreme grades are the exception. The grade usually is not over 5% and that for short distances

The biggest feature of the work, however, is the distance required to be covered by the engineer who, ordinarily, is expected to be in at least two places at once and on occasions in many more places. Those who use this road in the future can have very little conception of the toil and sweat of the field engineer on the job.

Although concrete paving was underway, many gaps remained:

Through Marshall, a distance of about 1 mile, no provision has been made for paving, as Marshall is an incorporated town of 2500. From Marshall to near Vandalia the pavement is continuous. East of Vandalia there is about 1 mile of 9-ft. concrete pavement and about 2 miles which will require a fill of 6 to 7 ft. to bring it up to the grade required. A bridge of 6 spans of 50 ft. is required across the Kaskaskia river, just east of the city [to replace a bridge built about 30 years earlier]. A brick pavement has been constructed for about ½ mile through Vandalia, but about 1 mile remains to be paved. No steps have been taken as yet to provide this pavement.

A short distance west of Sec. P [of the 38 the road had been divided into] the route of the road has not been definitely settled and about 1 mile of paving is to be let. Through Greenville, about 1½ miles of pavement are included in the village corporate limits to be paved by the village.

At Collinsville about 3 miles of city streets are not included in the program. This carries the road onward to the corporate limits of East St. Louis where the Trail will cross the Mississippi river over the Free Bridge built by the city of St. Louis. [Christine, W. T., "Grading National Old Trail Road," *The Road-Maker, Excavator and Grader*, July 1920, pages 27-29; Christine, W. T., "Concrete Highway Construction on the Old Trails," *Highway Engineer and Contractor*, July 1920, pages 17-23]

Ben Blow, in his 1920 book, cited earlier, about California's State Highway system, commented on the State highways in California along the National Old Trails Road, without naming the road, including:

Route 9 – San Fernando in Los Angeles County to San Bernardino.

The "Foothill Boulevard," one the southern California' most attractive short tours at the foot of the mountains, passing through Pasadena and supplying a connection to at least two transcontinental roads. All paved in 1919. [Blow, pages 102-103]

Route 31 – San Bernardino to Barstow.

This route climbs over Cajon Pass from San Bernardino and reaches to Barstow in the midst of the Mojave Desert. It is paved, thanks to San Bernardino County, to the very top of Cajon Pass and is to be further improved by the State Highway Commission, connects with that important highway which sweeps to the west from Topoc, Arizona, across a wide arched bridge and then from Needles traverses the vast width of San Bernardino County and carries its full burden of transcontinental travel into California, the Cajon Pass over which the Salt Lake Railroad climbs being popularly known as . . . the “Gateway into California,” from which point an unpaved county road leads out into the mystery of the desert to Barstow where it forms a connection with the Barstow-Needles road. [Blow, pages 111, 211]

Route 58 – Needles to Mojave.

This route, two hundred fifty-five miles in length, extends entirely across San Bernardino County in a general eastwardly and westwardly direction, with an extension into Kern County, where connection is had with an existing State Highway route.

The eastern terminal is commonly regarded as Needles, California, but as a matter of fact is on the California Line opposite Topoc, Arizona, a few miles below Needles, at which point a wide span crosses the Colorado River.

For years one of [the county’s many] problems, the main one perhaps of the multitude which exist, has been the building of a road from Barstow to Needles to supply a comfortable entryway into California for a popularly traveled transcontinental highway over which, as road development takes place in the states enroute a constantly increasing volume of traffic comes to California each year. The distance between Barstow and Needles is 170 miles and it will be seen at once that the construction of this road would impose a burden upon San Bernardino County too great to bear. Realizing the need of this road not only to their own county but also to the state the San Bernardino County Board of Supervisors, when the matter of a new State Highway bond issue was proposed early in 1919, delegated one of its members, Mr. R. L. Riley, of Colton, to attend the meeting which was called to take place in San Francisco, and at this meeting the Barstow-Needles road was made part of the proposed state plan and one of the . . . burdens which San Bernardino County had borne for years was forever removed.

It will form one of the main entrances into California for transcontinental travel, will be principally a touring road, and is to be surfaced with local material. [Blow, pages 117, 214-215]

Charles Fuller Gates, an experienced traveler, described the National Old Trails Road from Los Angeles to Arizona as encountered during a drive in 1920. He had spent more than 20 years traveling throughout the area and was “more familiar with the evolution of highways west of the Rockies, perhaps, than any other man.” He had “seen bad roads develop into excellent highways

and good roads evolve from trackless wastes.”

He was traveling to Prescott, once the capital of the Arizona territory. In the first 500 miles of highway travel, “I found about every kind of road that exists anywhere. It is just a little over four years since I was over this same route, and great improvements in construction have taken place most of the way.” He reported that:

The greatest surprise came near Lavic, where I pulled for miles through the lava rock on low speed four years ago, and, of course, had been dreading this part of the desert road. On reaching the malapai section I found instead of deep ruts through beds of sharp and finely broken rock, a surface of pavement often as smooth as could be desired and for miles, too. In fact three times between Barstow and the Needles this paved road surface is encountered. This pavement, the first stretch beginning at Waters, California, formerly known as Newberry Station on the Santa Fe Railroad, where the railroad’s supply of water is obtained, is 33 miles long, while the next section is in excellent shape for a dozen miles. The road all the way from Los Angeles to the Colorado River, over 300 miles, is all good, though some of the desert travel has small arroyos close enough together to require a speed with automobile as slow as 10 or 15 miles an hour if one values comfort in riding. The slow stretches resembled the “chucky” roads in Southern California before the day of pavements.

From the number of touring parties I met on the road it looks as though half the country is on the way to California and many flivvers bore that old time slogan: “To California or Bust.”

Of course the transcontinental trail we know variously as the Old Santa Fe Trail, Old Trails Highway, the Southern Route, New York to Los Angeles, and the State Highway, is paved from the Pacific Ocean and Los Angeles to the summit of Cajon Pass on the edge of the desert, about 100 miles. But few know that there is 50 miles more of pavement on the desert before leaving California, though, of course, this latter is narrow and more or less covered with sand. Thus half of the way from the sea to the Colorado River we have paved road, with none of the remaining 150 miles very bad.

About 40 miles from the river, roads become quite good so that fast time can be made here, too. It is not going to be very long before transcontinental tourists will find excellent roads all the way after touching California soil. In the Bagdad country road builders have carved through some malapai hills a grade that has never been good and put a lot of climbing into the route here that is hard to understand as there is a fairly level desert right alongside where a better grade could have been built at much less cost giving more comfort to those who have to travel this section.

And let me say right here, California, particularly Southern California, should find a way each spring to drag part of the desert road between the Colorado River and Barstow, after the spring rains and the heavy westbound travel begins, so that the now bad part of the road would not exist to confront the Eastern tourists returning home and the newcomers

bound west. The work would not amount to much if done at the right time. Even, right now, a road crew with a week's work would neutralize all the bad stretches so that all would have a kindly feeling toward California from the moment the river is crossed at Topoc, some 17 miles beyond Needles. All through this bad section you can find discarded auto tires every mile, now and then a muffler, a fender or other discarded and ruined part of a motor car or motorcycle.

The 17 miles between Needles and Topoc, where the river is crossed on the free interstate and Federal bridge, has more climbing than some world famous mountain passes. Here is a field for engineer work, relocating the road to cut out much of the up and down over rugged hills, where the grades are now altogether too steep. This stretch gives the Eastern visitors a bad opinion of California and is a dangerous piece of road.

Between the river and Kingman, motorists had two choices. One was "a fairly level route through Yucca and is fair desert road at present where the sand does not bother as it did in years before this road was improved." Beyond Yucca, "the natural material similar to decomposed granite used in the fine Mohave County road work gives an excellent road."

However, at Needles and Kingman, motorists were advised of a second choice. They were urged "to take the hill route via Oatman":

This is about 30 miles over trails from Topoc to Old Trails and Oatman mining camps. Then there is 60 miles of improved road through the mining camp of Gold Roads and over the divide into the mesa and across the rolling plain to the junction with the Yucca route about five miles out of Kingman. Then there is the gradual climb up through the foothills to Kingman.

The Gold Roads grade is now a fine piece of highway both in surface and engineering and a pride to Mohave County highway builders. Across the mesa cement fords cross the arroyos, thus saving the cost of bridges, which would amount to a large sum, and be hard to keep up on account of cloud bursts that more than fill the arroyos. This road of 60 miles from Oatman via Gold Roads grade is what would be called a gravel turnpike, made with the natural road making material right at hand. Grades have been kept below 12 per cent and on the mountain section stone bridges have been put in of dry masonry.

At Topock, Gates had encountered a road engineer camp that was relocating the highway to Oatman, "preparatory to big improvements over the route as this now is part of the most used transcontinental motor route, over which hundreds of cars bound to and from California pass every day." He explained:

The present road from Topoc to Oatman is over a big mesa, a cattle range along the river, then up through hills with climbs that give you plenty of thrills, a wild road, hard on tires, tempers, brakes, nerves and motors. Some of the way, where there is clay, the trail has planks laid lengthwise like railroad tracks, for the motor car wheels to travel. Out of Kingman there is an excellent road all the way to Hackberry, parallel with the Santa Fe

Railway tracks and on ground leased from the railroad by Mohave County. There are many arroyo cement fords on this stretch, and the natural material wears well. The big railroad signs telling the traveling public that it is on ground owned by the corporation, though leased by the county, and can be taken possession of at any time by railroad loom up regularly and compete in attention with the religious signs painted on the big rocks.

An accompanying photograph showed one of the signs:

This is NOT a public road
The undersigned hereby gives notice that this road
is located upon its right of way pursuant to a license
from the undersigned to the county of Mohave
which may be revoked whenever its necessities may
require and that persons using this road do so at
their own risk. A. T. & S. F. Ry Co.

Gates reported that east of Hackberry, the road “gets worse for a while, then better as it has not had the same care as had been given the highway nearer Kingman.” Through the Peach Springs section, the road has been moved “to a more direct route than the old trail and is up to the Mohave County high standard, but soon after reaching Peach Springs comes Nelson and the county line with the end of good roads until one nears Seligman as Yavapai County has not yet begun real work on this route, though recently bonding itself for a million and half to be used for construction work.”

Four years earlier, Gates had followed the railroad through this section, “all in bad condition”:

The present road is through another canyon, to reach which the road doubles back a half mile at Nelson after crossing the railroad, requiring opening two ranch gates. This canyon road was graded and many corrugated iron culverts put in but a broken dam flooded the canyon last year and the present trail winds around these culverts and pitches through a thousand ruts and sinkholes. On the Red Mesa beyond are similar conditions.

U. R. Fishel, the engineer for the Yavapai County Highway Commission, informed me that his ratty canyon route would be abandoned and a new route much better from Nelson to the Red Mesa built under the new bond issue. In fact, much of the route to Seligman will be changed, possibly that is why this part of the Old Trails Highway has been neglected.

The remainder of the trip, about 85 miles from Seligman to Prescott, was off the line of the National Old Trails Road. [Gates, Charles Fuller, “On the Trail of the Western Road Builder,” *Western Highways Builder*, July 3, 1920, pages 10-11, 30]

In December, the Mohave County Board of Supervisors informed the Arizona State Highway Department that the county had awarded the contract on November 29 for construction of the

Oatman-Topock road to the department at cost plus \$10:

The road will cost \$200,000 for the 28 miles; half of the funds will be derived from the Mohave County bond issue, and the remainder from Federal Aid funds. The department having received notice from the Federal district engineer that plans and specifications have been approved, work will begin today [December 10] as in anticipation of favorable action by both the county and the Federal government the State has already shipped one contracting outfit to Topoc It is the intention of the highway department to send most of its men and equipment into Northern Arizona on this job, in order to get the work completed before hot weather. Surveys for this work were completed last summer, the plans worked up in the Phoenix office and sent in for Federal approval some weeks ago. ["Oatman-Topoc Road to be Built by State," *Western Highways Builder*, December 18, 1920, page 25]

D.A.R. Annual Congress, 1920

When the D.A.R. met in Washington in April 1920, Mrs. Van Brunt, chairman of the National Old Trails Road Committee, could not be present, but submitted her annual report to be filed:

The National Old Trails Road Committee was first formed to preserve the National Old Trails Road as a trans-continental road; to promote and develop it; to crystallize its history by erecting monuments along its length, marking places having historical significance; and wherever practicable, reopening the old taverns and establishing museums.

Later the committee was instructed to take charge of all the old trails, traces and roads of our country; to record their history, note their historic points and map their routes.

The heart of this committee, however, is the National Old Trails Road, and whether it runs through your State or not, we hope you will take an interest in it, for our National Society has adopted this great six-thousand-mile road [sic] and pledged its support. Remember it is our road and let us always cherish it in our hearts.

The loyalty of the National Society made it possible to build the Memorial Continental Hall "as a Memorial to our forefathers, and I believe that that same loyalty, that same putting aside of self, is going to build our National Old Trails Road, our "Road of Loving Hearts":

We ask you who live beside the National Old Trails Road to conserve its history; restore its taverns; record the points where, due to present-day conditions, we have been compelled to leave the old path; emphasize its scenic as well as historical value; study its needs as a trans-continental highway; but, above all, work for its adoption as a National Road.

We ask you who are its neighbors to familiarize yourselves with its history; its scenic points; its relation to your roads; the part it took in the development of our country and its

humanitarian value, so that whether you live beside it or view it from afar, you will feel that it is your road. Work, too, for its adoption as a National Road

War work has become a thing of the past. Reconstruction problems have been solved and we turn to old work with job. Those who so loved the National Old Trails Road work that they carried on despite the insistent demands of other things have turned to it with fresh vigor, those to whom it is new, show keen interest.

(The D.A.R. built Memorial Continental Hall on 17th Street in 1905 as the National Society's headquarters. "Memorial Continental Hall houses one of the world's most important genealogical libraries, an extensive collection of antique home furnishings displayed in more than 30 period rooms and glamorous spaces available to the public for an array of different occasions." [<https://www.dar.org/museum/exhibitions/memorial-continental-hall-100-years-history>])

Maryland, the committee reported, had passed a law authorizing the Maryland State Road Commission to post the National Old Trails Road sign of the D.A.R. along the road at intervals of not over a mile. This move should inspire other States to take similar action:

I have always felt that the States themselves should sign post the section of the National Old Trails Road within their borders, that sign to be the one adopted by the National Society and known as the Daughters of the American Revolution National Old Trails Road sign I hope the day is not far distant when we will see the Daughters of the American Revolution National Old Trails Road from the Atlantic to the Pacific outlined with the Red, White and Blue (symbol of our flag) with the Daughters of the American Revolution insignia above it, but that should not interfere with the preservation of the individuality of the links of the National Old Trails Road.

Although the Maryland General Assembly had appropriated funds to install the D.A.R. signs along the State's National Old Trails Road, Chairman John N. Mackall of the State Roads Commission was not interested. *The Baltimore Sun* reported that the signs – a red, white, and blue sign topped with a picture of an old-fashioned spinning wheel, crossed with a distaff, may "be trampled down by a modern marking system":

Now it seems that Mr. Mackall has some very fixed ideas about road marking. Some time ago when he was chief engineer he explained his plans for a modern and uniform system. The spinning wheel and distaff sign submitted by the old trails road committee does not conform to Mr. Mackall's plans. His idea is to forget all of the old trails, which, he says, are almost obliterated, and adopt a system of rechristening the roads by colors for the convenience of automobilists.

"They want to name the road the Old Trails road, very well and good," said Mr. Mackall, "But I am certainly going to object to providing funds for any road marker that is out of harmony with the system I am going to propose.

Mr. Mackall says he hopes to get the necessary appropriation for his road-marking system during the fall. It will cost, he says, in the neighborhood of \$100,000. ["D.A.R. Sign for Old Trails Road Being Frowned on By Mackall," *The Baltimore Sun*, June 6, 1920]

Mrs. Van Brunt report referred to the brochure containing Representative Borland's speech and a map of the National Old Trails Road. "These pamphlets should be treasured, for I doubt if we will be able to secure any more."

She added:

When we reach our goal four names will be written high on our honor roll – Elizabeth Butler Gentry, who through her powers of organization placed our road in the leading ranks of national roads; the Hon. William P. Borland, who for so long guarded its standing before Congress; Mrs. Henry McCleary, who watched over and furthered our roads' interest through dark days; and Judge J. M. Lowe, the father of the National Old Trails Road.

Nine years ago the Hon. William P. Borland introduced our Daughters of the American Revolution National Old Trails Road bill in Congress and we have been knocking at those doors ever since, pleading that our road might be made the Nation's first trans-continental highway, not because it was the most practical route across our country, but because it interpreted the development of our Nation and was the path of our fathers. We owe the present standing of our bill to Mr. Borland's unflagging interest and by his death we lost our best and most loyal friend.

(Representative Borland died on February 20, 1919, of bronchial pneumonia in France, where he and other Members of Congress were visiting American commands and troops. He had served in the House since his election in 1908, representing the Kansas City area, but had been defeated in the primary election in 1918.)

If we can bring to the Daughters of the American Revolution a realizing sense of the part these old trails and roads, composing the National Old Trails Road, have taken in the development of our Nation and how they have welded our country together, we will win our goal.

She addressed one criticism of the Borland bill:

No one could call our House Bill 8011, a park bill. It does not improve any backwoods stream or local cross-roads. The people could not spend the people's money for anything of much more use to the people in general.

She encouraged everyone to read a series of articles by Dr. Emerson Hough, a prolific writer of western fiction and nonfiction, in the *Saturday Evening Post* under the general title "Traveling the Old Trails." Reading them provides "a fuller knowledge of those paths, those days, the

motives under them, and a deeper understanding of the great need of preserving them.”

(The articles are: “When Calico Was King” (July 5, 1919); “Once Upon a Time” (August 2, 1919); “The Road to Oregon” (August 23, 1919); “The Long Trail of the Cow Country” (September 13, 1919); and “Out of Doors” (February 14, 1920.))

She thought it “particularly fitting that such an article should come out in that paper, which was founded by Benjamin Franklin in 1828, and all through its one hundred and ninety-two years of existence has stood for everything that was beneficial for our country. That paper itself typifies the tying of the past to the present!”

She concluded her report by stating:

I am told a bill will be passed by the next Congress to build at least one great trans-continental road. Is this road to be our road – the road hewed out of the wilderness by our forefathers? It is the most historical. It is the most practical.

Build roads, build a network of roads across our country, but first of all, build the National Old Trails Road, and build it as a memorial to those men and women who handed down to us the courage which made possible the sacrifices of today – as a memorial to those sons of our Nation who sleep forever in foreign lands under the “low green tents.” [*Proceedings of the Twenty-Ninth Continental Congress of the National Society of the Daughters of the American Revolution, April 1920, pages 334-339*]

Testifying before the Senate Committee

In a statement on April 15, 1920, Chairman Townsend of the Committee on Post Offices and Post Roads made clear that he would not urge Congress to consider national highway legislation during the current session. *Better Roads and Streets* explained:

This committee was called together during the week of April 19th to consider proposals to create a national commission which would take over the powers now exercised by the Secretary of Agriculture in connection with highway appropriations and road construction and maintenance by the federal government. The commission would also be asked to prepare a map of the country showing proposals for a system of national highways. A bill for the purpose of creating a federal highway commission and providing appropriations for the construction of a system of national highways was introduced early in the present session as S. 3572 by the chairman of the committee. [Untitled, *Better Roads and Streets*, May 1920, page 224]

Senator Townsend’s Committee began hearings on May 4, 1920, on S. 3572. *American Motorist* pointed out:

Hearings started May 4 and continued for more than a fortnight before the Senate Post Office and Post Roads Committee on the need for additional Federal highways

legislation. There are before the committee a number of important bills. One introduced by Senator Charles E. Townsend of Michigan provides for a Federal highway commission and a Federal system of roads constructed and maintained by the Government. Senator Lawrence C. Phipps of Colorado, Senator George E. Chamberlain of Oregon, and Senator Morris Sheppard of Texas, have measures calling for additional appropriations and amendments to the present Federal Aid Road Act.

These hearings were held at this time in order to ascertain the sentiment of the country as to the need for additional legislation and appropriations and to develop through expert testimony the character of the legislation desired.

Witnesses testifying before the committee were divided into two main groups: one consisting of those who favor the Federal highway commission and a Federal system of roads, as outlined in the Townsend bill; the others consisting of those opposed to this bill and who would have the present Federal Aid activities substantially continued. Their idea is that ultimately the various Federal Aid projects will naturally connect up into a system of interstate roads.

Both sides believe that the existing Federal Aid law should be so amended as to permit those States in the West containing large areas of Government-owned land to so apportion their unexpanded Federal Aid allotments in their own States as to permit the Government to contribute to the cost of construction somewhat in proportion to the area of patented lands in those States as provided for in the Phipps and Chamberlain bills.

The result would be that the public-lands States would pay a smaller percentage than the 50-50 State-Federal share in the other States for Federal-aid highway projects.

Many supporters of the Townsend bill favored continuation of the Federal-aid program to give it a fair test. These supporters favored restricting Federal-aid funds to "definite, limited State systems and that the types of construction should be of a more durable and substantial character than those to which the funds are now being applied on the majority of the projects heretofore approved." Nothing in the Townsend bill precluded continuation of the Federal-aid program, but both programs probably could not continue indefinitely. "The best system would ultimately prevail."

The reality was that the Federal-aid highway program was funded through FY 1921, reducing pressure to focus on the subject in the current session:

At these hearings Senator Townsend has repeatedly indicated that there is no possibility of securing an appropriation at this time either for additional Federal Aid or for the construction of a national system of roads. He does believe, however, that legislation ought to be passed which would provide for a Federal highway commission with ample powers and a sufficient appropriation to permit it to study the whole situation in its broadest aspect, to lay out the Federal system of roads, and to prepare a report to Congress in order that definite appropriations might be provided later on. [Eldridge,

M.O, "Senate Committee Hears Roads Men," *American Motorist*, June 1920, pages 14, 58]

(M. O. Eldridge, known as "MO," had been the third employee of the U.S. Office of Road Inquiries in 1893. For many years, he had been in charge of BPR's economic, statistical, and extension work. He was a prolific writer and a popular speaker on good roads subjects, probably delivering more speeches on the subject than anyone else. He resigned in 1919 to join AAA as an editor of *American Motorist* and Director of Roads. ["Eldridge Quits Gov't Service to Join A.A.A.," *American Motorist*, August 1919, page 42])

While the hearings were underway, Vice President Thomas R. Marshall – known today primarily for his 1914 quip that "What this country needs is a really good five-cent cigar" – approved release of a statement based on his remarks to the convention of the United States Good Roads Association in Hot Springs, Arkansas, which ended on April 17. The Vice President, an attorney and former Democratic Governor of Indiana, stated:

While I feel that the general government, by its benefactions to the several states, is usurping the functions and killing the initiative of the individual states, I am quite convinced that the one good thing which it is doing in this way is the building of good roads. The federal government has the cleanest, finest, ablest, and most disinterested road engineers in the world. It has, in my opinion, constitutional authority to improve the post roads of the country. But the aid heretofore given has been generously used in piecemeal by rich counties matching their dollars against the general government's dollars.

I am quite convinced that the congressional sentiment is that the several states of the Union may as well make up their minds that if there is to be further federal appropriation on the fifty-fifty plan, it must be upon one of two bases; either that the general government shall have exclusive control of all the funds or that the general government will adopt a great trunk system and will construct that system in a state only when the state has contracted to construct an equal mileage of laterals of like character. ["Vice-President Marshall for National Highways," *Better Roads and Streets*, May 1920, page 216]

On May 11, Chairman Townsend welcomed S. M. Williams to testify before the Committee on Post Offices and Post Roads as chairman of the Federal Highway Council. After he explained the membership in the council and supporting organizations, he explained what his organization represented:

I would say, briefly speaking, placing the highway administration of this country on the highest possible level, so that we will get, in so far as we can, greater economy from the expenditure of our money, and development of highways so they will better meet the transportation needs of the country. By that I mean the development along the lines of national, State, and county systems. Our work not only relates to national policies, including the national system as provided for in your bill, but we are cooperating very

closely with the States in the direction of their campaigns, with a view of aiding in so far as possible the laying out of proper plans for the expenditure of the money.

We go farther than that – into county campaigns and cooperate with counties – so that we are not simply an institution here in the interest of national development, but we are vitally interested in this all development plan. [sic]

Asked if he was aware of any organized opposition to the plan, Williams replied:

The organized opposition, in so far as we have seen, has come from some of the State highway departments that seem to fear that the Townsend bill is going to interfere with their prerogatives. In other words, that it is going to take away some of the authority that they now have in the States. I am glad to say that that does not exist in the majority of the States where actual work has been accomplished, whereas the men engaged in the development of the large amount of work realize, first, the handicap that they have to overcome in the development of systems through the local political influences which surround and always have surrounded highway development, and also the practicability of working along definite plans rather than a hit-and-miss plan, as we frequently call it. [*Good Roads*, Hearing before the Committee on Post Offices and Post Roads, United States Senate, 66th Congress, 2d Session, on S. 3572, Part 1, 1920, pages 101-106]

The committee heard from Roy Chapin on May 13. He described his background, including his leadership of the Hudson Motor Car Company and Federal service during the war. He explained, however, that “16 years ago I took up this question of highways more or less as a hobby, outside of my business.” He said:

As a result of my experience I wish to give you some idea of how the automobile industry and the users view the future of the highway problem in this country. I want to go back 20 years in the past, as I want to go, a little later on, about 20 years into the future in our study of this problem. Twenty years ago, we rarely traveled over 20 miles in a day – I presume that the average trip that a man made over the highways then was not over 4 or 5 miles. The coming of the motor vehicle has, of course, changed that condition entirely. You have given an individual a radius of action, of say 150 to 200 miles a day in a passenger car, and there are trucks operating to-day along regular routes, covering from 100 to 125 miles in a day. Thus you have changed the situation entirely so far as our American roads are concerned. Previously they were strictly rural roads, and used almost entirely by the rural population. To-day they have become interstate or interurban routes of travel, and now as a result largely of the war development they have become a true transportation system – one of the three great units in the transportation system of this country.

Now, the point I want to make is this; that whereas 20 years ago the highways of this country were rural roads, and were used largely by the farmer, to-day they have come to be used by practically every citizen of the United States. We have a railroad system in this country, which has a total mileage of about 250,000; we have a highway system with a total

mileage of two and half million. If, as I believe, and I think we will all agree, the entire mileage of the highway system is to be used for transportation purposes more and more, it becomes just as necessary that we treat the question of highways and highway transportation from as broad a standpoint as we treat the problem of railroad transportation. Future traffic over the highways is going to be tremendous. I estimate you see a total daily of 30,000,000 people riding on American highways.

He explained that the country had “about 8,000,000 motor cars in use in the country. In addition, he estimated 20 million horses and mules were in use, “so that you have a very heavy proportion of our population that use our roads daily, and that condition, of course, has been changed radically from what it was 20 years ago. Now, if that change has taken place in 20 years, naturally it is the duty of all of us to predict the change that will take place in the next 20 years”:

If we look ahead for 20 years, we see a condition where we shall have, as we all know, a very considerable proportion of highways improved so they can be used practically every day of the year. The ideal condition, naturally, is one where your road pays a dividend, as it were, by being useful for every day of the year, because a road was never built for any purpose except to be used, and its value to the country is in proportion to its use

Now, what I am aiming to bring out to you is that the question of highway development has now become an economic problem; it is no longer a problem only of the agricultural interests, or a problem of the manufacturing interests, or a problem of the city man; it is an economic problem of the whole country, a transportation problem, and the interest of the automobile industry is not confined to any one particular solution. The interest of the industry naturally is this: We are furnishing transportation, individual and freight. We want to secure the maximum efficiency, very naturally, and we would like to see the money that is spent by the Government on the highways of the country secure the maximum of result, not only now, but with a true vision of the transportation problem that we will have 5, 10, 15, 20 years later over our American roads.

For that to happen, “we must reorganize our present methods, so far as highways are concerned.” A national highway commission “would give you the best results”:

It would furnish nonpartisan administration, would give proper geographic representation to meet the diverse needs of each section of the country, and would give a truly representative national administration of the highways which could not possibly obtain under the present law, where you administer the highways as a subordinate division of one of our governmental departments.

The commission could construct the roads for a national system or rely on State highway departments “that are efficient” to build the roads. “But the Government should have the money put on its own system of roads, and under governmental supervision so that we get back a dollar for every dollar that we put in.” The point of the commission would be this:

I think that before we do anything in the way of building national highways that we have got

to set our administration straight, to do the thing from a national, economic, and efficient standpoint. [*Good Roads*, pages 171-175]

S. M. Williams returned on May 14 to introduce several speakers, including Judge Lowe. With Senator Townsend unavoidably detained, Senator Charles B. Henderson of Nevada was chairman for the day's hearing.

Judge Lowe's appearance began with questions from Senator Henderson:

The CHAIRMAN. Judge Lowe, will you state your full name to the reporter, and your place of residence and occupation?

Judge LOWE. J. M. Lowe, Kansas City, Mo.

The CHAIRMAN. What business are you engaged in, Judge Lowe?

Judge LOWE. Why, it would be difficult to tell, unless I would just say, "in the road business."

The CHAIRMAN. And will you state, for the sake of the record, the associations or organizations that you are connected with having in view the interests of the roads of the country?

Judge LOWE. Yes, sir; the National Old Trails Road Association.

Beginning his prepared testimony, Judge Lowe promised not to "make a road speech":

I would not do that if you had your entire committee here; that would be putting it in the past to do that; but I only desire to dwell very briefly upon some of the points that I think are material to be passed upon by your committee, and in looking over them I have indulged in some references to the historical features of the road question.

The lamp of experience ought to teach us much on the subject before us for consideration. National highways, to be built and maintained by the General Government, is far from being a new or startling position. It is as old as the Government itself. The Constitutional Convention of 1783 had just adjourned, and the Government organized thereunder was still in a formative condition when this question arose, and a measure was passed and approved by Mr. Jefferson in 1806 establishing the Old National or Cumberland Road, beginning at Cumberland Md., and extending to the Ohio River at Wheeling and by various acts of Congress afterwards extended westward, until it reached the Mississippi River opposite St. Louis. This road was built and maintained by the General Government until 1837.

He discussed several of his usual historical landmarks, including the 1824 election, with the main candidates being John Quincy Adams, who favored internal improvements, and Andrew Jackson, who questioned their constitutionality; Senator Benton's meeting with former President Jefferson

about the Santa Fe Trail; and the long-running question about whether internal improvements by the central government met the constitutional standard.

He continued that “every politician can mention without hesitancy, the post roads provision of the Constitution; but nearly all of them seemed to be oblivious of the commerce clause of the Constitution.” He explained:

In the case of *Stockton versus Baltimore A. T. Z Railroad*, 32 Federal Reporter, page 9, Justice Brewer, in rendering the decision of the court, said:

Nor have we any doubt that under the same power the means of commercial communication by land as well as water may be opened up by Congress between different States whenever it shall see fit to do so, either on the failure of the States to provide such communication or whenever in the opinion of Congress the increased facilities of communication ought to exist. Hitherto, it is true, the means of commercial communication have been supplied either by nature in the navigable waters of the country or by the States in the construction of roads, canals and railroads. So that the functions of Congress have not been largely called into play, under this branch of its jurisdiction and power, excepting in the improvement of rivers and harbors and the licensing of bridges across navigable streams; but this is not proof that its power does not extend to the whole subject in all possible requirements. Indeed, it has been put forth in several notable instances which stand as strong arguments of practical construction given to the Constitution by the legislative department of the Government. The Cumberland or National Road is one instance of a grand thoroughfare project by Congress, extending from the Potomac to the Mississippi.

(This paragraph appears in *Stockton v. Baltimore & N.Y.R.*, 32 F. 9 (1887), an opinion by Supreme Court Justice Joseph B. Bradley dated August 1, 1887. The paragraph that includes the quoted language began:

The power to regulate commerce among the several states is given by the constitution in the most general and absolute terms. The “power to regulate,” as applied to a government, has a most extensive application. With regard to commerce, it has been expressly held that it is not confined to commercial transactions, but extends to seamen, ships, navigation, and the appliances and facilities of commerce. And it must extend to these, or it cannot embrace the whole subject. Under this power, the navigation of rivers and harbors has been opened and improved, and we have no doubt that canals and water-ways may be opened to connect navigable bays, harbors, and rivers with each other, or with the interior of the country. Nor have we any doubt”

(Judge Lowe may have confused Justice Bradley with “Justice Brewer” because Supreme Court Justice David Brewer wrote two notable opinions supporting the Federal Government’s constitutional authority to undertake internal improvements, including highway projects: *Monongahela Navigation Company v. United States*, 148 U.S. 312 (1893), and *Wilson v. Shaw*,

204 U.S. 24 (1907.)

Judge Lowe continued:

I have quoted the above decision because I have recently seen a letter from one high authority who readily quotes the post-roads clause of the Constitution, but seems to have entirely forgotten or to have overlooked the commerce clause of that instrument.

He came to his main point:

Now, one word as to the practicability of the proposed measure. We have had about five years of experience in attempting to build roads under what is called "the Federal Aid Act," with the result that only \$12,000,000 of the \$275,000,000 appropriated, has been actually expended under the provisions of that measure, and this money went into a scattered, detached, unconnected system of roads, or rather no system at all, resulting in the building of short sections, so scattered over the country as to be of no general benefit.

This \$12,000,000, if it had been applied upon a continuous road, would have at least built one road, if the cost of construction should be \$30,000 per mile, 400 miles in length, and this would not have reached entirely across many of the States – your State, for instance. If it had been supplemented by an equal amount of money raised by the State, county, or smaller legal subdivisions thereof, it would have built 800 miles of road. And this would have been of some general benefit to the country.

And these funds were applied to scattered sections, wholly unconnected, of different types, much of it dirt, sand, clay, gravel, waterbound macadam, and other cheap roads, which are practically no roads at all, and it is scarcely too much to charge this very largely to absolute waste.

Study this question in the light of experience, analyze it any way you may, and there is but one possible conclusion that can solve the road problem in a sensible, practical, business-like way, and that is for the General Government to build a system of national highways under the supervision and control of national authority, preferably its execution placed in the hands of some one individual like a Goethals [General George Washington Goethals, Chief Engineer of the Panama Canal] or a Hoover – I am not going to talk about politics, but I would vastly prefer, personally, to see Mr. Hoover at the head of a commission like this than to see him President, because he has been tried in the one instance, and I do not know how he would operate in the other; but he has made good as far as we have tried him. I say, preferably, its execution placed in the hands of some one individual like a Goethals or a Hoover or a Charles Henry Davis, of Massachusetts, with responsibility fully fixed, clothed with all needful authority, and fully financed by the Government.

This national system can then be supplemented by a State system, under absolute authority and direction of the State, county, and other legal subdivisions can then

build their own system, all connected with a State and national system, and thus ultimately resulting in a splendid system of all-the-year-round roads, reaching every nook and corner of the entire country.

All attempts to develop roads by first building local roads, "radial" roads, or roads reaching out from the railroad station and ending on Possum Ridge or in Raccoon Hollow have failed. Not until trunk lines are built will there be any material advance in road building. These trunk lines will be educational in their effects and will bring about a desire for building local lines. Otherwise, there will be no desire or reason for the existence of such local feeders. Branch railroad lines were built after the trunk lines were established, otherwise they could not have existed.

While discrimination, as between districts is neither wise nor fair, nevertheless if any preference should be favored, the farming and rural districts are considered to first consideration, for the reason that they need roads more than the urban centers do; and, what is more, they need help to build them. In most districts they can not of themselves furnish the funds necessary with which to build, either by undertaking the job at their own expense, or by matching dollars with the General Government.

In many of the western States they simply can not build under the Federal aid act. They can not raise the necessary funds. Now, I speak from practical personal knowledge. I have campaigned clear across the Continent, and I know that in many of the western States they can not raise the funds necessary; some of them are prohibited by constitutional provisions which do not enable them to raise the required amount of money, and others are too poor.

A national system of highways built and maintained by the National Government will serve national purposes and likewise be the heavy traffic main trunk lines within the several States. Such a system will relieve the States of any cost of their construction and maintenance.

Thus relieved, the States can build more miles than now State highways, thereby reaching more remote farming districts than are now reached.

Such a system of State highways will likewise be the heavy traffic lines within the several counties. They will be connected with the national system. Such system of national and State roads will thus relieve the counties of any expense for their construction and such counties can then build more miles of other or secondary roads, thereby still further reaching out into the more remote farming districts.

Such system of county roads will likewise be the traffic roads within their respective counties and therefore, finally, the township or districts can build more miles than now of their lighter traffic roads and thereby reach those farming districts farthest from the market towns and railroads.

By this fourfold system of roads there will be an impetus as yet unthought of given to road building throughout the United States. Authority and responsibility will be logically and economically fixed without complications arising. Uniformity and efficiency will be established. Rivalry in construction and maintenance will exist between the different systems. This will give us good roads everywhere by a well-balanced, connected system of national, State, county, and township highways. The moneys thus raised and appropriated will get into roads where it belongs and not into politics, where it does not belong. The cost will be equitably distributed upon those communities best able to bear the burden.

Judge Lowe turned to a common problem of interstate motor travel:

By the present system, if system it may be called, we are placed in the anomalous condition that the tourist or citizen, starting from the Atlantic, is liable to arrest the moment he crosses a State line, and remains under such embarrassment at every State line he may cross between the Atlantic and the Pacific. He must pay a license tax in many States through which he may travel. As some indication of the enormous expense attending such transportation it may be stated that as early as 1912 there were 35,000 "foreign automobiles" who took out licenses and toured California, leaving \$17,500,000 in that State. It is a safe calculation to multiply that sum now five or six times. In the same year of 1912 there were 6,000 "foreign cars" in Colorado, leaving \$2,700,000 in that States. This, too, may be multiplied five or six times.

The average tourist is one of the most liberal spenders of money, and without any such charges as the above being made against him, he ought to be encouraged because he will put in circulation vast volumes of money in every State through which he may travel. Why should a citizen of the United States be treated like a foreigner when he crosses a State line?

Suppose the navigable rivers of the country were made subject to different navigation laws in every State through which such rivers may flow, such complications would arise that it would put an effectual embargo or quietus on such traffic, and yet it is just as practicable and sensible to subject the navigable rivers of the country to State and local supervision and control as it is to subject the national roads of the country.

He concluded his opening statement:

The fourfold system is the solution and the only solution of the whole vast problem of building a system of dependable roads throughout the country, and when it is done we will only marvel at our long delay and wonder why we postponed the accomplishment of the greatest purpose ever conceived in the mind of man.

Senator Henderson asked Judge Lowe why he preferred the Townsend bill to the present

Federal-aid highway program. Judge Lowe explained:

Because I believe it would be the beginning of the construction of roads beginning somewhere and going somewhere; that it would mean the construction of continuous roads instead of undertaking to build them by piecemeal, by patchwork, as we are building to-day under the Federal aid act. Now, for instance, I have joined in many campaigns where we would undertake to carry a township-bond election, or a petition – in some of the States you do it by petition, and in some by election; and possibly after much laborious effort we would succeed in that township or road district, or even county. I have engaged in all of those kinds of campaign; and then we would probably skip half a dozen counties before we would find another live community ready to take action. That would mean, if we would go ahead and construct a section already provided for, then when we get to the end of that we plunge into the mud, and have no road clear across the State. That little patch of good road stands out there and will be allowed to go to decay, because there is no incentive to keep up a road that goes nowhere.

That is one objection to it; and another is that if men were all alike we might be able to build some one of those roads continuously; but they are not. They differ, and we find a world of men who say, “My grandfather lived here, and traveled over this road, and what was good enough for him is good enough for me.” And another serious objection to it is – I have no doubt the intention of Congress was, under that bill, to make the State the sole unit; but it has been so interpreted that instead of that practically they make the smallest local subdivision in a county the unit. For instance, we carried, in Kansas, a campaign in one county – it was a county-wide proposition – and we carried the bond elections or petitions, and then the next step was to get the State highway board to certify and approve our actions, which they did promptly, and sent it down to the roads division of the Agricultural Department here, and they approved it, certified it back – all the legal steps had been taken up to that point, and when it reached that county again, those who had the initiative, and must take the initiative under that bill if any roads were built at all – they then sat back and refused to sell the bonds and let the contract, and one of the commissioners stated publicly that he did not have any assurance that Uncle Sam would keep his promise, that his money would be forthcoming, and they would like to see the color of his money first. That pig-headed commissioner sat himself up superior to the State or nation so far as the building of that road was concerned, and it stands there to-day in that condition.

The CHAIRMAN. You believe, then, that it is better to have our national highway systems under one head than 48 different heads?

Judge LOWE. Just exactly. You have stated it better than I could have stated it, possibly. I do not believe in divided authority and responsibility anywhere. It ought to be fixed and definite, and then if we have got hold of the wrong fellow we can get rid of him. But where you scatter it out, and have to consult 48 different highway

boards and get them to cooperate with the Federal board – and under the application of this Federal aid system it comes down to where the smallest legal subdivision in the county controls the whole situation, because he can sit back and refuse, after you have gone through all this effort to raise the funds, and say, “Materials are too high,” or “It costs too much,” or any other reason.

Senator Henderson summarized that under the Townsend bill, the country would have one Federal Highway Commission while each State could have its State highway commission. He asked, “The States could then connect up with the national highway system?” Judge Lowe agreed. Senator Henderson continued, “And the counties, in turn, connect up with the State and National systems?” Judge Lowe agreed:

The CHAIRMAN. You would have a coordinating body there that would give to the people of the country the best roads possible?

Judge LOWE. Yes.

The CHAIRMAN. To-day do you find that there is lack of cooperation between the States in the construction of State highway systems?

Judge LOWE. Absolutely. I think that if that is to remain the settled policy of the Government, then the States ought to be absolutely required, as a precedent to obtaining Federal aid, that they would coordinate their systems, connected with the systems adopted by the adjoining States, so as to make roads continuous. Otherwise, one State can lay out a system that connects with no place in an adjoining State.

The CHAIRMAN. How does the Federal aid act operate in Missouri?

Judge LOWE. I think, in the main, satisfactorily. We have got a very high class board of commissioners there, and they are building some roads – not much – I do not think Missouri has ever drawn down more than \$9,000,000 under the Federal aid act. The Government does not pay until the job is completed. Now, they have put more money than that into roads, but I speak of completed roads now, and Kansas is practically about the same. Now, it will take all eternity, it seems to me, to build a system of roads that would be worth while under that system, and I believe you could spend billions upon billions of money in that slipshod, scattered way and still have no system of roads worth while.

The CHAIRMAN. How long have you been interested in the good-roads movement, Judge?

Judge LOWE. Oh, I don't remember the first record; the first that I recall is 1910. Since that time I have given every hour of my time to it absolutely.

The CHAIRMAN. In the construction of highways in the State of Missouri under

the Federal aid act, does the State make provision for a fund to carry on maintenance?

Judge LOWE: No; that is another thing that I would do if I were drafting an amendment to the Federal aid bill, or proposing to carry out the Federal aid act. I would make it an absolute precedent that a State asking for Federal aid should put up the money, or take steps to secure the funds, with which they could cooperate with the Government. They have not done it; only five or six States – Oregon, California, Illinois, Pennsylvania, and perhaps one or two others.

The CHAIRMAN. In order to have good roads it is just as necessary to have a fund to keep them up as it is to build them.

Judge LOWE: Absolutely so. Now, we have a State bond issue pending in Missouri, but unfortunately we can only vote on that kind of a proposition at a regular election. Now, it comes along next fall when we are electing everything from President down to constable – and especially constable – and everybody will get excited over that and neglect more important matters; but I think we will carry it anyway.

S. M. Williams interrupted:

I wanted to suggest one or two things. In the first place, the Judge is rather modest when you question him as to his experience and affiliations in road work. In 1910, when he took part in this work, he practically retired from his personal activities, and since then has not only devoted his own time but his own money to this cause; so we feel that as he has traveled practically against the doctor's orders in coming here that he is entitled to some appreciation for it, in working for the cause, to come here.

Now, there is just one more thing, and that is in regard to the impracticability of the Federal aid law, and the fact that the Federal aid law, as we see it, was never designed to build a system of Federal highways. As he said a moment ago, it distributes the money in such a wide manner, so that to concentrate that on a few roads would get away from the original principle of the law. It was made broader in the last session of Congress by changing the word "shall" to "may," and the other fact is one that was brought here day before yesterday, by some of the highway officials, that the Federal Government, under the present law, has the right to absolutely dictate where the money shall be spent. As we see it – I would like to have the Judge's opinion on that. We believe that if they can show that mail can be carried over any route, that it would be up [to] the Federal Government to agree to the building of that road.

(Williams was referring to the post road restriction in the Federal Aid Road Act of 1916, as amended in 1919. Within the network of eligible roads, the States determined which projects to

build.)

Senator Henderson said, "I am glad, Mr. Williams, that you spoke of the Judge's modesty. In reading the record one does not always get the enthusiasm and interest shown by the witness who appears in person to give the testimony or make the statement, and the interest of this witness in the good roads of the country is so apparent that I asked him how long he had been interested in good roads for the country, because I wanted the record to show that he had given it his personal attention for some period of time."

Judge Lowe replied, "If you will pardon me, I will say I have no selfish interest – no material interest in this question. I do not even own an automobile, and would not know what the dickens to do with it if I had one."

A discussion ensued to close out the day's testimony:

The CHAIRMAN. Now, your question, Mr. Williams –

Mr. WILLIAMS. The first was in regard to the impracticability of building a national system by reason of the general distribution under the Federal-aid law, and to the fact that that was made broader in the change of the word "shall" to "may." It was done for the purpose of giving a wider distribution.

Judge LOWE. Absolutely so. We are endeavoring to be generous rather than just; to scatter the Federal funds – you will pardon me for saying it – we are scattering the Federal funds where they will do the most political good.

The CHAIRMAN. In other words, the money under the Federal-aid act, was turned over to the States, and they used it upon such roads as they cared to use it on?

Judge LOWE. That is right, exactly.

The CHAIRMAN. In every instance it is not designed to construct a national highway that will be of use and service to the people outside of that particular State. In other words, more interest is given to the confines of the State than to the national interest, in many instances, I believe.

Judge LOWE. In the majority of instances. Now, I have heard right recently, a well-informed gentleman said to me on my way down here to Washington – he said, "Why a national system of roads, anyway? Why a transcontinental system? Is there any special reason for it?" My answer was, "Why the transcontinental railway?" Well, "But," he says, "this transcontinental road is designed chiefly for joy riders, tourists, who want to go over the country." And I asked: "Are the railroads used for that purpose at all? Do joy riders go on them as well? And why should they not? What is the object and purpose of government unless it is to make the country generally more desirable and easier to live in?"

The CHAIRMAN. I would like to state for the benefit of those present that the consideration given these measures by the committee is not for pleasure-seekers, but for the commerce of the country, and the development of that commerce, and the quick and ready marketing of the products that are raised in the country.

Judge LOWE. Absolutely so.

The CHAIRMAN. So that they will reach the market at the earliest possible date; it is the commercial side and development –

Judge LOWE. Oh, yes, yes. But if a gentleman of leisure wanted to get in an automobile and ride around over the country, I do not think any serious criticism ought to be made of him for that; you are altogether right about the transportation of commerce.

With that comment, the hearing adjourned. [*Good Roads*, pages 193-201]

On June 18, 1920, the National Old Trails Road Association printed a synopsis of Judge Lowe's statement to the Committee on Post Offices and Post Roads on the Townsend Bill. At the end of the synopsis, Judge Lowe added a statement:

To the Members of Our Organization:

To this great purpose I have freely given the best years of my life, and now propose, in the near future, turning it over to younger and better hands, confidently assured of the early success of all our labors.

J. M. Lowe

As in the past, Judge Lowe stayed on. [National Old Trail [sic] Road Association, June 18, 1920, Vertical File, FHWA Research Library, page 6]

Charting the Road

In mid-1920, the Automobile Club of Southern California dispatched two men to chart complete strip maps of the National Old Trails Road and the Lincoln Highway from the Pacific Coast to the Eastern seaboard. When “Doug” Rhodes and O. W. “Ollie” Lewis “cut the switch on their dusty roadster in front of the Automobile Club on July 12th, they had completed the arduous task of charting two complete transcontinental highways, “the biggest job ever undertaken by a single motoring organization.” After a month of marshalling the data, “the map making department of the club started on the task of turning out the strip maps which will show every turn in the road from the Atlantic to the Pacific.” Rhodes and Lewis also checked the north-south connection between the two routes in Colorado and checked the signs the club had erected.

Overall, from May 17 to July 14, they traveled 8,881 miles which, leaving out rest days, gave an average of 217 miles a day. Their best day had been on July 4 when they “succeeded in reeling

off 422 miles on the fine dirt roads of Colorado.” They reported:

Road conditions, as a general thing, they found to be better than ever before all along the route, particularly in the West. Much new road has been built and the old road has been improved. Extensive improvements on both the National Old Trails and the Lincoln Highway are now in progress in the middle west. On the former route, from East St. Louis to the Illinois state line and about 100 miles in Indiana are being paved so that detours prevail in this region.

All the work was expected to be completed in time for the 1921 spring touring rush:

The National Old Trails through Kansas may also be paved as all the counties in the state have been signed up for concrete roads but the high cost of material and labor and the condition of the bond market has forced the postponement of the improvements. From all indications, according to Rhodes and Lewis, the transcontinental highways in the spring of 1921 will be better than ever before and, assisted by the complete strip maps and the Automobile Club of Southern California road signs which extend from Kansas City and Omaha to Los Angeles the motorist, like the wayfaring man of scriptural reference, will have real difficulty in losing way.

(The Lincoln Highway terminus was in San Francisco, but the Arrowhead Trail provided a link between the highway at Salt Lake City and the National Old Trails Road at Barstow.)

The crew found that signposting methods “in the East and Middle West are certainly not up to the standard of the Pacific Coast, most of the various highways being identified by varicolored strips on the telegraph poles which line the way”:

When you come to a cross road where two or three highways meet the telegraph poles look like a cross between a barber pole and a stick of cheap peppermint candy and a motorist who is color-blind is absolutely out of luck. Ouija boards would come in mighty handy when trying to get in and out of many Eastern cities also, Pittsburg [sic] and Jersey City being two high powered examples of puzzling problems for the visiting motorists.

One feature that is bothersome and sometimes very painful to transcontinental tourists is the fact that every one of the ‘steen thousand towns and villages along the route has a different speed law and a different “No parking” ordinance. As a general rule, however, the police are extremely courteous to travelers and cause them as little trouble as possible. There are however some exceptions which make it advisable to take things very easy in passing through all towns en route.

The log compiled by the two-man crew “affords an example of the time that can be made and gives all the very latest information on the road conditions on both the Lincoln Highway and the National Old Trails”:

The first day out of Los Angeles found the travelers burning the Eastward trail over the

smooth boulevards of Southern California, up the long grade over Cajon pass to the summit where they left behind them the concrete and asphalt of California for the dirt roads of the desert. An early start and good consistent driving found them at Goff's [west of Needles], 293 miles from Los Angeles, that night.

The second day, May 18th, was one of rougher going although the roads were uniformly good dirt. The only stretch of bad road was found in Nelson's Canyon where there was some five miles of pretty rough sledding even for hardened drivers like these. A comparatively short run of 191 miles by way of Topock brought them into Seligman that night.

At Seligman, Rhodes and Lewis split up temporarily and saved themselves four days. It was necessary to go up to the Grand Canyon and then to signpost the two optional roads between Holbrook and Albuquerque, one of which goes via Gallup and the other by Springerville. To avoid retracing their tire tracks, Rhodes took the machine on the Grand Canyon and Gallup route while Lewis went over the Springerville road in another machine provided by a member of the club.

Rhodes went from Seligman to the Grand Canyon and back to Flagstaff, then to Winslow, Holbrook and then north via Gallup to Albuquerque. The Gallup route follows the railroad across the desert through some most interesting Indian country. Lewis went directly from Seligman via Flagstaff, Winslow and Holbrook and then south over the Springerville road which traverses the timber country and the Continental Divide, taking in the Petrified Forest en route. Despite some rain the roads were found to be pretty good except for some rocky going between Flagstaff and Winslow. The rain, however, had put the Rio Grande on a rampage and two bridges were temporarily condemned for traffic but are now alright.

May 24th found the traveling twins reunited at Albuquerque and once more started on their round trip across the country.

They departed the National Old Trails Road for the North and South Highway to the Lincoln Highway by way of Colorado. On May 29, they left Denver and connected again with the National Old Trails Road at La Junta:

Starting out in Denver in the early morning the car rolled into La Junta, back along the road to Trinidad and then to La Junta once more, a total of 359 miles, all along excellent gravel roads which made the big mileage seem easy.

May 30th took the scout car from La Junta to Kinsley, Kansas, a 265 mile jaunt along roads mostly in fair condition which as a general rule followed the section lines of the region. Between Oferle and Spearville the roads were very bad due to their use by automobiles while still wet from the recent rains.

The last day of May was spent entirely in the state of Kansas, the club car traveling from

Kinsley to McPherson and then making a side trip from McPherson to Lindsborg and Herrington and return to McPherson, the side trip being over a road which may possibly be added to the National Old Trails highway in the future.

The first day of June was one that Rhodes and Lewis will not forget for a long time. They pulled out of McPherson early in the morning and set sail eastward with full speed ahead. They hoped to keep in front of a rainstorm which they had spotted coming out of the west but one of those rapid Kansas breezes blew the storm up on them faster than their eight cylinders could push them along and after bucking mud for several sticky miles they stopped off at Admire, Kansas, a metropolis of the great western plains where the entire population, all three of 'em, helped stow the car away in a barn. The mileage for the day was 116 and some of them were very long miles.

The remaining miles between Admire and Kansas City were covered through good old gumbo mud on June 2nd and there the travelers laid over a week to complete their notes on the trip and get the mass of information in shape for use later.

The second leg of the eastward journey was taken up on June 10th with a 262-mile run from Kansas City to Wright City, Missouri. The roads were found to be in splendid shape most of the way, a four mile stretch near Mineola being the chief exception. The 30 miles immediately east of Kansas City were a boulevard and from that point on good dirt, gravel and rock roads led to the point where the Missouri River is crossed by ferry at Booneville. That barge is a great convenience and operates between 7 a.m. and 8:30 p.m. The charge is \$1.08 per trip.

The brief hop from Wright City to St. Louis, 84 miles, was covered on June 11th and on June 12th the encounter with the detours began with the leg from St. Louis east, 215 miles to Terre Haute, Indiana. The National Old Trails across Illinois is being paved and is all closed. All travel going east crosses the Mississippi River over Eads Bridge and then goes via Collinsville, and Edwardsville, following the Big Four route through Livingston to Staunton. Then it goes via Mount Olive, Hillsboro, Pana, Ashmore and Paris to Terre Haute. All of this paving work should be finished by next spring so that the 1921 tourist should have better going.

Across Indiana and part of Ohio from Terre Haute to Dayton was the 194 mile jaunt made on June 13th. The rock and gravel roads amount practically to boulevards and the going is splendid. The same thing holds true for the following day's run from Dayton to Wheeling, W. Va., a jaunt of 199 miles. The gravel was occasionally relieved by a stretch of Ohio's characteristic brick pavement and frequent detours because of road construction were encountered.

June 15th and its 177 miles from Wheeling to Hancock, Maryland gave the travelers groves of trees extremely reminiscent of California. The National Old Trails all the way east from Columbus may practically be classified as boulevard. Long stretches of pavement and brick road prevail and are extremely good. The 100 miles from Hancock

to Baltimore was run off in a few hours on the next day and the touring twins spent a day and a half in the metropolis of Maryland recuperating from their long trip.

June 18th was a busy day for the travelers with a trip from Baltimore to Washington, D.C., the official terminus of the National Old Trails, back to Baltimore via Frederick and then on to Philadelphia.

From there, they crossed the country on the Lincoln Highway. [“Strip Maps from the Atlantic to the Pacific,” *Touring Topics*, August 1920, pages 12-16, 31, 34]

The Platforms

In June, the country’s two main parties chose their presidential and vice presidential nominees.

In Chicago, the Republican Party chose Senator Warren G. Harding, a newspaper editor and former State official from Blooming Grove, Ohio, as the nominee. Governor Calvin Coolidge of Massachusetts was Senator Harding’s running mate.

The party’s platform covered many topics, but Senator Townsend could not have been happy about its good roads plank endorsing the Federal-aid concept:

Public Roads and Highways

We favor liberal appropriations in co-operation with the States for the construction of highways, which will bring about a reduction in transportation costs, better marketing of farm products, improvement in rural postal delivery, as well as meet the needs of military defense.

In determining the proportion of Federal aid for road construction among the States, the sums lost in taxation to the respective States by the setting apart of large portions of their area as forest reservations should be considered as a controlling factor.

The Democrats, meeting in San Francisco, chose Ohio Governor Cox as their presidential nominee. He was a newspaper publisher and one-term member of the U.S. House of Representatives. His running mate was Assistant Secretary of the Navy Franklin D. Roosevelt, a cousin of former President Theodore Roosevelt.

The party’s platform included a plank on “Improved Highways” that endorsed the Federal-aid highway program. In part, it read:

The Federal Road Act of 1916, enacted by a Democratic Congress, represented the first systematic effort of the government to insure the building of an adequate system of roads in this country. The act, as amended, has resulted in placing the movement for improved highways on a progressive and substantial basis in every State in the Union and in bringing under actual construction more than 13,000 miles of roads suited to the traffic needs of the communities in which they are located.

We favor a continuance of the present Federal aid plan under existing Federal and State agencies, amended so as to include as one of the elements in determining the ratio in which the several states shall be entitled to share in the fund, the area of any public lands therein.

Federal-Aid Road Work, FY 1920

The Federal-aid highway program was funded only through FY 1921. The final apportionment of \$100 million became available on July 1, 1920. BPR retained 3 percent of the funds for administration of the program. BPR Chief MacDonald explained:

Under the law the states are required to enter into formal agreements with the Secretary of Agriculture for the construction upon which this is to be used before July 1, 1922. Any money which is not taken up before that time will be reapportioned among all the states in the same manner in which the original apportionments are made. All previous apportionments have been taken up in the time allotted, and it is not likely that the states will fail to absorb this last apportionment. To do so, however, will mean that the states must survey, plan, and let contracts for at least \$200,000,000 worth of Federal aid road construction in the next two years.

The States generally paid more than 50 percent of the cost; thus if that practice continued, “this last apportionment may reach \$250,000,000.”

MacDonald added that the State highway departments had been expanded and more efficient since 1915 and were “undoubtedly” able to handle the greater amount of funding:

The states have had four years in which to prepare for the expenditure of the large funds which now become available. They expect to be able to handle them. What is of greater concern to them at this time is the condition which may result if federal appropriations are permitted to lapse. The highway departments should know at least a year in advance what funds are to be available in order that plans may be made for future construction. Unless, therefore, further federal action is taken in the coming year, the states will be left in doubt as to the future policy of the government, and the amount of money they must be prepared to expend. Such a contingency would involve a serious setback to the progress of road construction, and should be avoided by early congressional action. [MacDonald, Thomas H., “\$100,000,000 Fund Available to Aid State Road Building; Big Federal Appropriations,” *Better Roads and Streets*, September-October 1920, page 297]

On October 15, 1920, BPR Chief MacDonald released his annual report covering the fiscal year that ended on June 30, 1920. Although the war had ended in November 1919, the disruptions to roadbuilding during the war years had not ended, as MacDonald made clear on the first page:

During the fiscal year 1920 the execution of all classes of construction work has been greatly delayed by the most disadvantageous economic conditions which this country has faced in many decades.

Railroad congestion, strikes, and labor and material shortages, resulting in high prices of these essentials of construction, have combined throughout the country to delay work which had been undertaken, and to discourage the country to delay work which had been undertaken, and to discourage the undertaking of any but the most important new projects. The high prices of labor and material have sent construction costs skyward, and the work which has been launched in spite of conditions has necessarily been curtailed to the limit of the funds available.

Highway construction has perhaps been more adversely affected than any other class of work. After the war there was a great public demand for the improvement of roads, which had been seriously damaged in many instances by the augmented traffic incident to the prosecution of the war. It appeared that the release of labor from war activities and the return of men from the military service would provide an abundance of labor. Indeed, it was thought, for a time, that highway work should be increased to provide employment for returned soldiers, if for no other reason. Highway programs were accordingly greatly expanded, and in accomplishing this result the appropriation by Congress of the additional sum of \$200,000,000 for Federal aid in February, 1919, played an important part.

The army of laborers which was expected to apply for the work did not materialize. On the contrary, there has been at all times a distinct shortage of labor to carry out the work planned, and wages during the past fiscal year have reached the highest levels attained in the history of the country. Whereas, in 1917, competent labor could be secured in various parts of the country for from \$1.50 to \$3 per day, the corresponding wages this fiscal year were from \$3 to \$5 for a shorter day's work.

In proportion to the demand there was also a pronounced scarcity of the materials of construction. Sand, gravel, stone, and cement, materials commonly used in road work, increased in price between 1917 and 1920 by from 50 to 100 per cent. Naturally, these increases in the costs of the essentials of construction have been reflected in the prices paid to contractors for road work

In view of the fact that the funds available for road construction are largely limited by statute or by the returns from taxation, and on account of the high prices prevailing, a majority of the States this year have deliberately withheld work, the plans for which have been completed, until such time as they could obtain a greater return upon the expenditure.

No small part of the reason for the high contract prices is attributable to the uncertainty of rail deliveries of material. Contractors who have been induced to enter the highway field in larger numbers than ever before, and who have invested large capital in plant and equipment designed to expedite construction, have lost heavily by reason of the failure of the railroads to make deliveries of material in accordance with anticipated schedules; and they have advanced their prices on subsequent contracts in the attempt to recoup their previous losses and to provide against similar contingencies in the future.

Despite these and other “untoward economic conditions,” the number of Federal-aid projects was about 25 percent greater than in any year since enactment of the 1916 Act, “attributable in no small degree to the improvements in methods of administration effected during the year.” He reported:

During the year a total of 1,670 project statements submitted by the States were approved by the bureau, as compared with 1,316 projects approved from 1916 up to the beginning of the year. The projects approved involved 16,673 miles of road as compared with 12,720 miles which had been previously approved; and the Federal aid requested on these roads amounted to \$109,830,366, which was more than twice as great as the total amount of \$54,714,219 requested during the three years 1917, 1918, and 1919.

Agreements with State highway departments were executed during the fiscal year to cover 1,286 projects, almost three times the largest number executed in any one fiscal year, and nearly twice the total number executed prior to the beginning of the year. The estimated cost of the projects covered by these agreements amounted to \$197,571,626, of which amount there was set aside in the Treasury \$85,906,556 as Federal aid. At the close of the fiscal year 1919 there had been executed 677 of such agreements, involving an estimated cost of \$56,418,763 and an allowance of Federal aid amounting to \$23,931,618. Thus, at the close of the fiscal year 1920 a total of 1,963 had been executed to cover projects involving 15,178 miles, at a total estimated cost of \$253,990,389, including \$109,838,174 of Federal aid. Of the funds apportioned, therefore, there remained at the end of the fiscal year an unallotted balance of \$59,911,826.

MacDonald also reported on the impact of the change in the definition of “rural post road” contained in the February 1919 appropriation act. Federal-aid funds could now be used, as he described, on “any public road a major portion of which is now used, or can be used, or forms a connecting link, not to exceed 10 miles in length of any road or roads now or hereafter used for the transportation of the United States mails.” He explained:

In addition to seeing that the roads for which aid has been requested by the States comply with this statutory requirement, the bureau has also made an investigation in connection with each project submitted to ascertain that the road in question is of sufficient general importance to warrant the expenditure of Federal-aid funds in its construction.

The Federal-aid funds will not be expended entirely for so-called national roads. A large part of the money will be expended in improving the roads which radiate from market and shipping points into the surrounding agricultural country, the class of roads which in the last analysis are most closely identified with the development of the country.

In many of the States, particularly those of the East which have highway departments of long standing, the majority of the trunkline roads have already been improved. In these States Federal aid is given to assist in filling the gaps which remain in the trunk systems, and for the construction of the more important lateral roads. On the other hand, there is a decided tendency in the younger States of the West to utilize their apportionments of

Federal aid on trunk-line highways of national importance. As an indication of the extent to which this policy governs, there was at the end of the fiscal year a total of 8,620 miles of Federal-aid road which had been approved, and which constituted parts of the several transcontinental trails, such as the Lincoln Highway, the Bankhead Highway, the Dixie Highway, the Jackson Highway, and others. This mileage represented 30 per cent of the aggregate length of all Federal-aid roads approved, and \$58,745,359, or 36 per cent, of all Federal aid approved. Eighty per cent of the mileage in Indiana is included in one of these marked roads, 86 per cent in Nevada, 54 per cent in Arizona, 50 per cent in Washington, while in Pennsylvania and New York, which have already constructed most of the roads of this category, the mileage represents 15 and 17 per cent, respectively, of the whole mileage of Federal-aid roads. In thus referring to the mileage of our roads which is included in these selected routes, it is not intended to convey the impression that such routes constitute a desirable or complete system of national roads. Indeed, it is safe to say that no one of such roads is laid down at all points in the most suitable location. In many instances we believe that sections of our roads which do not fall on the lines of these routes, will better serve the transcontinental traveller than the selected routes, but in the main these widely advertised roads do follow the natural lines of travel.

In order to provide a more rational basis for coordinated work on the part of the States, the bureau, in conference with the advisory committee of State highway officials, has initiated plans for a Nation-wide survey of the roads of the country, and a classification of all highways in respect to their importance and character of service. The survey when completed will doubtless furnish the necessary data for the establishment of a classified system of highways similar to the French system. [MacDonald, Thomas H., Report of the Chief of the Bureau of Public Roads, *Annual Reports of the Department of Agriculture*, for the Year Ended June 30, 1920, pages 491-497]

In these and other comments, Chief MacDonald made clear he was in favor of the Federal-aid highway program, not Federal construction of a national road system. As 1921 began, with a new President to take office on March 4, the battle between Federal-aid advocates and national road supporters was about to come to a conclusion. Both sides agreed they wanted a bill approved by June 30, 1921, when current authorizations for the Federal-aid highway program came to an end.

The New President

In the November 1920 presidential election, Senator Harding prevailed and would take office on March 4, 1921.

When the 66th Congress returned to Washington for a final short session on December 6, with Republicans now in charge of both Houses, a priority was continuation of funding for roads that was to end on June 30, 1921. The House passed an extension on February 7, 1921, and sent the bill to the Senate, which assigned it to the Committee on Post Offices and Post Roads. Chairman Townsend refused to send the bill to the floor for consideration. Attempts to add the House bill to the Senate Post Office or Agriculture appropriation bills failed. Similarly, a bill to establish a

sliding scale for the State share under the Federal-aid highway program for States with large amounts of Federal public land failed.

Congress adjourned the 66th Congress on March 4 without resolving the question of Federal-aid versus Federal construction or extending the Federal-aid program.

With a new President awaiting inauguration, the American Road Builders' Association (ARBA) asked about his views on roads. President-elect Harding, who had campaigned on a "return to normalcy," replied by a letter that was read to ARBA's annual convention, held at the Coliseum in Chicago, Illinois, on February 9 through 12:

Our civilization depends on communication and transportation, and as it becomes increasingly complex, that dependence increases. Every great community is held together by its means of transportation and so vast a country as ours is the more in need of ample facilities. Our country roads we have not kept pace with. The development of other transportation – railroads, waterways, our new merchant marine – cannot be of fullest utility unless good roads supplement them. The country road bears the same relation to these that the capillary circulation does to the system of veins and arteries in the human organism.

In recent years there has been nation-wide realization of the road problem. We need to devise and adapt means, financial and engineering, to solve it. I believe we shall progress greatly, in the years of peace and prosperity which I am confident lie ahead of us, toward this solution, and such organizations as your own will contribute much to that end. ["The Eighteenth Annual Convention of the American Road Builders' Association, *Good Roads*, February 16, 1921, page 95]

Although positive, the message did not address the debate between advocates of Federal-aid and national roads.

Five weeks after the inauguration of President Harding, *The New York Times* reported on April 9 that he "has been for some time making a quiet, but thorough investigation of the highway improvement situation, particularly of various road projects which have been allotted money from the Treasury of the United States":

The President, it can be stated, is thoroughly alive to the seriousness of this road problem and he will deal with it in the message which he will read to Congress next Tuesday. In his inquiry into the situation the President has considered the matter purely as a national affair in which all the people of the country who use roads or pay taxes have an interest.

In his study of the highway problem the disclosure which impressed the President more than any other phase of the question was the fact that enormous sums of money have been expended on roads without any thought of the permanency of those roads. If the

President has his way not one dollar of Federal money will be applied in the future to any road, the proper and economical maintenance of which has not been provided for.

The President considers it nothing less than folly for the Government to contribute money toward road projects, which in numerous instances go to pieces in two or three years, leaving to the people a tax inheritance that involves large bond issues.

On April 8, President Harding “was in conference for some time today with Senator Townsend of Michigan, the Chairman of the Senate Committee on Postoffices [sic] and Post Roads, which committee will draft the road bill which will be introduced in the next Congress, and which is expected to eliminate serious defects in the present law.” The article pointed out that in the last Congress, Senator Townsend, not yet chairman, had “led the successful fight” against the \$100 million appropriation approved in the House:

In his message to Congress the President will make known what he considers should be the highway policy of this Government, and that will be a policy in which the cheap road built with the proceeds of high taxes and without any provision being made for its maintenance cannot be allotted money from the Federal Treasury.

The President is an enthusiastic advocate of good roads that are really good roads, properly constructed and properly maintained.

It is the view of the President that the Federal Government should not be saddled with the maintenance cost of highways, but that this should be borne by the several States benefited by the roads. In many States the license fees for motor vehicle owners are alone sufficient, the President has been informed, to pay the maintenance cost of the highways

In conversation with visitors today the President was quoted by one of the visitors as having said that some of the roads to which he has given careful consideration have cost more than \$25,000 per mile, which, he explained, is higher than the cost of the finest railroad.

The referenced speech was to be delivered in a special session of the 67th Congress that President Harding had called for shortly after his inauguration on March 4, 1921. The purpose was to address the post-war depression that had lingered during the rough transition from war to peace. Shortly before the speech, auto industry advocates of a Federal Highway Commission met with the President. They pointed out that BPR’s budget far exceeded the budget for the rest of the Department of Agriculture. Roy Chapin, who headed the delegation, said that the National Automobile Chamber of Commerce opposed continuance of the Federal-aid highway program in its present form because he believed the public interest was not fully served by the large expenditures for the program.

The President was understood to be concerned about highway maintenance, and would insist on

a strong provision on the subject in future highway legislation. In his view, the entire proceeds from vehicle license fees should be devoted to maintenance.

Chapin and his committee also met with Chief MacDonald, Secretary of Agriculture Henry C. Wallace, and Secretary of the Treasury Andrew Mellon. The meeting prompted MacDonald to outline his position:

The task today is to provide highway service; we cannot afford to wait for the construction of new and modern types of highways. The maintenance should be carried forward now on roads improved and unimproved. The returns will more than compensate the cost. If there is one problem which the road builders of the United States as a whole must learn it is that of highway maintenance. The continuity and long radius of operation of the motor vehicle require a development of maintenance organizations and maintenance expenditures not heretofore required; but in the same fact lies, because of the service rendered, the justification for the expense involved. We cannot neglect the simple methods of maintenance which have demonstrated their utility. The harrow, the road drag, the blade grader, have a high degree of utility in combination with the motor truck and gas tractor. One state engineer remarked that the widespread use of these simpler maintenance tools in his state saved his whole program of higher cost construction because of the better highway service provided over a large mileage. ["Want Federal Highway Commission Created," *Engineering News-Record*, April 14, 1921, page 656]

On April 12, the new President addressed a joint session of Congress. Biographer Francis Russell stated that, "The President looked vigorous, assured. His voice was not as precise as Wilson's, but it was warmer . . ."

President Harding's address to the joint session began:

Mr. Speaker, Vice President, and Members of the Congress, you have been called in extraordinary session to give your consideration to national problems far too pressing to be long neglected. We face our tasks of legislation and administration amid conditions as difficult as our Government has ever contemplated. Under our political system the people of the United States have charged the new Congress and the new administration with the solution – the readjustments, reconstruction, and restoration which must follow in the wake of war.

It may be regretted that we were so illy prepared for war's aftermath, so little made ready to return to the ways of peace, but we are not to be discouraged. Indeed, we must be the more firmly resolved to undertake our work with high hope, and invite every factor in our citizenship to join in the effort to find our normal, onward way again.

Turning to specifics, he began with "our problems at home, even though some phases of them are inseparably linked with our foreign relations." Russell summarized the domestic goals for

the session:

As a message it was the expected declaration of Republican administration policy, containing no surprises. Harding called for a cutting of government expenditures, lowering of taxes, and the repeal of the excess-profits tax, "mature consideration" of permanent tariff legislation, a lowering of railroad rates and promotion of agriculture interests. One of his most important requests – several times rejected by earlier congressmen – was for the national budget system [i.e., to coordinate financial activities]. His most cherished projects were a "great merchant marine" and a Department of Public Welfare. There was applause, then silence when he told the legislators that "Congress ought to wipe out the stain of barbaric lynching." [Russell, Francis, *The Shadow of Blooming Grove: Warren G. Harding and His Times*, McGraw-Hill Book Company, 1968, page 456]

The President also discussed several transportation issues, which he said were of "great interest to both the producer and consumer – indeed, all our industrial and commercial life, from agriculture to finance." After discussing problems related to the railroads, he turned to the highways:

Transportation over the highways is little less important [than rail transportation], but the problems relate to construction and development, and deserve your most earnest attention, because we are laying a foundation for a long time to come, and the creation is very difficult to visualize in its great possibility.

The highways are not only feeders for the railroads and afford relief from their local burdens, they are actually lines of motor traffic in interstate commerce. They are the smaller arteries of the larger portion of our commerce, and the motor car has become an indispensable instrument in our political, social, and industrial life.

There is begun a new era in highway construction, the outlay for which runs far into the hundreds of millions of dollars. Bond issues by road districts, counties, and States mount to enormous figures, and the country is facing such an outlay that it is vital that every effort be directed against wasted effort and unjustifiable expenditures.

The Federal Government can place no inhibition on the expenditure in the several States; but, since Congress has embarked upon a policy of assisting the States in highway improvement, wisely, I believe, it can assert a wholly becoming [sic] influence in shaping the road policy.

With the principle of Federal participation acceptably established, probably never to be abandoned, it is important to exert Federal influence in developing comprehensive plans looking to the promotion of commerce and apply our expenditures in the surest way to guarantee a public return for money expended.

Large Federal outlay demands a Federal voice in the program of expenditure. Congress can not justify a mere gift from the Federal purse to the several States, to be prorated among counties for road betterment. Such a course will invite abuses which it were better to guard against in the beginning.

The laws governing Federal aid should be amended and strengthened. The Federal agency of administration should be elevated to the importance and vested with authority comparable to the work before it. And Congress ought to prescribe conditions to Federal appropriations which will necessitate a consistent program of uniformity which will justify the Federal outlay.

I know of nothing more shocking than the millions of public funds wasted in improved highways, wasted because there is no policy of maintenance. The neglect is not universal, but it is very near it. There is nothing the Congress can do more effectively to end this shocking waste than condition all Federal aid on provisions for maintenance. [Applause.] Highways, no matter how generous the outlay for construction, can not be maintained without patrol and constant repair. Such conditions insisted upon in the grant of Federal aid will safeguard the public which pays and guard the Federal Government against political abuses which tend to defeat the very purposes for which we authorize Federal expenditure. [Address of the President, *Congressional Record – House*, April 12, 1921, page 169-173]

Long-distance road advocates were initially encouraged by the message. The headline of an article in the May 1921 issue of *American Motorist* summed up the view: "President's Message to Congress Brings Cheer to Roads Advocates." The article began:

For the first time in many administrations, reaching back to the days of the Old Cumberland road, the subject of highways received real attention in a message to Congress, when President Harding, April 12, in person addressed the Sixty-seventh session.

Quoting extensively from the message, the article summarized:

It should be reasonable to assume that President Harding favors a Federal commission or board; a requirement that the State itself should function as such in roads [sic] building; and that no money from the national treasury should be expended upon any road for which upkeep is not definitely provided.

Since Senator Charles E. Townsend, chairman of the Senate Committee on Post-offices [sic] and Post Roads, has discussed good roads on various occasions with President Harding, who called him to the White House on the day before the delivery of the message, it is not difficult to understand why the highways section of the message accords in great degree with the opinions that have been expressed by the senior Senator

from Michigan. ["President's Message to Congress Brings Cheer to Roads Advocates," *American Motorist*, May 1921, page 36]

Engineering News-Record was impressed that the President had devoted more space to highways "than was ever before devoted to the subject in a Presidential address" and thought his statements were "sound wherever his meaning is not open to debate." As for the key issue, the magazine said:

It is difficult to know, however, just what the President's position is on a federal aid versus a "national" system of highways. We take it that he is satisfied to allow the present federal aid method of appropriation to stand. Yet there is enough indefiniteness about his words to wonder whether he has leanings in the other direction.

The ambiguity was in such phrases as "the laws governing federal aid should be amended and strengthened" and "the federal agency of administration should be elevated to the importance and vested with authority comparable to the work before it." The magazine asked:

The automobile interests have discussed with him the creation of a federal highway commission. Was that in his mind or has he some scheme of putting in more prominent place the present Bureau of Public Roads?

The magazine summarized the "considerable difference of opinion among highway officials" on this point:

Some think that this means that the Secretary of Agriculture should be given broader powers, some are of the opinion that the President had in mind the creation of a Department of Public Works, to which the Bureau of Roads would be transferred, while some admitted that it looks like an endorsement of a federal highway commission.

For now, all the magazine could say with certainty was that having the President express interest in the highway situation was "worth while." A later, clearer expression of his views was desirable. ["President Harding on Highways" and "State Officials Confer on Highway Policies," *Engineering News-Record*, April 21, pages 687, 696]

An editorial in *Good Roads* stated that President Harding's discussion of road work "augurs well for the administration of federal aid during the next four years":

The country is committed to a gigantic road program, including federal participation, which, as President Harding expresses it, is "acceptably established, probably never to be abandoned." If federal aid works out as state aid has – and there is every reason to expect that it will – this means that Congress will be asked for larger and larger appropriations, which will be made if Congress is convinced that public sentiment is unmistakably behind the demand.

In that case, “there hardly could be any honest difference of opinion as to the necessity of adequate administrative machinery within the Federal Government.” In short, current law should be strengthened and, as the President put it, “The Federal agency of administration should be elevated to the importance and vested with authority comparable to the work before it.” To avoid the potential for abuse, the revised Federal law “must be drawn most carefully, every possible safeguard being thrown around the allotment of funds.” Otherwise, the reputation of Federal-aid highway funding would sink “to the pork barrel level of rivers and harbors and public buildings legislation.” [“Roads Discussed in President’s Message,” *Good Roads*, April 20, 1921, pages 219-220]

On April 14, AASHO’s executive committee joined with Secretary Wallace and Chief MacDonald to meet with President Harding. *The Baltimore Sun* reported that the committee assured the President of their support for strong assurances on maintenance. They “told him of the gratification of the organization that he had taken so firm a stand and pledged him their support”:

The committee advised the President that a bill now is being framed, designed to tighten the requirements upon the States as to maintenance, and will be offered in Congress shortly. Mr. Harding said he appreciated the support of his views and the steps taken by the State roads officials’ organization and would be glad to co-operate in favor of a sound measure

After the interview, some of the State officials expressed the view that Congress should make another substantial appropriation for Federal-aid roads in the present session. The allotments made under the \$75,000,000 appropriation of 1916 and the \$200,000,000 appropriation of 1919 both expire with the close of the current fiscal year on June 30; although any State is permitted two years, after the end of any fiscal year, in which to use the sum allotted it for that year.

Some of the States claim that they have used their money and will be halted in their work unless another appropriation is made shortly. [“Highway Officials O.K. Harding’s Road Policy,” *The Baltimore Sun*, April 15, 1921, page 2]

Fred R. White, in the speech mentioned earlier, recalled the meeting:

By the spring of 1921 something of a test had been given to the Federal-aid Road Act. As would be expected in an initial measure of this nature, it had many faults of detail although the basic principle was sound. It was evident that this measure should be largely re-written to iron out rough places and provide a smooth-working administrative machine.

In April 1921 the Legislative Committee met with Mr. Markham [AASHO’s legislative representative in Washington] and drew up a new Federal-aid road bill The committee then met with the Secretary of Agriculture and secured his concurrence in the proposed bill. At the suggestion of the Secretary, the committee met with the President

of the United States and presented its suggestions and programs to him. To their delight the committee members found that the President's views were very largely in harmony with the measure which they had prepared. [White, page 150]

William C. Markham, who was on leave from his job as Secretary-Director of the new Kansas State Highway Department, recalled the meeting in his autobiography:

When in April of 1921 our Committee met to draw up and seek passage of a new and enlarged Federal-aid road bill, we found President Harding to be very much road-minded. He encouraged us to go ahead with our plans but very earnestly warned us that unless we placed a section in the law which required (with teeth) that the States must properly maintain the roads when once constructed with Federal aid, that he would veto the bill. We placed in the bill a section which takes away from any State which does not properly maintain roads built with a Federal fund assistance, any additional Federal aid, and that section (set up by the States themselves) is law to this day. [Markham, William Colfax, *Autobiography*, Randell Inc., 1946, page 150]

The problem was that President Harding's comments were ambiguous, as *The New York Times* pointed out in an article that began, "The attitude of the Harding Administration toward national highway improvement is expected to raise it to one of the leading issues of the day." Although "extension of the system of national highways" was a need of the first order," his biggest focus was on highway maintenance. He was silent on whether he supported a National Highway Commission to build a national highway system, or simply favored bolstering the Federal-aid highway program.

The *Times* expected that Congress would undertake a "thorough investigation . . . of the whole subject of highway improvement in the United States," especially on appropriate maintenance issues:

In any legislation enacted there will probably be vital changes in the governmental machine that deals with good roads. President Harding has informed Congress that "the Federal agency of administration should be elevated to the importance and vested with the authority comparable to the work before it." The present Federal agency dealing with highway improvement is the Bureau of Public Roads of the Department of Agriculture. The funds spent by it for road development are greater than the rest of expenditures for the entire Department of Agriculture. President Harding has not disclosed whether he favors the separation of the bureau from the Department of Agriculture and making it an independent branch of the Government, or whether he will favor the creation of a Federal Highway Commission independent of any branch of the Government, but under the control of the Executive.

Senator Townsend, the article mentioned, planned to reintroduce his bill soon, with a Federal Highway Commission at its center. The article quoted the Senator's recent statement:

The question of good roads is of supreme importance, perhaps second in importance to

the problem of the transportation facilities of the country, and is growing larger every day.

The man is very blind who cannot see somewhat of the future of the motor truck. Highway improvement has been given a new interest since the almost general use of the auto truck. Hundreds of millions of dollars are now expended every year by States and their sub-divisions on road improvement. Many of the States have no system of roadbuilding, however, with a result that much of the money invested has been wasted.

The Federal Government already had embarked on a program of construction and maintenance of roads:

The matter for Congress now to decide is how Federal money should be invested in highway improvements. It is clear in my mind that this money should be spent only on interstate roads. These roads are the most important in every State, and to the extent of Federal money invested they relieve the State of a part of its heaviest burden.

He objected to the current “pork-barrel” system of Federal-aid that benefited no one but politicians.

After pointing out that BPR controlled two-thirds of all expenditures by the Department of Agriculture, Senator Townsend said:

It is clear to me that the subject of highways is too big a matter to be handled by a bureau of any department. It will soon be as large a subject as that of the railroads, which is handled by the Interstate Commerce Commission.

It is none too early to establish a Federal Highway Commission and invest it with the power to lay out through lines across the States and to say how and where roads shall be built and maintained. I am hopeful that Congress will be willing to pass a law to accomplish these ends.

Better system of maintenance is absolutely essential and every State which receives Federal money should put up an equal amount for the Federal-aid roads and should not be permitted to pro-rate this money among its counties.

The country needed a system of primary roads but “no real headway can be made until such system has been established.” He “heartily” favored a Federal role, and believed that public money should not “be invested which would be of greater benefit to the public than in this enterprise if it is properly invested with safeguards.” His statement concluded:

The question is whether the Federal Government will proceed in a broad-gauged, enlightened and scientific way, or whether we can justify a “pork-barrel” measure which will not result in permanent good roads that serve the public

One of the chief shortcomings of the Congressional attitude toward federal aid for highway improvement has been the fact that most members of Congress, particularly in the House, have taken their own "locality" view of the situation rather than a national one. The overwhelming desire among the so-called "pork-barrel" members has been to have Federal money spent on good roads pro-rated on county projects from which the member expected to derive political influence or advantage. Under the existing Federal act, Government funds spent on the fifty-fifty basis for State road construction have been pro-rated so as to provide for much county road construction. Opponents of this policy have contended that it has resulted, in numerous instances, in the construction of a patch-work and unconnected system of country roads. ["Harding's Roads Issue," *The New York Times*, April 17, 1921, page 87]

D.A.R.'s 1921 Congress

When the D.A.R. met in Washington in April 1921, Mrs. William H. Talbott, chair of the National Old Trails Road Committee, reported on the committee's very active year. She began by calling attention to the roads linked in the National Old Trails Road: Braddock's Road, the Old Cumberland Road, a Boone's Lick Road, the Santa Fe Trail, the Kearney Trail:

These old trails, in their order, marked the progress of American civilization from East to West, from Atlantic to Pacific; and they form one continuous system which is now known as the National Old Trails Road.

This is the only clearly defined, well-established ocean to ocean highway, recognized and approved by the Congress of the United States, which for years made appropriations for its establishment as a highway, and it is this system of highways which the National Old Trails Road Committee of the Daughters of the American Revolution and the old National Old Trails Road Association stand pledged to see built and signed through its entire length.

We cannot think of rebuilding and signing this old road without being overcome by the memory of other days; those far-off days when there were few comforts, and the bare fact of living brought our ancestors face to face with almost insurmountable difficulties, tragedies on every side; yet the pioneer, nothing daunted, never faltered until every obstacle had been conquered, the country explored, its beauties revealed and civilization was planted throughout its full length and breadth.

While we acknowledge the necessity of the modern touch, we must, and do, recognize the value to the individual, to future generations and to the country at large this work will be. The very comforts and conveniences of living today go far toward making one forget; more than all else will the preservation of the landmarks and their history give to passing generations a proper understanding of what the past has been to others, and what it now means to them.

We will guard the old trails by which men followed the lure of the unknown until it

became well known, and we will build a permanent monument to the men and women who had seen the vision and whose sacrifices established our country.

She referred to the bill that the late Representative Borland had introduced and that Representative Zihlman of Maryland had introduced on April 11, 1921, in the new Congress as H.R. 2412, the Daughters of the American Revolution Act, to provide a national ocean-to-ocean highway over the pioneer trails of the Nation. The bill was referred to the Committee on Roads.

The National Old Trails Road Committee had urged D.A.R.'s local committees to send petitions to their Members of Congress urging passage of the bill, "and even now hundreds of letters and resolutions are in the mails in answer to that appeal." She had sent 1,000 letters, bulletins, and cards to State chairmen and regents, including copies of the bill, many with a map of "our road" in support of the bill.

Mrs. Talbott told the convention, "There is good prospect that the bill may be passed at this session, but I desire to emphasize the importance of acting promptly and simultaneously, as only by united effort can we hope to succeed." She urged all members to "join in the united and successful effort to have our National Old Trails Road bill passed at this session of Congress and to raise in one year the funds necessary to sign our ocean to ocean highway."

As important as the work to complete the National Old Trails Road was, she believed that the D.A.R. would one day have an "Old Trails Committee, that would take up the study of other historic trails around the country. "In fact, investigation of ancient records is bringing to light so much of value that it is hard at times to keep our faces resolutely turned toward the West – to the end of the trail." She promised that if the local chapters helped pass H.R. 2412, "I will give you one year on your local work." She had access to the first maps of all the States, "upon which the first roads of your State are shown. Help our committee to complete our national highway this year and you may call on your chairman for such assistance in your local roads as it is possible to furnish."

She described the road:

The National Old Trails Road is 3,050 miles in length; the road we adopted was first mapped out by the Association and from it we learn of the present very gratifying condition of the road The 3,050-mile road is now built, or re-built, entirely from Washington within a few miles of St. Louis, and the balance through Illinois is under contract. Something over one-third of it is built in Missouri and all of it financed across the balance of the State, and about 800 per cent [sic] of the road is financed across Kansas, all under contract in Colorado, and active progress being made in New Mexico and Arizona; all built or under contract in California.

She reported on progress along the National Old Trails Road:

There are sixteen miles of the National Old Trails Road in West Virginia, and the Wheeling Chapter has placed bronze tablets, 15 x 22 inches, along the route; all being

appropriately inscribed.

Ohio, Mrs. Paul E. Nollen, Chairman, says the State Highway Department is re-building the road bed of the Old National Road. Much of the old highway is in good shape and ultimately the whole will be restored. The Highway Department assures the Chairman of Ohio that "the fate of the old land-marks, the Milestones along the road, is watched with jealous care; and that each stone will be reclaimed and placed in position as the work of road building goes on." Two hundred and thirty-miles run through Ohio.

Illinois, Mrs. William T. Pace, Chairman, reports splendid work on the National Old Trails Road. The entire road, 172 miles, is complete except a small stretch of sixteen miles, which, according to the State Highway Commission, will be entirely finished inside of this year.

Colorado, Mrs. Georgia M. Ewing, State Chairman, has sent a splendid description of the Old Trails Road through Colorado. The glory of this road is heightened by some of the most magnificent mountain scenery in the world . . . Colorado has 195 miles of the National Old Trails Road.

Mrs. Talbott introduced a resolution for consideration:

Whereas, There has been introduced and is now pending in the House of Representatives, a bill introduced by Mr. Zihlman of Maryland (H. R. No. 2412) known as the "Daughters of the American Revolution Old Trails Act"; and

Whereas, By the provisions of said bill the highway known as the National Old Trails Road is to be rebuilt as an Ocean to Ocean Highway by the respective States through which it passes, and of the uniform width of sixty feet; and

Whereas, Said bill also provides that when that portion of said highway lying within any State has been completed according to the approved specifications, the United States Government guarantees to reimburse to such State one-half of the cost of construction within that State; and

Whereas, The construction of such a roadway over the historic trails which compose it appear to be a military and postal necessity; and

Whereas, Said road when constructed will stand as the noblest monument which could be erected to the memory of those of our ancestors who as pioneers used those old Trails as the gateway from the East to the West, and who by their daring and suffering gained and retained the great Northwest for our country; and

Whereas, It is believed that if the Daughters of the American Revolution will stand united in the effort to foster and increase the strong sentiment for the construction of this road which already exists, said bill may be passed at the present session of the United States Congress; now, therefore, be it

Resolved, That the National Society of the Daughters of the American Revolution in Continental Congress assembled earnestly urge upon the Congress of the United States the passage of H. R. 2412, known as the D.A.R. Old Trails Act at the present session of Congress;

Resolved further, That the members of the Continental Congress now present be requested to see or communicate with their Senators and Representatives in Congress during the present week and personally urge upon them the passage of said bill.

Resolved further, That copies of this preamble and Resolution be at once forwarded to the President of the Senate and the Speaker of the House of Representatives.

The convention adopted the resolution on April 21. [*Proceedings of the Thirtieth Continental Congress of the National Society of the Daughters of the American Revolution*," April 1921, pages 80-88]

Senator Townsend Goes to Work

While the Townsend Bill received had generated considerable attention, Chief MacDonald was orchestrating support for the Federal-aid highway program. State highway officials, seeing the increased activity under the current program, did not want to lose access to Federal funds.

Even *Engineering News-Record*, an original backer of the Highway Industries Association, came out in favor of the Federal-aid highway program in early 1921. An editorial explained that while the amounts of Federal-aid now being considered might be cut back due to economic conditions, the reduction was less serious than it might be because unexpended Federal-aid funds would still be available. "The essential feature is to get Congress to recognize by a substantial appropriation the necessity for continuity in the federal-aid scheme," leaving open the possibility of increased funds when conditions allowed them.

With so many options for the Federal role, "those interested in roads must present a united front." More likely, "there will be a confusion of counsel":

There are those who contend for a national system, built and maintained exclusively with federal funds. There are the federal-aid advocates, who believe in the present plan. Another group – composed of farmers – wants federal aid to extend to the county as well as to the state systems. Still another group would like to see federal appropriations for road work entirely abandoned, which would be nothing short of a calamity. State highway department organization, generally, has [sic] not yet reached the stage where it can proceed without the backing of federal money. Should confusion of counsel reach Congress it may be eagerly welcomed by those who want an excuse for making no appropriation. Under the circumstances the reasonable ground for compromise is on the federal-aid plan as now operated. It is established. It has won general confidence. It has the backing of state highway departments in every part of the country. It stands midway between the "national" plans and no appropriation whatever.

Although operation of the Federal-aid highway program had not disclosed any major defects, the one major change needed was a requirement "that the sum equivalent to the federal grant be appropriated by the *states themselves* and not by the counties":

In some sixteen or seventeen states the counties, not the states, match the government's

funds. The result is that all the county money, as a rule, is spent on the primary system, which is essential of state-wide importance, leaving no money for the important secondary system, which should be the county's main – if not sole – responsibility. Another serious result of this practice is that cities escape from paying for the road system in fair proportion to the wealth that they gain from an improved state-wide highway system. From both standpoints the practice of shifting the financial load to the counties results in unsound highway policy. This the federal government should not countenance or encourage. A provision should therefore be introduced in the next appropriation bill making the states themselves appropriate the local quota to match the federal funds. In some states constitutional amendments will be needed. But, as shown repeatedly when highway issues have been at stake, such amendments can be secured. [“Federal Highway Appropriations,” *Engineering News-Record*, January 13, 1921, pages 50-51]

As expected, Senator Townsend introduced a revised bill, known as the Federal Highway Act | (S. 1355), on April 28. It called for a Post Roads and National Highway Commission to replace BPR. The President would appoint five commissioners reflecting “a fair representation of the geographical divisions of the United States.” The initial commissioners would serve staggered terms of 1, 2, 3, 4, and 5 years, but after the initial terms, but all their successors would serve 5-year terms with an annual salary of \$10,000. The commissioners, who would choose a chairman each year, were prohibited to engage “in any other business, vocation, or employment, or be interested directly or indirectly in any business enterprise connected with the production or sale of highway materials, or with the construction, maintenance, or operation of other highways, or with any form of organized highway transport.”

The commission was to designate and build an Interstate System:

That the commission shall establish an interstate system of highways, composed of primary interstate roads which shall, by the most practicable routes and with due consideration for the agricultural, commercial, postal and military needs of the Nation afford ingress into and egress from each State and the District of Columbia. Such interstate system may include highways to and from important water ports, and highways connecting at the border with the main highways in countries adjoining the United States; but shall not include any highway in a municipality having a population, as shown by the latest available Federal census, of five thousand or more, except that portion of any such highway along which, within a distance of one mile, the houses average more than two hundred feet apart. *Provided:* That all highways constructed or reconstructed under the provisions of this Act shall be free from tolls of all kinds; *Provided further:* That in any State where such interstate highways or parts thereof have been constructed in accordance with a standard deemed adequate for prevailing traffic by the commission and are maintained as elsewhere provided for in this measure, the commission is authorized and directed to join with the State in the establishment and construction or reconstruction of other highways connecting or correlating with the interstate system.

All highway construction, including plans, specifications, and estimates “shall be undertaken by

the State highway departments subject to the approval of the commission.” The commission must approve the project statements, after which the State highway department “shall furnish to it surveys, plans, specifications, and estimates therefor as it may require.” When the commission found that a project had been completed in compliance with the plans and specifications, “it shall cause to be paid to the proper authorities of said State the amount set aside for said project.” However, the commission “may in its discretion from time to time make payments on such construction or reconstruction as the same progresses.”

S. 1355 also addressed the standards for the interstate system:

That only such durable types of surface and kinds of material shall be adopted for the construction and reconstruction of any highway which is a part of the interstate or coordinating system as will adequately meet the existing and probable future traffic needs and conditions thereof. The commission shall approve the types of construction and reconstruction and the character of improvement, repair, and maintenance in each case, consideration being given to the type and character which be best suited for each locality and to the probable character and extent of the future traffic.

Roads in the proposed interstate system were to “have a right of way of [sic] width of not less than sixty-six feet and a wearing surface of an adequate width, which shall not be less than twenty feet,” unless the commissioners conclude that “it is impracticable by physical conditions, excessive cost, prevailing or probable traffic requirements, or legal obstacles.”

All powers, duties, and obligations that the Federal Aid Road Act had conferred on the Secretary of Agriculture were to be transferred to the commission within 30 days after the commission was organized, including “the equipment, material, supplies, papers, maps, and documents” collected under the 1916 Act. In addition, the “commission is hereby authorized to take over any of the employees of the Agriculture Department engaged on public-road work.” The appropriations now available to the Secretary of Agriculture for highway and forest projects “shall continue in force and effect under the control of the commission in the same manner as they were in force and effect under the control of the Secretary of Agriculture prior to the passage of this Act.”

The bill appropriated \$200 million, divided equally for FYs 1922 and 1923 for carrying out the provisions of this Act. Minus funds set for the commission’s administrative expenses, the funds were to be apportioned to the States on the basis one one-third based on total area, one-third on population, and one-third on mileage of rural delivery and star routes in each State compared with the national total. The Federal share of eligible project costs was no more than 50 percent, with the State providing the balance. However, the States had to provide the match; they could not pass the Federal apportionment on to counties or other political subdivisions as many had under the 1916 Act. This distinction meant the Federal-State matching funds would be used on main market highways, with the funds that counties had been using to help with the State match freed for use on county roads. For States with large amounts of Federal public land (over 5 percent of total area of land in the State), the Federal share of project costs would be 50 percent “plus a percentage of such total estimated cost equal to one-half of the percent which the area of the unappropriated public lands in such State bears to the total area of such State.”

In States where the constitution prohibited the use of State funds for internal improvements, its Federal funds would be withheld. Each such State would have 2 years to pass the constitutional amendments or alterations “necessary to the enjoyment of the sum so withdrawn.” When the necessary changes “have been approved and ratified by the State, the Secretary of the Treasury . . . shall immediately make available to such State, for the purpose set forth in this Act, the sum withdrawn as hereinbefore provided.”

The bill reflected President Harding’s views on maintenance. It provided that, “no project shall be approved by the commission in any State until the State has made adequate provision for the maintenance of all highways selected by the commission in that State.” If a State, upon notice of a maintenance deficiency, does not place the road in “proper condition of maintenance” within 100 days of the notice, the commission would make the repairs and charge the State by reductions in its apportionment of Federal-aid funds.

The National Forest roads program under the 1916 Act would continue, with the commission handling the work in the forests under the Agriculture Department’s jurisdiction, as well as similar work in cooperation with the Department of the Interior within Indian reservations.

Because Senator Townsend had President Harding’s message in hand while drafting the bill, S. 1355 was considered an Administration measure.

In an interview with *American Motorist*, Senator Townsend said, “Concentration of Federal aid money upon the most important State roads which have an interstate character is the next logical step in cooperation with the several States in highways improvement.” He was certain that Congress would consider President Harding’s view that “the Federal agency of administration should be elevated to the importance and vested with authority comparable to the work before it.” Senator Townsend said, “This is a proposition which is certain to meet with general approval from those who have truly at heart consistent good roads progress.”

He also discussed the proposed commission:

Highways now concern five branches of our Government, and there should be a distinct authority which can deal with all departments and possess an independence of procedure. No longer can this work be accomplished effectively through the bureau of a single department. Transportation is the life of the nation, and travelable highways facilitate the daily activities of millions of American families. [“\$200,000,000 for Roads,” *The New York Times*, May 1, 1921, page 19; “New Townsend Bill Contains President’s Views on Roads,” *Motor Age*, May 5, 1921, page 223; Eldridge, M.O., “Townsend Measure Designed to Meet Needs of the Day,” *American Motorist*, June 1921, page 22]

The New York Times, on its Automobile page, also examined the situation in June. Its article began:

Motorists in the United States who have given even a moderate study to the good roads

needs of our country are looking to Washington this month to see if any broad-minded policy will be adopted for the development of our national highways. The question being asked by many motorists who have given time to the study of road problems is whether the legislators who have had before them for several Congressional sessions important matters regarding the national road policy, will make a definite decision. If anything more were needed as a spur to constructive action in highway management and development, that was given by President Harding in his clear statement to Congress on the necessity of proper authority and supervisions.

After quoting President Harding, the article discussed Senator Townsend's 1921 bill:

The essential difference between this bill and those previously introduced by Senator Townsend, lies in the fact that the Federal appropriations are expended through the State Highway Departments on the system laid out by the Federal Highway Commission, rather than being expended directly by the Federal Commission on rights of way belonging to the Federal Government. The appropriation made in the pending bill is much less than suggested in previous measures, this being possible because of the fact that the States must participate, in most instances, to the extent of 50 per cent of the cost, in the construction of the interstate system, whereas in the previous measures the Federal Government paid 100 per cent of the cost of both construction and maintenance.

Roy Chapin told the *Times* that no single issue before Congress had greater potential affecting people profoundly than this bill:

In the light of our past experience, we have come to a realization that we can no longer treat this question as a bureaucratic detail. The condition of our highways affects agriculture, commerce, our military and postal needs, the whole economic and sociological fabric of the nation. The problem is too intricate for any one man. Inter-relationships as broad even as those of the railway cannot be left solely to the States. Continuity of policy, direct responsibility, a control which, while it takes into account the needs of the State, never forgets the greater need of the nation, must be had or waste is inevitable.

In the days to come an awakened public will make available vast sums for highway construction, maintenance, transportation. Unless those sums are administered with clear vision, a reaction is inevitable. Clearly this is a public trust of first magnitude, which should be met now by legislation such as the President has called for. ["National Motor Roads – Look for Definite Decision by Congress on Government Policy this Month," *The New York Times*, June 19, 1921, page 80]

Transcontinental Travel in Mid-1921

In May 1921, the head of AAA's Touring Bureau, A. G. Seiler, urged motorists to consider crossing the continent by motor:

Planning a transcontinental automobile tour, such as will afford the maximum amount of

comfortable travel, it is necessary to consider carefully many factors which have to do with general road conditions, and thus, in some measure, provide for uninterrupted travel.

Before starting on an extended journey, it is well to decide first the exact time of the year in which the trip is to be made and then outline a course through the latitude which, according to climatic conditions, will offer most agreeable travel.

It is reasonable to assume that a course through the southern States might well be followed from October 1 to May 1, after which period snows in the mountains further north, followed by spring thaws, make it impossible to drive through the mountain passes and over sections of dirt and sand that are always affected by such extreme conditions.

After May 1 and until the 15th of June, when the hot summer temperature makes extreme southerly travel disagreeable, it is advisable to direct one's trip through the more central latitude, preferable over such routes as Pike's Peak, the National Old Trails Road, Lincoln and Roosevelt highways, or a combination of parts of these routes which pass through Indianapolis, St. Louis, Kansas City, Denver, Salt Lake City and other important cities.

All of the routes offered trips on side roads. "Regardless of the fact that some of the trails present difficulties in unseasonable weather, the majority of automobilists seldom hesitate in planning their circuitous tours to include every State and well-known resort to assure themselves of one grand, delightful outing." [Seiler, A. G., "Motoring Across the Continent," *American Motorist*, May 1921, page 32]

The Automobile Club of Southern California announced that it was embarking on "the greatest road-mapping undertaken ever assumed by any motoring organization." The 5-month trip would cover 25,000 miles through the United States and Canada. "It will be an international road marking trip, the first of its kind ever undertaken by any automobile club in the world." The tour would avoid one route:

The National Old Trails route has already been charted, sign-posted and mapped by the club, so it will not be necessary to repeat inspection here. ["Greatest Road Charting Tour in History Is Undertaken by Automobile Club's Busy Crew," *Touring Topics*, June 1921, pages 24, 31]

The Battle Continues in Congress

By mid-1921, Congress had several road bills to consider. They reflected the wide range of views on national roads versus Federal-aid, but as reflected in Senator Townsend's new bill, a middle view between the extremes seemed to be gaining strength.

Several factors were at play. Chief MacDonald had stabilized the Federal-aid highway program and established positive relations among State highway officials and other good roads interests. Further, many of the problems that had hindered the Federal-aid highway program had been

resolved. The war had reduced personnel, construction workers, supplies, and railroad shipments of road building material. An extra layer of Washington bureaucracy and, therefore, uncertainty, had been added to Federal-aid project development during the war. Following the armistice, these problems gradually were resolved amidst post-war economic disruption.

Moreover, as reflected in Director Logan Page's defensive 1-year summary of activities since enactment of the 1916 Act, cited earlier, BPR and the States had not had time before the war to identify, and correct, problems the 1916 Act had unintentionally created for the program. Testifying in May 1921 before Chairman Townsend's Committee on Post Offices and Post Roads, Chief MacDonald explained some of the problems:

The year 1916-17, that followed the enactment of the first Federal-aid law, was largely taken up in preliminaries, such as the passage of necessary laws by the several States, etc. Immediately thereafter we were in the war and highways were, as you recall, placed on the list of luxuries or nonessentials. With the close of the war, when we expected to go forward with a large program, we found ourselves limited by lack of labor, high prices of labor and material, and inadequate rail transportation. Last year we were tremendously handicapped by lack of transportation and by priority orders issued by the Interstate Commerce Commission

There are two congressional acts which provided Federal aid for roads, the act of 1916 and the act of 1919. I shall not burden the committee with a statement of the provisions of these acts except to say that in the Federal act of 1916 there was a provision which limited the expenditure of funds to the improvement of post roads. That provision was given a legal interpretation which made cooperation with the States difficult, and there was considerable hesitancy, or, at least, there was slow progress in getting under way projects which the States particularly needed first of all.

He explained that long-distance roads, many of which paralleled a railroad, often could not meet the post road requirement:

No doubt you know that the routes as they [the post roads] are laid out dodge sections of highway so that you might have a mile of post road following a general line of highway then there is left out 2 or 3 miles, and finally it comes back and follows the road for another mile. The result is a zigzag system and, needless to say, we could not build highways that way. I believe that as the highways are improved the postal routes will be rearranged to follow the improved roads.

He described several new principles based on experience:

First, the necessity for classification of roads into systems of equal or like importance.
Second, that State funds be provided for construction.
Third, that State funds be provided for maintenance.

Those, in my judgment, are the outstanding principles that have been shown by the

experience of the past to be desirable in future Federal aid legislation

In 1916 there were only 17 States that had highway departments within the meaning of the Federal aid road act, which required all States to have a State highway department to function with the Federal department, so that the remainder of the United States were required to pass new legislation, which they did.

In 1916 there were only nine States which had State funds for highway construction. In 1921 there are 28 States which have State funds for highway construction. The remainder of the States, the 20 of them, either meet Federal aid with county funds or with county and State funds combined.

I have not included in that list of 28 States the States which meet the Federal funds partially through county and partially through State funds, of which there are about 10. Wisconsin, for instance, has a State fund, but requires the counties to put up one-third of the cost, so that the State bears one-third, the Federal Government bears one-third, and the counties bear one-third. The States of Kansas, Louisiana, Mississippi, Missouri, Montana, and North Dakota have only a very small amount of State funds that go into the construction. They act more as the agents of the counties. Idaho is in much the same position. There are 10 States in which no State funds are used.

Practically all of the other States put in more or less State funds. But we may say that there are 20 States, approximately, that depend to a greater or less extent upon the counties and districts to meet Federal funds, and 28 States which are not dependent in that way, although some of them may use some county funds.

We have no authority to deal either with a county or with a road district. We deal directly with the State highway department and do not question the source of the State funds, but do require a certificate always showing that the funds are available for any project that is approved. And if the State department is securing the funds to meet the Federal apportionment through the counties or districts, we require legal evidence that the county or district funds are available to meet their obligations to the State.

The 1919 legislation had addressed some of the problems, such as the zigzag pattern resulting from the original definition of post roads:

I wish to bring out again that all Federal projects are confined in each State to a system of roads which has been established by State and county. These road systems may have been established by the State department or by the legislature of the State. Each project which is submitted by the State must lie on the program map which has been submitted.

BPR was working with the States "to bring the systems of adjoining States into correlation, and for that purpose have, in cooperation with the Geological Survey, been preparing a system of State maps for all of the States on the same scale so that we can correlate these roads at the border lines of the States. [*Interstate Highway System*, Hearings Before the Committee on Post

Office and Post Roads, United States Senate, Sixty-Seventh Congress, First Session, Part 2, pages 262-273. Quoted material rearranged for presentation here.]

Professor Seely summed up the impact that MacDonald had on the debate in and out of Congress. MacDonald had established communications with those in favor of a commission and national roads, including Chapin. He had refreshed relations with AASHO, including establishment of a Federal-Aid Advisory Committee of State highway officials:

Opening such avenues of communication not only kept the fight over the shape of federal involvement in highways from degenerating into name-calling, but also increased the entire road-building community's respect for MacDonald. By establishing cordial relations with such leading opposition figures as Chapin, MacDonald was demonstrating the cooperative style of leadership that had convinced state highway departments to change their position and support the federal-aid system. MacDonald also seemed to be saying that he was not concerned with politics and that he was a technical expert concerned only with building better roads. He would and could work with anyone sharing this general goal. By early 1921, this attitude had made MacDonald, along with the BPR, the clearly recognized leader of the road-building community. He had largely eliminated the red tape and other delays in the existing system and had worked to resolve the problems underlying the construction delays of 1919 and 1920. Moreover, he was constantly consulted by Congress, another sign of the BPR's return to a position of respect.

After this point, the battle between supporters of a national highway commission and advocates of federal aid was largely anticlimactic. [Seely, pages 60-61]

Even so, Congress was not able to complete legislation by July 1, the start of a new fiscal year. As a result, new funding was not authorized.

Several bills were under consideration. Senator Townsend's bill, with its appropriation of \$100 million a year for 2 years, was one alternative. Senator Lawrence C. Phipps of Colorado introduced a bill in May providing for an increased Federal share in the public lands States. The bill also contained a provision extending the time in which existing appropriations could be used in road construction – to prevent funds from lapsing at the start of the next fiscal year on July 1, 1921. It quickly passed the Senate, and was sent to the House, where the Committee on Roads struck out everything but the enacting clause and substituted a bill known as the Dowell bill, after Representative Cassius C. Dowell of Iowa. The bill was essentially the bill drafted by the executive committee of AASHO. [“Current Highway Legislation – VI,” *Good Roads*, May 4, 1921, page 239]

Representative Robsion introduced the combined Dowell-Phipps bill. A contemporary account in *American Motorist* explained the bill's provisions:

That State funds shall be used in the construction and maintenance of interstate or intercounty roads selected by the State highway departments, subject to the approval,

modification, or revision of the Secretary of Agriculture;
That the funds be maintained by the States with State money under Federal inspection and supervision;
That all Federal aid be confined to 7 per cent of the highways in each State, preference being given to an interstate system comprising not over 3/7 of the 7 per cent;
That the Federal Government pay 50 per cent of the cost of projects except in public-land States, where it may pay a greater percentage;
That the administration of the act remain with the Bureau of Public Roads of the Department of Agriculture.

The Dowell bill carries no appropriation. There are doubtless many members of Congress who voted for it who would not have done so had it carried an appropriation. Other members voted for it because they had gone on record as being favorable to good roads appropriations by Congress and the Dowell bill was to them the only thing in sight.

Thus the Dowell bill amends the present law and ostensibly provides for many of the needed changes embraced in the Townsend bill. By one provision or another, however, these needed changes are rendered inoperative for periods of from four to five years A careful analysis of the Dowell bill indicates that it is defective in many particulars. Its mediocrity is doubtless due to the fact that so little consideration was given to it by the House of Representatives and its Committee on Roads. [Eldridge, M. O., "Federal Highways Legislation Now Needed – Which Kind?" *American Motorist*, August 1921, pages 21-22, 44]

The House passed the bill in June after a 40-minute debate that *Engineering News-Record* summarized. The debate revealed that the principles behind the Dowell bill, including the maintenance provision, had "overwhelming majority" support. Representative Robsion suggested that Senator Townsend's plan called for "just a few interstate roads" to be laid out by a Federal Highway Commission. In Representative Robsion's view, the commission would disregard the State systems already laid out. "To cut down this system and destroy it after we have spent five years and millions of dollars in building it up would be next to a crime."

Chairman Dunn of the Committee on Roads was the biggest obstacle to the Dowell bill in the House. He said, "This is not a proper time to pass this bill. I have been against it from the start. I never thought the existing law was a square deal. The Middle states and the Eastern states pay from two to four times as much as do other states It seems singular to me that this bill should be taken up at this extra session, when we should be so busy with other matters." Given the amount of funds still available from previous bills, "the states have about as much as they can do to maintain the roads they already have built."

Representative Sam Rayburn of Texas was another critic. "I am getting sick and tired of the federal government's everlastingly sticking its hands into the affairs of my state. I am against building up of more bureaus in Washington to reach out into the states and tell the people what they shall and what they shall not do."

The House sent the amended Phipps bill back to the Senate for consideration. The initial question was whether to refer the bill to committee, consider it on the House floor, or call for a conference committee to resolve differences between the Senate and House versions of the Phipps bill. During debate, many Senators took the opportunity to comment on the contending bills rather than the resolutions at issue:

When the bill was presented to Senate [on] June 30, Senator Townsend, chairman of the committee on post-offices and post roads, immediately moved that the bill and the amendment made by the House be referred to his committee. Senator [Kenneth D.] McKellar, of Tennessee, a member of the committee who is in favor of the House bill, moved that the Senate concur in the House amendment. The House had attached its bill – the Dowell measure – to the Phipps bill which already had passed the Senate.

The discussion following the motions of Senator Townsend and of Senator McKellar went beyond the motions to the underlying bills. Clearly, the Senate would not allow this legislation to go on the statute books without having had an opportunity to discuss and amend it. In fact, a filibuster was openly threatened. There was every evidence that the great majority of senators were anxious to consider both the Dowell and the Townsend measures. In view of this sentiment, Senator McKellar withdrew his motion and the Senate, without a roll call, sent the House bill to the Senate committee. Senator Townsend made it clear that there would be no effort to pigeonhole the House bill in his committee.

Many Senators favored the current program as modified in 1919:

It is evident that the Senate will insist upon material changes in each of the bills. Strong objection was voiced to any proposition which requires a state to modify its constitution and its laws so as to participate in the benefits of a federal appropriation. It was said that the constitutions of 17 states contain a provision which forbids the issuing of interest-bearing evidences of indebtedness for the purpose of making internal improvements. It was pointed out, however, that this condition would merely prohibit the states from raising the money by bond issues but would in no way preclude the securing of the fund by taxation, which would require no change in the constitutions of those states. It was argued, nevertheless, that the latter plan would not be practicable, since to raise the necessary amount by taxation would call for such a large levy that the people would not vote the tax.

It was declared that the existing law had worked out fairly well and that it would be better to let well enough alone than to embark upon a revolutionary system. The question also was raised as to whether it would be constitutional for the federal government to lay out a post road and then order the state to maintain it. The federal government, it was pointed out, does not build post-offices and then attempt to order the states to keep them in repair. [“Phipps Highway Bill Goes to Senate Committee,” *Engineering News-Record*, July 7, 1921, pages 35, 38; “Construction of the term ‘Rural Post Roads,’” *Congressional Record – Senate*, pages 3229-3237, June 30, 1921]

ENR Sees the Faultline

With the Dowell and Townsend bills in hand, *Engineering News-Record* was able to compare the two options.

The Dowell Bill, which had been drafted by AASHO and reviewed by the President and the Secretary, "has been referred to as a golden mean between inadvisable extremes." The bill addressed many of the problems that had been cited in criticisms of the Federal-aid highway program and placed "the future program upon a sounder basis":

The bill deserves unqualified support. It represents the best thought of an organization which recognizes that the great roadbuilding program of the future must be carried out on a sound economic basis The new bill, giving increased control to the federal authorities, puts teeth in the original act and will insure the selection and construction and later the adequate maintenance of a system defensible upon economic lines.

The editorial added, "we do not wish to belittle the efforts of those who" sponsored the 1916 Act. "Imperfections were to be expected. There has been written into the new bill the lessons of experience." ["The New Federal-Aid Bill," *Engineering News-Record*, May 5, 1921, pages 748-749]

After Senator Townsend released the new version of his bill in late April, the magazine called it a "very material step forward in composing the differences which exist regarding a proper federal highway policy." The first important change was that, "It accepts the federal-aid principle, in lieu of the policy the Senator has previously fathered of the construction of a national highway system at the exclusive cost of the federal government."

When a Federal Highway Commission had been proposed 3 years earlier "there was widespread dissatisfaction" with the existing program:

In the last two years, however, there has been a material change for the better, and highway officials throughout the country are thoroughly satisfied with the way the government highway activities have been administered.

As a result, the main reason the commission had been proposed "is now removed."

Another factor affected the magazine's assessment:

Moreover, there is growing up today in governmental circles a strong opposition to all of the "independent establishments," except those having judicial functions. In many quarters in Washington there is strong conviction that all of these independent establishments should be thrown into appropriate departments wherever administrative functions are involved.

Advocacy of the formation of a Federal Highway Commission at the present time, therefore, not only lacks the backing which circumstances gave to the proposal originally, but must meet with the strongly developed opposition to commissions and other establishments outside of the departments and reporting directly to the President.

Senator Reed Smoot of Utah, Chairman of the Joint Committee on the Reorganization of the Administrative Branch of the Government, would soon hold hearings on reorganization of the government:

It will then become plain, we believe, that it is hopeless now to expect Congress to authorize any new independent establishments, such as the Federal Highway Commission would be.

Although the editor of the magazine had previously supported the commission, the editorial on Senator Townsend's new bill concluded:

With the situation as it is, we have high hopes that Senator Townsend will abandon this feature of his proposed law. Should he do that there will then be entire agreement between the former opposing federal-aid and national-highway camps, and that in turn would assure an uninterrupted continuance of liberal federal support for highway development. ["Getting Together on Federal Highway Policy," *Engineering News-Record*, May 12, 1921, page 797]

Senate Action

In the September 1921 issue of *American Motorist*, M. O. Eldridge explained the Senate's action:

The Phipps-Dowell-Robson bill passed the House of Representatives in June. When the bill reached the Senate it was referred to the Committee on Post Offices and Post Roads. A compromise was reached in the committee by combining with the House measure many of the features contained in the Townsend bill then before the Senate. As a result of this compromise a new bill was reported to the Senate about the middle of August. This bill was revised on the floor of the Senate, passed, and sent to conference, and the conferees on the part of both Houses were appointed just before Congress adjourned for the recess.

The Senate committee bill included Senator Townsend's proposed National Highway Commission to administer the act, but during debate the Senate eliminated the commission. Administration of the program would be left with BPR. Senator Townsend explained:

Neither Senator [Charles] Curtis [of Kansas] nor any other single Senator could have defeated the commission plan under ordinary circumstances. The fact is, however, that I was practically hopeless of success some time ago, when such a revulsion of feeling set in against commissions generally. Senator [George WE.] Norris [of Nebraska] had

proposed a commission in his agricultural bill to look after farmers' credits, and especially relative to foreign markets. The decision against that commission was overwhelming. The Shipping Board has been under condemnation for a long time, and it in fact is a commission. I have seen the sentiment grow in the Senate against commissions for some time, and for that reason I repeat I was rather hopeless of success. I know that our plan is the right one for efficiency and economy, but we have made distinct progress. I feel confident of success. We will have taken some great forward steps, and I think our provisions will result in a more efficient service by the public roads bureau.

The approved Senate bill restricted Federal-aid expenditures to a system of 7 percent of the highways in each State, with primary or interstate roads equal to no more than three-sevenths of the 7 percent. Up to 60 percent of the Federal-aid funds available to each State could be applied to this interstate system. By contrast, the House bill had provided that not less than 60 percent must be used on the interstate highways. *American Motorist* continued:

Confining all Federal-aid money to a limited system of highways in each State has long been contended for by the American Automobile Association and other organizations of individuals whose vision has been broad enough to view the road situation from a national standpoint. As early as 1912 – four years before the original Federal Aid Road Act was adopted – a resolution was passed by the American Automobile Association which indicated the need of confining Federal highway activities to a definite and limited system in each State

The great bulk of organized motorists have been convinced for some time that the ultimate solution of the road problem in this country involves the building and maintenance of a national system of highways entirely at Federal expense, such system to be properly correlated with State and county roads built and maintained at State and local expense. Although the Phipps-Dowell-Townsend compromise recently adopted by Congress does not provide for a national system of roads, it must be admitted that this compromise measure marks a distinct step in the right direction. If these measures are properly amalgamated in conference they will constitute an organic act which is undoubtedly a great improvement over the existing Federal-aid law

The Senate bill required that State matching funds had to be provided by the State instead of by "State or civil subdivisions thereof." The State must have absolute control of the funds. "The provision will prevent the States from passing their Federal obligations on to the counties and will have the effect of centralizing the control of the construction and maintenance of Federal-aid roads in the hands of competent State authorities. If a State's constitution prohibited this arrangement, the Senate bill allowed 2 years for an amendment to comply with the new law. "In the meantime, projects may be approved as heretofore by the Secretary of Agriculture, provided he is satisfied that such projects will in all probability become a part of the system provided for in the bill."

Kansas, one of the States along the National Old Trails Road that had been a longstanding

trouble spot for the association, was one of the States that would be affected by this provision:

However, in Kansas the State may now engage in road construction to the extent of paying 25 per cent of the cost thereof. It would appear, therefore, that Kansas and the other States mentioned will have to change their constitutions so as to permit them fully to meet their Federal-aid obligations without calling upon the counties or other civil subdivisions to do so The new Federal-aid measure should offer a sufficient inducement to these States to so change their constitutions as to permit the States to function as States instead of functioning through counties.

The bill also provided “that only such durable types of surface and kinds of material shall be adopted for the construction and reconstruction of any highway which is a part of the proposed system as will adequately meet existing, and probable future, traffic needs and conditions thereof”:

If this provision is finally enacted into law it will, if properly administered, have the effect of raising the standard of road construction in the South and middle West, where much of the Federal-aid money has heretofore been expended in the construction of roads which are not well suited to all-the-year-round traffic. In other words, this provision should prevent further use of Federal money in the construction of earth roads composed of clay or alluvial soils in the humid regions of the United States unless the contract for each project fully provides for surfacing of the road as soon as practicable after the grades have settled.

As requested by President Harding, the House and Senate bills contained strong State maintenance requirements for Federal-aid projects:

If such roads are not adequately maintained, the Federal Government may, after due notice, have the roads maintained and charge the cost thereof to the State. This provision marks a distinct advance over the existing law, which permits civil subdivisions to maintain the roads.

The article concluded:

With the modifications granted by this measure, the responsibility now rests squarely with the chief of the U.S. Bureau of Public Roads to see that its provisions are efficiently carried out. The results will be watched with close interest by all who are concerned in sound highway development. [Eldridge, M. O., “Improvement of Federal Aid Act Seen in New Legislation,” *American Motorist*, October 1921, page 18, 24]

Congress would return to Washington on September 21, 1921, with many matters to be concluded, including the highway bill.

The 1921 Convention

The final shape of the Federal road bill was unclear, but what was clear was that it would not include a Federal Highway Commission to build and maintain national interstate roads – a goal that Judge Lowe and the National Old Trails Road Association had favored for years.

On September 15, 1921, the National Old Trails Road Association met in the Hotel Baltimore in Kansas City for its ninth annual convention. Judge Lowe welcomed the members to the meeting:

I can tell you now, while we may not be so great in numbers, yet it will be great in the future history of this country, this convention will be, because we are going to deal on questions of vital concern, of National concern, as well as local concern, in a way as has never been dealt with, to my knowledge in this country . . .

The programs for the convention had not arrived, but he said, that they probably would have been treated “the way we have been in the habit of treating the constitution. Some fellow said to another: “What is the constitution between friends, anyway?”

He told the story of his gavel:

That was taken out of an old plank buried in a mud hole, just outside of Indianapolis, Indiana, and dug up when they were grading the road, and found it as solid as it was when placed there, more than seventy-five years ago, and it was taken and made into a gavel, and presented to me at Indianapolis when the National Old Trails Road convention was held there in 1913.

Judge Lowe had prepared a speech, but said, “I am not going to continue apologizing to this convention why I cannot address you as I should like to. It is unnecessary. I have simply worn my old voice out.” He asked Fred H. Chambers of Higginsville, Missouri, to read the speech. Chambers agreed, adding that Judge Lowe’s “doctors absolutely forbid him attempting anything in the way of a speech.”

The speech began with a quote from the French novelist and playwright, Honoré de Balzac:

“There exists in all human sentiments a primitive flower, engendered by a noble enthusiasm which grows constantly weaker and weaker, until happiness ceases to be more than a memory and glory more than a lie.”

This may be true upon the large scale, because human life has been so perverted, so contaminated, and overwhelmed by the baser elements which are inherent in all life, and are slovenly and freely permitted to dominate and control human activities to the degree that the “primitive flower which engenders a noble enthusiasm” loses its power and purpose, and thus indeed becomes only a memory. But, the movement in which we have participated has been more than justified if we shall have added a little to the betterment of human life, if we have contributed to the culture of that “primitive” flower, adding strength, beauty and immortality, which perpetuates and ennobles memory, and makes glory more than an ephemeral lie.

Civilization has advanced only in proportion as the world has been made habitable, and more enduring. The Creator intended that this "primitive flower of a noble enthusiasm" should grow strong and stronger, rather than weaker and weaker, and that happiness shall be more than a memory, and glory the crowning result of worthy achievement, or else man would not have been created at all.

He recalled that in April 1912, few of those who founded the association "had the faintest conception of the mighty wheels of progress we were setting in motion." Less than a month later, he had announced the principle of setting apart the automobile tax for building State systems of highways. "This was soon adopted in many of the states, Missouri being the last to adopt this method." Yet another month later, a bill had been introduced in Congress "establishing, mapping and defining a National system of roads, connecting every state capital with the national capital, and covering some thirty-two thousand miles of roads."

The pending Federal Highway Act was "a compromise measure which had passed the Senate and will pass the House, as it has been unanimously approved by the joint committee of each chamber and is now in the hands of a committee of conference, the full fruition of all our dreams." He explained that Federal-aid highway funds would be limited to up to 7 percent of the roads in each State, divided into two groups. Primary or interstate highways "shall not exceed three-sevenths of the total mileage which may receive Federal-aid," while the remainder would consist of secondary or intercounty highways. Not more than 60 percent of each State's Federal-aid apportionment "shall be expended upon the primary or interstate highways until provision has been made for the improvement of the entire system of such highways," with a higher percent possible if approved by the Secretary of Agriculture. The bill added that, "in approving projects to receive Federal aid under the provisions of this act the Secretary of Agriculture shall give preference to such projects as will expedite the completion of an adequate and connected system of highways interstate in character," with at least 20 feet hard surfaced:

The bill is a compromise measure, it is true, retaining some of the best features of the Townsend, Dowell and Phipps bills. It is true, that out of regard for the sensitive nerves of such men as [Senator] Tom Watson of Georgia, and others, many of them from the Western states, including many State Highway Boards, so-called "**practical men,**" who have sought excuses for delay, and reasons against all forms of internal improvements, and who spring the old ghost of "state rights" on every possible occasion, and who saw, or thought they saw, a subtle purpose to blot out state lines, opposed it so bitterly it was decided to eliminate the obnoxious words "National Roads," and substitute "Interstate Highways." Well, "a rose will smell as sweet by any other name."

He estimated that 7 percent of the 2.5 million miles of rural roads in the United States amounted to 175,000 miles of national roads, while 3 percent this total amounted to an interstate system of 75,000 miles on which "not more than" 60 percent of Federal-Aid funds were to be used:

Now, one hundred and fifty thousand miles of national roads were the most that our friend Charles Henry Davis [of the National Highways Association] . . . has ever suggested, and they "**laughed him out of court.**" It is his turn to laugh and rejoice at the great

triumph which has come, if not in name, substantially in fact.

For example, Judge Lowe' calculated that Missouri had 102,700 miles of roads. "Seven per cent of these will be 7,189 miles, and three-sevenths of these or 3,081 miles, are primary or 'interstate roads,' upon which sixty per cent of Missouri's share of the appropriations must be applied." Some "of our friends were thrown into fits when we stood for 6,000 miles of state roads. Now the general government pledges us one-half the cost of 7,189 miles of Federal Aid Roads." A similar calculation

for Kansas resulted in 3,360 miles of interstate highways:

These are some of the things this Association has always favored. It is certainly permissible, on occasions like this, to repeat that this Association first suggested the application of the automobile taxes to the building of a connected state system in all the states, but, when the state bonds of Missouri carried, other large and, no doubt, well meaning road organizations immediately appealed to the legislature in favor of an insignificant mileage of high priced, largely experimental roads, to be built out of this bond issue, while we declared in favor of keeping absolute faith with the people, and provide for the largest possible road mileage. The legislature of Missouri, after much ill-natured criticism and abuse, has written into the statutes the finest road law in the United States, bar none. We most sincerely rejoice with this epoch-making legislature on the splendid results of its action.

If this were a proposition to scatter the State and Federal funds promiscuously "in spots about," or upon some ill-considered and wasteful project, we might well hesitate. But all this has been well considered and provided against in both the State and Federal Acts.

(On June 20, 1948, U.S. Representative Abraham Lincoln, during his single term in the House, had used the phrase "in spots about" in a speech about the value of internal improvements. He explained that public projects inevitably benefited the State or States where they were built, but also could have general benefits. The national capital, for example, obviously benefited local land owners, but if that were a disqualifying problem, "where shall we set it down, and be free from the difficulty? To make sure of our object, shall we locate it nowhere, and have Congress hereafter to hold its sessions, as the loafer lodged, 'in spots about?'" Judge Lowe reprinted the speech in his compilations titled *National Old Trails Road: The Great Historic Highway of America*, as in the March 1925 edition on pages 173-183.)

Will it pay? This is always the first question to be considered. The best authorities put the saving in transportation alone, on a good road, over a bad road, at twenty cents per ton mile. On the National Old Trails Road a traffic census was taken by the State Highway Board of Colorado in 1919, from the Kansas State line to Pueblo, 162 miles, and the state engineer wrote that a saving of twenty cents per ton mile would pay the cost of construction in one year, at \$25,000.00 per mile, **and it parallels the Santa Fe Railroad, from end to end.**

Will it pay?

President Harding says it will. Congress says it will. The Missouri Legislative, except two

votes, say it will.

When? NOW.

(As noted earlier, the Missouri State Highway Department dates to 1913, but was limited to helping counties that requested help improving public roads. The Centennial Road Law of 1921, which Governor Arthur M. Hyde signed on August 4, 1921, gave the Missouri State Highway Commission authority to locate, design, construct, and maintain a system of State highways consisting of 1,500 miles of primary roads and 6,000 miles of secondary roads. The commission was authorized to construct, improve, and maintain highways and bridges with State funds and to use State funds to match Federal-aid highway funds. Governor Hyde appointed the commission members on December 1, 1921. [*Serving Missouri's Transportation Needs for 75 Years*, Missouri Highway and Transportation Commission, 1996, pages 4-6]

Judge Lowe quoted Henry Ford, "the greatest constructive genius in the world," as saying about the railroad problem: "keep the wheels moving." That was the key in all fields of human endeavor:

There are six million idle men in the United States! And 35,000 in Kansas City are crying for work. Herbert Hoover, the greatest all-round intellect in public life says: "The building of a great system of roads will solve the labor and financial ills of this country." Oh, that it had come sooner! And it would, had it not been for a few backward-looking, so-called "financial" experts, "practical" men, "with their feet always on the ground."

Work building highways would not drain the Treasury; it would pay dividends beyond initial expenditures. "Can these idle men be so employed as to increase instead of drain the National Treasury? Undoubtedly they can."

He continued:

These backward looking men, or their descendants, when the Arch-Angel Gabriel shall stand with one foot upon the sea, and one upon the land, and shall declare that time shall be no more, will declare that "this is entirely too sudden, the country is not prepared," and demand a postponement to a better and more opportune time. But they shall be swept away into that oblivion to which they are so well entitled. And why not? This brood of spineless charltons [sic] who have ever posed as "practical" and not idealists, have always sought to block the march of Christian civilization from the beginning. They are the blood clot on humanities' brain. May I repeat here substantially what I said to the Highway Industries Congress at their Chicago convention, December 12, 1918, when paying my respects to the slackers, laggards and drones ever hanging on the outskirts of the march of civilization? These men have never won a victory on any of life's great battlefields. They never gave birth to a great purpose, nor added anything worth while to the general good. They never offered cool water to parched lips, nor planted hope in the heart of the dying. They never cut the brambles and thorns nor smoothed the rough places in life's pathways. They have neither inventive genius nor constructive imagination. They never inspired a line worth remembering, nor added anything of value to the world's literature. If the principle which directs them had been the only

principle to escape Pandora's box, if optimism, hope, faith, imagination, had not opposed them from the beginning, the world would have indeed, and in fact, been nothing but a mad-house. All the joys of life, all the hopes of the future, would have been destroyed. Man, now, "but little lower than the angels," would then have been but little higher than the brute. Let him go "with his head in the clouds," hugging to his heart the "primitive flower engendered by a noble ambition," if you will; it is infinitely better than burrowing in the earth. I would, had I the power, drive it out of all hearts and back to its native hell, its congenial habitat. Keep your eyes toward the sunrise, and your "wagon hitched to a star" is the only **safe and sane rule of life**. A man without ideals is dead. He had as well never have lived.

He repeated his comments stemming from Victor Hugo's motto, "Always forward!" Judge Lowe then concluded:

The great achievements along all lines of human endeavor are but the results of the fruition of the primitive flower planted in the human soul, and but dimly seen by Balzac, and more gloriously glimpsed by Hugo, Shakespeare and Milton, and by all the great seers and prophets of the world. But we stand upon the threshold of mighty achievements of the near future. Winter nor indifference will not freeze or destroy it, for so it is written in the doom book of God.

Happy are we to have been humble workers in the ranks of this great army which has contributed to these great and immortal achievements.

After Chambers finished reading Judge Lowe's speech, the following dialogue took place:

Judge Lowe: That was a good speech (laughter)! The only criticism I feel like making on it is, Mr. Chambers stuck a little bit too close to his manuscript.

Mr. Chambers: I could do nothing else.

Judge Lowe: I have heard him make good speeches.

Judge Lowe, despite his failing voice and doctor's orders, said the reason the country did not already have "the greatest wagon road system" mapped out and funded "is just two words":

The bill as mapped out and as it passed the House (of Congress) provided that "not less" than sixty per cent or three-sevenths, or seven per cent of all the roads in this country should be applied to the interstate system. They chose the word "interstate" as being less objectionable, and didn't so drastically get on the nerves of a certain class of people in Congress, and had that substituted for "National."

After going through the mileage in Kansas and Missouri, he continued:

Our resolutions provide, and we want to get them to Washington as soon as possible after this convention adjourns, that the bill as passed in the House, providing that "not less" than sixty per

cent of the money allotted to Missouri and Kansas, and all the other states (I mention those states because we are more familiar with the figures), that “not less” than sixty per cent shall be applied to the National and Interstate system.

Judge Lowe recalled the bill he had created in 1913 to provide for construction of 32,000 miles of roads and they ‘laughed me out of court.’” And yet within the next few weeks, Congress would approve an interstate system far larger.

“Where is the money to come from,” he asked, to build these interstate roads? He had an idea:

There has been a great deal of talk on the Allied debt of the Allied nations to this country. Some people, in a gush of liberality and sentimentality seem to think we should give that \$10,000,000,000 to the Allies. We gave them our boys, and we gave them a lot of our money, and our boys laid down their lives, that civilization might live. I don’t know why we are called upon to cancel this debt. I think it is a manly thing, and they ought to be held to their obligation, given all the time they want, forty or fifty years if they want, and we should turn the interest over to the building of roads. That will build this system of roads, and by the way, when the war was over, it left them with a great and most wonderful system of highways. If we disarm, and we ought to if the other nations do, it ought to be absolute; that will leave us eleven billions of dollars to devote to road building.

(Depending on how the total is calculated, the European allies owed the United States approximately \$10 billion for supplies and war materials before United States entry in April 1917 as well as cash loans and other goods before and after entry. The allies urged the United States to forgive the debt and some in the United States supported the idea. However, the Harding Administration opposed forgiveness of the debt. In February 1922, Congress approved a World War Foreign Debt Commission that concluded agreements with 15 countries to repay the debt, plus interest, over 62 years, with help from reparations from Germany totaling \$33 billion. Germany defaulted on payments in less than a year, and most of the allies would eventually default on their loan agreements.)

The key, Judge Lowe explained, was to remember that unlike countries such as France, the United States was just getting started in road building:

They have their system of roads and we have no system, and no roads worth talking about
....

Sam Jones told a story (he always told good stories), he said that one time a train had stopped at the station and was slow to start again, when the conductor ran up and asked the engineer why the train didn’t go on. The engineer said he didn’t have steam enough. The conductor said, “have you steam enough to start,” and the engineer said “yes.” He started and by the time they got to the turn of the road she was going thirty miles an hour. That’s it, start, and make steam as you go

The importance of this meeting is, we are right at the turning point at Washington, where we have looked so long for assistance in building roads, and we are going to get it. They

reconvene the twenty-first of September, and I believe by the first of October, we will have it.

Colonel E. W. Stephens, a publisher from Columbia, Missouri, and president of the association's Missouri Division, was one of the speakers. He began by noting that outside the Hotel Baltimore, a building was under construction on one side, with a street car on the other:

In the first place, I can't speak against that thing going on on the outside, and I didn't know I was to speak this afternoon. In the next place, I am afraid unless we hurry up, we old men of the Old Trails Association will be walking the golden streets before the Old Trails, and I think the time has about arrived when we ought to be doing something towards putting the Old Trails over.

I believe I am down on the programme to talk about "Progress in Missouri." There is only one man I know of that has made progress in Missouri, and that is Judge Lowe. I think we ought to erect a monument one hundred feet high, right here in Kansas City, to Judge Lowe. He is the greatest pioneer of good roads on the American continent. He has kept this great movement alive. We owe that honor to him. If we don't build the road before he dies, we ought to.

After discussing the historic old trail and progress in Missouri, Colonel Stephens concluded:

What we want is the sympathy and co-operation of the Old Trails Association from the Atlantic to the Pacific. It will bring benefit not only to Missouri, but to all the states on the east, and on the west of us. Missouri is the only mud-hole on the whole road. Someone said, we are going to make mud a thing of the past, just as we made whiskey a thing of the past; but I hope we will make it more of a thing of the past than we have made whiskey

If we have the energy and pluck and enterprise and courage that our ancestors had, those noble men who came out from the east and laid the foundations of prosperity we enjoy, if we have what they had, we will build this road. We not only have the country we need, we have the opportunity, we have the money, and we have the people. I don't hesitate to say this, that no better and nobler people on the face of God's earth ever settled any country, than those products of the Revolution, those people that came out in the early days, and saw what this country was. No nobler people ever lived than those people.

I hope all of us will live to see the Old Trail, and new trails running all over Missouri. We have been handicapped long enough. Let us hope we have gotten to the time when Missouri will be lifted out of the mud. Let us have good roads all over the state, and then indeed, will we see the salvation of the world.

Judge Lowe told the convention:

I appreciate more than I can tell, the compliment paid me by Colonel Stephens, and in answer, I want to say when you go to erecting monuments, there is but one that will make me sleep a little sounder and a little sweeter, that you could erect to my name, and that would be to finish building the National Old Trails Road.

The proceedings note after his comment: Applause.

One of the association's main concerns was the condition of the western half of the route. Kansas was a particular problem, as usual. Mr. C. E. Edlin of Kansas addressed the convention:

The best thing I can promise is brevity. We had a report outlined to give you across the state by counties. You know what our troubles are in Kansas. We cannot come to you with such an offering as Missouri does. We have a very good beginning. We will have, I think, four strips of paved road, and thirty or forty miles of oiled road on the Old Trail, in the state, and it is a beginning. We have about four hundred miles left.

In Kansas we have laws that are peculiar to Kansas. The powers in control are the county commissioners. We are working, and planning, and hoping, for a state system plan; planned, I think, after the plan of Missouri. In contemplating this system, the plan seems to be among those in control of politics, that we have three classes of roads in Kansas. The first, the hard surface roads and graduated down to macadam and gravel roads. We hope the Old Trails road will be a first-class road. Under the present system, we have undertaken to build roads in short strips in counties, and connect up as we can. We have come to recognize there is a Trinity in Heaven, and a Trinity on earth. The Trinity on earth is against us. We want to begin a new form of thinking. If we have any influence with our representatives, we must begin on them now. We should not be satisfied until we have a complete set road program.

The condition of the road in New Mexico and Arizona also was a continuing problem. The chairman of the auditing committee, Mr. George L. L. Gann of Pueblo, Colorado, after summarizing the condition of the association's books ["in perfect shape, and the balance of cash is \$3,067.67"], described activities in the two States:

From Durango to Gallup is through a reservation. There are no personal interests down there, and we have to depend almost altogether on the Interior Department to sneak off a little money from the Indians to keep the roads in shape. That puts us to Gallup. We have not been able – with all the forces we can muster – to induce Arizona to do any road work on the road between Gallup to Holbrook. It is a bad road. A friend of mine came through there a few days ago – he had a Cadillac car – and the best he could make was about fifteen miles an hour. We are up against it with the Arizona people. I understand that Mr. Becker is here from Springfield [sic], Arizona. I met the old gentleman three years ago at the convention, and tried to persuade him to put some money on that road. I would like to have Mr. Becker tell us why he cannot get some action on that piece of road. It is about the only piece of road I have to make any apologies for, between the Kansas state line and Los Angeles.

A few moments later, the "old gentleman" addressed the convention:

I have never been up before an audience before in my life. We are very anxious for good roads in Arizona. I think the gentleman from Colorado asked why we were not

doing anything toward building a road between Holbrook and Gallup. This portion of the road is about equal distance to one that passes through the petrified forest. Eighty-five per cent of the people in Apache county live on this other highway, and that's one reason why the highway is being built there first, and we haven't any more money than we need. The road from Holbrook to the Arizona-New Mexico line is all graded. We are preparing to spend about three hundred thousand dollars more on that road. From the Arizona to New Mexico line at Springerville to Magdalena, is a distance of about one hundred fifty-nine miles. With the exception of thirty-eight miles, that road is all graded, and half of it is graveled and being graveled. There is never any difficulty in getting over that road. From Sorocco (sic) north, the road is in good shape. I think that answers your questions.

Later, Colonel Stephens asked to address the convention again without telling Judge Lowe why:

I want to move that the thanks of this National Old Trails Road Association are hereby extended to our honored president, Judge J. M. Lowe, for his unselfish, devoted service to this body, and to express our high esteem for his character, and our respect for him, and wish for him a long successful and happy life. I think I may be pardoned in adding to this if I say something of her who has stood so faithfully by his side, and we convey to her, his daughter, and all members of his family, our appreciation. I offer that resolution, and ask those who favor it, will make it known by rising. [Unanimously carried.]

The convention adopted a series of resolutions, including:

- The National Old Trails Road “is now completely and splendidly hard-surfaced from Washington, D.C., to the Missouri River at St. Louis. It is more than one-half built, in different sections, across the state of Missouri; fully seventy-five per cent of it financed across Kansas; all of it either built or under contract across Colorado; graded and a large percentage of it under contract across both New Mexico, Arizona, and California. Funds have now been provided in all of these states by which it can easily be finished at a very early date.” The bill pending in Congress calls for a State-Federal partnership in construction of national interstate roads. The association called “upon the states, most earnestly and seriously, that they shall provide revenue sufficient to meet the amount pledged by the Government as Federal Aid.”
 - That Kansas and Missouri respond to the Federal action in building interstate and State systems of road.
 - The association gives “our most hearty appreciation to the Congress of the United States in having proposed to furnish funds sufficient to equalize the building of roads in the western states, where, because the ownership of such large percentages of land is still in the Government, as to make it almost, if not impossible, to build large systems of highways.”
 - That the conference committee adopt the House language that “not less” than 60 percent of the Federal-aid funds shall be expended on interstate or primary roads instead of the
-

Senate's "not more" provision.

- "That these roads, whether Interstate or State roads, are being built by taxation of all the people for the benefit of all the people; therefore, we protest most seriously against the use of these improved hard roads by common carriers for hire, by using heavy automobile trucks, and by other heavy vehicles, such as tractors, etc.; the use by private interests, and which would result in the speedy disrepair, deterioration and complete destruction of said highways without any compensation from such private enterprises so using and abusing them. We protest the use of such vehicles, unless the tonnage be not to exceed three tons or less, for each vehicle. We are neither building "Peacock Lanes for joy riders," nor massive roads to be taken over and destroyed by private interests for selfish purposes."
- At least six million men and women were unemployed. "Nothing would contribute more to the relief of these people, and to the general relief of the whole country in speedily bringing about prosperity and happiness, than for the Government and the states to commence at once the construction of a vast system of dependable highways; and we call upon the authorities that, if they would prevent the greatest financial and commercial depression this country has ever known, they should take immediate steps to go forward in building roads as the only way that will bring relief. Mark you, these funds are not to be expended recklessly, or charitably, but both government and state will receive benefits of at least ten dollars worth of value to every dollar expended upon this great project – the greatest and wisest now contemplated anywhere in the world."
- "That the transportation question is one of the greatest, if not the very greatest question now facing our country. The railroad systems have largely broken down, and many of them are failing to function. We should do all in our power, not to destroy, but to help build up, and make this means of transportation successful at all points; and to this end we do not know of anything which will add more in solving this problem than the building of the system of highways above indicated."
- Resolved, that in view of the deplorable condition of the highways of the United compared with the highways of the Allied Nations, "we respectfully memorialize Congress to set aside the whole of the war loans to the Allies as a National Highway fund, to be used in part as follows: Not less than sixty per cent of all allotments to the states to be applied to the construction of the primary or Interstate system of highways, until their completion, and the remainder to the construction of the other four-sevenths of the highways provided for in the pending Phipp-Dowell Bill [sic]."
- The original alignment of the road from Herington to Marion, Kansas, be changed to "the line extending directly west from Herington, via Hope, to Gypsum, and thence in a westerly direction to a connection with the Meridian Highway north of Lindsborg, and thence in a southerly direction via Lindsborg, to a connection with the original alignment of the road at McPherson, be adopted, and that the original alignment as adopted in our first convention, across Morris County, Kansas, be and the same is hereby confirmed."
- The association extended "our heartiest and sincerest congratulations to the Governor of Missouri, and the Legislature at its recent session, for having enacted the wisest, most liberal and best road law of any state in the Union."
- That the National Old Trails Road in Missouri "adopt as an additional route, to-wit: That part of the state highway system extending from St. Charles in an easterly direction to the

Mississippi River, to West Alton.”

- That the association “extend our thanks and appreciation to the people and to the Highway Board of Illinois, for having completed in such splendid form the National Old Trails Road across that state, the first state in the Central West to complete the road in its entirety.”

An addenda to the proceedings contained letters from highway officials in the States of the National Old Trails Road.

- Maryland State Roads Commission: “From Baltimore westward through Cumberland to the Pennsylvania line, the entire stretch is waterbound macadam, surface treated, with the possible exception of a few isolated spots of concrete through incorporated towns.
- Pennsylvania State Highway Department: “The Section of the National Pike lying in the state of Pennsylvania is entirely of macadam. Surface treatments of bituminous material have been given the road and it is in excellent condition.”
- West Virginia State Road Commission: “The following are types of road on the National Old Trails Road across West Virginia: 10 miles of brick, 2 miles of bitulithic, 1 mile of Warrenite, 1 mile of concrete and 3 miles of bituminous macadam.”
- Ohio State highway Department: Exclusive of mileage in incorporated cities and villages, the mileage was as follows:

Concrete (cement)	31.18 miles
Bituminous Concrete	19.39 miles
Brick	55.18 miles
Bituminous Macadam	27.30 miles
Waterbound Macadam	25.09 miles
Asphalt	0.84 miles
Gravel	<u>38.00 miles</u>
Total	196.98 miles

“Included in the above are 6.22 miles of concrete and 10.0 miles of Bituminous Concrete now under construction.”

- Indiana State Highway Commission: “The National Highway across the state of Indiana is 86 miles concrete, already completed, or contract let to be completed this fall; 66 miles of gravel and macadam road, contracts to be let this fall.”
- Illinois Division of Highways: Officials were out of the office in time for the response, but a reply noted that, “The uncompleted sections approximate nine miles, all of which it is hoped will be completed by the close of the present construction season.
- Missouri State Highway Department:

Boone County – 2.8 miles, 16 ft. bituminous macadam, Columbia west.
 Callaway County – 7.66 miles, 9 ft. gravel, Millersburg special road district.
 Callaway County – 15.7 miles, 9 ft. gravel, Fulton District to Montgomery County line.
 Cooper County – 5.57 miles, 16 ft. bituminous macadam from Boonville east.
 Cooper County – 7.83 miles, 16 ft. bituminous macadam from Boonville to Lamine River.
 Jackson County – Finished. Bituminous macadam.
 Montgomery County – 8.24 miles, 9 ft. macadam, New Florence to Danville.
 Montgomery County – 8 miles, 9 ft. gravel, Mineola Special Road District.
 St. Charles – 1.66 miles, 16 ft. bituminous macadam, St. Charles to Harvester.
 Saline – 9.26 miles, 16 ft. bituminous macadam, Malta Bend Special Road District.
 Saline County – 8 miles, 16 ft. asphalt macadam, east and west out of Marshall.

These are all Federal or State aid projects, some have been constructed, some are under construction and some are yet to advertise.

A p.s. noted, “Total in Missouri hard surfaced, 164 miles.”\

- The letter from the Kansas State Highway Engineer M. W. Watson reported little activity on the National Old Trails Road compared with named trails to the north and south of it:

You can easily see that there is much more progress in the eastern part of the state on the roads north and south of the National Old Trails. This is going to lead the traveling public to take the routes where they are the best developed, and as these routes become more firmly established it will be a difficult matter to get them back on the Old Trails Highway. I just call this to your attention, as it would appear to us that something ought to be done to stimulate building along the Old Trails.

- State of Colorado – “Colorado is completed or under contract.”
- State of New Mexico – “I wish to say that we are doing fine work on the National Old Trails between Los Lumas and the state line, and will shortly have a Federal aid Class A road for the entire distance (162 miles). The appropriations are made and it is only a matter of time for construction.”
- State of Arizona – “I am at the head of highway building in this [Mohave] county and we have a number of contracts under way. We have just finished a contract in the amount of \$200,000 on the National Old Trails between Oatman and Topock, and while the surfacing is not yet finished, we have a good road. Another section of this road diverts west of Seligman and ends at Peach Springs. This cut out one of the worst pieces of road

on the route across Arizona. We are having what is known as Crozier Canyon surveyed, and will build over a bad piece of road there. About 5 miles of road west of Kingman is to be built this fall, which will give us the best stretch of road in the state – 106 miles. San Bernardino County is to meet our good road with a hard surfaced road east of Barstow to the Arizona line, and Arizona counties east of us are making an effort to get good roads. With all this building the Old Trails in Arizona and California will be in fine shape within another 12 months.

- State of California – “We are advised by the local division of the State Highway Commission that that portion of the National Old Trails road lying between the summit of the Cajon Pass and Victorville will be advertised for bids in the very near future, and placed under construction this season. The definite location of the road between Victorville and Barstow will be decided this season and placed under construction early in 1922. However, between Barstow and Needles there is no work planned for the immediate future. I might say, however, that the road from Barstow to Needles is probably the best piece of desert road in existence, with the possible exception of that stretch of it between Ludlow and Amboy, a distance of 15 or 17 miles, which is uniformly rough; with the exception of this piece just mentioned there is really no cause for anyone to complain regarding the present condition.

The association elected Judge Lowe to continue as president and George Gann as secretary. Judge Lowe said:

May I say in response to your action of electing me again as your president, that so far as I now know, the remainder of my life will be devoted to this cause, and this alone. I don't know how long it will last, but before it ends I think we shall ride down the long, long trail, together, over a finished road.

As the convention came to an end, Judge Lowe assured the members of one thing:

The next time we hold a meeting here, I am going to insist on getting a room back somewhere in the building. We don't want to hold it on this corner, with a street car on one side and a building under construction of the other side.

[*Proceedings*, Ninth Regular Convention, National Old Trails Road Association, September 15, 1921]

The Federal Highway Act of 1921

As expected, the House-Senate conferees did not need much time to complete their work. The Conference Committee completed a unified bill after extended sessions on October 6, 7, and 8. Although restoration of \$100 million was considered, the committee retained the \$75 million single-year appropriation in the Senate bill, with \$25 million to become available immediately, and the remainder to be available on January 1, 1922. (For forest roads, the bill appropriated

\$5 million for FY 1922 and \$10 million for FY 1923.) The Federal-State matching ratio remained 50-50, but the Secretary could increase the Federal share in public lands States.

The committee bill clarified that each State must "make provisions for State funds required . . . for construction, reconstruction, and maintenance of Federal-aid highways within the States, which funds shall be under the direct control of the State highway department." The committee also addressed the concern that the bill would override State constitutions. The States were given 3 years after passage of the Act to bring State laws into compliance.

Federal-aid highway funds would now be restricted to roads contained in a designated system of Federal-aid highways. The system would comprise up to 7 percent of all rural public roads in each State, but three-sevenths of the system must consist of roads that were "interstate in character." The roads that were "interstate in character" would have a right-of-way "of ample width and a wearing surface of an adequate width which shall not be less than eighteen feet, unless, in the opinion of the Secretary of Agriculture, it is rendered impracticable by physical conditions, excessive costs, probably traffic requirements, or legal obstacles."

As noted, much debate had centered on whether to require the State highway agencies to use up to 60 percent or at least 60 percent of the Federal-aid highway funds on these interstate roads. The conferees settled on "not more than" 60 percent.

The legislation, like all previous versions, also addressed the President's concern by strengthening the maintenance provision of the 1916 Act. Section 2 of the new legislation redefined "maintenance" to mean "the constant making of needed repairs to preserve a smooth surfaced highway." Under Section 14, a State highway agency would receive a 90-day notice of a failure to maintain a Federal-aid highway. If the road was not "placed in proper condition of maintenance" during that period, the Secretary "shall proceed immediately to have such highway placed in a proper condition of maintenance and charge the cost thereof against the Federal funds allotted to such State, and shall refuse to approve any other project in such State" until the State reimbursed the Federal highway fund for the amount expended.

The legislation also redefined the term "State highway department" to be any department, commission, board, or official "having adequate powers and suitably equipped and organized to discharge to the satisfaction of the Secretary of Agriculture the duties herein required."

The House approved the final bill on November 1, with the Senate acting on November 3. President Harding signed the Federal Highway Act of 1921 on November 9.

Engineering News-Record pointed out that the signing "was accompanied by more than the usual ceremony, so that a motion picture could be made of the event which marks the establishment of an important precedent in the government's highway policy." The article described the ceremony:

There was a preliminary statement by W. C. Markham, of the Kansas Highway Commission, who has been acting as the legislative representative of the American

Association of State Highway Officials throughout the consideration of the bill. His remarks were followed by a statement from the Secretary of Agriculture, who pointed out that the bill contains provisions for road maintenance, which should meet the full requirements specified by the President in his message to Congress. Senator Townsend then handed a specially wrought pen to the President who signed the engrossed bill. Others who participated in the exercises incident to the filming of the ceremony were John M. Parker, Governor of Louisiana; Thomas H. MacDonald, chief of the U.S. Bureau of Public Roads; the senators and representatives making up the conference committee which perfected the bill and Paul Wooton, Washington correspondent of *Engineering News-Record*.

An editorial in the same issue referred to the proposal to establish a commission to build national roads:

Perhaps the bitterest fight on any single feature of the new measure centered on the proposal of a federal highway commission to administer the work in place of the Secretary of Agriculture, through the U.S. Bureau of Public Roads. The commission plan was defeated and control will rest with the bureau which, during recent years, has demonstrated its ability to administer the work.

The passage of the bill, too, probably marks the end of the propaganda for a federal-built and maintained "national highway system." The federal-aid plan has come off victorious. ["Constructive Progress in New Highway Act" (page 799), and "President Signs \$75,000,000 Federal-Aid Road Bill" (pages 831-832) *Engineering News-Record*, November 17, 1921]

Senator Townsend accepted the compromise established by the legislation. He called the legislation "the most progressive step ever taken by Congress in aid of good roads":

That continued and increased activity in road construction is of the highest importance to the people ought to be accepted as a self-evident proposition. It will give employment to the unemployed. It will contribute largely to restored industrial and commercial prosperity. It will reduce the cost of transportation at a time when such reduction is essential to the very life of production. It will lessen the danger from possible railroad paralysis. It will encourage agriculture and add to the attractions and benefits of rural life. It will indeed be one of the wisest internal improvements which can be made

In the bill which has just passed the Congress, I did not obtain all that I hoped for. I was, perhaps, asking too much, considering the organized forces against a proposition which had so little of selfish interests to serve.

After describing the 7-percent Federal-aid system, with its 60-percent share of interstate highways, he commented that, "Thus for the first time do we have a recognition by the Federal Government of the principle that it is the first duty of the Government to assist in building its

primary or inter-State roads.” The key, now, was “proper administration of the act . . . to secure approximately the objects which the friends of good roads have constantly in mind. Much will depend upon the administration, and I am confident that we are not going to be disappointed.” [Eldridge, M. O., “Many National Benefits Included in Passage of Federal Highway Act,” *American Motorist*, December 1921, page 24]

Roy Chapin of the NACC issued a statement:

While the new highway act is not all that students of the question would like to see, the law as it now stands marks a distinct step forward in the evolution of our highway policy [The] educational campaign waged by Senator Townsend to bring about a clearer appreciation of the importance of the highway problem, has been a successful one. [Chapin, Roy, “Chapin on the New Federal Aid Law,” *Good Roads*, November 23, 1921, page 239]

The western States were happy, as reflected in an article in *Western Highways Builder* that began:

A new era in the history of the West, as historians of the future will see it, was ushered in on November 9, when President Harding signed the Phipps-Dowell Federal Highway Act. From our present perspective, the tangible effect of the act will be merely to provide another Federal appropriation, \$75,000,000, for road construction with certain concessions to the Western States in the amount of cooperation required on account of the vast extent of the public domain situated therein. But those of us who look ahead sufficiently can see the whole attitude of the Federal government toward the empire west of the Rockies changed in the next two or three decades.

The adoption of the graduated scale as a part of the Phipps-Dowell Bill constitutes nothing more or less than a tacit recognition of the Federal government's moral and financial obligations to the Public Land States. We cannot under estimate the immediate effect of the application of the graduated scale, but, beneficial as this may be, it is infinitesimal when considered in relation to its effect as a precedent by which the Federal government will be guided in other development work. [Calcitrosus, "Western States Triumph in New Federal Highway Act," *Western Highways Builder*, December 1921, page 14]

The Department of Agriculture issued a statement summarizing the features of the 1921 Act. Regarding the 7-percent interstate system, the statement said:

The roads to be paid for by this money, if placed end to end, would encircle the earth and extend from New York to San Francisco on the second lap ["All States Will Receive Federal Aid for Highways," *Highway Engineer and Contractor*, December 1921, page 27]

AASHO held its 7th annual meeting in Omaha, Nebraska, on December 5-8, 1921. Chief MacDonald began his remarks to AASHO:

Again we meet in conference to measure critically our efforts of the year, and to plan more thoroughly, more understandingly, I trust, our future work together. With the deepest conviction I record my faith in the principles set forth in the Federal highway legislation founded on the certainty of the progress that is being made, and that will, in a larger way result from the new legislation.

He commented on designation of the interstate system:

The Act itself is remarkably comprehensive in defining and demanding a systematic plan, national in its extent, for future highway development. None of us has had, or is ever likely to have a more serious responsibility than the one imposed of selecting the Federal-aid system to be composed of the most important highways, articulating not only within the States, but with the systems of the contiguous States. Here is an opportunity to do a big, basic work, such as comes to few in the course of a life-time. The individual who fails to vision the importance of the task has no moral right to hold a position of authority in its performance.

He also put the bill in historical context:

From a conception of highways as a purely local institution, a viewpoint we held for over a half century of our national life, we progressed to an acceptance of their importance to the State. This attitude persisted for another quarter of a century, until through the universal use of the motor vehicle, the transportation crises of a great war, the repeated threats of extensive railroad tie-ups, and the results already secured with Federal aid, we have, in the short period of five years, visioned our more important highways extended and interconnected to form a vast network, serving local, State and national traffic, only limited by the confines of the United States. This is the conception which has been written into the law, and which, because of the projected effect of that which is done now into the future, lifts the importance of this requirement, that is, the selection of the Federal-aid system, above any other principle or duty therein announced.

Senator Phipps, in a letter regretting that he must decline an invitation to address ARBA during its annual meeting in Chicago in January, said he was proud that his name was connected with the measure, sometimes called the Phipps-Dowell bill, but he gave much of the credit to Senator Townsend, "one of the most stalwart champions of good roads for many years." Phipps recalled his thoughts while watching President Harding sign the bill:

As President Harding affixed his signature to the bill, it occurred to me that here was one measure concerning which there was no question, one legislative proposition which could not be called in any sense an experiment but which represented a forward step along sane and constructive lines.

There should be no difference of opinion as to the vital principles involved; there should be no sectionalism, no feeling of class discrimination; for, as a matter of fact, good roads inure to the benefit of all our people – the farm, the manufacturer, the local merchant and incidentally the tourist

I believe that acting as a unit the people of the United States will establish at an early date a system of good roads second to none in the world.

A letter from President Harding, dated January 10, 1922, to ARBA stated:

There is now pretty nearly universal agreement that no single public improvement has done in recent years or will do in the coming years, more for the general good of the country, than the development of our highway system. The task is an enormous one, but better methods both in physical construction and in the relations of the community to highway development have been taking form in a most encouraging way. [“The Nineteenth Annual Convention of the American Road Builders’ Association,” *Good Roads*, January 25, 1922, pages 50-51]

The Federal Highway Act of 1921 would settle the battle between national roads and the Federal-aid highway program by combining the two into what *Engineering News-Record* had called a “golden mean.” This resolution of the battle was reflected in the views Judge Lowe had expressed during the National Old Trails Road Association’s 1921 convention. In his 1925 compilation, he reprinted the legislation and observed:

Note: - It requires no great amount of legal acumen to construe this Act. The application of common sense and an honest purpose is all that is required.

It is stated elsewhere in this book the cost in each State of constructing a National (Interstate) System of Roads; and if an inter-county System is to be included under this Act, and if the States will capitalize the automobile tax in order to raise a State fund with which to co-operate with the Federal Government, as twenty-four of them have done, then, in such States it will not cost the tax payers one dollar, whether one owns a car or not. If any State refuses to raise such State fund this will not block the wheels of Government for one moment, the only effect will be that such State will have to pay its proportionate part of Federal taxes in any event. It is for each State to decide whether it shall share in the benefits of this measure or prefers to see the Federal taxes paid by such State appropriated to the States prepared to receive it. [*National Old Trails Road: The Great Historic Highway*, pages 276-277]

Professor Seely summed up the result of the 1921 legislation:

After the discord of the 1910s, the ensuing two decades were notable for their quiet, as state engineers settled down to construct a road system that could handle the influx of drivers. In a number of respects, the golden age of highway engineering was beginning, with Thomas MacDonald and his Bureau of Public Roads once more

the recognized leaders of the field. [Seely, page 64]

(For a more detailed account of the battles leading to the Federal Highway Act of 1921, see “Clearly Vicious as a Matter of Policy”: The Fight Against Federal-Aid, on this Website.)

Progress Noted

Good Roads reported on a ceremony that took place on October 29, 1921:

The City of Greenfield, seat of Hancock County, Indiana, and birthplace of James Whitcomb Riley, will celebrate, October 29, the opening of the completed paved road between that city and Indianapolis, a distance of 21 mi. The Hoosier Motor Club is preparing to erect a number of needed danger signs along the route. The highway Commissioner has seen to it that heavy guard railings are erected at many embankments.

“This is but another link on the National Old Trails Road, which eventually will be hard-paved across the Nation,” stated Secretary Noblet of the Motor Club. “Our organization believes the Old Trails Road should be made a national memorial highway under federal direction and is working to that end. It is the main St. of the nation and is much more entitled to be known as a memorial highway than any other.” [“National Old Trails Road Celebration,” *Good Roads*, October 26, 1921, page 203]

As Noblet’s comment indicated, good roads advocates thought of designation of a memorial highways to those who gave their lives for the victory. One project was a transcontinental named trail called the Victory Highway. *American Motorist* discussed the route:

The first step toward a national monument to those who fought and gave their lives in the world war has been taken by the California State Automobile Association, which has sent a specially designed motor truck to sign a new transcontinental route to be known as the Victory Highway.

This route, which will stretch from San Francisco to New York, will be laid out by the Federal Department of Public Roads over a consolidation of present integral highways. The Victory Highways [sic] was born in Kansas, where there has been organized and incorporated the Victory Highway Association, headed by George Stansfield, a capitalist of Topeka, Kansas

The Victory Highway at present is routed over the Pikes Peak Ocean-to-Ocean Highway from Reno to Colby, Kansas; the Golden Belt Highway from Colby in Kansas City, and the National Old Trails Highway to Jefferson City, Missouri

The remainder of the Victory Highway was to be laid out later:

The plans of the Victory Highway Association call for the erection of monuments to America's soldier dead at both San Francisco, the western terminus of the highway, and New York, the eastern terminus. ["Mark World War Memorial Road," *American Motorist*, September 1921, page 18]