

**Creation of a Landmark:
The Federal Aid Road Act of 1916**

By

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The Federal-aid highway program began on July 11, 1916, when President Woodrow Wilson signed the Federal Aid Road Act of 1916. The Good Roads Movement that began in the 1880s and led to creation of the U.S. Office of Road Inquiry (ORI) in the Department of Agriculture in 1893 had agitated for a Federal role in road construction. The movement, originally based on the popularity of bicycles, became even stronger in the automobile era. By the 1910s, pressure was increasing for Federal funding to improve the Nation's roads, but just what shape the aid would take was the mystery Congress would have to solve.¹

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Part 1: Before 1916

The State-Aid Concept

The Federal-aid concept was not new. It was based on a State-aid concept pioneered in New Jersey under a law approved on April 14, 1891, for the “granting of direct aid by the State to the permanent improvement of its highways.” Under the law, county officials would initiate projects, subject to oversight by the Board of Agriculture. The State paid one-third, the adjacent property owners paid one-tenth, and the county the remainder. After the law survived a court challenge, the State first employed it in 1892 to pay for nearly 11 miles of macadam construction on three roads in Middlesex County. As State Commissioner of Public Roads Edward Burrough put it, “The operation of the law is simple and easy, its mandatory features being a valuable provision and the one that insured its enforcement.” [*Proceedings of National Road Conference*, 1894, ORI Bulletin No. 10, page 6]

As explained in *America’s Highways 1776-1976*, the concept had limited success:

In 1894 the operation of the act was placed under a Commissioner of Public Roads appointed by the Governor for a 3-year term For a number of years, however, the Commissioner of Public Roads had very little real authority over State-aided roads and none at all over other roads. Lacking the power to initiate projects, he could not insure that State-aided roads would link up into highways of any great continuous length, and after they were completed, he could not require that they be adequately maintained. [*America’s Highways 1776-1976*, Federal Highway Administration, 1976, page 43]

Massachusetts, which had established the country’s first State highway commission in 1892, adapted the State-aid concept to give a stronger role to the State:

The Legislature created a 3-man continuing commission and charged it with the building and control of a system of main highways connecting the municipalities of the Commonwealth. Originally, the counties were supposed to grade these roads, after which the Highway Commission would surface them. In 1894, the law was changed to require the Commission to shoulder the entire cost of construction, charging one-quarter of the expense back to the counties. At the same time, the Legislature appropriated \$300,000 to begin the operation of the Commonwealth Highway Plan, an amount that afterward substantially increased from year to year.

The Massachusetts plan was “a tremendous improvement” over the New Jersey law. It concentrated State funds on a limited mileage of the most important roads. The law allowed counties to initiate projects but gave the highway commission the authority to approve or reject them, conduct surveys, award contracts, and inspect the projects. “This control eventually led to establishing statewide standards for highways of various classes and also to setting standards for material used in roads.” Further, the highway commission was in charge of maintaining the completed road projects, although it could charge part of the cost to the local government. [*America’s Highways 1776-1976*, pages 43-44]

Variations on State-aid spread throughout the country. In some cases, the State gave advice that local officials were free to disregard, while others retained direct or indirect supervision of construction. Some States put convicts to work on the roads, while others required State-aid to be spent on trunkline road systems. "The last States to exact some form of State aid were South Carolina, Texas and Indiana, all in 1917." [*America's Highways 1776-1976*, page 44]

The Federal-Aid Concept Ahead of its Time

In 1894, Maurice O. Eldridge became the third employee of ORI (after the chief of inquiry, General Roy Stone, and his stenographer) at a salary of \$60 a month. He quickly established a national reputation as a road expert and a gifted speaker and writer on the subject.

One day in November 1902, he was returning to Washington by train from his native Tennessee when he struck up a conversation with a fellow Tennessean, Walter P. Brownlow. In earlier years, Brownlow had been a telegraph messenger boy, an apprentice in the tinning business at age 14, a locomotive engineer, and a newspaper reporter. In 1896, he had been elected to the U.S. House of Representatives, where he would serve until his death on July 8, 1910.

On that train ride in November 1902, when the subject turned to the deplorable condition of the Nation's roads, Brownlow asked what could be done. Eldridge suggested adapting New Jersey's State-aid plan to function at the Federal level. Brownlow asked Eldridge to draft a bill to that effect, which he did after securing the approval of Director Martin Dodge of the Office of Public Road Inquiries (OPRI), as ORI was then called.

In December 1902, Brownlow introduced the bill, which would create a "Bureau of Public Roads" to administer \$20 million a year in Federal-aid. Grants would be made to any State or county for the improvement of post roads outside cities and incorporated villages, with each State limited to a share of the funding equal to its percentage of the Nation's population. The State or county would pay 50 percent of the cost. The Federal Government would prepare the plans and specifications for the roads, but the State or county would administer and supervise the contracts.

The White House was opposed to the plan, as were Secretary of Agriculture James W. Wilson and congressional leaders. But Dodge and Eldridge aggressively promoted it. Historian Bruce Seely summarized OPRI's activities in support of the bill:

Special agents distributed copies of the bill across the country; one even drafted a memorial from the Colorado legislature to the state's congressional delegation. Dodge lobbied railroad officials and good roads groups, and reminded congressmen of the Republican Party's platform plank favoring good roads.

Dodge also agreed to cosponsor a good roads convention at the Louisiana Purchase Exposition in St. Louis, Missouri, in cooperation with the National Good Roads Association (NGRA), a private group he had close ties to. He even provided a cover letter to be included with the invitations the NGRA mailed in 25,000 envelopes franked by the OPRI for free postal delivery.

Eldridge, however, committed what Seely calls "the worst indiscretion." He agreed to work, outside his official duties, with the Automobile Club of America on a \$10,000 campaign to promote the bill. His campaign, directed from a New York City office with the help of a publicity agent, included having copies of Representative Brownlow's January 1903 speech on the bill, printed at government expense, mailed by friendly congressmen in franked envelopes to 1 million people. The OPRI's and Eldridge's campaigns were successful in generating public interest but unsuccessful in securing passage of the bill.

When Eldridge's role in the campaign was discovered, he was fired. He was soon reinstated but at a reduced salary with loss of his rank as OPRI's second in command and his chance to succeed Dodge as Director. Eldridge remained with the agency in a lesser capacity until 1919, when he joined the American Automobile Association (AAA). As noted in *America's Highways 1776-1976*, ". . . he had pushed a right idea before its time." [Seely, Bruce E., *Building the American Highway System: Engineers as Policy Makers*, Temple University Press, 1987, pages 19-20; *America's Highways 1776-1976*, page 216]

On December 1, 1904, exactly 2 years after Brownlow had introduced Eldridge's bill, Dodge wrote to A. R. Shattuck, who headed the automobile club. He remarked:

. . . [Many] members of Congress thought last winter that we went a step too far in the circulation of literature. The skyrocket which you fired made a greater commotion in the halls of Congress than, perhaps, you are aware of yourself. The effect of this reached the secretary in many ways and I am sorry to say annoyed him greatly. As a consequence of this, he thinks it best to be extremely conservative. [Seely, page 20]

Seely described Secretary Wilson's reaction somewhat differently:

The secretary of agriculture exploded at Dodge's disregard of directives to limit ties to the NGRA because it advocated a particular legislative proposal. [Seely, page 19]

Congress took a bit longer to exact its revenge for Dodge's advocacy of the Federal-aid bill and his close ties to the NGRA. The Agriculture Appropriation Act of March 3, 1905, upgraded the OPRI to permanent status as the Office of Public Roads (OPR). Its annual budget was increased to \$50,000 and it was given a statutory roll that included a Chief of Records, an Instrument Maker, and six clerks. The new OPR was to be headed by a Director "who shall be a scientist and have charge of all scientific and technical work." This language excluded Dodge, a lawyer, from continuing as Director of the new Agency he had fought to create. He was replaced by a scientist, Logan Waller Page, in 1905. [Seely, page 20]

Trying to Shape a Federal Role

Over the years, as OPR's budget increased to \$280,000 in 1914 and its staff increased to 218 people, the idea of a Federal role in road construction gradually took hold in Congress.

Since the failure of Brownlow's bill, dozens of roads bills had been introduced in Congress. Many bills proposed designation and construction of a national "interstate" highway system, with the routes specified in the bills and, in some cases, given names. For example, Senator Shelby

Cullom of Illinois, who had supported highway legislation in 1892, introduced a bill calling for seven national highways that, in keeping with the ancient Roman highway network, all began in the Nation's capital. The proposed roads included the Washington National Interstate Highway (to Portland, Maine), the Lincoln National Interstate Highway (to Seattle, Washington), and the Lee National Interstate Highway (to Jacksonville, Florida).

A compilation of road bills introduced in the 62nd Congress (1911-1913) listed nearly 50 measures. Some involved a specific road proposal, such as construction of a national highway from the Canadian border south of Winnipeg to Galveston, Texas, and a national ocean-to-ocean highway over the pioneer trails of the Nation. Most of the bills, however, proposed a Federal-aid type of program. Several proposed to distribute the surplus in the Treasury of the United States to the States, Territories, and the District of Columbia to improve their roads. Several others proposed variations of the Federal-aid concept once championed by Brownlow on the New Jersey model.

One critic, Representative Michael E. Driscoll of New York, dismissed the flood of good roads bills by complaining in 1912:

Twenty-nine road bills have been introduced by the Democrats and 10 by Republicans but not one from an Eastern State, not one from a Middle State, very few from the Mississippi Valley; but all from the great broad states in the South and West of large areas, long roads, small populations, and small taxing power. [Fuller, Wayne E., "Good Roads and Rural Free Delivery of Mail," *The Mississippi Valley Historical Review*, June 1955, page 79]

What all the bills had in common was that they were referred to committee and never seriously considered.

Post Offices and Post Roads

Congressional supporters of good roads legislation often linked their proposals to the delivery of the U.S. mail. This link stemmed from Article I, Section 8, of the Constitution, which granted to Congress the power to "establish Post Offices and post Roads."² This phrase had been added late in the Constitutional Convention in 1787. The members appointed a Committee of Detail on July 26 to prepare a draft constitution based on resolutions adopted to that point. The draft, reported to the convention on August 6, assigned the right "to establish post-offices" to the Congress. At the suggestion of Elbridge Gerry of Massachusetts, the words "and post-roads" were added to the clause on August 16 by a vote of six States to five.

²When the Constitution was drafted in 1787, the term "post road" was not linked to the delivery of mail. It referred to roads over which the public traveled from post to post (that is, between inns that were spaced about a day's travel apart). These were naturally the roads over which mail carriers traveled, eventually shifting the meaning of the term to relate directly to transport of the mail.

On September 14, Benjamin Franklin proposed to amend the clause by adding “to provide for cutting canals where deemed necessary.” James Madison suggested a further amendment “to grant charters of incorporation where the interest of the United States might require, and the legislative provisions of individual States may be incompetent.” He said his primary objective was to “secure an easy communication between the States, which the free intercourse now to be opened seemed to call for.” He added, “The political obstacle being removed, a removal of the natural ones as far as possible ought to follow.”

Roger Sherman of Connecticut objected because the expense would be incurred by all the States through their central government, but a canal would benefit only the place where the canal would be cut. The convention approved neither Franklin’s nor Madison’s amendment. Sherman’s view would be repeated to argue against congressional support for internal improvements throughout the 19th century and into the 20th century. [Farrar, Edgar Howard, *The Post-Road Power in the Federal Constitution and Its Availability for Creating a System of Federal Transportation Corporations*, self published, September 9, 1907, Pages 31-32; Young, Jeremiah Simeon, *A Political and Constitutional Study of the Cumberland Road* (A dissertation submitted to the faculty of the Graduate School of Arts and Literature of the University of Chicago in candidacy for the degree of Doctor of Philosophy), Chicago 1902, Page 37]

Therefore, when the convention adjourned on September 17, Section 8 of Article 1 of the proposed Constitution granted Congress the power "to regulate Commerce . . . among the several States, and . . . establish Post Offices and post Roads." Congress also would have the power to “regulate Commerce for foreign Nations, and among the several States, and with the Indian Tribes” and to "provide for the common Defence and general Welfare of the United States."

The Constitution was submitted to the States for ratification. Alexander Hamilton, James Madison, and John Jay, using the collective name Publius, wrote a series of essays, known today as The Federalist Papers, to explain the new document, address the controversial elements of the proposed new government, and encourage adoption of the Constitution. The provision on post offices and post roads was not a major concern, but in an era when the inconveniences and dangers of travel were well known to all participants in the 1787 Constitutional Convention, Madison addressed the subject briefly.

In essay 14 on how the Constitution would help govern a country of such large territory, Madison explained, first, that the central government’s responsibilities were enumerated, leaving all other cares to the States. Second, the goal was “to secure the union” of the 13 States and later additions:

Let it be remarked, in the third place, that the intercourse throughout the Union will be facilitated by new improvements. Roads will everywhere be shortened and kept in better order; accommodations for travelers will be multiplied and meliorated; an interior navigation on our eastern side will be opened throughout, or nearly throughout, the whole extent of the thirteen States.

Further, communication between the Atlantic States and the western territories “will be rendered more and more easy by those numerous canals with which the beneficence of nature has intersected our country, and which art finds it so little difficult to connect and complete.”

Madison, in essay 42, discussed some of the enumerated powers the Constitution assigned to the Congress. The essay ended:

The power of establishing post roads must, in every view, be a harmless power and may, perhaps, by judicious management become productive of great public conveniency. Nothing which tends to facilitate the intercourse between the States can be deemed unworthy of the public care. [Rossiter, Clinton, editor, *The Federalist Papers*, Signet Classics, April 2003, pages 97-98 (essay 14) and 267 (essay 42)]

When the ninth State, New Hampshire, ratified the Constitution, it went into effect.

However, fearing that the central government would assume powers not clearly assigned by the Constitution to the States, opponents and some State legislatures demanded protection of civil rights to prevent a return of the tyrannies they had suffered under British rule during the colonial period.

As a result, the First Congress of the United States proposed a series of amendments on September 25, 1789. The States completed ratification of the first 10 amendments (now known as the Bill of Rights) on December 15, 1791. Amendment 10 addressed the specific concern of the States that the central government would twist the new Constitution to adopt powers it did not have:

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

The debate that began with the Articles of Confederation during the Revolution over the separation of powers between the central government and the States continued in the Constitutional Convention in the 18th century and has continued into the 21st century. Few areas of governance have escaped the struggle for balance, including the authority of the central government over internal improvements, such as the construction of roads.

In the first half of the 19th century, the reference to establishing post roads proved to be inconclusive to Presidents, Members of Congress, and others debating the proper role of the general government under the Constitution. Officials who opposed Federal involvement in roads argued that “establish” meant only the authority to designate existing roads for transport of mail, not building roads. Those in favor of Federal involvement believed that “establish” meant the Federal Government could build post roads. Succeeding Presidents disagreed with each other while Members of Congress debated the meaning of “establish” until the railroads came along and rendered the debate about post roads moot. [For more discussion of this subject during the 19th century, see *A Vast System of Interconnected Highways: Before the Interstates* on this Web site at <http://www.fhwa.dot.gov/highwayhistory/vast.pdf>.]

Reviving Federal Interest in Post Roads

Whatever the merits of the constitutional debate about post roads, the link between roads and the delivery of mail had proven valuable to the Good Roads Movement. In 1893, Congress appropriated \$10,000 for an experimental program of rural free delivery (RFD) of mail as an alternative to the customary practice of having farmers pick up their mail at the post office in a nearby town. Postmaster General John Wanamaker under President Benjamin Harrison did not believe in RFD, and so little happened before President Harrison left office in March 1893. Under President Grover Cleveland (serving his second nonconsecutive term), Postmaster General William L. Wilson established the first routes in 1896 in his home State of West Virginia. The program quickly expanded. By 1903, 8,600 carriers were traveling 200,000 miles per day and reaching almost 5 million people.

The fact that the Post Office Department, beginning in 1899, would institute RFD routes only where roads were fit for the service provided an incentive to the Nation's farmers. Writer Wayne E. Fuller described the reaction: "Country roads which in the past had rarely received more attention than some farmer's hearty curse were suddenly being vigorously worked." [Fuller, page 71]

Under a 1906 agreement between the Agriculture Department, home of OPR, and the Post Office Department, a locality could petition OPR to inspect a proposed rural mail route and recommend improvements needed to make it suitable for RFD service. Although the locality would be responsible for the improvements and their cost, OPR could, on request, take on supervision of the work as an object lesson road. [*America's Highways 1776-1976*, page 80]

Farm interests joined the bicyclists and then the automobile interests as leaders of the good roads crusade. The arguments the bicyclists had used in the early 1890's to entice the hesitant farmers now became the farm community's battle cry. Aside from delivery of mail, improved roads would reduce the cost of hauling goods and end the social isolation of farmers. "Highways," President Theodore Roosevelt's commission on country life concluded in 1908, "are now imperative not only for the marketing of produce but for the elevation of the social and intellectual status of the open country." [*Report of the Country Life Commission*, Special Message from the President of the United States Transmitting the Report of the Country Life Commission, United States Senate, 60th Congress, 2d Session, Document No. 705, February 9, 1909, Page 38]

Although the "post Roads" provision was a convenient reference, the Supreme Court had looked elsewhere in Article I, Section 8, of the Constitution for support for Federal involvement in road improvements. In an 1893 decision, *Monongahela Navigation Company vs. United States*, Supreme Court Justice David Brewer wrote that:

. . . the power of Congress to regulate commerce carries with it power over all the means and instrumentalities by which commerce is carried on We are so much accustomed to see artificial highways, such as common roads, turnpike roads and railroads, constructed under the authority of the States, and the improvement of natural highways [waterways] carried on by the general [Federal] government, that at the first it might

seem that there was some inherent difference in the power of the national government over them. But the grant of power is the same.

A similar ruling based on the authority to regulate interstate commerce followed in a 1907 case, *Wilson v. Shaw*, involving Federal authority to construct the Panama Canal. Justice Brewer again wrote the decision, which was based on Supreme Court precedents. "These authorities recognize the power of Congress to construct interstate highways" under the constitutional right to regulate interstate commerce. Judge Brewer's decision effectively ended the debate over whether the Federal Government could fund road projects.

Still, now that rural roads could also be RFD routes, good roads advocates wanted to rely on the Constitution's seemingly clearer grant of authority to the Federal Government to "establish Post Offices and post Roads." As Fuller pointed out, "Almost every congressman or senator who, within the next few years, spoke in favor of government aid played upon this argument, and, though contested, the argument was never effectively refuted." [Fuller, page 78]

Logan Waller Page

For the emerging Good Roads Movement, Logan Waller Page was the embodiment of the Progressive Era. Born in Richmond, Virginia, Page graduated from the Virginia Polytechnic Institute in 1889 and was one of the first to graduate from the highway engineering program that his uncle, Professor N. S. Shaler, had begun at Harvard.³ After leaving Harvard, Page served as geologist and testing engineer for the Massachusetts State Highway Commission, as well as director of the testing laboratory of the Lawrence Scientific School at Harvard (1893-1900). To learn about laboratory testing from the acknowledged international leader, Page enrolled in France's Laboratory of Bridges and Roads.

In 1900, OPRI Director Dodge established a road materials laboratory in the Agriculture Department's Bureau of Chemistry. To head the laboratory, Dodge brought Page to Washington. By 1905, when Page became OPR's Director, he had established the laboratory as the Nation's premier scientific laboratory on road building materials. [*America's Highways 1776-1976*, page 64]

As Director, Page continued the promotional activities of his predecessors, General Stone and Martin Dodge. Page expanded the object-lesson road program and the experimental road program they had initiated. The first experimental roads, built by Dodge in 1898, had been steel track roadways—they proved to be too expensive to be practical. Page launched experimental roads to test more practical road surfaces, such as earth-oil mixtures, portland cement concrete, and paving brick. Page revived the Good Roads Trains that Dodge had participated in from 1901 to 1903. The new Good Roads Trains ran from 1911 to 1916. In addition, Page worked with the States, as Stone and Dodge had, to develop model State-aid legislation and to encourage its

³Page's cousin, Walter Hines Page, had helped convince Governor Woodrow Wilson he could become President, then helped convince him to select David F. Houston to be Secretary of Agriculture, and became Ambassador to Great Britain. Their relative, Dr. Thomas Walker Page, was President Wilson's Ambassador to Italy.

adoption by the State legislatures. (For descriptions of these activities, see *America's Highways 1776-1976*, pages 45-50, 65-7.)

Page, even more than his predecessors, launched OPR on a scientific evaluation of road building and on gathering the technical data—the lifeblood of the Progressives—on which sound conclusions could be based. This effort included collection of data on national road conditions, taxation, sources of revenue, road laws, and total expenditures. Page established an Economic Investigations unit to conduct periodic inventories.

He conducted scientific analyses of why automobiles destroyed the surface of macadam pavements, which long had been considered the best stone surface during the wagon era. The tests included speed runs on macadam roads, with motion picture cameras filming the impact of the tires on the surface. These tests spelled the end for macadam surfaces by demonstrating that they could not survive under auto tires. [Page's analysis appeared in numerous journals such as: Page, L.W., "Macadam Roads and their Preservation," *Journal of the Western Society of Engineers*, February 1910, pages 57-64; Page, Logan Waller, "The Comparative Effect of Motor and Horse-Drawn Vehicles on Roads," *Southern Good Roads*, March 1910, pages 21-23; Page, Logan Waller, "To What Extent Do Automobiles Destroy Our Roads," *Southern Good Roads*, February 1911, pages 11-12]

More so than his predecessors, Page saw road building as a work for scientists. In the OPR's annual report for 1910, Page's impatience with the "nonscientists" in the road community came through:

Many worthless road preparations have been and are at present being manufactured and sold to the public through ignorance on the part of both producer and consumer These materials are sold under trade names, and as a rule carry no valid guarantee of quality. Specifications for such materials are therefore needed for the protection of the public.

Accordingly, Page worked with the scientific community to develop the specifications that would spell out how best to build roads. [Page, Logan Waller, Report of the Director of the Office of Public Roads, Annual Report of the U.S. Department of Agriculture for 1910, pages 785-786]

Page was so committed to the scientific approach that he actively campaigned against State laws that did not require road officials to "possess any distinct qualifications." He also objected to "the baneful influence of partisan politics and in a measure the influence of local community politics." [Page, Logan Waller, "The Merit System in Road Management," An Address Before the Civil Service Reform League, *Southern Good Roads*, March 1914, pages 9-12]

While building the OPR into the national leader in the science of road building, he exhibited prickly impatience with those who failed to live up to his standards. His public dispute with D. Ward King, creator of the commonly used King Split Log Drag, was an example. When the OPR published and promoted a manual on the drag prepared by King, King objected to changes by the agency. Page explained:

When his manuscript was submitted it was unsuited for publication, and had to be entirely rewritten in this office I sent him out on a few assignments to give lectures on the use of the drag, but found he made so many erroneous statements and spread so much disinformation, that I considered it advisable to discontinue his services As he knows little or nothing regarding the fundamental principles of road building, I consider he has done far more harm than good to the good roads cause.

Page renewed his support for use of the drag, but added that, ". . . when people like Mr. King advertise that they can show the public how to build roads without money, and that roads do not need drainage, merely for the purpose of [making] money out of the people, it is simply absurd." [Page, L. W., "Page Replies to King," Letter from Page to Joseph L. Long, editor and manager of *The Road-Maker*, November 12, 1915, *The Road-Maker*, December 1915, page 14; Page was responding to King's letter to Secretary of Agriculture David F. Houston, October 15, 1915, printed in *The Road-Maker*, November 1915, page 15]

In recognition of the massive job ahead, Page instituted the policy of "stage construction." Based on his scientific research, Page believed that earth roads, built with earth, clay, and sand in accordance with proper construction methods could, if systematically maintained, provide satisfactory service "within the financial means of nearly every community throughout the country." He explained:

As a matter of fact, however, a good earth road is the stepping stone to a hard road. It is the natural foundation for all future improvements and can be constructed with a very small outlay, without in any way jeopardizing future improvements of gravel or macadam construction, and then too, a comparatively small expenditure for maintenance will serve to keep it in excellent condition until funds may become available for the construction of hard surface roads. [Page, Logan Waller, "Our Much Abused Earth Roads," *Southern Good Roads*, May 1910, pages 3-5; the stage concept remained in effect under Page's successor, Thomas H. MacDonald, as discussed in *America's Highways 1776-1976*, pages 113-114]

To further scientific road building, Page launched a formal engineer training program within the OPR in 1905. After a year of varied experience, trainees were appointed to the position of Junior Highway Engineer at \$900 per year. Many trainee graduates eventually left the OPR to become a cadre of scientific leaders in the growing number of State highway agencies. [*America's Highways 1776-1976*, page 75]

Page also expanded the OPR laboratory and research facilities. In 1906, he moved the testing laboratory into a rented four-story building. In 1912, he opened an experimental center in Arlington, Virginia, which, after some moves, evolved into the present Turner-Fairbank Highway Research Center in McLean, Virginia.

He also tapped international road experts by helping, in 1908, to found the Permanent International Association of Road Congresses.

Generating Support

Director Page took the lead in creating the American Association for Highway Improvement (AAHI) during a meeting with road interests at the Cosmos Club in Washington, D.C., on November 12, 1910. The AAHI's constitution stated the goal was "to harmonize and correlate all efforts for the improvement of the public roads to the end that adequate and efficient systems of road construction, administration and maintenance may be adopted in all the states." Member organizations represented automakers, automobile clubs, civil engineers, equipment manufacturers, farmers, materials suppliers, railroad companies, road contractors, and State highway agencies. (The group changed its name to the American Highway Association (AHA) in 1912 before disbanding in 1918.)

Page, the appointed president, saw the AAHI as an umbrella group to concentrate efforts of all road interests on the improvement of roads. He told the founding members:

The primary object of this association is to aid and promote every practical movement looking toward the improvement of public roads. There are already a number of county, state and general organizations which are doing good work along various lines, and I am glad to say that representatives of several such organizations are with us today. It is our hope that this organization will harmonize and correlate the work of all existing organizations

The need of the day in road work is to take the administration of the roads away from the influence of politics; to insist upon skilled supervision of all road work; to remedy the evils of too much localization and to substitute uniformity and system for the confusion incident to pure localism as we now find it in some of the states.

We hope to make the headquarters of this organization a clearing house wherein every movement of practical improvement will have a sympathetic hearing and earnest and helpful co-operation. [*America's Highways 1776-1976*, pages 76-79; "Good Roads in View," *The Evening Star*, November 22, 1910]

The AAHI scheduled the first American Road Congress for November 20-23, 1911, in Richmond, Virginia, with President William H. Taft (1909-1913) the featured speaker. Taft, perhaps best known today as the heaviest President of the United States, had shifted the White House away from the horses used by all previous Presidents to automobiles. The initial vehicles were purchased on February 25, 1909, a week before he took office:

- White Model "M," 40 horsepower, green, several-passenger steam touring car, closed body - \$3,000.
- Pierce-Arrow, 48 horsepower, blue limousine, open body - \$2,500

According to Michael L. Bromley's book about President Taft's motoring presidency, he loved the steamer:

Whites, like their boiled-water brethren, Stanley, made excellent touring cars. Steam engines were strong, silent, and fast. The White Model M could power a car load of motorists, including Taft, one of the largest enthusiasts in the land, and run for great distances, needing only an occasional refill of water for steam and fuel for the burners . . .

Taft's love for the steamer was from touring—driving around to pass an afternoon for relaxation and fresh air. His greatest joy was to sit in the back and let the countryside fly on by, enjoying what he called “atmospheric champagne.” He loved speed, and he was uninhibited by foul weather. Open air driving was considered a panacea, recommended by doctors and considered a healthful activity by practitioners. For Taft, the benefits of fresh air came secondary to his love for just being there, loving every second of cruising along country roads. [Bromley, Michael L., *William Howard Taft and the First Motoring Presidency*, McFarland & Company, 2003, page 54; also see appendix B, page 378]

In August 1909, President Taft sent a letter to the Richmond Good Roaders:

I have pleasure in saying that there is no movement that I know of that will have a more direct effect to alleviate the difficulties and burdens of the farmer's life, will stimulate the traffic, and add to the general happiness of the people more than the establishment of good roads throughout the country. I do not think that because this may have been stimulated by people using automobiles it is to be frowned upon, for while persons using automobiles are by no means the most important in the community, the fact that their sharp interest has focused the attention of the public on the movement entitles them to credit. [“Taft Advocates Good Roads,” *The New York Times*, August 4, 1909; quoted in Bromley, page 230]

While endorsing good roads, President Taft had not endorsed a Federal role in financing or building them.

On September 17, 1911, President Taft embarked on a 13,000-mile rail journey through the western United States, billed as the longest trip by a President to that date. His address to the American Road Congress was to be his first speech after returning. However, he caught a cold on the last day of the trip that affected his throat. On his doctor's advice, President Taft decided at the last minute against going to Richmond for his speech. At the start of the congress, Page read a November 19 telegram he had received from President Taft at the White House:

I have had a cold for a week since I returned from my trip, and have spent the last forty-eight hours in the house, with the hope of being able, without risk, to go to Richmond tomorrow. I have been looking forward to taking part in the Good Roads convention with a great deal of pleasure, because I am in full sympathy with the movement that is gaining strength in every State and in the nation for the promotion of the construction of permanent good roads. The effect that they will have in increasing the value of farms, in making the lives of farmers and their families much more full of comfort, and in the general benefit conferred by greater ease of intercommunication the country over, can not be exaggerated. I wish that I could be present to utter my word of approval and encouragement, but I feel that the trip as planned is one which would involve more risk

than I ought to incur in my present condition. I have postponed this announcement until now, with the hope that I might avoid making it. The pleasure of receiving the hospitality of Richmond, which has been mine at least twice, lingers long in my memory, and makes me deeply regretful that I must deny myself now the enjoyment of the trip. [*Papers, Addresses and Resolutions Before the American Road Congress*, American Association For Highway Improvement, November 20-23, 1911, pages 10-11]

Secretary of Agriculture Wilson represented President Taft during the congress. Wilson, who had been in office since 1897 and would remain Secretary through the end of the Taft Administration in March 1913, emphasized to the delegates the importance of good roads in lowering the cost of living by establishing a more intimate relationship between producer and consumer. Increased good road mileage, combined with a domestic parcels post [sic] service, would bring the two together:

Relations between farmers and town folks can be established for the prompt transfer daily or weekly of much that the farmer produces and town people consume. At present when the town dweller pays a dollar, the farmer gets half or less. With parcels post the farmer would get more, the carrier would get his freight and the consumer would get his supplies promptly, fresh and good. Dairy products, fruits, meats and vegetables are transferred in this way in other countries with great satisfaction to all concerned and with less unhealthy food, fewer ptomaines and less frequent stomach troubles.

Good roads increased the value of farm land because many products could not be transported efficiently on poor roads, forcing farmers to grow less profitable crops that are not perishable. Bad roads increase transportation costs, thereby cutting into profits, while good roads allow farmers to deliver milk, fruit, and vegetables in less time, at lower cost, and with less wear and tear on horses and wagons:

Every farmer should merely as a matter of self-interest be a strong advocate of road improvement, and should give practical support to a movement looking to the betterment of present conditions.

[The proceedings did not contain Secretary Wilson's remarks, but the following articles are among those that summarized and quoted from his comments: "Sends His Regrets," *The Evening Star*, November 20, 1911; "Says Good Roads Reduce Living Cost," *The New York Times*, November 21, 1911; "Hon. James Wilson," *Better Roads*, January 1912]

(Since the 1870s, the Post Office Department had delivered parcels sent to the United States from other countries, but had refused to deliver parcels sent within the country. Largely in response to agitation from farm groups such as the Grange and despite opposition from private express companies and rural merchants, Congress initiated domestic parcels post in the Post Office Department appropriations act, FY 1913. President Taft approved the legislation on August 24, 1912 (Public Law 62-336). The Post Office Department began delivering domestic parcels on January 1, 1913. The new service was an instant success and a boost to the economy.)

A debate followed about the proper role of the Federal Government in the movement. Senators Thomas S. Martin and Claude A. Swanson of Virginia argued that the Constitution gave

Congress the authority to authorize funds for road improvement. They implied they would ask Congress for a \$50 million national highway bill. Senator Martin further pledged that if no other message presented itself for improving the roads, especially in the southern States, he would vote to cut the annual appropriations bill for river and harbor improvements or the Army and Navy appropriations to pay for good roads. If neither option were possible, he would favor issuing Federal Treasury bonds in the amount of \$50 million a year for good roads work and let posterity pay for the work.

Representative J. Hampton Moore of Pennsylvania strongly supported good roads, but argued that the Constitution prohibited Federal appropriations for roads. As proof, he cited President James Monroe's veto on May 4, 1822, of a bill authorizing the central government to charge tolls to pay for improvement of the National or Cumberland Road, which it had built, owned, and operated. President Monroe argued that the central government did not have the sovereignty over the State land on which the road sat to operate toll booths:

If the Constitution which impelled Monroe to check the progress of the Cumberland Road is still unamended, neither have the separate States been brought into thorough working accord upon a comprehensive plan of road construction. Here is work for the Association. If results are to be obtained, the agitation must continue. It must be carried forward to the National Congress, and it must be taken into the legislatures of the States. But a definite plan is needed, whether it looks to Federal initiative, absolute State control, or federal supervision with the coöperation of the States. There must be a definite and reasonable plan. [*Papers, Addresses and Resolutions Before the American Road Congress*, page 21; "Good Roads Men Split," *The Washington Post*, November 21, 1911]

According to *The Washington Post*, the American Road Congress "was nearly split" on the second day by the question of Federal funds for highway improvement. "The controversy, which began yesterday, developed into an acute row." The majority of delegates appeared to favor adopting a resolution in support of \$50 million a year. Some urged Senator John H. Bankhead of Alabama, a long-time advocate for Federal involvement in roads and a member of the Committee on Post Offices and Post Roads, to introduce a bill calling for \$1 billion at once; he declined:

President L. W. Page . . . ruled that no motions for Federal appropriations would be received from the floor of the convention. This resulted in several heated charges and countercharges. A batch of Federal aid resolutions did get to the resolutions committee, however, through the mazes of parliamentary practice, much to the surprise of the anti-Federal aid men.

Charles D. Light, former State highway commissioner of West Virginia, now acting secretary of the convention, warned that the AHIA would not be bound by any resolution the American Road Congress approved in support of Federal funding:

Those delegates who favor Federal help started a movement to organize that sentiment, and were charged with trying to stampede the convention. Some of the leaders proposed calling another convention at once in Washington to petition Congress to pass road legislation. As the fight grew hot, tinges of local politics crept in, motives were

[impugned], and one portion of the delegates accused the other of trying to create another Federal “pork barrel.”

Calmer spirits smoothed things over temporarily, however, and the fight was transferred to the resolutions committee of fourteen members [“Oppose Federal Aid,” *The Washington Post*, November 22, 1911]

On November 22, despite efforts to dampen formal advocacy of Federal-aid, advocates for Federal-aid to the States “carried the Good Roads Congress with a whoop today when the question came to a final vote.” At the same time, AAA led a group of organizations to form an association pledged to work for Federal-aid. AAA scheduled a convention in Washington for January 16, 1912, during which delegates could call on political leaders in support of the goal. [“Federal Aid Men Win,” *The Washington Post*, November 23, 1911]

The first resolution the delegates to the American Road Congress adopted was:

Whereas it has been the policy of our central government to aid in the development of our natural resources, and to this end it has appropriated and is appropriating public funds to meet the needs of the postal service, of agriculture and commerce, and of public defense;

Therefore be it resolved: That this Congress hereby respectfully memorialize the Congress of the United States to extend national aid to the several States of the Union for the purpose of aiding and encouraging them to build and maintain good roads; And that the chairman of this Congress appoint a committee on national highway legislation to be composed of one member and alternate for each State and territory. Said member to be named by the delegation from that State at this Congress; and that said committee request the coöperation of similar committees of all the other organizations to assist them to harmonize the diversified opinions of the various interests now working for national aid, and endeavor to establish an agreement upon a unified plan that may receive the endorsement and support of this Association and all others working for the establishment of the principle of national aid in the policies of our government. [*Papers, Addresses and Resolutions*, page 187]

According to an account in *The Evening Star* of Washington, D.C., “The question was fought in the resolutions committee and favorably reported by a vote of 7 to 2 after a five-hour session filled with stormy debate.” [“Autoists In Charge,” *The Evening Star*, November 22, 1911]

Other resolutions covered a range of issues, such as endorsement of State highway agencies to supervise road work; the importance of immediate, continuous, and careful attention to maintenance of public roads; the need for proper laws governing convict labor; that for safety reasons, all vehicles “should carry at least one lighted lamp of sufficient candle-power to be visible at a distance of 200 feet, so placed as to be seen from the front and left side, and a red light visible in the reverse direction”; that users of highways should have due regard for all other users, including pedestrians, bicyclists, and drivers of horse-drawn vehicles and motor vehicles, to allow faster moving vehicles to pass in the center of the thoroughfare. [*Papers, Addresses and Resolutions*, pages 187-190]

On the final day, the American Road Congress was split. In one room, delegates selected officers for the coming year. In a different room, many delegates were organizing the Good Roads Congress for January 16 in Washington.

President Taft's Views

President Taft expressed his views on Federal funding for roads during a speech to the Automobile Club of America on December 20, 1911. The event was the club's banquet at the Waldorf-Astoria where guests included some of the wealthiest men of the day, including John Jacob Astor, Henry Frick, J.P. Morgan, and William K. Vanderbilt. [Bromley, page 231] According to *The Washington Post*, the President was in "rare good humor, even for him." For about half an hour, he "talked to them in such genial vein that they were kept almost constantly either laughing or applauding."

He began by apologizing for appearing among the privileged. "I never belonged to what I always used to call the 'carriage class,' I walked, or rode in street cars." Now, only the "accident of office and the generosity of a Republican Congress gave me for a time the privilege of understanding the fascination of traveling by this new method," the automobile. However, his status among the wealthy automobilists was only temporary. "Therefore, I beg of you to understand that I appear here only in a temporarily representative capacity."

President Taft called the automobile "a wonderful development." He looked back as far as he could, to 1876, to inventions that had enhanced the comfort of the human race. "The telephone, the electric railway, all the electrical devices for the reproduction of the human voice, and the automobile!" He added, "What could we do without them now? How rapidly we adapt ourselves to the absolute necessity of those improvements of which we knew and imagined nothing fifty years ago!" The automobile, which began as a toy of the wealthy few, might "prove the most useful of them all to all classes, rich and poor."

Turning to roads, he mentioned experiments underway into "what may avoid the influence of those great big rubber tires upon macadam roads." He hoped "something will come of them." He was aware of the public debates about good roads:

The question of good roads, I say, is a difficult one, not only for the perfection of a road for the purpose of resisting this much heavier traffic, but also because of the questions. Who is to pay for the roads? Are they to be built by the country? And who is to take care of them? This is a much more important question; but I hear the earnest patriot—and it does not make any difference how he construes the Constitution, if there is any plan of running a National road near his farm—I hear the earnest patriot say: "It is the business of the general government to build these roads. Let's have a National road running from New York to San Francisco, to teach the world what a model road is."

"But what would it cost?"

"Oh, what difference does it make what it costs? You can strive and hunt ways of saving a hundred thousand dollars in the matter of employes [sic] at Washington, but when it comes to building roads, what is a hundred million between friends?"

And there is the difficulty, gentlemen. I admit that the general government has the power for the purpose of promoting inter-State commerce to build National roads. It has done it already, but I venture to question the wisdom of opening that method of spending Federal Government money. I think it is much better to have the neighborhood and the State as a large unit expend its money in the construction of roads across the State, and aiding the counties to keep the roads in repair, because if you once set out upon a plan of National roads in addition to the plan of National waterways, I do not know how great the expenditure will amount to.

If we could confine it to two or three roads I would not object, but we have forty-eight different States, and every State is as anxious to share in the common funds at Washington as every other State. And it is a dangerous experiment. I would suggest great delay and deliberation before you undertake so great an expenditure, the stopping of which will have no end. We have had some experiments in that in Washington, and we are looking forward now to large expenditures and if we are going to add roads and if you are going to run automobiles through them and over them and into them and promote the cost of them, as you will, increasing, of course, the intercourse between all the people, creating a benefit which I do not minimize, nevertheless I say to you that if you can reach that benefit without opening the National Treasury I think it will be the wiser and more statesmanlike course. ["Taft Says States Should Build Roads," *The New York Times*, December 21, 1911; "Live Fast, Scorn Law," *The Washington Post*, December 21, 1911; Bromley, pages 230-234 (the title "Live Fast, Scorn Law," referred to another speech he gave while in New York City)]

President Taft's acknowledgement that the Federal Government had the constitutional authority to build roads was a major event for the Good Roads movements. AAA's magazine, *American Motorist*, reprinted excerpts from the speech, with the editors stating:

To have the President of the United States unhesitatingly say that the Government has the right, is most important at this time, even though he places himself on record against the proposition, because of the enormous amount which might be expended.

The editor of *Better Roads* took a different approach. Referring to the presidential election in November 1912, the editor wrote, "The President takes a great interest in cheaper water transportation, but next November he will find a lot of folks who want cheaper transportation by land." ["Taft Says Federal Aid Constitutional, But..." *American Motorist*, January 1912; "President Taft Declares Federal Aid Unwise," *Better Roads*, February 1912, page 30]

The AAA Convention

AAA's First Federal Aid Good Roads Convention took place at the Raleigh Hotel in Washington on January 16 and 17, 1912. George C. Diehl of Buffalo, chairman of AAA's National Good Roads Board, began the convention by urging delegates to agree on a definite Federal-aid plan.

That view was reinforced by Members of Congress addressed the convention, including Speaker of the House James B. "Champ" Clark of Missouri:

Now, everybody in the United States is in favor of the improvement of roads—that is, unless there is something the matter with his head—but I will tell you that there are all these forces. You are never going to get it fixed until you get out all the people that want good roads, and these various persons agree on one proposition

He had not had time to study the best way to accomplish the goal:

But I will tell you one thing I do know, that it was settled a long time ago that if the Federal Government wants to help build roads, it has got the right to do that. That much is certain. (Applause.)

But the practical suggestion that I have to make, is, that all the road advocates ought to agree on a plan and come here with it; and if they don't the jig is up with them. It is going to be hard enough to do it now with all hands, the captain and crew working at it too I am going to help, as long as I live, every sane and reasonable and practicable proposition to improve the roads in the United States. (Great applause.)

Senator Bankhead said:

I am one of those who believe, (I think I know), that no country on the face of the globe has ever constructed a system of highways entitled to the name, where the general government, whatever the character of that government may be, or whatever it is, has not participated in that construction. (Applause.)

He provided a historical view of the constitutional authority supporting Federal road building, citing the many appropriations for the purpose in the first half of the 19th century. He favored legislation to launch an inquiry into the best method of appropriating Federal funds for road improvement. He predicted that before adjourning, Congress would pass a bill authorizing Federal-aid for road building, beginning with \$1 million.

Representative Oscar W. Underwood of Kentucky, the Majority Leader and chairman of the Ways and Means Committee, explained that the Constitution had delegated certain powers to the Federal Government, including the power to establish post offices and post roads, while reserving all other powers to the States. He did not believe in Federal encroachment on States' rights, "but I do believe that the great central Government owes it to the people of the United States that it should enforce, carry out and maintain the great powers of Government that have been delegated to it by the States; and one of those great powers is the power to see that a great system of post roads for inter-communication between the people within the States, and the people beyond the borders of the several States, be established, so that they may move and bring their commerce together":

Why did they delegate that power in the beginning? Because they realized the necessity in our great country of maintaining and establishing a road system. It is the duty of the Federal Government to vitalize [sic] that power. (Applause.) For that reason, for many

years I have been in favor of the Government of the United States either establishing post roads or lending its aid to the building of post roads throughout this country.

Had the government continued the work it began with the National Road in 1806, he believed that “without any great burden resting on the American people, we would have had as magnificent a system of roads in the United States as you can find in any of the countries of Continental Europe.”

He realized that several methods had been suggested for improving the country’s roads:

As to which is the best system it is not necessary for us to determine now. The question for the people who are in favor of good roads today to determine is the question as to whether or not the Federal Government shall start, and after it has started, then you can determine as to which is the proper method to carry out.

He had a practical suggestion:

Your association advocates one way of starting the building of these great highways; you find that another association advocates some other plan, and another association another plan. I think there are four great associations in favor of building National highways, and I do not believe that there are any two of them that have agreed on the same plan. Now, as long as that condition exists, you are not going to build on any plan. I have this one suggestion to make to you, and it is not my own thought; it has been suggested to me by one who is wiser than I am: That instead of advocating one system today by this association, and another system tomorrow by another association, go to the Congress of the United States and say to them “appoint a joint committee on post roads in the United States,” give them authority to hear everybody that wants to come before that committee; give them authority to find a verdict as to which is the best way to start this great National movement by proper legislation, and then you have concentrated the power in the hands of the men who in the end must exercise it; you have centralized that power where it can be used for action. It may not be on the course that you want or I want, but it will be along some line that will produce results. (Applause.)

The following day, the convention considered a resolution calling for Congress to pass a bill that the resolutions committee had drafted entitled “A Bill to Create a National Highways Commission and Prescribing Its Power and Duties.” The commission would include a chairman and 15 members. The President, the Senate, and the House would appoint 5 members each, with the President appointing the chairman subject to the consent of the Senate.

Their job was to “investigate, collect information and report on the highways of the United States, together with their recommendations as to the proper policy of the National Government in respect thereof, whether by the establishment of a system of national highways or by Federal aid in the building of the State roads, or otherwise, and as to the most appropriate legislation to carry such policy into effect.” No later than December 1, 1913, the commission was to submit to the President “a full and detailed report of the work of the commission, of its recommendations and the reasons therefor; and of all its expenditures, which report shall be forthwith transmitted by the President to Congress.”

The convention adopted the resolution unanimously “after a spirited debate,” according to *The Evening Star*.

The report on the convention in AAA’s *American Motorist* magazine stated that three features of the event were particularly noteworthy, beginning with:

First among the particularly pleasing features was the complete and absolute unanimity, not only among the delegates to the convention, but also practically among all of the members of Congress who were brought into contact with the proceedings, as to the necessity for National co-operation in highway building.

Second was “the representative character of the attendance,” which included delegates from 43 States, 17 good roads organizations, business organizations, and other commercial bodies.

The third was the most important of the three features:

The third and most gratifying aspect of the meeting was the eagerness of all present to get together on a single definite program, and to unite for the furthering of that program as the only way in which Federal Aid can be obtained.

Individuals and organizations had differing views:

But, after all who had ideas of their own as to methods of procedure had been given an opportunity to express their views, the delegates were ready to sink their individual opinions in the general consensus and to unite harmoniously upon a single program.

The result was the unanimous adoption of a plan for the beginning of Federal Aid for good roads on the only basis that seemed likely to produce results, namely, the presentation to Congress of a bill for the creation of a National Highways Commission, charged with the duty of investigating and reporting back to the President the most feasible and reasonable general plan for direct highway appropriations.

All the Members of Congress who had addressed the convention, whatever their preference for funding good roads, gave simple practical advice that could be summed up: “*get together.*” That is just what the convention had done. [Italics in original]

[“National Roads a National Need,” *American Motorist*, February 1912, pages 105-110; “While Obtaining Federal Aid, Keep Busy,” *American Motorist*, February 1912, pages 185-191 (an editorial followed by excerpts from convention speeches); “The Federal Aid Convention at Washington,” *Good Roads*, February 3, 1912; “Must unite for Roads,” *The Washington Post*, January 17, 1912; “Good Roads Question Put Up To Congress,” *The Evening Star*, January 17, 1912; “Motoring,” *The Sunday Star*, January 21, 1912]

National Highways Association

With the coming of the Model T in 1908, Henry Ford's low-cost, easy-to-repair vehicle for the masses, the automobile industry had expanded. It needed good roads, and it was not interested in improving farm roads that began "nowhere and ended nowhere." Those roads, in the view of long distance road advocates, were the responsibility of State and county officials. The industry saw its future in promoting hard-surfaced interstate and transcontinental highways.

Here was the basic split that would have to be resolved before Federal-aid could become a reality: Farmers had embraced Federal-aid for use on farm-to-market roads that would reduce their costs and speed their travels. The automobile industry embraced Federal-aid for hard-surfaced interstate roads. At this early stage in the development of good roads, any likely level of funding would be too low to allow pursuit of both goals simultaneously.

One of the chief advocates for long-distance national roads was Charles Henry Davis, a civil engineer, Quaker, yachtsman, and wealthy businessman from South Yarmouth, Massachusetts. Davis was president of the American Road Machine Company, which he had inherited along with an interest in coal fields in Harlan County, Kentucky. After he leased the coal fields to Henry Ford as a source of energy for his factories, the revenue became Davis's main source of wealth in later years. [Frothingham, Ted, "Charles Henry Davis: Amazing Millionaire," *Yarmouth Register*, June 15 through September 17, 1972.]

In 1912, Davis incorporated the National Highways Association in the District of Columbia. The National Highways Association advocated a "Four-Fold System" of highway development, the most important portion of which was a 50,000-mile network of National Highways that would be constructed and forever maintained entirely at the Federal Government's expense. Federal-aid to the States was, he felt, "getting roads built throughout the nation piecemeal."

In the first of many publications, Davis explained that the association's "single aim and purpose" was to secure from Congress "proper legislation to establish and maintain a system of National Highways." He had often heard advocates calling for "National Aid" for State roads, but that had "proven ineffective" because "States do not want 'aid' in doing for themselves that which is properly a State function."

Davis's engineers had laid out the 50,000-mile network to consist of six Main Highways, thirteen Trunk Line Highways, and 40 Link Highways connecting the main and trunk routes:

Such trunk highways should be built, owned and maintained by the National Government—built, perhaps, with State Aid, but maintained without expense to the states, the counties, or the towns through which they will pass. Such roads should be broad, permanent, well made, and of a uniform degree of excellence of construction and high level of maintenance, a condition impossible to secure unless the roads are built by one power—the National Government; under one plan—that of the proposed legislation in whatever form it may take; for one purpose—the unifying and solidifying of the road system of our country.

The association's plan included three other systems that would feed into the National Highways:

- United States highways, totalling about 100,000 miles, to be built and maintained by the Federal Government;
- State highways built under the Federal-aid concept, also totaling about 100,000 miles; and
- Local roads to be built by counties and towns without State or Federal aid.

To get the project started, Davis proposed creation of a National Highway Commission to study and report to Congress on the proper Federal role in establishing a system of National Highways. With the motto “Good Roads Everywhere,” he unleashed a publicity barrage of publications and speeches supporting the Four-Fold System. He also affiliated with the named trails associations that were just then, in 1912 and 1913, beginning to proliferate. By the time *The Automobile Journal* interviewed Davis for a September 1913 article, the National Highways Association employed nearly 40 people in an office he had built on his property in South Yarmouth.

To ensure he would not be accused of a conflict of interest, Davis divested himself of the American Road Machine Company and devoted his life to the work of the National Highways Association and other enthusiasms.

The ABC Rental Plan

The flow of bills continued in 1912. On March 5, 1912, for example, Majority Leader Underwood introduced House Joint Resolution 262 providing for a joint committee of both Houses of Congress. The committee would include three members of the Senate, three members of the House, and three that the President would appoint. The resolution appropriated \$25,000 for the committee:

The said committee is hereby empowered and directed to collect information and to make a thorough and complete investigation of the condition of the public highways in the several States of the Union, including the cost of transportation thereon; the improvement, construction, and maintenance of such public highways and the cost thereof; the cost of carrying the mail over such highways and the improvement of the mail service that may be obtained by the improvement of post roads in the United States. The committee is hereby authorized and directed to report to the Congress all information obtained from such investigation, together with recommendations as to the advisability of the Congress granting national aid to the maintenance and building of post roads and national highways in the United States, and to make recommendations as to the proper legislation to be enacted by the Congress.

Because the resolution related to organization of the House, it was referred to the Committee on Rules.

On March 29, members of the House who had written good roads bills held a conference to discuss their strategy. The 28 Congressmen, not including Representative Underwood, decided that with so many road bills before it, the House was unlikely to consider any of them. They agreed to support a single bill that Representative Dorsey W. Shackelford of Missouri introduced as H.R. 22581.

A native of Sweet Springs, Representative Shackelford had taught school (1877-1879) before being admitted to the bar. He practiced law in Boonville, became a prosecuting attorney of Cooper County (1882-1886) and a Judge of the 14th Judicial Circuit (1892-1899). He served in the House from August 29, 1899 to March 3, 1919. Following his unsuccessful candidacy for renomination in 1918, he practiced law in Jefferson City until his death on July 15, 1936.

Under Representative Shackelford's bill, the Federal Government would pay "rent" for the use of roads to carry the mail outside incorporated cities, towns, and villages. The Federal rental payment would be:

- \$25 per mile for Class A roads (well graded and drained, steepest incline not exceeding 5 percent where practicable, not less than 25 feet wide between ditches, road track not less than 12 feet wide, smooth, firm surface of bituminous macadam, brick, or macadam, not less than 6 inches thick, properly constructed and continuously cared for),
- \$20 for Class B roads (well graded and drained, steepest incline not exceeding 5 percent where practicable, 25 feet between ditches, road track 12 feet wide, firm, smooth surface, continuously kept well compacted, of burnt clay, shells, sand clay, or gravel, properly crowned), and
- \$15 for Class C roads (well graded, steepest incline not exceeding 5 percent where practicable, crowned and drained to a width of not less than 18 feet, with maintenance by split-log drag or other similar means, so as to be reasonably passable for wheeled vehicles at all times.).

The OPR Director would determine the class, if any, into which each road fell.

The Treasurer of the United States would pay the rent at the end of each fiscal year "upon warrants drawn upon him by the Postmaster General to the officers or persons entitled to the custody of the funds of the respective highways entitled to compensation under this act."

Representative Shackelford explained the reasoning behind the bill:

If the United States should pay for the use of roads coming up to the standards required by this bill it would not be long until all of the States and counties would bring their roads to such a state of perfection as would entitle them to participate in the distribution of the compensation provided by the measure we propose.

Since the taxpayers generally would have to pay the cost of good road construction, the roads should be distributed as widely as possible among the people who pay for them. We have given much thought to the working out of a plan which would furnish an equitable apportionment of the roads among the people.

The Democratic principle of local self-government ought to apply to road building and maintenance as to other matters of local concern. We, therefore, concluded that the States and municipalities thereof should have control of the location, construction, and

maintenance of the roads, and let the United States pay for using them just as it now pays the railroads for carrying the mails.

If the roads were to be laid out and constructed by United States engineers sent out from Washington it would cost many times more than if done by local authorities.

The 28 Representatives threw their support behind the rental plan in a letter to the Committee on Agriculture:

The undersigned members, who have introduced bills on the subject of good roads, desiring to secure, as far as possible, harmony and unity of action among the friends of such legislation, have conferred, with a view to agreeing upon a bill. After careful consideration we have prepared and agreed upon the subjoined bill and requested Mr. Shackleford to introduce it on behalf of us all. We have further requested Mr. Shackleford to appear before and respectfully bespeak for the bill [sic] early and favorable consideration. ["28 Join on Road Bill," *The Washington Post*, March 30, 1912; "The Latest," *Better Roads*, May 1912, page 77; "The Shackleford Bill," *Better Roads*, June 1912, pages 91-92]

The bill was referred to the Committee on Agriculture, usually the final action before good roads legislation disappeared. The committee held a hearing on April 10. One of the witnesses, Representative James A. Beall of Texas, opposed the bills, arguing that \$15-20 million a year would be needed to build and improve post roads:

You might as well try to dam the Mississippi with greenbacks as to begin the building of public roads out of the funds of the Treasury.

Every member knows that even such a large expenditure would be a mere beginning. Not only that, but all civic and state endeavors to make good roads would be paralyzed if the country at large got the idea the United States alone is to make road conditions better. ["Opposes Federal Aid," *The Evening Star*, April 10, 1912]

However, the committee approved the bill the same day, with the intention of advancing it as soon as the committee completed its report. At the same time, good roads advocates appeared before the House Committee on Rules to support the Underwood bill calling for a joint committee. Robert P. Hooper, president of AAA, urged adoption of the resolution while George Diehl told the committee that without Federal aid, the country would never have an adequate system of public highways. ["Advocate Federal Aid to Build Post Roads," *The Evening Star*, April 10, 1912]

The Shackleford and Underwood bills were rivals not only for House consideration but among the Nation's editors. An editorial in *The Washington Post* on April 11 contrasted the bills. Rules Committee action on the Underwood bill addressed one of "the most important questions before the country." Throughout the Nation, "there has been more or less of a demand for Federal aid in the building of public highways." The "45 bills of various kinds dealing with Federal aid for roads" reflected this interest:

The latest to be introduced is that of Representative Shackleford, of Missouri, providing for an expenditure of about \$30 a mile on roads of a certain class. While the amount allotted is small, and would be hardly enough to clean the roads once a month, the aggregate will reach a total somewhere between \$20,000,000 and \$40,000,000 a year.

Until there has been a careful investigation of the whole subject of public roads, the amount of money that would have to be expended and the economies that could be effected, there will be no great amount of sentiment behind any one bill In the case of the Shackleford bill, for instance, many congressmen will be delighted with the prospect of having another pork barrel, but the thinking people of the country would oppose a plan that would spend millions without accomplishing any lasting results.

By contrast, “nearly all the associations working for the improvement of public highways” supported the Underwood bill:

The house will pass the resolution without delay, and the senate should do likewise. Certainly there is no reason why Congress should not be willing to settle definitely, one way or the other, a problem that has been vexing legislators for the last fourteen years. [“The Federal Aid Issue,” *The Washington Post*, April 11, 1912]

Jesse Taylor, editor of *Better Roads*, reported that, “Much opposition appears in ‘stock’ editorials in eastern newspapers to the plan of Federal appropriations” under the Shackleford bill. He pointed out that from the founding of the country, “the eastern coast has been blessed with Federal appropriations for the improvement of rivers and harbors while the people of the rural districts have been ‘put off’ with agricultural experiment stations and scattered Federal buildings.”

Public sentiment was “overwhelming for some action on the part of Congress which will insure some Federal relief from the awful inconveniences and loss brought by bad roads everywhere.” The Shackleford bill was “the first step in that direction.” Those who criticize the bill because they are against Federal involvement in good roads “might as well retire from the scene, for the good roads steam roller has on a full head of steam, the safety valve is ‘popping off,’ the people are directing its route, and the politician who falls beneath it will be crushed into a ‘back number’ and forgotten.” If they have a better idea, Taylor asked, “then why do they not propose it?” [“Editor’s Warning,” *Better Roads*, June 1912]

In the House, the Shackleford bill was introduced as an amendment to the Post Office Department Appropriations Act, 1913. The amendment prompted lengthy debate over several days, but on May 2, 1912, the House of Representatives approved it, 240 to 86.

The Joint Committee

The Senate Committee on Post Offices and Post Roads reported its bill on the FY 1913 Post Office Appropriations Act on July 12, 1912. The report, of course, discussed many provisions of the House bill, including the Shackleford ABC rental amendment. The report pointed out that

the ABC amendment stated that the plan would take effect on July 1, 1913, “so that the first payment there under would be made in July, 1914.” For that reason, the committee preferred to study the issue:

Since this act is not to take effect until 1913, the committee deems it better to give further consideration to the subject and therefore recommends striking out this portion of the House bill and substituting a provision for the appointment of a joint congressional committee authorized to investigate and report on the subject.

The substitute appropriated \$5,000 for the investigation:

We believe that Congress can act more advisedly when this subject has been investigated by a special committee.

The House Post Office Committee, the report continued, had not held hearings on the joint committee idea, although the House Committee on Agriculture held brief hearings. “We deem it appropriate to say, however, that this bill was agreed upon by the advocates of a large number of different good roads bills in the House.” [Post Office Appropriation Bill, Committee on Post Offices and Post Roads, United States Senate, 62d Congress, 2d Session, Report No. 955, July 23, 1912, pages 24-25]

On August 2, 1912, the Senate considered the amendment to the Post Office Department Appropriations Act replacing the ABC rental plan with the provision calling for a joint committee to investigate good roads issues. Senators debated the merits of Federal-aid, the Shackleford plan, and the study committee over several days, but Senator Jonathan Bourne, Jr., of Oregon, chairman of the Committee on Post Offices and Post Roads, offered several responses by officials to the rental idea. He quoted OPR Director Page’s testimony before the committee that of the 62 bills introduced to that date for national aid, “I consider this measure among the more dangerous.” The plan that he considered “the most reasonable and practicable for the Government is one for the Government to select a definite system of roads, to be considered from the standpoint of agriculture and commerce, the delivery of the mails, and the national defense, that system not to exceed 1½ per cent of the total mileage of the country” or about 33,000 miles. The result “would be the greatest road system under one management in the world.” In any event, any plan “seems to me to require a good deal of consideration.”

Senator Bourne also had asked Secretary Wilson about the Shackleford amendment. On June 26, 1912, Secretary Wilson replied regarding the Agriculture Department’s potential role:

- (1) There is no available force in this department at present that could be assigned to this work.
- (2) The appropriation recommended for the Office of Public Roads for the coming fiscal year is \$202,120, all of which is apportioned for special lines of work.
- (3) A force of from 250 to 300 trained men would be necessary to classify the post roads as designated in the Shackleford bill. It would be exceedingly difficult, if not impossible, to obtain and organize such a force, the duties of which would occupy such a short period of time.

- (4) The cost for the first year for making such a classification would probably be from \$750,000 to \$1,000,000, and this work would be of an absolutely nonproductive nature.
- (5) The cost of continuing this classification after the first year would probably be between \$200,000 and \$300,000 per year, depending on the demand for the work. [Post Office Appropriation Bill, *Congressional Record-Senate*, August 12, 1912, pages 10711-10712]

Editors of *The Washington Post* said the substitute was “a compliment to the sagacity of Representative Underwood,” who had introduced the provision in the House. When the House and Senate formed a conference committee to reconcile the two versions of the appropriations act, “sincere advocates of a better system of public roads in the United States will agree that the House conference . . . could do no better service to the country than to yield on the Shackleford provision for a road subsidy and accept the Senate amendment providing for a joint committee of the two houses to investigate the whole road subject in all its phases.”

The country may want good roads, but “before establishing another ‘pork barrel’ a careful investigation should be made.” The Shackleford amendment could not satisfy sincere good roads advocates:

It merely allows a subsidy for each mile of improved highway. The amount of the subsidy would not be sufficient to keep the roads free from rubbish. As an impetus to the building of improved roads it would not have the effect of a summer zephyr. [“The Federal Aid Project,” *The Washington Post*, August 10, 1912]

On August 12, 1912, the Senate voted, 37 to 21, to replace the Shackleford provision in the Post Office Department Appropriations Act with the provision authorizing a joint committee to investigate and report on the subject of Federal assistance for roads.

The next day, Senator Furnifold M. Simmons of North Carolina offered an addition to the joint committee provision. The addition appropriated \$1 million to be expended by the Secretary of Agriculture in cooperation with the Postmaster General for the purpose of:

. . . improving the conditions of roads to be selected by them over which rural delivery is or may hereafter be established, such improvement to be for the purpose of ascertaining the increase in the territory which could be served by each carrier as a result of such improvement, the possible increase of the number of delivery days in each year, the amount required in excess of local expenditures for the proper maintenance of such roads, and the relative saving to the Government in the operation of the Rural Delivery Service, and to the local inhabitants in the transportation of their products by reason of such improvement.

The Secretary and Postmaster General were to submit a report 1 year after the date of enactment on the improvements and “such recommendations as shall seem wise for providing a general plan of national aid”

Senator Simmons, who said that Senator Bankhead had prepared the amendment, explained that the joint committee would be able to gather only such information as the members can pick up. “The amendment which I propose is for the purpose of obtaining practical experimental information . . . in the work of actually constructing highways here and there throughout the country in coöperation with the local communities.”

Senator Bourne urged rejection of the amendment. Just the day before, he said, the Senate had rejected the Shackelford amendment by a wide margin and substituted the joint committee provision. He said:

. . . it seems to me that the amendment just offered by the Senator from North Carolina is unnecessarily premature; that no good would result commensurate with the amount of money that would be expended, and that, if it were adopted, there would be no necessity for the creation of a joint committee to make a study of this question.

The Senate rejected the amendment. [*Congressional Record-Senate*, August 13, 1912, pages 10824-10825]

As Seely mentioned, Director Page had a “special relationship” with Senator Bankhead:

As early as 1909, he assisted Bankhead in preparing an amendment to the Agriculture Department’s appropriation that provided funds for the OPR to improve post roads experimentally. A year later, Page wrote a committee report on this plan for the senator, who argued, “You can do it much better than I could, and since it will be made a Senate Document, I am anxious that it be made as thorough and convincing as possible.”

The report cited the same factors to be studied as were included in the Bankhead/Simmons amendment that the Senate had rejected. [Seely, page 39; *Experiments on Certain Highways*, Committee on Agriculture and Forestry, United States Senate, 61st Congress, 2d Session, Report No. 438, March 23, 1910]

During the House-Senate conference to resolve differences in the approved bills, the House accepted the Senate substitute of the joint committee for the Shackelford rental plan. In addition, conferees added a provision to the joint committee language appropriating \$500,000 for the post road experiment recommended by Director Page to Senator Bankhead, introduced by Senator Simmons, and originally rejected by the Senate on August 13. [Seely, page 40; *Post Office Appropriation Bill*, Conference Report, U.S. House of Representatives, 62d Congress, 2d Session, August 23, 1912, pages 4-5; *Post Office Conference Report*, United States Senate, 62d Congress, 2d Session, August 22, 1912, pages 4-5]

After the House and Senate approved the bill, President Taft approved the Post Office Department Appropriation Act on August 24, 1912. This legislation was the same law that authorized domestic parcel post, as noted earlier.

On the Million Dollar Pier

In 1912, America faced a three-way presidential election. The Republican Party nominated President Taft for a second term, much to the disappointment of former President Theodore Roosevelt. In the former President's view, his longtime friend, associate, and handpicked successor had not continued Roosevelt's policies. After President Taft gained the nomination of the Republican Party, former President Roosevelt decided to run as the nominee of the Progressive Party, nicknamed the Bull Moose Party. The Democrats nominated Governor Woodrow Wilson of New Jersey.

The Democrats had included a good roads plank in the 1912 platform:

Post Roads

We favor national aid to State and local authorities in the construction and maintenance of post roads.

The Republican Party had not addressed the topic in its platform.

The AAHI held its American Road Congress on the Million Dollar Pier in Atlantic City, New Jersey, on September 30-October 6, 1912. On opening day, Governor Wilson, an avid motorist, delivered a welcoming speech to the delegates. He said of the good roads issue:

It is a question in which there is no difference which can discriminate between party, and in my judgment it is a question in which men of good judgment can hardly differ very radically.

In broad terms, he said:

A nation is bound together by its means of communication—its means of communication create its sympathy, they are the means by which the various parts of it keep in touch with one another The question of highways is a question which has interested my thoughts particularly in recent years, because it is one of the few great instrumentalities of our public life and of our communal life with which the government is of necessity connected.

After describing how the roads of ancient Rome bound the empire together, he said:

I tell you very frankly that my interest in good roads is not merely an interest in the pleasure of riding in automobiles, it is not merely an interest in the very much more important matter of affording the farmers of this country and the residents in villages the means of ready access to such neighboring markets as they need for economic benefit, but it is also the interest in weaving as complicated and elaborate a net of neighborhood and State and National opinions together as it is possible to weave [Applause]

I believe that the development of great systems of roads is, psychologically speaking as well as physically speaking, a task of statesmanship. I believe that it is the proper study of statesmanship to bind communities together and open their intercourse so that it will flow with absolute freedom and facility.

To improve trade and the agriculture sector, “you must immediately increase the facilities of the United States for handling what it has made after it has made it.” He continued:

You cannot rationally increase the prosperity of this country without increasing the road facilities of this country [Applause] We are merely threading the energies of a nation together, linking them in a single pattern or rather we are merely setting them free when we facilitate and promote the interest of a congress like this. I need not tell you therefore that I am in deep sympathy with the purposes of this congress, because in my judgment that would simply be like claiming that I was a rational being and I hope that does not require argument. [Wilson, Governor Woodrow, *Better Roads*, November 1912, pages 70-74]

The American Road Congress adopted several resolutions, including one commending the United States Congress in reference to the post roads experimental project for “inaugurating federal aid to the several States of the Union for the purpose of aiding and encouraging them to build and maintain good roads.” In addition, “federal aid [should] be further extended,” and, to ensure the appropriations are expended in the best interest of the Federal Government and the people, “Congress shall establish a separate Department of Roads, and that to this department shall be transferred the present Office of Public Roads.”

Other resolutions endorsed the use of State funds to provide proper schools for road engineers; that when funds are approved for road construction, funds also should be made available for maintenance of the roads; AAHI should work with the American Bar Association to formulate uniform laws for the building, maintenance, and use of roads; and that an “Old Trails Ocean to Ocean Highway” shall be built along the old roads and trails that opened the West.” [“American Road Congress,” *Better Roads*, November 1912, page 69]

On November 5, 1912, the American people chose Governor Wilson to be the next President of the United States. The split of Republican votes among President Taft and former President Roosevelt helped Governor Wilson win. The combined popular vote for Taft and Roosevelt was over 7.6 million compared with 6.2 million for Wilson. However, the distribution of those votes meant that Governor Wilson won States he might otherwise have lost. As a result, he secured 435 votes in the electoral college (266 needed to win) compared with 88 for former President Roosevelt and only 8 for President Taft.

The AAA Convention

On March 6-7, 1913, AAA sponsored a good roads convention in the Raleigh Hotel in Washington, just 2 days after the inauguration of President Wilson. In fact, on the first day of the convention, 300 or so delegates met with President Wilson in the East Room at the White House shortly after 2 p.m. AAA’s leaders urged him to endorse interstate trunk highways. President Wilson experienced a busy day, but left the White House at 4 p.m. for an automobile ride with the First Lady.

According to *The Washington Post*, “Radical differences of opinion as to the best means of developing the highways of the nation developed among the 300 delegates” at the Raleigh Hotel. Representative Shackelford and C. S. Stetson of the National Grange headed the faction that “favored the building of roads from railroad terminals to the country districts to provide means of transportation for farm products.” The other faction “urged the construction of great interstate trunk highways.” The one thing the two factions had in common was the view “that the Federal government should in some measure aid in the construction of the highways.”

Charles T. Terry of New York described the Shackelford plan as “a bill which will turn out to be a pork barrel proposition in disguise.” Representative Shackelford denounced the automobilists who favored long-distance roads as “highbrows who never contribute to the building of practical roads”:

Mr. Shackelford aroused much opposition when he declared that the only way to build good roads for the benefit of the country was to make them radiate from the railroad terminals to the rural districts, so “that Rube can get his produce to the markets by the cheapest possible route that you highbrows may enjoy cheaper living. Every time there has been a meeting of a good roads association under the auspices of the automobilists they have condemned us as mud-road statemen and pork-barrel congressmen. It is a fight between the farmers of the country and the automobilists.” [“Down to Business,” *The Baltimore Sun*, March 7, 1913; “Road Plans At Issue,” *The Washington Post*, March 7, 1913]

Judge J. M. Lowe of Missouri, president of the National Old Trails Ocean to Ocean Road Association (backer of a transcontinental named trail that had been proclaimed in April 1912), delivered a speech on March 7 in which he promised not to “say much about” his friend, Representative Shackelford, who was not present. However, the Congressman was “one of the best men on earth and one of the worst-advised men on earth on the road question,” garnering laughter and applause from the audience. He added, “I have been a farmer all my life. I only differ with Judge Shackelford in this, that he farms for political purposes, and I run the farm for profit and pleasure,” prompting more laughter and applause.

Judge Lowe was impatient with people who talked of “automobile roads” and “give Rube a chance.” Men, he said, “come in here and tell you not to ‘honk him out of the roads.’” He continued:

Building a transcontinental highway will enhance the value of all land near or fronting it from \$10 to \$50 per acre without one dollar of expense to the owner. Does this “give Ruben a chance”? It will relieve the State of any cost for construction and maintenance. Does this help Rube?

Besides, this pernicious measure, the Shackelford Bill, proposes to level a fine upon Uncle Sam for delivering the mail and parcels post to Rube free of expense. The bare statement is its sufficient refutation

Mr. Shackelford speaks of the people that are in favor of such a proposition as high-brows I do not care about how high up their brows are, but I see that some of them are educated up to the point where they believe in building roads

Everybody now is in favor of good roads. But let us get something concrete. Let us get a start somewhere, somehow, and follow that up. I say cut out that word “aid.” Ask the Government to build the National roads, roads that are National in character. [Applause.] Let us stand behind that idea and stick to it. If we do that we are as sure to win as that the world goes round. [Applause.] [Lowe, Judge J. M., “National Old Trails-Ocean to Ocean Road,” *Better Roads*, April 1913, pages 39-42]

As the convention ended, the delegates adopted resolutions urging Congress to restore the Federal tobacco tax, which had been abolished in 1879, and use the revenue for good roads; create a standing committee on national roads in the House and Senate; implement Federal construction of an interstate system of highways connecting the capitals of each State with the national capital; and encourage States to form a State highway commission if they did not yet have one. [“Favors Trunk Roads,” *The Washington Post*, March 8, 1913]

The Bourne Plan

Senator Bourne was selected to be chairman of the Joint Committee on Federal Aid in the Construction of Post Roads. By September 1912, he had begun gathering information and data from the States on road improvement and the views of the Governors on Federal cooperation in road programs. [“Bourne is Studying Roads,” *The Washington Post*, September 6, 1912]

The Oregon Republican Party had not nominated Senator Bourne for reelection. He ran as a Progressive, but lost the popular election. Although he would leave the Senate in March 1913, he would continue as chairman of the joint committee at his own expense.

On April 30, 1913, Bourne submitted a plan to the joint committee calling for an expenditure of \$3 billion, with \$1 billion to be used for construction and \$2 billion for maintenance. The \$1 billion construction fund would be apportioned among the States based on area, population, assessed valuation, and road mileage. To be eligible for the funds, each State must have a highway commission responsible for general supervision of the expenditures. The States could use the construction funds as they wished, without Federal oversight of individual projects.

The Bourne bill established a United States Highway Commission, based in Washington, consisting of the Chairmen of the House and Senate Committees on Post Office and Post Roads and the OPR Director. The commission would have only an advisory role in the expenditure of highway funds in the States, but would establish a school for road and bridge engineers. The Federal highway officials and their engineers around the country would conduct maintenance inspections to determine if road construction had been carried out efficiently and honestly. Expectation of these inspections would prompt State highway officials to do better construction work and ensure proper maintenance.

Although the Federal engineers could make recommendations, the United States Highway Commission would make final judgments on whether funds were properly used. The two congressional chairmen, who would have access to information on road conditions from 43,000 rural mail carriers through their committee work, would determine whether to withhold maintenance funds. As Congress was the only direct representative of the people, the chairmen were in the best position to make that judgment. Bourne arranged the commission in this way because he was concerned that if a bureau were in charge of the determination, it could result in creation of a Federal political machine.

The size of the funding plan, as *The Washington Post* put it, was “beyond human expectation,” but Bourne proposed a bond plan to finance the program over a 50-year period. The Federal Government would establish a United States Highway Fund by selling \$1 billion in bonds at 3 percent interest. The States would be required to deposit 4-percent bonds as security in the United States Treasury. When a State applied for funds to advance a project, the Treasury would sell the equivalent amount of United States highway bonds. The proceeds would go to the State.

As Bourne explained, “My plan contemplates the expenditure of \$1,000,000,000 for road construction and \$40,000,000 a year for fifty years for maintenance by the government and the states, making a total of \$3,000,000,000 in fifty years”:

The suggested plan, if adopted, enables the States to enjoy the superior credit of the Federal Government and without additional cost to the States establishes a sinking fund that in fifty years’ time would pay off the States’ indebtedness.

By depositing their bonds with the Federal Government as collateral and utilizing the superior credit of the Federal Government in getting money at 3 per cent, the States would ultimately have received \$200,000,000 cash at 1 per cent, cheaper interest than they themselves could secure in a public sale of their own bonds.

He added:

Outside of a few great fundamentals of Government, I deem Federal aid to good roads the greatest, and certainly the most important, economic question now before the American people I was convinced of the desirability of the earliest possible solution of the problem to prevent unintelligent or undesirable legislation in response to the steadily insistent, growing demand for Federal aid in the construction of good roads

The suggested plan, if adopted, enables the States to enjoy the superior credit of the Federal Government and without additional cost to the States establishes a sinking fund that in fifty years’ time would pay off the States’ indebtedness. At the same time, the Federal Government really assumes no consequential responsibility, as no State would default on its principal or interest charges if the total bonded indebtedness of the State did not exceed 10 per cent of the assessed value of the property in the State. [Bourne, Jonathan, Jr., “Practical Plan to Spend \$3,000,000,000 For Public Roads,” *The New York Times*, May 11, 1913; “Billions for Roads,” *The Washington Post*, May 3, 1913; “Provide Good Roads And Save A Billion,” *The Sunday Star*, May 4, 1913]

House Committee on Roads

The first session of the 63rd Congress convened on April 7, 1913. During organizational sessions, the House decided to create a Committee on Roads, separate from the Committee on Post Offices and Post Roads. On May 12, the House Rules Committee agreed to a report calling for the new committee, with Representative Shackelford as chairman.

On June 2, Chairman Robert Lee Henry of the Committee on Rules went to the House floor to introduce House Resolution 104 amending House rules to create the 21-member Committee on Roads. The resolution defined the committee's jurisdiction:

To matters related to the construction or maintenance of roads, other than appropriations therefor; to the committee on roads: *Provided*, That it shall not be in order for any bill providing general legislation in relation to roads to contain any provision for any specific road, nor for any bill in relation to a specific road to embrace a provision in relation to any other specific road.

Chairman Henry explained the rationale for the new committee:

This committee is necessary on account of the growing importance of this subject. There are numerous bills that have been introduced in the House upon the subject of good roads, post roads, highways, etc. They have been referred to a half dozen or more different committees. It seemed to the Committee on Rules that the time had arrived when a committee should be created to be called the Committee on Roads, in order that all of these bills might be referred to that committee, where they can be deliberately and well considered. Therefore the resolution is reported to this House. We believe that it should be adopted and that the rules should be amended and that this important subject should have consideration at the hands of the House of Representatives.

Representative Hiram R. Fowler of Illinois asked how this committee would differ from the Committee on Post Offices and Post Roads. Chairman Henry replied:

I do not think that it will interfere with their duties. It may relieve them of some burdens that they do not care to undertake at this time.

Would it affect jurisdiction over post roads?

I do not think there is any such intention as that.

Representative Victor Murdock of Kansas asked about the reference in jurisdiction to including specific roads in the committee's bills. Chairman Henry replied that "the resolution simply provided that the House may consider the proposition of good roads under a general system or scheme, and that no particular roadway shall be considered by the committee or by the House of Representatives."

What about bills affecting roads in one of the National Parks or the District of Columbia, asked Representative James R. Mann of Illinois. Chairman Henry replied that although the Speaker of the House could make decisions on jurisdiction, the resolution was not intended to assign responsibility for those matters to the new committee.

Representative Philip P. Campbell of Kansas, a Republican member of the committee, was given time to manage opposition to the resolution. He took the floor but offered to yield time “to any gentleman from the House who is still a believer in the old doctrine of State rights and State sovereignty; who believes in that simple government which was advocated by the father of the Democratic Party, Thomas Jefferson, that the people in the townships were better judges of a road that should be built in a township than a bureau with its headquarters in Washington.”

To laughter and applause, Representative Shackelford, “I emphatically believe in that.”

Representative Campbell pointed out that Representative Shackelford was “slated for the chairmanship of this new committee which Thomas Jefferson never dreamed would be created during the history of the Republic” Campbell, therefore, was hesitant to yield time to Representative Shackelford because “I have some doubt about the genuineness of the gentleman from Missouri believing in that old doctrine”

(President Jefferson believed the central government should be able to build roads, but that an amendment to the Constitution was needed granting that authority. Nevertheless, he approved road appropriations, including the bill authorizing Federal construction of the National Road from Cumberland, Maryland, to Wheeling, Virginia (now West Virginia), the country’s first major national road project.)

At times, discussion of the resolution became a debate on the merits of Federal legislation on roads, such as the ABC rental plan. In one colloquy, Representative Joseph H. Moore of Pennsylvania expressed concern that the committee would result in Federal legislation that might dictate how his State should spend its road money or even that the State should share its funds with other States that had less resources. Representative Campbell replied that he presumed the committee “when they report in a bill or proposed law the manner in which the funds raised in Pennsylvania shall be applied, and I hope that they will use some of it in Walnut Grove Township, in Neosho County, Kansas. [Laughter.]” Further, Representative Campbell said he did not oppose road building, but was concerned that the resolution would create a committee that would “say exactly what roads shall be built, and you can not amend their bills on the floor of the House.”

Representative Moore observed that “the proposition before us in regard to postal roads” involved improving rural postal roads around the country at public expense, but post roads in large municipal areas would not receive national consideration. Representative Campbell replied:

Undoubtedly; but this proposition goes far beyond that. It does not limit the construction of roads to roads for postal and military purposes. This simply says that the bars are down, and from this time on roads shall be constructed in every township in the United

States at the expense of the Federal Treasury, whether they are to be used for military or postal purposes or not. The time is past when roads are to be built only for post roads and military roads.

Representative Sereno E. Payne of New York, another State with a large road fund, asked:

Would it not be an improvement of this resolution to refer the whole matter to the promoters of this business—the builders of automobiles throughout the United States—who are the pioneers of this movement and its practical promoters. Would not that be a better plan than to have a committee appointed from the membership of the House?

. . . . As far as I am concerned, I would not appoint any committee. I would not have the Government go into the business of building the roads. Why, even in our State of New York, under a good Democratic administration, it is impossible to keep corruption out of the building of State roads on the scale of \$100,000,000. Now, when we get to spending billions of dollars in the United States for roads all over the country, I think that corruption might grow

I am against the whole scheme. I think that the United States have enough business to attend to, and that the roads should be built by the States, in localities determined by the localities, and looked after by local superintendence and afterwards repaired by local superintendence.

Representative Campbell agreed. Billion-dollar Congresses, he said, “will come and go,” and soon would be up to a billion and half. “And we are here inaugurating one of the most expensive policies that the Government has ever undertaken, and that within three months after the inauguration of a Democratic administration that was pledged to economy in government.” He emphasized that he was not opposed to appropriations out of the Treasury of the United States, but he also favored “a policy that in time of peace would raise enough revenue to defray all the expenses of the Government,” including for roads. By contrast, Representative Campbell, a Republican, said of the Democratic support for the resolution:

[But] gentlemen on that side are not in favor of policies which will produce revenue, while they seem to be in favor of policies that will exhaust more revenue than we will be able to supply the Treasury with.

Representative Murdock asked about the origins of the resolution. Representative Campbell did not know, but Representative Shackelford explained:

Mr. Shackelford. I was in favor of having these exceptions placed there because I had not in mind doing anything that they are intended to cut off. We have had an example before us of a pork-barrel bill in the shape of a public-building bill, and it was intended here to cut off any such legislation as that in relation to roads. It was intended that if a bill was brought in containing general provisions for the construction and maintenance of roads that Members would not be permitted to load it down with specific roads. We also know the vice of omnibus-bill legislation, and the purpose of these two exceptions to

which the gentleman from Kansas has called attention is to make it impossible to have any logrolling or an omnibus bill.

Mr. Mann. I understand this rule would permit reporting of a bill similar to the road provision that was put in the Post Office bill last winter—general legislation—but it does not and would not permit the coupling of two specific road propositions in any one bill.

Mr. Shackelford. That is the idea—to prevent logrolling by an omnibus bill.

Representative John J. Fitzgerald of New York attempted to offer an amendment to exclude “roads in military reservations, forest reserves, national parks, and in the District of Columbia.” Representative Shackelford said the resolution was not intended to include those items in the committee’s jurisdiction, which was intended to avoid “wild schemes.” Representative Fitzgerald sought unanimous consent to introduce the amendment, but Chairman Henry denied consent.

Representative Mann said that “as we move along in civilization, it becomes necessary for statesmen to take into consideration new conditions and the ability of the people to make improvements,” including in the area of public works:

I believe the time has come when the Government of the United States has both the money and the ability, as well as the desire, to see that public roads throughout the country shall be better improved than they have been in the past [applause], and I welcome a rule which undertakes to commit the Government not to an extravagant system of road building, not to wild-eyes ideas of governmental interference with local affairs, but which undertakes to commit the Government through supervision and aid to the construction of permanent good roads through the country where they may be most necessary.

He added that he did not expect his district in Chicago to receive any direct benefit “from the construction of these new roads, but I believe that the people in the great cities are willing to give their aid and money and their wisdom, such as they have, to the construction of permanent good roads throughout the Union, so that the people be better able to travel and carry their produce to market. [Applause.]”

Representative Frank W. Mondell of Wyoming said that “in the midst of all the enthusiasm over the extension of Federalism it is not a pleasant office to be the one to voice opposition to it.” He believed “in good roads as profoundly as any man that lives.” However:

I am opposed to this legislation because I am of the opinion . . . that it is impossible for the Federal Government to embark upon a broad policy of national road building and to carry out that policy in a fair, just, and equitable manner. I believe it is another and a questionable step in the direction of breaking down the very proper line established by the fathers between the powers and responsibilities and duties of the Federal Government and the sovereignty of the people within the States.

He knew that the change was inevitable:

But in that event I can not but feel that it is regrettable, because with an expenditure of Federal money there must necessarily follow Federal control over the highways within the States, the extension of Federal police power, and the extension of the control of Federal authorities over many matters that should remain in the control of the people locally I really feel that we shall be best off the less the new committee shall do beyond that encouragement which the National Government may very properly give to expenditures by State and local authorities.

With time of the opposition expired, Chairman Henry brought the debate to an end:

Mr. Speaker, Congress has the power to extend national aid to good roads under the interstate-commerce clause of the Constitution and the authority to build military highways and to establish post roads There is no question about the power of Congress in the premises. The Democratic Party has inserted a provision in its platform favoring it and proposes to keep faith with the American people not only on this pledge, but also all other pledges we have made. Therefore, I hope this resolution will be promptly adopted.

The House consented to the resolution without a recorded vote. [Committee on Roads, *Congressional Record-House*, June 2, 1913, pages 1856-1860]

Later that day, the House Democrats met in caucus to discuss their legislative plans and confirm committee assignments, including that of Representative Shackelford as chairman of the Committee on Roads.

Washington's *Evening Star*, reporting on the day's activities, said of the committee that it "may see itself included in the general term 'the pork barrel' before the session is closed. The amount of money to be appropriated under this committee's authorization is enormous and the fights for local roads will make political gossip from now on." ["Few Committee Changes in House," *The Evening Star*, June 2, 1913]

American Road Congress in Detroit

The Third American Road Congress, sponsored by AAA and the AHA (as the AAHI was now called), took place in Detroit on September 29 through October 4, 1913. President Wilson sent a brief letter expressing disappointment that he could not attend to tell the delegates about "the very deep interest which I feel in the whole matter of adequate road building in the United States." He added, "Every man who wishes to see this great country made the most of must sympathize with the efforts now being made to weave its parts together by good roads." [*Proceedings of the Third American Road Congress*, Under Auspices of American Highway Association/American Automobile Association, Detroit, Michigan, September 29-October 4-1913, page 9]

Secretary of Agriculture David F. Houston was one of the most eagerly awaited speakers because he would, it was hoped, reveal the new President's plans for good roads. His

appointment had not been announced until March 3, 1913, the day before President Wilson's inauguration. Director Page and the new Secretary had been friends at Harvard. In fact, Page had helped secure a room for Mr. and Mrs. Houston at the last minute in the Powhatan Hotel at Pennsylvania Avenue and 18th Street while they were in town for President Wilson's inauguration, as well as tickets for seats on Pennsylvania Avenue to watch the parade. According to Houston's memoir of his time in the Wilson Cabinet, Page was as surprised as everyone else at the farewell party for Secretary Wilson when they learned who the new Secretary would be:

Page quickly recalled my correspondence with him. He put two and two together, and Sam Blythe reports that he exclaimed: "Give me air and plenty of it and put me on the 'phone instantly. I know now that Houston is going to be Secretary of Agriculture. And think of it! I have reserved a couple of cots at the Powhatan for him and Mrs. Houston and bought them seats along the Avenue so that they may have a chance to see the parade! Get me that Powhatan clerk and help me to get the best rooms in the hotel." A few minutes before one, at any rate, Page appeared at the hotel serene and satisfied, having succeeded in getting us comfortable quarters; and expressed his joy that I was to be associated with the Department and his work. [Houston, David F., *Eight Years With Wilson's Cabinet – 1913 to 1920*, Doubleday, Page and Company, 1926 (Republished, 1970), pages 26-27; from what is known of Page, the quote is doubtful, although the sentiment is likely]

Secretary Houston, speaking on the opening day of the convention at 2:30 p.m., told the delegates he would not try to convince them of the need for good roads or the economic and social advantages they provided. "This would be ridiculous excess, and I shall assume that you are already thorough converts to this idea and that your mission in life is to bring the people generally to your thinking."

He summarized OPR's activities and its predecessors dating to 1893 in the Department of Agriculture. "Its function has been primarily educational, and as such it has been recognized to be of great value." Now, however, Congress had taken "a step of great importance and significance" by appropriating \$500,000 for use by the Secretary of Agriculture and Postmaster General in the experimental program to improve post roads. Counting the regular OPR appropriation of \$300,000, "it will be seen that the department of agriculture has been charged with the supervision of an expenditure for roads of about one and three-quarter million dollars."

Even more impressive was the work of the States. Ten years ago, few States had an expert central road agency; now, twenty-four States had "reasonably efficient highway commissions, and thirty-three have central agencies of more or less importance":

Ten years ago the appropriation by states for good roads slightly exceeded two million dollars. In 1912, the appropriation was over forty-three millions, which was over 40 per cent of the total estimated expenditure by the States up to December 31, 1911. It is estimated that aside from these federal and State appropriations there was expended locally in 1912 over one hundred and seventy-five million dollars and quite significantly

it is also estimated that from 20 to 40 per cent of this local expenditure was, relatively speaking, wasted.

The days were over when political theory stated “that government which governs least, governs best.” He continued, “One gratifying thing today is that people are demanding that their various governmental agencies devote themselves to the vital, essential, economic, and social problems,” a view that would divert funds from war “to the constructive and helpful expenditure for the development of society.” The growth in highway expenditures demonstrated this shift.

Everyone agreed on the role of State and local governments in road improvement, but at this point, arguing for Federal encouragement and aid “would be merely academic.” The question was not whether the Federal Government should be involved but “the extent and character of such aid, and of methods and machinery—federal, State, or local.”

He said the suggestion of great national transcontinental roads and interstate roads connecting the country’s capitals “appeals to my imagination . . . and to the sense of pleasure that I experience in riding around the country in my friends’ automobiles.” However, he entertained “no sort of doubt” about the need to get products to market to make rural life more profitable, comfortable, and pleasurable, “and it is obvious that the representatives of the people in Congress are like minded.” The new post-road program was evidence of the sentiment.

Many questions would have to be answered regarding Federal help. “That the suggestion of federal aid to road building raises grave questions and involves possible dangers, no thoughtful citizen doubts.” He continued:

There are proposals before the public mind which would bankrupt the federal treasury and suggest possible abuses before which those of the worst pork-barrel bill of the past would pale into insignificance.

Any plan must “carry with it the assurance of safeguarding the treasury” or it does not “stand the ghost of a chance of favorable consideration.” He was concerned, too, about precedent. “This is not the only proposal before the American Congress involving the suggestion of huge appropriations.” He also warned that it would be “especially pernicious if such aid should result in stifling the spirit of self-help.” He wanted to avoid “the building up of a great and powerful bureau in Washington, with an ever-increasing control over the highways of the country.”

With those cautions in mind, Secretary Houston outlined his ideas:

The first practical essentials in the planning of road legislation would seem to be to recognize the States as the smallest unit with which the federal government might deal. This would give relief in a measure from the insistent demand that would come from every township and every district in the Union for its share of State or federal assistance, without reference to the merits of the case or the practicability of the undertaking It would seem that the basic feature would be such coöperation between the States and the federal government as would leave with the States the initiative in the selection of roads to receive aid, and as much of the immediate construction and maintenance as would be

practicable. In the case of roads on which federal money is to be expended, it would seem essential and wise that the federal agency should have the requisite power of the approval of the selection, supervision of the construction and maintenance, and the right of inspection, for the plain and simple, ordinary purpose of seeing that the federal money is applied to the purpose for which it was voted and is efficiently expended.

It is reasonably clear that for every reason there must be some automatic check upon the demands to be made upon Congress, and that this should be afforded through the requirement that the States and the localities should contribute an amount both for construction and maintenance at least equal to and possibly double that contributed by the federal government; and that, in the apportionment of any possible federal funds, a number of basic factors, such as population area, wealth, or minimum cost of construction, should control, I have not the least doubt.

He realized that cries of “centralization” would be heard, but he thought nothing was more natural than cooperation for mutual assistance by “two jurisdictions serving the same people.”

Those who complained of centralization did so when it would be of least value:

They are not in the least timid in their approaches to the federal treasury, and their courage fails them only when it is suggested that the federal government has a right to see that the money of the people of the nation is wisely and efficiently expended. If they are to take counsel of their alarms, let them do so before they determine to assault the treasury.

He concluded by saying that as a practical consideration, “I believe that this matter is one in which haste can best be slowly made.” The people will support a road program “when they are convinced that it is applied to a wise purpose and will yield the results anticipated.” The post-road program and the joint committee indicated “a wholesome desire to know the facts”:

Too short a time has elapsed to judge of the value of this undertaking, but that it is in the right direction, few will question. That it might be extended with ample funds if aid is to be furnished, more thoughtful men would concede; and the plan has the peculiar value of being susceptible of indefinite extension in case the result should be found to justify it.

[Proceedings of the Third American Road Congress, pages 22-27]

On September 30, the convention held a session on Federal Legislation. Introducing the session, Chairman Diehl of AAA’s Good Roads Board described the three methods of Federal participation under consideration:

The first plan seeks to distribute the government money throughout all the townships of the United States, so that every mile of the 2,000,000 miles of highway may receive some small portion of it. The second plan seeks to build main highways in cooperation with the State, with the initiative with the State, and with the approval of the Federal authorities. The third system seeks to have the government build a so-called federal system of trunk lines, connecting the various capitals, and running from ocean to ocean

and from the lakes to the gulf. [*Proceedings of the Third American Road Congress*, page 55]

Representative Shackleford was the first speaker. He emphasized at the start that, “Whatever doubts may have formerly existed, it is now generally conceded that the federal government has authority to construct and maintain roads which are used for federal purposes.” It also had the authority to aid the States in their efforts to construct and maintain roads that are in part devoted to Federal use, namely transport of the mail.

Unfortunately, road advocates were divided on the nature of the aid. On the one hand were advocates of “touring-roads” that were “largely made up of rich automobile owners, who desire to spend a part of their leisure in touring the country.” Their motto: “See America First.” On the other hand were the “business-roads,” that served “the general transportation system” and included “roads radiating from the towns and railway stations out among the farms.” Motto: “Cheaper transportation and lower cost of living.” The majority of people favored “business-roads,” but “they are not here today.” They were too busy farming “to travel across the continent to attend road congresses.”

He was not against automobiles. “I am an automobilist myself and a member of an automobile club. I believe that no economic instrumentality has contributed more to the progress of our times than has the automobile industry.” He wanted the number of automobiles to increase rapidly, see the whole country supplied with “a general system of average good roads,” and encourage every farmer to trade in his horse-and-buggy for an automobile. Even now, the automobile was no longer “a mere toy of the idle rich,” but a vital look of the “plain, everyday business man.”

The advocates of “touring roads” want the Federal government to build and maintain “some high-class ‘See America First’ boulevards.” If this is not possible, they want the Federal Government to work with the States to “construct and maintain a limited mileage of excellent ‘across country’ roads.” The chief advocates were AAA, formed “to promote the pleasure of its members,” and the National Highways Association, headed by gentlemen who are or were “connected with the manufacture of road machinery and road materials.” Both associations “have abundant leisure and unlimited resources.”

Examining the national roads scheme, Representative Shackleford said the country had about 2,250,000 miles of roads. Charles Henry Davis proposed a network of only 50,000 miles, “and yet the people along these 2,200,000 miles of unprovided-for roads would be taxed to give these 50,000 miles of fancy ‘national roads’ to favored communities and favored classes.” Davis estimated that at \$20,000 per mile, the 50,000 miles would cost \$1 billion. “Now, the federal government will not likely expend more than \$25,000,000 a year on roads,” and at that rate, it would take 40 years to complete the Davis system.

He referred to pamphlets released by the National Highways Association that depicted an impassable road over the caption: “Poor Roads-poor schools-ignorance-poverty.” A photograph of a good road on the same page was captioned: “Good roads-good-schools-knowledge-

prosperity.” He explained, “Yet this pamphlet advocates devoting 40 years to improve 2 per cent of the roads, leaving the people along the other 98 per cent groping in ignorance and poverty.”

The “aristocratic classes” also fell into the error of thinking that only Federal officials had wisdom and capability. “Can not the States get the same kind of men?” The States, in fact, had made great progress with roads. These gentlemen were enthusiastic about the good roads they traveled on in France. “Why do not they go to the trouble to inform themselves of the fact that there are more miles of good roads in this country than there are in France.”

He admitted, “I fully realize that I am not in entire harmony with the dominant spirit of this great roads congress.” He summarized the “modest” plan he had introduced in 1912:

Although vigorously opposed, this bill passed the House by a vote of 240 to 86. It failed in the Senate, however. I am informed that the American Automobile Association claims the credit of its defeat. How that was accomplished has not been revealed.

Had that bill become a law it is my candid opinion that within one year it would have given us 50,000 miles of improved roads and in five years would have given us a million miles.

Representative Shackelford concluded:

I repeat that if only moderate encouragement by the United States is given to the States and local authorities we shall in five years have a million miles of good roads—roads over which you gentlemen may in comfort tour any part of this great country of ours. [*Proceedings of the Third American Road Congress*, pages 56-64]

Diehl, telling the delegates he was there only to introduce the speakers, said he was pleased to listen to Representative Shackelford refer to motorists, like himself, as in “the plutocratic class”:

After having hard work to pay my office rent in Buffalo and take a day or two off, I love to close my eyes as he talks and see myself swimming in millions and reveling in luxury and splendor. [*Proceedings of the Third American Road Congress*, page 64]

Representative William P. Borland, also of Missouri, was a later speaker during the session. His part of the State, Jackson County, had good roads, many farmers, and many automobiles. “I don’t own one myself and therefore I am not in this plutocratic class, but that is not due to any lack of inclination.” Of course, the automobiles in Jackson County were “not the expensive kind, but they are automobiles suited to the country user.”

He did not believe that every tax dollar should be spent where it was raised; if good roads were purely a local enterprise, “then there is no justification for federal aid in any form.” He said:

No, we cannot divorce ourselves, gentlemen, we are here as a great nation and here to cooperate. I am not a touring man nor an automobile owner, directly or indirectly. I welcome to this movement in favor of good roads every element, every class, if it

chooses to call itself a class . . . who are willing to aid in pushing forward a common object in which we are all interested.

The House of Representatives had voted for the ABC rental plan. “That was a mere pretence [sic]; those of us who voted for that proposition, who didn’t believe in it, voted for it on the ground that it was a declaration of the principle of federal aid and on no other ground.” Fifteen dollars a mile “did not amount to anything, either in the construction or the maintenance of those roads.”

He referred to the joint committee and the post road experimental program, with the States contributing twice as much as the Federal Government:

The fact that it resulted in a glittering failure was not the fault of the secretary of agriculture or the postmaster general or the spirit in which they approached it

It was the conception of the program that prompted the Governors to refuse to participate:

Of the forty-eight governors who were invited to select [post road projects], only twelve undertook to do so. I don’t know how many they actually heard from, but those that didn’t undertake to select their roads said it was because their State constitutions or laws of their State were in such condition that they could not cooperate with anybody on any subject and it was useless to talk to them until they had a reform in their local procedure That information is valuable from this standpoint, that it throws a strong ray of light into this legal jungle that must be cleared away.

He did not fear Federal action or joint supervision of the expenditure of Federal funds:

One of the most vicious things, one of the most dangerous things, to the cause of good roads in this country was the pork barrel idea that we will put our hands into the federal treasury, take out as much as we can hold in both hands, take it back to our congressional districts and say, “Here, this money comes from the federal government, there’s no strings tied to it, you can do with it as you please.”

To create “better” roads (his preferred term), he wanted officials to employ the scientific knowledge that OPR was acquiring, select the best material, design proper drainage, share the acquired knowledge with the public, “then we have got to have some form of federal aid by which there will be an active coöperation between the officials of the federal government and the local district.”

The problem, in short, was too big for any one road district.

Representative Borland ended on a high note, telling the delegates that they believed in making the United States “a greater, grander and richer nation and a nation of intelligence, a nation of high social activity, a nation of high development, a nation of good schools, a nation of good churches, a nation where country life is just as comfortable and just as social and just as attractive as city life; then, when you have done all of that, you will find that the old Stars and

Stripes will wave from ocean to ocean, over the grandest, best civilization that the world has ever seen.” [*Proceedings of the Third American Road Congress*, pages 71-79]

The Third American Road Congress adopted resolutions based on the “whereas” that:

The loss by reason of bad roads which everywhere lessens the profits of industry, increases the cost of living, and burdens business enterprise, amounts to millions annually, therefore be it

The congress favored creation of a Department of Public Works headed by a member of the President’s Cabinet; State highway commissions and State aid for construction and maintenance of the main roads; a “national road system” and construction of lateral and connecting market highways by States, counties, and towns; a study by OPR of “applications for patents affecting road and bridge construction before letters of patents are issued”; the Lincoln Highway Association, which had proposed to build a transcontinental highway “by popular subscription,” and the National Old Trails Road Association “for its splendid work”; compulsory use of wide tires and road drags; the use of convicts in road construction and maintenance; and “long tenure in office of experienced and efficient highway officials.” In addition, the delegates resolved to respectfully petition the United States Congress to authorize the President to appoint a commission from civil life to study and report on a system of Federal aid; and to adopt legislation authorizing the United States to officially participate in the International Road Congresses. [*Proceedings of the Third American Road Congress*, pages 293-294]

Shackleford Tries Again

On January 15, 1914, Representative Shackleford introduced a new version of his \$25 million ABC rental plan that cleared the Committee on Roads the following day as a standalone bill, not as an amendment to an appropriation act.

The committee’s report addressed several points, including the constitutional authority of the Federal Government to construct and maintain roads. The point “is now quite generally conceded,” the report stated, based on the post road provision, defense needs, and regulation of interstate commerce. Although roads are primarily State and local concerns, the Federal Government uses those roads for a constitutional purpose, namely delivery of the mail in rural areas:

In times past when the volume and weight of postal matter were negligible the interest of the General Government in the condition of the roads was not substantial, but with the advent of rural free delivery came a Federal necessity for better roads, and with the now rapidly expanding parcel post that necessity has become acute.

The Federal Government should never disturb State and local jurisdiction over roads, but must safeguard the expenditure of Federal funds. “It must be seen to that every dollar of this money expended secures a dollar’s worth of road construction or road maintenance.” This assurance could be achieved in two ways:

The first is Federal supervision of its expenditure as provided in section 3 of the bill reported. The second is by providing standards of road construction and maintenance and strictly withholding Federal contribution from all roads whose construction and maintenance has not brought them strictly within such specified standards. This has been provided for in section 4 of the bill reported.

The bill also recognized that variances among the States in climate, physical features, constitutions, and laws made an arbitrary Federal plan impossible to devise. Each Governor could choose the appropriate plan for the State. [Construction and Maintenance of Rural Post Roads, Committee on Roads, U.S. House of Representatives, 63d Congress, 2d Session, Report No. 168, Part 2, January 19, 1914, page 2]

Section 2, as noted, gave the Governor of each State the choice of two methods of road improvement, but if the Governor does not do so within the time specified, the Secretary of Agriculture shall decide the matter. One choice was in Section 3, which provided for cooperation by the Secretary of Agriculture with State officials to jointly determine which rural post roads will be constructed and maintained; establish the material, character, and manner of construction and maintenance; and supervise work as agreed to by the Secretary. The Federal share would not exceed 50 percent.

Section 4 contained the other choice, namely the ABC rental plan. If the total rental payment exceeded the total funds available nationally for the purpose, funds would be distributed on a pro rata basis.

During several days of debate in the House on the Shackelford bill, Representative Borland introduced a substitute bill that redefined the ABC classes to include interstate highways connected with a system of highways throughout the country (class A), State highways and other roads connecting to the interstate highways (class B), and county highways and local post roads connected to a market town and a main interstate or State highway (class C). After rejecting the Borland substitute, the House of Representatives passed, 284 to 42, the Shackelford rental bill on February 10, 1914. [Rural Post Roads, *Congressional Record-House*, February 10, 1914, pages 3272-3292]

In the Senate, the bill was referred to the Committee on Post Offices and Post Roads. By April, the *Star* in Washington was reporting that:

Considerable opposition had been aroused to the bill passed by the House because of clause 4, embodying the Shackelford road rental proposition . . . which would mean a piecemeal and ineffective scattering of federal money in such manner as to practically put a premium upon leaving the dirt roads as they are, except only for such occasional dragging as would qualify them for the \$15 a year per mile.

To advance a road from class C to class B would require an expenditure of several hundred dollars per mile to obtain a rental of \$30 a year per mile, while advancing a road from class B to class A would cost several thousand dollars per mile to obtain an annual rental of \$60 a mile.

The procedure under Section 3 “seems to meet with quite general approval, though it is not improbable that the appropriation for the first year may be reduced from \$25,000,000 to \$5,000,000.”

Although most Senators had not expressed their views on the matter, several had spoken to reporters or issued statements. For example, Senator Harry Lane of Oregon said:

I would like to see a plan devised by which main highways of the country would be constructed by the government, making use of the army engineers in the construction and have the states, through the use of the prisoners, build feeders to them.

Utah’s Senator Reed Smoot said:

I will frankly state that I am opposed to the so-called Shackleford roads bill, for I believe that it is nothing more or less than a pork-barrel measure. I am in favor of good roads legislation, but before embarking upon it I believe it is the duty of Congress to agree on a comprehensive plan which will not only benefit the States but the nation.

Senator John Weeks of Massachusetts said:

Personally, I believe that roads should be constructed by local communities, but I am well aware of the fact that we have reached a point where we are almost certain to have national legislation. That being the case my desire is that the money be so appropriated, under a definite plan, that waste may be prevented and the best possible results obtained.

The article stated that when the Senate took up the issue, “it is certain to be followed by a quite thorough debate on the most effective plan, obtainable, when the subject is approached from a national viewpoint.” [“Federal Aid To Roads Soon Before Senate,” *The Sunday Star*, April 19, 1914]

On June 22, the Committee on Post Offices and Post Roads substituted the Bourne bill for the Shackleford bill. The substitution occurred after Senators Weeks, James E. Martine of New Jersey, and Nathan P. Bryan of Florida pointed out that the U.S. Treasury could not afford the strain of appropriations for a big roads program. Senator Martine observed that under the Bourne plan, States could obtain funds at lower interest rates than possible without the national guarantee.

The *Post* reported that House advocates for good roads were disappointed by the Senate committee action that “closed the door of hope to the Shackleford bill.” The *Star* stated that the plan “means the death of the Shackleford bill.” [“Billion Is For Roads,” *The Washington Post*, June 23, 1914; “Agrees On Road Bill,” *The Evening Star*, June 23, 1914]

The Committee on Post Offices and Post Roads reported the bill on August 11, with the summary that it had struck out the entire House bill, substituted a new bill, and recommended adoption of the bill as amended. [Construction and Maintenance of Rural Post Roads,

Committee on Post Offices and Post Roads, United States Senate, 63d Congress, 2d Session, Report No. 743, August 11, 1914]

An editorial in *Engineering News*, reacting to reports of the committee's action, objected to the Bourne plan, which the magazine had criticized when it was released in 1913:

The chief objection to the Bourne scheme is the objection which attaches to all schemes for building roads with borrowed money; to wit, that the roads to be built will be worn out and gone long before the bonds issued to build them fall due. If the life of bonds issued to pay for road construction or paving were limited to the life of the roads built from the proceeds of the bonds, the objections would be much less serious. But almost invariably states and counties and cities which are building roads and paving streets with borrowed money raise the money by bond issues running twenty-five to fifty years The present generation of taxpayers is already loaded down with burdens from which they receive no corresponding benefit; they ought not, therefore, to lay increased burdens on the generation which is to follow. For the Federal government to encourage the several States to continue such financial folly would be a crime.

It may be shrewdly suspected that the reason why the Senate Committee has reported this bill of Senator Bourne's is because of its disinclination to report favorably the almost equally foolish House bill for Federal aid to roads, passed some three months ago.

There is considerable reason to believe that both the Senate bill and the House bill were intended rather for political effect than as measures intended for enactment into law, and that neither House or Senate seriously intends to enact any Federal aid to Highways law at this session. ["Federal Aid for Road Construction, *Engineering News*, August 6, 1914]

The Senate took no further action on the committee's bill.

The Polecat Speech

The strength of feeling on both sides can be illustrated by an episode in 1914 involving Representative Shackleford's rental plan. In February 1914, he became upset about criticism in editorials claiming his bill would encourage graft and, as one newspaper put it, would "plunge the good-road movement head over heels into Federal pork barrel." He was, however, particularly infuriated by statements by Judge Lowe, the Missouri resident who headed the National Old Trails Road Association and backed Federal construction of national highways.

In a fury, Representative Shackleford took to the House floor, as a "Question of Personal Privilege," to denounce Judge Lowe as a backer of "peacock lanes that extend from New York to San Francisco." He described Judge Lowe by referring to how a naturalist might identify a quadruped in the field:

He would notice it had a nose; so had a horse. He would discover that it had two eyes; so had a cow. He would discover that it had a tail; so had a dog. He would discover that it

had teeth; so had a wolf. Approaching nearer still, he would suddenly discover the air filled with a fog which would penetrate his eyes, his mouth, his nose, his ears. From the distinctive odor of that fog he would instinctively discover the particular family to which the animal belonged.

Representative Shackleford was referring to a "polecat," a term he used during his speech but excised when given the opportunity to edit his remarks for the *Congressional Record*. A "polecat" is defined as "any of various North American skunks."

Having compared Judge Lowe to a polecat, Representative Shackleford continued:

Now, let us get down to him—this old trails man. What does he do? When he needs money to carry on his editorial canning factory he takes a United States map and a piece of red chalk and marks an old-trails highway across some State and then goes to the people in the towns along that line and collects dues.

The entire speech was so heated that Representative Shackleford had the most offensive portions deleted from the printed record of the day's proceedings. He nevertheless had 36,000 copies of the "polecat" speech printed and distributed under government frank. [Question of Personal Privilege, *Congressional Record-House*, February 24, 1914, pages 3844-3847]

On March 3, Representative Borland went on the floor to express outrage at the slander of Judge Lowe. Denying that members of the named trails association "belong to the tribe of quadrupeds indicated by my colleague," Borland said, "The particular hit of the speech was calling them peacock boulevards, which referred to all improved roads that went farther than the nearest railway station." He pointed out that Representative Shackleford was a member of the Lincoln Highway Association, which differed from the National Old Trails Road only in (a) not passing through Missouri and (b) having the backing of the automobile industry:

If my colleague really believes that these people belong to the class of quadrupeds to which he has referred, I am surprised to find him in their company, unless he is there purely as a naturalist. [*Congressional Record-House*, March 3, 1914, pages 4237-4240]

Judge Lowe defended himself by explaining his objections to the ABC plan:

Let's analyze briefly what is called the "Shackleford Roads Bill." It is cunningly devised to appeal particularly to "the farmer," and especially to those living on a road not designated as a "cross-State" or a principal market road. So insidious is this appeal that the unthinking or uninformed may say, "There, at last, is a chance to get something for nothing; 'Shack' has knocked off the top of Uncle Sam's barrel."

Before the farmer even gets a "look in" into this barrel, under this A. B. C. class, he is required to build his road first, and then match dollars with Uncle Sam for its maintenance. For every dollar appropriated by the Government of the people's own money for building roads, the people must be taxed again to raise an equal amount.

Years later, Judge Lowe returned to the "Polecat Speech" and Representative Shackelford. After reprinting Representative Borland's speech in the March 1924 edition of *National Old Trails Road--The Great Historic Highway of America*, Judge Lowe added a footnote:

Shackelford was retired to private life at the ensuing election [1918] which he graces so well; but why adopt now his defeated methods?

In the face of such polarized positions, Page's views would play a major role in determining the outcome. Perhaps because of Dodge's downfall following too-heavy promotion of Federal-aid legislation, Page had focused initially on encouraging improvement of State laws and practices, always with a focus on research to gather the data needed to identify ways to build better roads. As Seely explained, with creation of the AAHI in 1910, Page "played a central role in shifting the movement's goal from state-aid to federal funds, a move aided by the fact that there were 468,000 cars on the roads in that year":

The policy Page presented to Congress paralleled his Progressive vision of State highway administration: a cautious position that provided limited government aid through voluntary cooperation. Page sketched a federal-aid plan, a cooperative venture in which the federal government provided technical and financial assistance for roads built by the states. He condemned the concepts of a federal highway commission and cross-country highways as economically and socially unnecessary and argued that the focus should instead be on farm-to-market roads, the roads for rural free delivery. [Seely, pages 37, 39]

The Experimental Post Road Program

The Post Office Department Appropriation Bill for 1913 had appropriated \$500,000 for an experimental program to improve post roads on which the delivery of mail "is or may hereafter be established" and determine how the improvement enhanced the delivery of mail. The funds were to be made available to State or local governments, which would have to pay two-thirds of the cost.

The appropriated funds were divided equally among the 48 States, on the theory that each State would be able to improve about 50 miles of post road. However, as Representative Borland had stated, the response was not promising. In response to a joint letter from Agriculture Secretary David Houston and the Postmaster General Albert S. Burleson to the Governors, only three States (Alabama, Iowa, and Oregon) agreed to designate experimental post roads and accept the Federal funds. More than half the States replied that they lacked legal authority to participate; 6 refused to participate, 5 did not bother to reply; and 2 declined to participate because of other Federal statutes requiring an 8-hour day for workers, including road crews, and a 1905 Executive Order barring convict labor on government work.

To get the program started on a better footing, the two departments selected two to eight locations representative of conditions throughout the country and to concentrate the funds on a few roads in these locations. This initial effort prompted other States to participate.

Under Page's direction, an OPR engineer was assigned to each project to lay out the road, supervise construction, and approve expenditures. The first project completed was the Waterloo Post Road from Florence to Waterloo, Alabama. Work on the road was completed in 1914, at a cost of \$25,781.09 for grading and \$2,166.05 to surface a portion of the road with gravel.

Overall, however, the experimental program was plagued with problems. OPR's idea of appointing a trustee in each county to hold the funds for each post road conflicted with some State laws. Many counties resented surrendering their control to an OPR engineer, and did so only grudgingly to retain the funds. Problems also stemmed from application of the Federal statute providing for an 8-hour day for all laborers and mechanics and Executive Order 325-A, signed by President Theodore Roosevelt on May 18, 1905, prohibiting the use of convict labor. One Virginia county canceled its agreement after concluding it could do the work on its own with convicts working 10 or 11 hours per day at less cost than if it accepted the Federal funds.

When Minnesota objected to application of the 8-hour requirement, the Attorney General of the United States ruled on July 31, 1913, that the post road program did not constitute a public work of the United States and, therefore, neither the 8-hour law nor the prohibition on convict labor would apply. [Joint Report of the Progress of Post-Road Improvement, Letter from the Acting Secretary of Agriculture and the Postmaster General, U.S. House of Representatives, 63d Congress, 1st Session, Document No. 204, August 26, 1913, pages 7-9]

A joint report to Congress on the progress of the post road program summarized some of the problems:

From correspondence and from the attitude of the local officials in many places it appears that there is a disposition frequently to avoid the obvious requirements of the present act with respect to Government control over the expenditure of joint funds. The allotments have been looked upon not infrequently in the light of a gratuity, the idea of the post road has been lost sight of, and the question has been frequently raised in the field as to why the Government would not give the money to the counties and let them spend it

We find that many States incorporate into their State road laws certain details of design and methods of construction which, in any general distribution of national aid, would at once act as checks on supervision by the National Government. [Joint Report of the Progress of Post-Road Improvement, page 13]

In all, agreements were reached for 17 post road projects totaling 457 miles in 13 States and 28 counties. The last experimental post road project, in Dubuque County, Iowa, was not completed until 1918. Although the amount of mileage improved was small, the experimental appropriation proved valuable because of the experience the OPR gained in its administration. In particular, Page became convinced that Federal-aid should be made available only to the States to avoid the complexities of dealing with officials in 3,000 counties. [*America's Highways 1776-1976*, pages 82-83]

American Road Congress – Atlanta

The AHA and AAA sponsored the Fourth American Road Congress on November 9-14, 1914, in Atlanta, Georgia. About 3,300 delegates registered for the congress at the Auditorium-Armory.

Director Page, president of the AHA, told delegates that the presence of people from around the country was “proof that this great question is of nation wide [sic] importance, and well it may be so considered, for it touches human welfare of every angle and is a material factor in the development of education, in our home life and in religion, the three great fundamentals of our civilization.”

In 1914, the country added 18,000 miles of hard surface roads, thus giving the United States “a mileage three-fourths as great as the total length of the National Roads in France.” However:

Our system of road management is admittedly wasteful and inefficient except for the few shining exceptions here and there, and I firmly believe that with good business methods and skillful supervision we could save not less than \$50,000,000 per year and obtain better results than we are now obtaining.

The regular use of convict labor was prominent “in solving our road problems during the past ten years.” Moreover, the practice was spreading to the point that he could say “this policy has no geographical bounds in its field of usefulness.”

After discussing OPR’s work, Page said that 1915 “holds possibilities of progress in road betterment which we should avail ourselves of, not merely through zeal but through zeal coupled with knowledge.” With so many State legislatures in session in 1915, “we shall have the opportunity to accomplish results through revision and constructive road legislation.” He added:

We have seen what has been accomplished in those sections of country which have utilized in a practical way skilled supervision of road work. We have learned to our bitter cost the danger of allowing our well constructed roads to be left to deteriorate through lack of maintenance, and so we should make the year 1915 conspicuous, not so much through the spending of more money as through the wise and practical expenditure of the money that will be normally available. [Proceedings of the Fourth American Road Congress Under Auspices of American Highway Association/American Automobile Association, Atlanta, Georgia, November 9-14, 1914, pages 11-15]

Robert P. Hooper, former president of AAA, told delegates:

In brief, the A.A.A. believes that the Federal government should help the several States on their most important arteries of communication, and then the States can cooperate more thoroughly with the county and township units in the essential lateral roads.

He admitted that motorists, at times, were “unduly optimistic,” but his goal was that the United States should “have highways connecting our several States the equal to those to be found in France.” As motorists moved more easily between North and South, both sections of the country would benefit:

In no way can we become better acquainted than through the intimate channel of roads travel [sic], for then we promptly discover that we are all only human beings, interdependent one upon the other, and equally interested in the general welfare of our great country. [Proceedings of the Fourth American Road Congress, pages 15-16]

Senator Hoke Smith of Georgia was the next speaker. An attorney, newspaperman, former Secretary of the Interior under President Grover Cleveland, and Governor of the State, he had won election to the Senate in 1911 to fill a vacancy. He contrasted himself with Hooper:

I am deeply interested in the good roads problem; not exactly in the same way that my friend Mr. Hooper is. He always thinks of a great national highway to run his automobile over, and to have a splendid Glidden tour over. I am in favor of that kind of good roads [sic], but the good road that interests me most is the good road that is to help build up that upon which our country rests for its prosperity more than any thing [sic] else. [Applause] Every country, ours included, rests for its wealth producing power upon agriculture and manufacture.

(AAA sponsored the Glidden tours from 1902 to 1913 in the form of road rallies of reliability and endurance. Charles J. Glidden, a wealthy automobile enthusiastic, provided a trophy to AAA to award beginning with the 1905 tour.)

“No nation ever lapsed, no nation ever went backwards while making progress in its agriculture.” The country had neglected roads in rural areas, leaving rural life isolated. That was why the good roads problem was “preeminently a national service” – it would lessen the cost of transporting agricultural products as well as the cost of transporting to the farms what they needed, while lessening rural isolation to “help make rural life all it should be in its beauty and its charm.”

The country had done a number of things to enhance agricultural life. It established agricultural colleges and experiment stations. A new law would help farmers improve the marketing of their products. The new parcels post program was another important advance. Good roads were another improvement:

Do not allow charming advocates of great national highways to sweep away from your minds the thought that the greatest of all good that can come from good roads is the development of the agriculture of our country

He was all for the automobile, great national highways, even Glidden tours, one of which he had participated in with AAA’s Hooper from New York to Atlanta:

These are splendid, but their chief value is that they may stimulate better roads away from the great highways. If we are to simply have the great highways and nothing more, I would give little for them as an economic force to develop the country, but as an inspiration to build feeders all around, and to have good roads every where [Proceedings of the Fourth American Road Congress, pages 17-20]

The afternoon session on the opening day was on national legislation, with AAA's Diehl the lead speaker. AAA, he said, "believes in Federal aid in highway construction" and that the Federal Government would appropriate funds within a year or two "to assist in constructing important roads." For nearly a century, the country had relied on localities to improve the roads "and at the end of the hundred years, the roads were not much better than at the outset." In recent years, progressive States had made great progress through adoption of State aid laws:

Therefore, one of the fundamental principles that this Association stands for is that the government should assist in highway construction, also that every political sub-division has a vital duty to perform, and that the township, county, and State each has a duty and that the Federal Government has a duty.

Very often the phrase is used by public speakers and seen in the good roads press, that what we want is good roads from the farm to the railroad station or from the farm to the market, and that we don't want "peacock lanes" across the country for a few motorists; and I am afraid that Senator Smith fell into that error in thinking that the Automobile Association is trying to have roads constructed from ocean to ocean or from the Great Lakes to the Gulf. What we stand for is that the government money should be spent on main market highways and that it should not be spent on lateral or unimportant highways.

The construction of roads is a local question, but also a county, State, and national question. Neither the State nor the Federal Government should be asked to build a road to serve a farm. However, it is equally obvious that "the county thoroughfare should be cared for by the counties, and that the State should care for the State highways, and that the national government, in turn, should assist in the construction of those roads which necessarily come within the jurisdiction of the national government and are of inter-state importance." Farm road advocates often state that the railroads were the interstate highways of the country. True, they do carry a great amount of through traffic, but local and regional traffic also must be accommodated:

Consequently we advocate the main roads to be built first, and those are the two fundamental principles that this Association is working for: that the government should aid, and that the government money should be spent only on the main thoroughfares and should not be dissipated by trying to spend it on 2,000,000 miles of road.

The aid to roads of national importance would be an example to the States to improve roads of statewide importance and to counties and townships to act accordingly. The "great national roads and the State highways" will form the backbone of a "properly connected and well developed system of highways" that will "make for the greatest development this country has ever known."

To help make this happen, AAA had moved its principal headquarters to Washington, D.C.

In closing, he emphasized that AAA did not stand "for roads upon which to run a Glidden tour or roads from ocean to ocean." It stood for Federal-aid in the construction of highways, as well as State, county, and township aid, with the Federal money "spent on the main roads." He added,

“it would be foolish to spend and dissipate it on 2 or 3,000,000 miles of roads.” [Proceedings of the Fourth American Road Congress, pages 24-27]

Representative Borland also spoke during the afternoon session. He lamented the growth of big cities to the detriment of small towns and rural life. Construction of a system of highways that would have the same effect would be easy:

Such highways would be what are commonly called post roads whose only purpose is to get the produce out of the country district at the earliest possible moment into the big centers. A system of highways can be built however which will do more towards the social, beneficial and industrial upbuilding of the small towns and rural communities than anything else in modern life.

Such a system of highways would open up every section of our country, turn the streams of wealth and population back again to the rural districts, make the small towns again the center of industrial and social activity and check the terrible drain of wealth and population towards the cities.

He had long advocated cooperation between the State and Nation on road building. “No more national subject is before the American people at this time than that of good roads.” However, he was not interested in simply disbursing funds “under the attractive title of a road fund.” When people realized they were not getting any results for the tax dollars, “a very violent revulsion of feeling would occur which might easily make road legislation a scandal and a reproach.” What was needed was “a sane and practical system by means of which the roads can be secured at a minimum expense and maintained in passable condition without unreasonable burden on the people.”

By expecting “the smallest political sub-division” to improve and maintain public highways, the country ended up with “a patch work of highways on which a large amount of the people’s money is spent annually without any permanent improvement.” Instead of thinking of roads as a means to access the nearest railroad station, what was needed was roads that “go somewhere” that are “connected up into a system of county, State and national highways.” He added:

Every great nation that has successfully built and maintained a system of highways had found it necessary to classify its highways according to the demands of the traffic.

“It is a fatal mistake to mix politics with the good road question.” Highways should be classified as great cross State or interstate highways; main feeders or great country roads; and byroads, local roads, and land service roads. Each type of road should be built to accommodate the traffic it must bear. He recommended Federal legislation that required practical and scientific classification of roads, that provision be made for maintenance after roads are built; and to provide for State highway commissions that can communicate with OPR to learn about “the most advanced, scientific and economic methods of road engineering.” He had proposed such legislation, and it seemed to have gained supporters, but he was not fixated on the details:

I am willing that the cause of good roads should be advanced by any method and through any channel that will be of service, but in my judgment it is time for the politician to quit shouting good roads and get down to some practical benefit for the people. [Proceedings of the Fourth American Road Congress, pages 29-33]

AHA had joined with the American Bar Association to form a committee to develop model State highway legislation. On the second day of the congress, the committee reported that its compilation of State road laws now was over 3.5 million words. A digest was being made, along with a cross-index. When that work was done, the committee would draft a model law to be presented to all State legislatures. [Proceedings of the Fourth American Road Congress, pages 46-47]

On the third day, the presentation of technical papers was interrupted to read a letter that had just been received from President Wilson. He regretted he could not attend to convey his “deep interest” in the work of the Fourth American Road Congress:

I need scarcely emphasize the social and economic importance of good roads. They are prerequisite to the betterment of rural life in a number of directions. Improved roads, especially improved community roads from the farm to the nearest railway station, are an urgent necessity. They are essential for the economic marketing of farm products, and for the development of the educational and social institutions of the country.

Providing additional funds for better roads was important, but “even more important are the matters of better road administration and the better maintenance of roads already constructed.” Despite spending \$205 million a year for roads, “it is clear that we are not getting the results we should have”:

The proper planning for road systems in States, the development of better methods of administration, State and local, and the proper maintenance of roads, will, I am sure, receive peculiar attention from your body. When the people are convinced that they will receive full value for every dollar expended on roads they will be brought more easily to an appreciation of the need for future expenditure and will make the requisite provision.

He concluded, “I believe that your body can furnish intelligent guidance in the solution of our problems in this field.” [Proceedings of the Fourth American Road Congress, page 155]

The final day of the congress was to be Georgia day, but many delegates had left for home, while many of those who were scheduled to read papers were absent. With the afternoon sessions canceled, the congress adjourned.

The election of AHA officers took place for the coming year. The new president would be Fairfax Harrison, president of the Southern Railway Company. Director Page was elected vice president. [Proceedings of the Fourth American Road Congress, page 361]

An account of the congress in *Better Roads and Streets* stated:

No decision was reached as to where the meeting will be held in 1915, and this matter will be announced later. Nearly all expressed themselves as being heartily sick of several road congresses.

The final paragraph of the magazine's account said that one of the "most important and at the same time most needed steps taken at the Congress was the preliminary organization of an organization, the membership of which will be the highway commissioners and engineers of all States in the United States which have such departments." An organizing committee had been appointed and it issued a call for a meeting with the following resolution:

Believing that some definite plan should be formulated regarding Federal co-operation with the States in road construction, we, the undersigned State highway officials, herewith issue a call to all State Highway Commissioners or Departments to send a representative with power to act to a meeting to be held at the Raleigh Hotel, in the city of Washington, on Saturday morning, December 12, 1914, at ten o'clock to assist in drafting a bill to be presented to Congress, which will embody a plan of Federal co-operation in road construction. [Steele, George D., "The Fourth American Road Congress, *Better Roads and Streets*, December 1914, page 62; Steele's lengthy account of the congress is on pages 29-30, 36-37, 56-62]

On December 15, the Fifth American Good Roads Convention and the 11th Annual convention of the American Road Builders' Association (ARBA) opened in a frigid Chicago. After attending, Jesse Taylor, the editor of *Better Roads and Streets*, commented:

Just back from Chicago and "thank goodness" no one can call any more "national" road congresses for 1914. We can all recall that they cost us a lot of money.

The many so-called road congresses in 1913 and 1914 have exhausted both the patience and the purse of all road enthusiasts It is time for the big men of the road movement to come together, reason with each other, and prevent the set-back, which is sure to come to convention boats when their pilots run them upon the rocks of disgust and lack of attendance

Give us but one big road congress in 1915, and we will all boost and attend. It won't be necessary to register chauffeurs, hack drivers, hotel bell-hops, and porters to make the absentees who read the printed registration, believe there was a big crowd. [Taylor, Jesse, The Editor's Column, *Better Roads and Street*, January 1915, pages 27-28]

Over the next few months, the AHA and ARBA formed a committee to consider a single road congress in 1915. They agreed to hold it on September 13-17 in Oakland, California, during the Panama-Pacific International Road Exposition in San Francisco. A companion exposition, called the Panama-California Exposition was held in San Diego. Both were intended to celebrate the Panama Canal, which had opened in August 1914. The Lincoln Highway Association, the National Old Trails Road Association, and other long-distance trail boosters publicized their route for the expected automobile travel to the expositions.

The committee accepted an invitation to hold the Pan-American Road Congress in the Exhibition Hall of the Municipal Museum in Oakland. The committee distributed thousands of invitations to officials throughout the country, Canada, and South America. [Proceedings of the Pan-American Road Congress, Held Under the Joint Auspices of the American Road Builders' Association and the American Highway Association at Oakland, California, September 13, 14, 15, 16, and 17, 1915, pages vii-ix]

The Joint Committee Report

The Joint Committee on Federal Aid in the Construction of Post Roads issued several reports describing road conditions, administration of road improvements, and funding in the States and other countries. In addition to drawing on information from OPR, the committee received testimony on the effect that bad roads had on education, quality of rural life, and migration of young people to cities. Testimony also covered the impact of roads on farm life and how motorization had changed farm transportation.

The committee summarized its conclusions in a report released on January 21, 1915. The report strongly endorsed the need for a Federal-aid program, and dismissed any constitutional objections to such a program:

Among those of legal training a technical discussion of the constitutionality of national highway appropriations would no doubt be interesting, but we believe the time has long since passed when controversy over this question could be deemed appropriate Federal aid to good roads will accomplish several of the objects indicated by the framers of the Constitution—establish post roads, regulate commerce, provide for the common defense, and promote the general welfare. Above all, it will promote the general welfare.

The committee, with its membership spanning the spectrum of views on Federal-aid, was able to agree on some points regarding the future Federal-aid program. The members rejected centralization of control in Washington. They also feared that spreading a small amount of funds over a large amount of mileage would create a "pork barrel" that would work against permanent upgrading of the roads. However, the committee was unable to agree on how the Federal-aid program should operate. [Federal Aid to Good Roads, Report of the Joint Committee on Federal Aid in the Construction of Post Roads, U.S. House of Representatives, 63d Congress, 3d Session, Document No. 1510, January 21, 1915, page 14, 19, 22-23]

Representative Borland, who was not on the committee, explained the contrast in a letter to the Lincoln Highway Association:

The question is whether federal aid shall be used as a means to secure a better system of roads; or shall the federal money be frittered away in small payments scattered into every congressional district and every road district of the United States. The people are in favor of the former and the politicians of the latter plan. The latter plan is known as the pork barrel plan of federal appropriation, by which everybody gets something and nobody gets anything worth having. [*The Lincoln Highway: The Story of a Crusade That Made Transportation History*, Dodd, Mead and Company, 1935, page 232]

The Third Session of the 63rd Congress, which had begun December 7, 1914, adjourned in early March 1915, without completing action on a Federal road bill or resolving the long-running debate between advocates of Federal-aid and advocates of national roads. Resolution of the debate would be delayed at least until the first session of the 64th Congress, which would not begin until December 6, 1915, and continue through September 8, 1916.

Part 2: The Federal Aid Road Act of 1916

AASHO to the Rescue

On December 12, 1914, at the Raleigh Hotel in Washington, State highway officials founded the American Association of State Highway Officials (AASHO), with Logan Page and two of his top officials in attendance. Henry G. Shirley, Chief Engineer of the Maryland State Roads Commission, was elected president of AASHO, serving in that post in 1915 and 1916. Page joined AASHO's founders in a visit to the White House where they met President Wilson.

Later, the members returned to the Raleigh Hotel where the new Executive Committee (not including Page) was instructed to prepare and present a bill to Congress representing AASHO's plan for Federal cooperation. The committee, dominated by members from heavily populated States with well-developed highway networks, collaborated with AAA's president, A. G. Batchelder, on the draft of a Federal-aid bill that called for a national system of highways.

The draft was sent to Congress, but midwestern members of AASHO, many from States with less developed networks, objected to the plan and the fact that they had not been consulted before it was submitted to Congress. [Seely, page 42]

To settle the dispute, a meeting of a committee of AASHO's Executive Committee was arranged for September 1915 in Oakland, just before the Pan-American Road Congress. The Oakland congress holds the distinction of being one of the least successful road conventions held during the Good Roads Movement. Where the good roads press usually described conventions in glowing terms, this one was an exception. *Better Roads and Streets* wrote, "It cannot be said that it was a huge success, particularly from the standpoint of attendance," which was much smaller than expected, and "the noticeably large number of absentees who were listed on the official program":

Chairman James H. MacDonald [Connecticut's State highway commissioner] admitted that it was one of the most trying periods of his life when, at the first session, out of the total of eight speakers who were scheduled on the official program, but one was present.

The problem was that the construction season and harvest time were underway in parts of the country, preventing officials, contractors, and citizens from those areas from leaving their homes.

Although the Pan-American Road Congress was a failure, a committee of AASHO's Executive Committee accomplished its mission on September 11. The committee consisted of:

George P. Coleman, Chairman, Virginia
 Henry G. Shirley, Maryland (AASHO president)
 W. D. Sohler, Massachusetts
 Thomas H. MacDonald, Iowa (no relation to James MacDonald).
 E. A. Stevens, New Jersey
 Lamar Cobb, Arizona
 Joseph Hyde Pratt, North Carolina

Seely indicated that MacDonald, a friend of Page's, took the lead in the meeting and that he "used this occasion to transform the bill into a federal-aid plan congruent with Page's ideas." Seely stated that Page attended the meeting, but this statement cannot be confirmed. [Seely, page 42] The fact that Page was not in Oakland 2 days later for his presentation on September 13 (on "The History and Future of Highway Development") suggests that he was not in Oakland for the Executive Committee's meeting.]

According to AASHO's Golden anniversary history, MacDonald was instrumental in shifting the focus from using Federal funds to build a relatively small mileage of Federal highways to a Federal-aid concept of assistance to the States:

It was his contention that such a program would encourage development of highway technology and the creation of a great network of highways throughout the Nation, instead of a few Federal routes and some spiderweb highway systems within the individual States He felt that without the encouragement and stabilizing influence of Federal-aid, some of the States would have a difficult time developing adequate and competent Highway Departments and effective highway programs. [*The First Fifty Years, 1914-1964*, American Association of State Highway Officials, 1964, pages 52-53]

The resulting bill provided for authorization of \$25 million a year to "promote the improvement of Rural Post Roads, Military Roads, and Roads used for interstate commerce." The funds were primarily for rural roads, but could be used on the streets of cities, towns, or boroughs having a population in excess of 2,000 if the houses averaged more than 200 feet apart. A "Rural Post Road" was defined as any public road "over which the United States' mails are or may be transported."

Three factors would be used to apportion the funds among the States: total area of each State compared with the total area of all States (one-third); the population of each State compared with the population of all States (one-third); and the mileage of rural post roads in each State compared with the total mileage nationally. The Secretary of Agriculture could use up to 5 percent of the funds to administer the program. In addition:

. . . the Secretary of Agriculture is authorized to employ such assistants, clerks and other persons, in the city of Washington and elsewhere, to rent such buildings in the city of Washington and elsewhere, to purchase such supplies, material, equipment, office fixtures and apparatus, and to incur such travel and other expenses as he may deem necessary

The Secretary would be authorized to make rules and regulations for carrying out the Act's provisions.

The State highway departments would initiate projects within the limits of apportioned funding by petitioning the Secretary of Agriculture for aid in the "improvement or maintenance" of eligible roads. If the Secretary approved, the State would conduct surveys and develop plans, specifications, and estimates for the project. The work would be done under the direct supervision of the State highway department, which would advertise for bids for all work

according to the laws of the State or do the work as otherwise provided for by the laws of the State.

The Federal share of project costs should not exceed 50 percent. The cost of engineering, inspection, and unforeseen contingencies could be included in the estimated cost of the project, provided the cost did not exceed 10 percent of the total. However, no payments would be made until the work was done to the satisfaction of the Secretary. The Secretary would be authorized to withhold funds and reappropriation them to other States if, in his judgment, a State highway department has not "properly maintained" the Federal-aid projects. First, the Secretary would notify the State in writing. Then, he would take action if the State authorities failed to maintain or repair the projects within 6 months. [*Proposed Federal Aid Road Bill*, American Association of State Highway Officials]

On December 6, 1915, at AASHO's annual meeting in Chicago, the executive committee discussed the draft bill section-by-section before approving the new version. It made only one change. In Oakland, the committee had proposed authorizations of \$25 million a year, with the number of years left blank ("19__"). The executive committee decided to let the House and Senate decide on the amount and number of years. A summary of the meeting stated:

This will avoid any misconceptions regarding the motives of the members of the association who, like practically all citizens familiar with the road situation, are agreed that federal aid is a vital necessity, but are willing to leave the matter of *how much* aid, to those responsible for all government finance.

AASHO adopted several resolutions during its first annual convention. One urged AHA and ARBA to hold one road congress per year. Another indicated that the State highway officials favored the Federal-aid bill, which they believed "will prove to be of great benefit not only from the standpoint of financial assistance, but also in standardizing the work of the different States." The members also resolved to individually "use our best endeavor in bringing about a more economic and efficient expenditure of highway moneys" and urged that local, State, and national highway officials should be appointed "on the basis of merit free from political control, in order that the public may have greater confidence in the proper use of said fund." ["State Highway Officials Demand One Convention," *Better Roads and Streets*, January 1916, page 6, 57-58, italics in original]

AASHO submitted the bill to Senator Bankhead, who had become chairman of the Committee on Post Offices and Post Roads in 1914, and Chairman Shackelford.

Senator John H. Bankhead of Alabama, chairman of the Committee on Post Offices and Post Roads, was a native of Moscow (now Sulligent), Alabama. He had served as a Lieutenant and later Captain of the 16th Alabama Volunteers during the Civil War. Although his primary occupation was planter, he devoted most of the remainder of his life to public service, first at the State and later the national level. First elected to the House of Representatives in 1887, he lost his bid for reelection 1906. In 1907, he was appointed to succeed a Senator who had died in office. When he died at the age of 77 on March 1, 1920, he was the oldest man in the Senate and the Senate's last survivor of the Civil War.

The Good Roads Movement was one of his favorite causes. He was president of the United States Good Roads Association, a group based in Birmingham, Alabama, that had formed in April 1913 to unite good roads advocates and promote the building of an adequate system of national highways.

Success in the House

In the House, Chairman Shackelford of the House Committee on Roads introduced his Federal-aid bill, H.R. 7617. It contained six sections and was designed to "aid the States in the construction, improvement, and maintenance of roads which may be used in the transportation of interstate commerce, military supplies or postal matters." It provided for an appropriation not to exceed \$25 million a year for a Federal-aid program to improve "rural post roads" (any road on which mail is, or might be, carried, outside of cities, towns, or boroughs having a population exceeding 2,000). The funds would be apportioned among the States based on their relative population (one half) and mileage of RFD and star mail delivery routes. (Star routes are mail delivery routes in remote areas served by a private carrier under contract with the Post Office Department.) Each State would receive at least \$65,000.

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 progresses; 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.

In the House, the bill had its share of critics. For example, a member of the Committee on Roads, Representative Joseph Walsh of Massachusetts, having read statements in support of the bill, said, "I am convinced that the only thing the Federal-aid road bill will not accomplish is the cure of measles and the eradication of the seven-year locusts." He acknowledged the great support for the measure, adding, "there is always a great public demand whenever there is an opportunity for communities or States to reach into the Federal Treasury and extract funds therefrom." He also was concerned about the vague definition of eligible roads. "Any little cow path or lane or alley," as long it was not in a city, "can receive Federal aid under this bill." [Rural Post Roads, *Congressional Record-House*, January 19, 1916, page 1275]

Representative Mann, the Minority Leader, did not think the Federal Government could afford it so soon after the war in Europe prompted enactment of an emergency revenue act almost equal to the amount in the bill for roads. [*Congressional Record-House*, January 24, 1916, pages 1456-1457]

Congressman Thomas B. Dunn of New York, a member of the Committee on Roads since its creation in 1913, was one of the leading opponents of the bill. He was "an advocate of the general proposition connected with the question of good roads" and had "some slight knowledge of their construction." He had been associated with good-roads legislation in New York but said he was troubled by this bill because there was, "to my mind, a very great difference between

Federal aid for roads and Federal construction of roads.” The \$25 million authorized by the bill 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]

Representative Borland, who had opposed the earlier Shackleford bills, supported the new bill. He was concerned about an amendment that would add “improvement” and “maintenance” to eligible activities in addition to “construction” and another stating that if the State complied with the provisions of the act, the Secretary of Agriculture was to pay for the work:

The evil of the old bill two years ago was that the money under it could all be spent for the temporary upkeep of unimproved roads, where the money would disappear before the next spring mud had cleared away. Under this bill, if it is amended by either of these propositions, the same thing is true.

If the Secretary had to pay for whatever the State wanted to do, “it would be possible for the State authorities, under political pressure in their own States, to divide out the money into infinitesimal amounts to each particular road district in the State.” Given that some States had as many as 3,000 to 5,000 road districts, the result would be “no money for real road improvement.” He added, “You would have a little money before the primary in August to put from 20 to 50 men to work, but you would have no money for road improvement that would last until the December snow.”

The Federal contribution of up to 50 percent ensured the work would be done under Federal supervision, thus guaranteeing “a certain amount of definite improvement on that road.” If the

amendments were approved, “there is not a man on this floor who would escape the constant effort to have that little dribble increased in favor of the local district.”

If, as in the earlier bills, the Federal funds would “be wasted in the temporary upkeep of roads,” he would oppose it:

If this money is going into roads, I am for it. If it is going into politics I am against it. I believe the farmers and the business men of this country would be against it in the latter event. They want roads and not politics, and they demand that there shall be legislation for the benefit of roads and not politics. [Rural Post Roads, *Congressional Record-House*, January 25, 1916, pages 1522-1523]

One issue came up on the first day of debate, January 19, that would be resolved on a later day. Representative James C. McLaughlin of Michigan said he approved of the bill overall, but he commented on criticism that the bill called for the Federal Government “to contribute large sums of money and was to have no control whatever over the road after it is built”:

Would it not be wise or proper to have inserted in this bill a provision to the effect that no road which is built or improved by contribution of Federal money shall ever be made a toll road?

Representative Edward W. Saunders of Virginia, a member of the Committee on Roads who was managing the bill at this point, said he was not certain about the idea. He did not reject it, but was not in a position to accept it:

Mr. McLaughlin. There are not as many toll roads as there used to be, but in some States I guess there are some now.

Mr. Saunders. There are some in Virginia.

Mr. McLaughlin. So as to be sure they would be used always for the general benefit and not for private profit. Some of these roads have tollgates maintained by private interests. Would it not be wise to have a provision that no road which was constructed or maintained or on which Federal money had been expended, could be made a toll road?

Mr. Saunders. As I say, this is a suggestion that is well worthy of consideration and discussion, but I am not prepared just now, speaking for myself, to say that I accept it. Of course I do not reject it. [Rural Post Roads, *Congressional Record-House*, January 19, 1916, page 1284]

The issue arose again on January 25 when Representative John R. Farr of Pennsylvania offered an amendment:

Provided, That no portion of this appropriation shall be used in the construction, maintenance, or repair of all toll roads.

He explained, “I do not think it necessary to discuss the amendment. It really speaks for itself. None of this money should be used on toll roads.” Without discussion or a roll call vote, the

House approved the amendment. [Rural Post Roads, *Congressional Record-House*, January 25, 1916, page 1518]

Despite the concerns raised about the bill, it passed the House on January 25, 1916, by a vote of 281 to 81, with Representative Borland voting for it. [Rural Post Roads, *Congressional Record-House*, January 25, 1916, pages 1536-1537]

Backers of good roads were not uniformly pleased. *Good Roads* magazine, the oldest of the good roads journals, came out against the Shackleford bill. The funding formula, the magazine pointed out, gave the least amount of funds to the States that needed it most. The renamed Office of Public Roads and Rural Engineering (OPRRE) was not equipped for its new responsibilities, but the bill did not address the problem. "[At] the same time, it is highly undesirable to vest too much authority in the central government in such work as road improvement." The magazine also questioned spending so much for roads given the unsettled condition of foreign relations and need for national defense funding. Moreover, the funds would be used to provide "pork"; the bill was regarded in many quarters, the magazine stated, "as a shrewd piece of partisan politics, and nothing more."

(Under the Agriculture Department appropriations act for FY 1916, approved March 4, 1915, OPR combined with the Divisions of Drainage and Irrigation from the Office of Experiment Stations, and added the farm architectural work from the Office of Farm Management Investigations to become OPRRE on July 1, 1915.)

Southern Good Roads, on the other hand, endorsed the Shackleford bill. Using a rural expression sometimes applied to fences, the magazine commented on the payment provisions of the bill:

So far as the Federal Treasury is concerned, the Act "is horse-high, bull-strong and pig-tight." It is pure business and without the least touch of sentiment.

The editors added, "The present bill has been prepared with the greatest care and is the result of the best thought of those who have given many years' study to the subject." ["The Shackleford Federal Aid Bill," *Good Roads*, February 5, 1916, page 46; "House Pass Shackleford Bill," *Southern Good Roads*, February 1916, page 13]

The Bankhead Bill

President Woodrow Wilson was an avid motorist who enjoyed relaxing on drives around the Washington area in the chauffeur-driven White House Pierce-Arrow automobile. As biographer Gene Smith explained:

In the afternoons when the weather was good he and one or more of his womenfolk went riding in one of the White House Pierce-Arrows, big open cars with right-hand drive and the President's Seal on the door. He mapped out a series of routes, and the chauffeur was not allowed to deviate from them: The Number One Ride, The Southern Maryland Ride,

the Potomac. [Smith, Gene, *When the Cheering Stopped: The Last Years of Woodrow Wilson*, William Morrow and Company, 1964. page 6]

After his first wife died in August 1914, President Wilson emerged from a long and difficult mourning period to court Edith Bolling Galt, a widowed Washington businesswoman, partly on long drives. On May 4, 1915, the President asked Mrs. Galt to marry him. She hesitated at first, but during a drive through Rock Creek Park on September 3, she accepted his proposal.

Despite President Wilson's enjoyment of road trips, he played only a limited role in securing highway legislation in 1916. He did not mention the subject during his State of the Union Address on December 7, 1915, although he did discuss problems involving the country's railroad network. ("The transportation problem is an exceedingly serious and pressing one in this country.")

One indication of his interest, however, was contained in an article in the January 1916 issue of *Southern Good Roads* regarding the AASHO draft bill:

Although President Woodrow Wilson has made no expression upon the subject there is a conviction, based on substantial evidence, that he has seen the plan of the association and that it meets with his approval. On the committee which drafted the measure is E. A. Stevens, state highway commissioner of New Jersey, who was named while Wilson was Governor of New Jersey, and who is a close friend of the President. Colonel Stevens was unwilling to pass upon the proposed bill finally until the President's views had been obtained. ["\$25,000,000 in Federal Aid," *Southern Good Roads*, January 1916, page 20]

Upon receipt of the approved Shackleford bill, Senator Bankhead's Committee on Post Offices and Post Roads struck out everything after the enacting clause ("Be it enacted by the . . ."). After revision by the committee and a conference with the Department of Agriculture, the committee unanimously approved a version of the AASHO bill on March 10 and submitted it to the Senate as the Bankhead bill for consideration.

The bill was entitled, "An Act to provide that the United States shall aid the States in the construction of rural post roads, and for other purposes." It retained most of the AASHO provisions, but had been strengthened, in part on the advice of Page, and was written in legislative style. The bill authorized the Secretary of Agriculture to cooperate with State highway departments, provided that no money was expended in any State until its legislature assented to the provisions of the Act (the assent of the Governor would be sufficient until the adjournment of the first regular session of the legislature following enactment).

The term "rural post road" was defined as any public road "over which the United States mails are or might be transported," exclusive of roads in places having populations of 2,500 or more. "Construction" was defined "to include reconstruction and improvement," but not maintenance. The Secretary and the State highway department "shall agree upon the roads to be constructed therein and the character and method of construction." As in the AASHO bill, projects must

be "properly maintained" by the State highway agency, but now the term was defined ("in practically as good a condition as when it was first built").

The bill appropriated \$75 million "out of any money in the Treasury not otherwise appropriated," with \$5 million for fiscal year (FY) 1918, and the amount increasing in \$5-million increments to \$25 million in FY 1921. (By contrast, the Shackelford bill called for an annual appropriation of \$25 million, but did not appropriate the funds.) The committee adopted the apportionment formula included in the AASHO proposal.

The States would be responsible for carrying out construction in accordance with its work and labor laws, but the Secretary retained the right of inspection and approval of the work. No funds would be expended until the State reached an agreement with the Secretary to properly maintain the road. If any State failed to maintain the improved roads, the Secretary could withhold the apportionment of funds to the State following a notice that had been disregarded.

The Committee on Post Offices and Post Roads filed a report on March 10. It began by deploring the condition of the Nation's public roads, which were "little more advanced than it was prior to the Civil War." The reasons were clear:

Lack of skilled supervision, failure to coordinate and correlate efforts, the inequitable distribution of the cost burdens, the making of ill designed makeshift repairs rather than tangible and reasonably permanent improvements, the baneful influence of personal and political dictation, have all contributed toward this deplorable condition of our primary avenues of communication and of commerce. [Federal Aid in the Construction of Rural Post Roads, United States Senate, 64th Congress, 1st Session, Report No, 250, March 10, 1916, pages 6-7]

With motor vehicle and horse-drawn traffic increasing, the need for better roads was clear:

The building of an adequate system of public roads should not be regarded as merely a provision for the handling of a vast traffic, but it should also be considered as an essential [sic] to the balanced development of our great domain and of the furtherance of our welfare physically and morally as a people. [Federal Aid in the Construction of Rural Post Roads, page 8]

The committee considered it "manifestly important" for the Federal Government to deal with "a definite and responsible agency" in funding Federal-aid projects:

As the primary purpose of Federal aid is to improve country roads, the municipality need not be considered in this connection. There are by the latest count 3,000 counties, and it is estimated that there are about 30,000 townships, in the United States. Clearly it would be impracticable for the Government to enter into any joint arrangement or to undertake to properly safeguard and check Government expenditures in coöperation with 30,000, or even 3,000 distinct agencies. [Federal Aid in the Construction of Rural Post Roads, page 15]

The only way to secure systematic and skilled supervision with any degree of uniformity is for the Federal Government to work exclusively with the States.

The bill, the report stated, was designed to encourage self-help on the part of the States and discourage the "pork barrel." The Federal contribution was substantial "so that results of some magnitude might be accomplished," but the States must contribute an equal amount "so that there may be no insidious paternalism established, which would stifle local initiative and self-help":

An unconditional payment out of the Federal Treasury would open the door to the most pernicious and dangerous "pork barrel" legislation possible to devise, as its appeal would be so universal and its demand so insistent that representatives in the Federal Congress would find it exceedingly difficult to square their sense of duty with their sense of political expediency. [Federal Aid in the Construction of Rural Post Roads, page 16]

The apportionment formula was an attempt to balance the needs of the Nation's diverse States and regions:

It would . . . seem that if the interests of the East are protected by the factor of population, the interests of the West should receive consideration through including area as a factor of apportionment. Finally, the direct interest of the Federal Government, as represented by the great mileage of rural delivery and star routes for the transportation of mail and parcel post should have some weight in the granting of Federal funds, for certainly the Federal Government has a right to expect that its mail routes would be benefitted by this general scheme of improvement [Federal Aid in the Construction of Rural Post Roads, page 16]

The committee stressed its firm conviction that no Federal-aid should be granted except to States that have established highway departments:

If Government participation serves no other purpose than to further this trend away from extreme localization it will have accomplished a lasting benefit to the American people. [Federal Aid in the Construction of Rural Post Roads, page 18]

The committee retained the AASHO bill's provision regarding construction in incorporated places, providing that improvements could be made within such places where houses averaged more than 200 feet apart:

To obviate the occurrence of stretches of unimproved road forming links in a system of roads which would otherwise be improved throughout their entire length, and to make possible the improvement of roads leading into small towns in spite of the existence of extended corporate boundaries, section 2 makes possible the improvement of roads within incorporated places where the houses average more than 200 feet apart. This provision, while remedying the conditions thus described, will prevent the application of Government aid to the surfacing of streets in thickly settled portions of cities and towns.

At a time when each main road went through every town it approached, the improved road would become part of a continuous through route.

The definition of "construction" had been designed "to meet those conditions where, by reason of the enormous increase of motor truck and other heavy traffic, reconstruction may be necessary." By giving the States responsibility for construction, the bill "reserved to the States all that could possibly be expected by the most earnest advocate of State rights." Still, the bill "provides adequate safeguards" by giving approval authority to the Secretary.

The committee included a strong maintenance provision because the importance of maintenance "can not be overestimated":

[Already] many of the States have found, through bitter experience, that many million dollars worth of costly improvements may quickly go for naught if efficient and thorough maintenance is not provided from the outset. If this provision is enforced from the very beginning of Federal aid, there is reason to expect that every mile of road improved under the provisions of this act will be a permanent utility for the use and benefit of the people. [Federal Aid in the Construction of Rural Post Roads, pages 21-22]

Further, the limitation of costs to \$10,000 a mile had a very definite purpose, one that addressed the dispute between farm-to-market and long-distance road advocates:

The limitation . . . is to prevent the application of Government money in excessive amounts toward the improvement of great boulevards which have no bearing upon rural development commensurate with the cost of the improvement. [Federal Aid in the Construction of Rural Post Roads, page 22]

The report also explained the bill's differences with the Shackleford bill. H.R. 7617 "is most seriously defective in its failure to afford reasonable inspection and safeguarding on the part of the Federal Government of the Federal appropriations." Based on a "careful reading of section 3," the report said that "no power is vested in the Secretary of Agriculture to disapprove the application by a State highway department for aid under the provisions of the act unless the road for which aid is sought fails to come within the provisions of the act."

Having no voice in selecting projects, the Secretary could ask the State highway agency to submit surveys, plans, specifications, estimates, and other information, but he "is given no power of approval or disapproval of them." The bill authorized the Secretary only "to examine them and determine what would be a reasonable cost of the proposed improvement." Further, the Secretary must determine if the project has been completed in conformance with the plan, and then reimburse the State for whatever amount remains to be paid of the Federal share of 50 percent.

H.R. 7617 included maintenance among the eligible activities, along with construction and improvement. The Senate committee rejected this approach. Applying Federal funds to maintenance "would constitute a never-ending drain upon the Federal Treasury without appreciable results in the form of a greater mileage of improved roads, and would tend to stifle

the spirit of self-help on the part of local communities.” [Federal Aid in the Construction of Rural Post Roads, pages 22-23]

The Senate bill also lacked the toll restriction introduced by Representative Farr, but the report did not comment on the issue.

The Senate debated the bill over several days, beginning April 21.

On May 2, Senator Thomas J. Walsh of Montana introduced one of the most notable amendments. It added a section appropriating \$1 million per year for 10 years ending in FY 1926 for roads and trails within or only partly within the National Forests. Senator Walsh explained:

For the past four years, under the provisions of the annual appropriation bill, 10 per cent of all the receipts from the forest reserves—from the sale of timber, fees for grazing privileges, and all other receipts of that character—have been set aside and applied to the construction of roads and trails through the forests, forest reserves, and through the region immediately adjacent to the forest reserves. Thus the sum of \$250,000 or thereabouts has been made available and has been used during the past four years annually for the construction of these roads and trails. The roads have all been constructed in accordance with the principle which finds expression in the general bill to which this amendment is offered, under cooperative agreements between the Department of Agriculture upon the one side and the State or county particularly interested upon the other.

This amendment simply provides that the revenues shall be anticipated for a period of four years, and that instead of making an expenditure of, say, \$250,000 annually—the exact returns from the forest reserves—a million dollars shall be appropriated each year, to be reimbursed from the returns from the particular forest reserves in which any road is constructed or in connection with which it is constructed

It contemplates the construction of roads through the forest reserves and immediately adjacent to the forest reserves. The road through the region immediately adjacent to the forest reserve may or may not pass over Government land. So, likewise, the road within the forest reserve may pass over some land therein which has passed into private ownership; but . . . the idea is to open the forest reserves, and thus make more readily salable the timber and other like resources, and generally to open up the forest reserves, as well as to provide easy access to them, so that they may be more successfully guarded against fire.

Senator Walsh introduced a letter dated February 9, 1916, from Secretary Houston in support of the provision. Secretary Houston said that over the past 4 years, with the 10-percent appropriation from forest revenues, plus the matching funds, “some 500 miles of road have been constructed and an equal mileage repaired and maintained.” This amounted to “only a small per cent of the projects which are urgently needed.” Many of the areas that could not be reached

with present funds “have enormous undeveloped resources which are certain in the future as development takes place to return very considerable amounts to the Federal Treasury.”

For these reasons, Secretary Houston said “the Federal Government should assume the responsibility of developing its income-producing properties within the national forests,” and Senator Walsh’s provision “embodies the best adapted to this end” because:

It consists not in making outright appropriations for the construction of these roads, but for advances out of the Federal Treasury which will eventually be returned thereto from the increased receipts from the area thus developed. The department approves the intent and form of the bill and believes it is a type of legislation which is greatly needed at the present time.

The Senate approved the amendment, 33 to 18, on May 5. [Good Roads, *Congressional Record-Senate*, May 2, 1916, pages 7225-7228; Good Roads, *Congressional Record-Senate*, May 5, pages 7456-7465]

On May 8, the Senate approved the Bankhead bill without a recorded vote. [Good Roads, *Congressional Record-Senate*, May 8, pages 7560-7571]

Professor Seely credited Director Page for a major role in the bill. His ideas had been embodied in the AASHO bill developed in Oakland and he had helped shepherd the AASHO bill to Senator Bankhead after AASHO approved it in December 1915:

During the next six months of congressional maneuvering, Page’s efforts were more open to observation. He worked with Senator Bankhead in an official capacity, furnishing both information and opinions on other legislation. The OPR staff also prepared detailed memoranda on the general principles behind federal involvement in road work and suggested many changes in the legislation. Page answered questions from the floor about the committee’s amendments for Bankhead and prepared a line-by-line comparison of the Shackelford and Bankhead bills. He served, in effect, as an adviser to Bankhead’s Senate committee and his ideas were generally accepted as the federal highway policy. In fact, federal-state cooperation through federal aid was the only principle seriously considered by Congress. [Seely, page 42]

The Final Bill

The debate on the House and Senate versions of the Federal Aid Road Act had been extensive. Constitutional and States' rights issues were debated. Senator John Sharp Williams of Mississippi, a strict constructionist who might be expected to oppose Federal-aid, took the opposite view:

[The] constitutional power is undoubted, obvious, plain and palpable There can be no interstate commerce of any great power unless there be good roads for a local commerce forming connecting links upon which the interstate commerce is founded, nor can there be any great international commerce except for the intrastate commerce of the

various countries which form the family of nations. ["Senate Pass Bankhead Bill," *Southern Good Roads*, June 1916, page 19]

On April 21, Senator John Downey Works of California, by contrast, said the bill was "clearly vicious as a matter of policy and to my mind it is . . . clearly against the spirit if not the letter of the Constitution." [Good Roads, *Congressional Record-Senate*, April 21, 1916, page 6533]

By far, however, the majority of the debate related to the formula for apportioning the funds among the States and the exclusion of cities from the benefits of the Act. *America's Highways 1776-1976* summarized the debate in the House:

Opponents of the bill claimed that the apportionment formula gave the wealthier States, which contributed most of the Federal revenues, less than their fair share of the post road benefits, and they were particularly bitter that the cities, which contributed a very large share of the revenue in all States, got nothing at all from the bill. The rural road advocates replied that the wealthy States and the cities had already received more than their fair share of the national income in other forms, such as expensive post offices and public buildings, harbor improvements, veterans' pensions . . . and, most of all, in shelter of their industries behind a high protective tariff. [*America's Highways 1776-1976*, page 86]

The conference committee of the two Houses to resolve differences in the two bills completed its work on June 27. The conference resulted in some changes in the Bankhead bill, but it emerged basically as approved by the Senate. The Walsh amendment on forest roads became Section 8 of the bill.

Some of the changes from the Committee's version of the Bankhead bill:

- As in the Bankhead Bill, the Federal Aid Road Act of 1916 provided that the Secretary and the State highway department "shall agree upon the roads to be constructed therein and the character and method of construction." However, "the Secretary . . . shall approve only such projects as may be substantial in character . . ."
- The Act added a variation of the Farr amendment on tolls: "That all roads constructed under the provisions of this act shall be free from tolls of all kinds."
- The definition of "rural post road" was modified slightly: "any public road over which the United States mails now are or may hereafter be transported . . ."
- "Properly maintained" was also redefined: "the making of needed repairs and the preservation of a reasonably smooth surface considering the type of the road; but shall not be held to include extraordinary repairs, nor reconstruction . . ."
- Although the States were required to have State highway departments, the Act recognized that some States might be prohibited by their constitution from engaging in internal improvements. In those cases, the funds would be made available to the State highway department or the Governor, to be expended under the provisions of the Act "when any number of counties . . . shall appropriate or provide the proportion or share needed to be raised in order to entitle such State to its part of the appropriation apportioned under this act."

- The amount of funding for administration of the program was reduced from 5 percent to 3 percent.
- The States, or their civil subdivisions, were required to maintain the roads constructed under the provisions of the Act. However, upon notice by the Secretary that any road is not being properly maintained, the State would have only 4 months, not 6, to put the road in proper condition. If not, the Secretary "shall thereafter refuse to approve any project for road construction in said State, or the civil subdivision thereof, as the fact may be" [Good Roads, Conference Report, U.S. House of Representatives, 64th Congress, 1st Session, Report No. 856, June 27, 1916, page 6]

Both Houses approved the Conference report that same day.

President Wilson, the avid motorist, signed the bill in a White House ceremony that was attended by members of Congress and representatives of AAA, AASHO, and farm organizations. He told them:

I take a great deal of pleasure in signing this bill and having a part in the good work that has been done, particularly because it tends to thread the various parts of the country together and assists the farmer in his intercourse with others.

Thirty-four states have now outlined in some form a system of main trunk lines, which is now an augury for the success of the Federal Aid plan just inaugurated. In this connection it is worthy to note that California was the first State to apply for apportionment of the money, and California is expending \$18,000,000 on two main highways extending from the Oregon to the Mexican line. It should be kept in mind that an application for Federal Aid in the improvement of any road must be made by the highway department of the State. Consequently if anybody in the State desires to have a road improved at the aid of Federal funds, it is necessary that the matter be taken up with the State Highway Department and not with the Federal Government, which will have the final say through the Secretary of Agriculture. ["A Big Program Covering Five Years," *The Highway Magazine*, December 1916, page 1]

After the ceremony, AASHO received a slight that it recalled in its Golden Anniversary publication:

The pen used by President Wilson, in signing the Bill, now reposes in the offices of the American Automobile Association, in Washington, D.C., although it was the American Association of State Highway Officials that was the major factor in drafting the legislation. [*The First Fifty Years*, page 53]

A month later, on August 11, President Wilson discussed the new program in a letter to Representative A. F. Lever, Chairman of the Committee on Agriculture. On the occasion of the signing of the Department of Agriculture's appropriations act for FY 1917, the President

discussed the positive legislative and administrative record on agriculture. One of the longest sections of the letter covered the Federal-aid highway program:

Of no less importance for agriculture and for national development is the Federal Aid road act. This measure will conduce to the establishment of more effective highway machinery in each State, strongly influence the development of good road building along right lines, stimulate larger production and better marketing, promote a fuller and more attractive rural life, add greatly to the convenience and economic welfare of all the people, and strengthen the national foundations. The act embodies sound principles of road legislation and will safeguard the expenditure of the funds arising under the act not only, but will also result in the more efficient use of the large additional sums made available by States and localities. [Commager, Henry Steele, editor, Letter of President Wilson to A. F. Lever, Agricultural Legislation in the First Wilson Administration, *Documents of American History*, 3rd edition, 1947, pages 295-296]

Following President Wilson's approval of the bill, an editorial in *The New York Times* said:

The approval of the good roads bill by the President yesterday marks the beginning of a new era of domestic development in the United States, the beneficial effects of which will be felt by every citizen of the country.

The Good Roads Movement, well underway, "will not cease until the United States is thoroughly modernized in this respect." Thanks to "the automobilists," the editors wrote, "marvelous progress" had already been made:

The sum total of profit, comfort and happiness created by road improvement, while already incalculable, is small compared with the results that will be achieved during the next five years. ["The Good Roads Law," *The New York Times*, July 12, 1916]

Some elements of the good roads movement, particularly those who favored national highways, remained unsatisfied. The more heavily populated States were unhappy over the apportionment factors. *The Boston Post* summed up this view in an editorial:

There is the Wilson administration's \$75,000,000 good roads measure, which is expected to build many miles of fine road in the South and West, where the States have neglected the work and where votes frequently grow by the roadside. [Quoted in "A Narrow Sectional Utterance," *Southern Good Roads*, September 1916, page 14]

Still, many highway interests found positive features in the Act. AAA's Diehl said the Act "is fundamentally as sound as any measure that could be enacted" (although he would have liked a stronger maintenance requirement). Its most refreshing feature, he thought, was that it was free from the taint of "pork barrel." The fact that the States must match the Federal funds would be a check on political raids on the United States Treasury:

The law further guards against "pork barrel" by requiring all of the cooperation to be between the state highway departments and the Secretary of Agriculture. No political

official has any power over the work at all, and it is a credit to the members of Congress that they have so worded the act as to make the state the smallest unit of coöperation rather than the congressional district or the county.

An editorial in *Better Roads and Streets* made a similar point:

Under our Federal Aid Road Law we feel that the little congressman who has been scheming to build his little road where it will never be traveled by anybody and miles and miles away from a main traveled road will save his time by sticking a pin in his little bubble and forgetting it, for what the people are now demanding are roads that commence somewhere and go somewhere. [“The Federal Aid Road Law,” *Better Roads and Streets*, September 1916, page 32]

Southern Good Roads made its support clear:

Senator Bankhead, of Alabama, has within the last month achieved the greatest constructive triumph of his life in the passage by the United States Senate of the bill providing for the building of good roads in this country The Bill is as big as the great country it represents and as broad as the humanity it would serve. Its enactment will take the public highways out of politics and make them thoroughfares for commerce and industry instead of paths to public office. [“Senate Passes Bankhead Bill,” *Southern Good Roads*, June 1916, page 19-20]

The editors of *Engineering News* recognized concerns about the legislation. On the one hand:

There has been opposition to the bill on the ground that it was an attempt to make the wealthy cities and the populous states of the East, which contribute the bulk of the Federal revenue, help pay for the construction of roads in remote parts of the country. It has been predicted also that this bill is merely an entering wedge and that in the near future every rural congressman will go to Washington charged with the duty of bringing home as large appropriations as possible for the roads in his district, following the bad precedent set by the River and Harbor and the Public Buildings appropriations bills.

On the other hand, “Federal aid to road construction was inevitable,” as reflected “by the debate upon the bill in both houses of Congress.” A large majority of Members of Congress favored Federal-aid, with the debate “chiefly over the best manner of extending it.”

Moreover, the amount of funding was small (less than 2 percent of the amount which States, counties, and towns were expending on road work each year):

If through the establishment of Federal aid and Federal supervision, an influence may be exerted which will cause the states to expend their own road appropriations with more intelligence and honesty, the indirect benefits resulting from the Federal appropriation may far exceed the amount of the money payment.

Although States would conduct the work, safeguards in the legislation would ensure that the Secretary of Agriculture would not “pay over the Federal appropriation until he finds the work is being constructed in compliance with the plans and specifications”:

Thus the primary responsibility for the conduct of the work is left where it should be . . . with the state authorities which originate the plans; but it will be an excellent stimulus to good work to know that what is being done may have to undergo inspection by Federal engineers and that if the results of the inspection are unfavorable, the appropriation may be held up. [“Federal Funds Available for Road Construction,” *Engineering News*, July 13, 1916]

Perhaps, though, the most important point was that the Act emerged from the combined efforts of State and Federal officials. The State highway agencies, acting through AASHO, wrote the first version, much of which was adopted by Congress. Page and the Members of Congress protected the Federal interest. Thus, the "Federal-State partnership" that has been acclaimed since the start of the Federal-aid highway program actually began in the creation of the program. As *Southern Good Roads* noted:

It will strengthen the relations between the states and the nation, making them active partners in a great work for the common good. [“Senate Passes Bankhead Bill,” *Southern Good Roads*, June 1916, page 20]

Part 3: Implementing the New Program

Getting Underway

Secretary of Agriculture David F. Houston issued the first apportionment of Federal-aid funds, \$5 million for FY 1917, on July 21. The largest amounts went to:

Texas	\$291,927.81
New York	\$250,720.27
Pennsylvania	\$230,644.17
Illinois	\$220,926.23
Missouri	\$169,720.41
Ohio	\$186,905.42
California	\$151,063.92

The smallest amounts went to:

Connecticut	\$31,090.44
Vermont	\$22,844.47
New Hampshire	\$20,996.62
Rhode Island	\$11,665.71
Delaware	\$8,184.37

To implement the new program, OPRRE began work on rules and regulations. After Page and the Department's Solicitor, Francis G. Caffery, prepared a draft, Page invited the heads of the State highway agencies to review and comment on the regulations during a conference at the new National Museum (today's Smithsonian Museum of Natural History) in Washington on August 16.

The night before, the president of AASHO, Henry Shirley, convened a special meeting of the State highway officials at the Raleigh Hotel, also attended by OPRRE officials. Thirty-five States were represented, although not always by the head of the State highway department. Thomas MacDonald, for example, was not in attendance (Iowa was represented by road engineer F. R. White). Governor Samuel M. Ralston of Indiana, which did not have a highway department, appointed Carl G. Fisher, founder of the Lincoln Highway Association, to represent the State.

The principal purpose of the meeting was to go over the tentative rules and regulations for the new program. The members agreed on recommendations to be proposed to Page the following day. In addition, AASHO unanimously agreed to appoint a special committee to work with OPRRE on an up-to-date set of standard plans, specifications, and forms for the construction and maintenance of Federal-aid roads. The chief engineers of the Illinois, Massachusetts, and Pennsylvania highway agencies were appointed to the committee. OPRRE designated Assistant Director P. St. John Wilson as its representative.

The following day, at 10 a.m., Page convened the conference, with 35 States represented. Page assured the members that his intent was to cooperate with the States in every way possible, so far

as it is practical to do so. Inevitably, he said, since this was the first time the Federal Government and the States had cooperated in highway construction, there would be a great many points that would come up that would have to be straightened out. For that reason, he had invited the States to participate in the conference on the rules for the new program.

As J. E. Pennybacker, Chief of OPRRE's Bureau of Economics, read each section of the tentative rules. AASHO's Shirley read and explained the changes proposed by AASHO. A stenographic record of the discussion was taken for submission to Secretary Houston along with the proposed final rules.

Several points prompted spirited discussion. For example, some State engineers favored a wide right-of-way, 60 to 100 feet, to leave room for construction of wider roadways in the future. Other States preferred to stick with a minimum width of 30 feet. Page responded that on such issues, his intention was to deal with particular cases rather than adopt a rule that would apply to all situations.

Secretary Houston arrived during a discussion of the cost of preparing plans and specifications. He addressed the conference, stressing the cooperative principle:

The main question that I am immediately concerned with, that the people of the union are immediately concerned with is whether we shall get a dollar's result for every dollar we expend for roads. I am quite sure that if we do so and we can convince the people that we have done so, they will be willing to put much more money into good roads where they are needed.

The challenges ahead would require ". . . the employment of experts, of real experts":

The public is somewhat suspicious of experts, because, I think, so many people pose as experts who are not.

After discussing the importance of several provisions of the act, he assured the State highway officials of his Department's cooperative spirit:

I ask your full, generous, and efficient co-operation. If we view matters broadly and generously, we shall have no difficulty. I pledge that the Department of Agriculture will approach the administration of this law in that spirit, and will cooperate heartily with you to give the people of the nation full value for the money which they have pledged under this act. ["New Federal-Aid Road Act Explained by Secretary of Agriculture," *Northwestern Motorist*, September 1916, page 34-36]

Page closed out the conference by urging the States to consider the most important roads carrying the greatest loads of farm and manufactured products in seeking Federal-aid. He cautioned that if the roads selected are too widely scattered, it would be hard for the proper authorities to inspect them and for the States to maintain them.

In the afternoon, State officials from States with forest reserves met with A. F. Potter of the Forest Service to discuss the Federal funds for roads in forest reserves.

Most of the State highway officials' recommendations were incorporated in the final rules and regulations, issued as Department of Agriculture Circular 65 on September 1, just 6 weeks after President Wilson had signed the Federal Aid Road Act.

[The account of the meetings on the regulation is from "Federal Road Co-operation With The States" and "Special Meeting of the Association of State Highway Commissioners of the United States," *Better Roads and Streets*, September 1916, pages 3-5]

American Motorist magazine published a summary of the 15 steps the States must follow to obtain Federal-aid highway funds:

1. Assent by the State legislature to the provisions of the Federal Road Act, or pending the meeting of the legislature, assent by the Governor.
2. Establishment of a State Highway Department if one is not already established.
3. The working out of a general scheme by the State Highway Department for making use of the Federal aid and the submission of the scheme to the Secretary of Agriculture for approval.
4. The submission by the State Highway Department of an application, known as a project statement, to the Secretary of Agriculture on a form to be supplied by him for each road for which aid is sought.
5. Approval by the Secretary of Agriculture of the project statement after such inspection as he chooses to make.
6. The making of surveys and the preparation of plans, specifications, and estimates, and their submission to the Secretary of Agriculture by the State Highway Department.
7. Approval of the plans, specifications, and estimates by the Secretary of Agriculture after such inspection as he chooses to make.
8. Execution of a project agreement between the State Highway Department and the Secretary of Agriculture covering the work to be done and the manner in which it is to be done.
9. Advertisement for bids and award of contracts by the State Highway Department, if the work is to be done by contract.
10. Beginning of actual work under the direct supervision of the State Highway Department, subject to inspection by the Secretary of Agriculture.
11. Partial payments as the work progresses by the Department of Agriculture to the fiscal officer designated by the State Highway Department.
12. Completion and acceptance of the road under the direction of the State Highway Department with approval of the Secretary of Agriculture.
13. Final payment by the Department of Agriculture, to make up the amount agreed to be paid by the Federal Government, which shall not exceed in any case 50 per cent of the actual cost of the road.
14. Maintenance by the State or county.
15. Withholding of Federal funds as to further allotments if the road is not properly maintained.

The Secretary delegated most responsibilities to OPRRE. [“Procedure to Obtain Federal Aid for Road Construction,” *American Motorist*, September 1916, page 29]

After consultation among OPRRE and the U.S. Forest Service, the Department also issued separate regulations for carrying out Section 8 on September 1, 1916. Secretary Houston explained how the program would work:

In general, the states and counties will be required to furnish cooperation in an amount at least equal to 50 per cent of the estimated cost of the surveys and construction. However, upon a satisfactory showing by the applicant state or county that such proportion of cooperation is inequitable, it may be altered and the ratio of cooperation fixed upon a basis equitable to both the state or county and the United States.

State and local shares may be in the form of money, labor, or materials.

For FY 1917, Secretary Houston apportioned funds to the principal National Forest States on July 21, the same day he apportioned Federal-aid highway funds to the States:

- Alaska - \$46,280
- Arizona - \$59,795
- Arkansas - \$11,294
- California - \$140,763
- Colorado - \$62,335
- Idaho - \$108,010
- Montana - \$69,901
- Nevada - \$19,195
- New Mexico - \$42,622
- Oregon - \$127,794
- South Dakota - \$8,115
- Utah - \$40,566
- Washington - \$91,739
- Wyoming - \$40,566

The Department tentatively assigned lump sums to two groups of States:

- \$9,552 to Florida, Michigan, Minnesota, Nebraska, North Dakota, and Oklahoma.
- \$21,057 to eastern States where the government was purchasing lands for National Forests (Georgia, Maine, New Hampshire, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia).

The allotment was apportioned after setting aside 10 percent of the amount available as a contingency fund. One half of the remaining funding was apportioned among the States based on the area of National Forest in each. The other half was apportioned based on the estimated value of timber and forage resources in the forests. Any funds not used within 3 years from the

contingency or apportioned funds were to be reapportioned on the basis of the original allotments.

In apportioning funds in a lump sum to the two groups of States, the Department was considering them as single units. In making future apportionments, the Department would consider the number and character of applications made by the States and county officials for specific projects.

Applications were to be filed with the District Forester in the seven national forest districts on or before January 1 of the year for the fiscal year beginning the following July 1. Each application was to contain a statement of the public need to be served by the proposed road and how it would help develop the resources on which the communities within or adjacent to the forest were dependent. Each application also must show the general location of the proposed road and its estimated cost. [“Secretary Houston Announces Plan for Forest Roads Work,” *American Motorist*, September 1916, page 40]

(Another outcome of enactment of the Federal-Aid Road Act occurred on October 6, 1916, in Birmingham, Alabama. The United States Good Roads Association decided to establish a southern transcontinental highway to be called the Bankhead Highway in honor of "The Father of Good Roads in the United States Senate," as the association called its president. From Washington, D.C., to San Diego, California, the 3,640-mile route passed through such cities as Richmond, Virginia; Atlanta, Georgia; Birmingham; Memphis, Tennessee; Little Rock, Arkansas; Dallas-Fort Worth, and El Paso, Texas; and Phoenix, Arizona.)

Organization and Procedure

OPRRE’s J. E. Pennybacker and Lester E. Boykin, Assistant in Road Management, prepared a brochure in 1917 to discuss implementation of the law. They discussed a misconception:

That immediately following the passage of the Federal Aid Road Act money would begin to flow from the National Treasury into the States with a resultant widespread activity in the active construction of roads seemed to be a somewhat general expectation. That such a result was not possible could easily have been ascertained by the most casual consideration of the terms of the act itself, which necessitated an immense amount of preliminary work.

First, the Secretary of Agriculture had to consult with the Postmaster General on the mileage of rural delivery and star routes in each State – one of the factors in apportioning the funds. Although the Secretary apportioned the funds on July 21, the States could not use the funds until several steps were completed.

As discussed, OPRRE completed the regulations on September 1 after consulting with State highway officials. Next, OPRRE had to determine which States had highway agencies within the meaning of the 1916 Act:

This necessitated a most exhaustive investigation of State highway laws and a great deal of correspondence with State officials.

OPRRE found that Delaware, Georgia, Indiana, Nevada, South Carolina, and Texas had no semblance of a State highway agency. Nine other States required additional legislation before the State highway agency could perform the functions required by the new law (Arkansas, Florida, Idaho, Kansas, Michigan, Missouri, Oklahoma, South Dakota, and Wyoming). These 16 States would need legislative action, but additional action was needed in the other States at a time when many State legislatures met only every other year:

In all of the States assent by the legislature was essential, except that the governor might assent pending the adjournment of the first regular session of the legislature held after the passage of the Federal act. It is therefore apparent that actual road construction could hardly have begun under the most favorable conditions before the opening of the season of 1917. [Pennybacker, J.E., and Boykin, L. E., *Federal Aid to Highways*, *Yearbook of the Department of Agriculture, 1917*, pages 127-138; Page, L. W., Report of the Director of the Office of Public Roads and Rural Engineering, Department of Agriculture, October 15, 1917, page 360]

The opening of the 1917 construction season saw the first use of Federal-aid highway funds:

At the close of January 31, 1918, there had been approved by the Secretary of Agriculture 253 individual projects, aggregating 2,849.48 miles and calling for an expenditure of Federal funds of \$7,324,721.72, and of State and local funds of \$9,917,143.70, making a total estimated cost of \$17,241,865.42. These projects represented applications from 44 of the States, so that up to that date only 4 States had not reached the stage of actual construction. Unquestionably the spring of 1918 will see Federal aid projects ready for construction in every State in the union.

The authors addressed another misconception about the 1916 Act:

Somehow the impression prevailed in some sections of the country that the Secretary of Agriculture would only approve the higher types of surfaces, such, for example, as brick, concrete, and bituminous macadam. The Secretary corrected this impression in a specific statement, issued to the public on February 17, 1917:

There is not the slightest truth in such a report. This department . . . has placed absolutely no restrictions, either direct or implied, upon the kinds of highways to be constructed. States may submit for approval any kind of road, even an earth road, and approval will be given if the construction be substantial in character, suitable for traffic needs, and meets the terms of the Federal act. To give State legislators and highway officials the impression that this department favors only costly types of road or discriminates in favor of any particular material, results not only in spreading misinformation, but in placing barriers in the way of States which wish to avail themselves of Federal aid in road construction.

The breakdown of projects thus far reflected this statement:

- Brick: 2.62 percent
- Cement concrete: 8.9 percent
- Waterbound macadam: 2.95 percent
- Bituminous macadam: 5.63 percent
- Sand clay: 15.6 percent
- Earth: 32.1 percent
- Gravel: 32.1 percent

[Pennybacker, J.E., and Boykin, L. E., Federal Aid to Highways, *Yearbook of the Department of Agriculture, 1917*, pages 127-138]

In Page's view:

The most important outcome of this Federal legislation was the enactment of State laws providing effective State control of a large measure of road work, making funds available to meet the Federal appropriations, systematizing the work so that there might be definite and correlated results instead of haphazard construction, and finally, strengthening very greatly the States' participation in road maintenance.

At the time of the passage of the act there were 33 States which had made provision for definite highway systems, embracing the important roads of the States, established by law or by authority of the State highway department.

OPRRE worked with many of the States that lacked a highway authority to draft State highway bills based on OPRRE's model State highway bill. By the end of FY 1917, every State had given its assent to the terms of the Act and every State had a State highway agency within the meaning of the Act. (Indiana's authorizing legislation would be overturned by the State Supreme Court, necessitating new legislation that would not allow creation of a permanent State highway agency until 1919). ["Federal Aid Road Act," Report of the Director of the Office of Public Roads and Rural Engineering, October 15, 1917, *Annual Reports of the Department of Agriculture, 1917*, pages 359-360]

Page recognized that OPRRE, organized mainly for research and dissemination of information, was not adapted to its major new responsibilities. On November 1, therefore, he reorganized the agency. He explained the changes in OPRRE's annual report for FY 1917:

To meet the new conditions, the work of the office was grouped in two branches, known, respectively, as the engineering branch and the management and economics branch. At the head of these two branches were placed a chief engineer [Wilson] and a chief of management [Pennybacker], respectively, who reported to the director. Two general inspectors [T. Warren Allen and E. W. James] were appointed, reporting immediately to the director and operating independently of the two branches.

Page also established a new, permanent field structure, with the country divided into 10 districts, numbered 1 through 10. A District Engineer headed each district and reported directly to the Chief Engineer. [“Reorganization of the Office of Public Roads and Rural Engineering,” *Good Roads*, December 2, 1916, page 236; *Annual Report of the Department of Agriculture*, 1917, pages 37-38]

On February 6, 1917, Page addressed ARBA’s 14th annual convention, held in Boston, on the “Policy and Program of Government in Road Construction Under the New Federal Aid Law.” He began:

Within less than twenty-five years road construction, maintenance, and management have been revolutionized. Two of the principal causes of this great change are, first, the advent and phenomenal extension of the motor vehicle, and, second, the concentration of population in cities. In its amazing development traffic has overflowed township, county, and state lines, and has extended such great distances from its point of origin as to complicate very greatly the question of adjusting tax burdens so as to establish an equitable relationship between the tax burdens and traffic. The concentration of population in the cities has rendered of vital importance the transportation of food products to the city and of manufactured products from the city to the country

The passage of the Federal Aid Road Act has served to bring the federal government to the aid of the states through the working out of a great cooperative policy under which the states and the federal government share the expense of road construction under the terms of the act, and under which there is an apportionment of duties and responsibilities which makes the undertaking cooperative in the fullest sense.

The States, he said, had many questions about the law and the rules and regulations. For example, what types of construction might be defined as “substantial construction”? (In such a diverse Nation, hard and fast determinations were not possible—he intended “to let each state submit its case and convince us.”) Was it the policy of the Department to confine the expenditure of funds to transcontinental highways and other main routes? (The States choose.) Does the State share have to be paid by State funds? (It would simplify operations but is not necessary.) Does the direct State supervision required by the Act involve the award of contracts by the State rather than the county? (The Act does not require that the State award the contract, “but it is hardly conceivable that the state highway department can do all of the things required” if the counties also may award contracts.)

Although he read a prepared speech, he departed from it at times. In one such remark, he addressed a popular concern about the program:

I might say here, gentlemen, that I have seen in a few papers mention of the “pork barrel” on the part of the government. I will not mention or attempt to define what a pork barrel consists of, but there are other federal appropriations where if the same law applied, that the states put up 50% of the money, I don’t think those appropriations would be of notice to the government. It cannot be a pork barrel when the states put up 50% of the money.

In another aside, he expanded on his comments about substantial construction:

When you stop to consider we have almost every type of construction, to lay down a definite scheme as to what types we will accept would be ridiculous. In a few states there is little or no material available and traffic is very light, and besides there is very little money, and it would be ridiculous to lay down a condition that would be impracticable for that state. I know of conditions where a sand clay road would be as substantial as almost any other type for the traffic it is subjected to, and where the money to meet the Federal Aid act is very small.

Page's prepared remarks concluded:

Let me again emphasize more than anything else that cooperation is the governing principle in this federal aid road work and that we should approach the subject, not from different angles, but from the same angle. In other words, that which the states through their highway departments find desirable, reasonable, and necessary should be the same thing which the federal government finds desirable, reasonable, and necessary. Neither should be arbitrary, but should work together for the common interest, and I am happy in the belief that this is being done. The basic object of the federal aid road act is to improve rural transportation. [Page, Logan Waller, "Policy and Program of Government in Road Construction Under the New Federal Aid Law," *Proceedings of the Fourteenth Annual Convention of the American Road Builders' Association*, Boston, Massachusetts, February 5-9, 1917, ARBA, pages 14-21]

Patented and Proprietary Products

During the question period after Page's speech, the only topic was the regulatory provision involving the use of patented products on Federal-aid highway projects. Section 6 of the 1916 Act had provided:

The construction work and labor in each State shall be done in accordance with its laws, and under the direct supervision of the State Highway Department, subject to the inspection and approval of the Secretary of Agriculture and in accordance with the rules and regulations made pursuant to this act.

In the regulation issued on September 1, 1916, Section 4 had addressed patented and proprietary products:

No part of the money apportioned under the act shall be used directly or indirectly to pay or to reimburse a state, county or local subdivision for the payment of any premium or royalty on any patented or proprietary material, specification, process, or type of construction, unless purchased or obtained on open, actual competitive bidding at the same or a less cost than unpatented articles or methods equally suitable for the same purpose.

L. D. Smoot, street commissioner of Jacksonville, Florida, asked if this regulation “practically prohibits the use of such patented or proprietary articles.” Page replied:

No, if you will read the rest of the section you will see that it does not. They must come under actual competition.

Smoot pointed out that in some States, the regulatory requirement would violate State laws the 1916 Act required the States to follow. “I know that in the case of some state laws the plans and specifications for the material, under which a road must be built, have to be filed prior to the advertisement for the road.” Including patented and proprietary products in the plans and specifications would violate the regulation.

Asked for his opinion, Page replied:

Of course I am not the legal authority. I have no power to adjudicate the law nor the rules and regulations which have the power of law as long as they exist, but any patent or proprietary material may come in under the provisions of Section 8 if it is subjected to actual competition.

Although the moderator tried to move on to other subjects, Edward E. Reed of the New Jersey Department of Public Roads read a paper prepared by Colonel Stevens, who could not be present. Stevens, one of the AASHO committee members who had drafted the AASHO bill, wanted to file “a solemn protest” against the regulation. He recalled that when Page took comments from State highway officials about the draft regulation, AASHO was informed “that it would have to stay in spite of that body’s previous unanimous vote advising its omission.” By a divided vote, therefore, AASHO recommended a change to provide for competition:

Such competition is impossible in the case of meritorious patents under any strict interpretation of the language used. As published, the section represents the mind of the government officials modified by a somewhat obscure and, in execution, impracticable, proviso suggested by some state officials to relieve the obvious objections to the section.

Stevens questioned Secretary Houston’s authority to include the provision in the regulation. Although Stevens said he was not qualified to discuss legal authority, he said, “It is always regrettable for a leader to so perform his duties as to raise doubts in the minds of those under him as to the legality of his actions. Nothing is more subversive of discipline and cooperation.”

He understood the intent of the regulation. The Patent Office issued many unnecessary patents that created monopolies that the holder could abuse. However, the regulation “is useless,” in part because the language “has no exact meaning.” What does “equally suitable for the same purpose” mean? Who determines equality and for what purpose? What is “actual competitive bidding” in States that specify the product in the advertisement? The safe course was to stop using the products:

This is unfair, unprogressive, un-American, but it will be the only safe thing to do if one wants to keep cost within the appropriation, and failure to do this is generally noticed in criminal legislation.

When Reed finished reading Colonel Stevens' statement, Page said he was "rather surprised . . . because at the meeting we held on the 16th of last July—where all the state highway departments, I think, but one were represented—there was not one word said against this regulation." As far as he knew, New Jersey was the only State "that uses patented materials." He said many cities required open competition "and I think it is nothing more than fair that open competition should be required in this. When a patented material is selected, competition is closed." It was the only stand OPRRE could take, "and as far as I am concerned I shall never recommend to the Secretary of Agriculture . . . that the regulation be rescinded." He added, "I believe every state highway department will be with me on it."

J. M. Head, attorney for Warren Brothers Company, followed Page's response. Warren Brothers Company, based in Boston, was a prominent contractor that held patents for bituminous concrete pavements known as Bitulithic, designed for city use (laid in a 2-inch thick surface over macadam pavements), and Warrenite, designed for country roads because its portable plant, mounted on a trailer, could be moved to remote locations. Head provided a lengthy discussion of the legislative background and reasons why the regulation involved "unjust discrimination." He noted the State laws requiring State highway officials to include the type of improvement, whether patented or unpatented, in the specifications advertised for bids:

This regulation presumes, in the face of express state laws and state supreme court decisions, that bids can be called for on both patented and unpatented articles before selecting the kind of improvement to be made, and also assumes that some unpatented articles is, in the opinion of the Secretary of Agriculture, "equally suitable" for the proposed construction, notwithstanding the fact that before a valid patent can issue from the Patent Office, or be sustained by the courts, it must be for "a new and useful invention" and different from any other form of construction then known.

The regulation, Head continued, assumes that the States would not act "efficiently and wisely" under the State laws that the 1916 Act requires them to follow in construction of Federal-aid highway projects. Moreover, such a limitation is not "made against any other project, specification, process or type of construction" that a State may submit. He concluded:

Certainly this matter can safely be left where the federal aid act itself leaves it, that is, with the several state highway departments, under the different state laws, which have already determined the advisability of using patented or proprietary articles under laws which provide the necessary competitive bidding now required, the Secretary of Agriculture having at all times the power to approve or disapprove every project, plan and specification submitted by a state highway department.

His lengthy presentation prompted Page's brief irritated response:

I think that the government and the state highway departments can conduct their cooperative work without the advice of any patented material company. This is all I have to say.

[Proceedings, pages 23-30; regarding Warren patents, see Blanchard, Arthur H., “Recent Developments in Bituminous Macadam and Bituminous Concrete Pavements,” *Good Roads*, June 3, 1916, pages 238-241; McNichol, Dan, *Paving The Way: Asphalt in America*,” National Asphalt Pavement Association, 2005, pages 86, 110-111]

At Smoot’s suggestion, ARBA considered, but tabled, a resolution calling on Secretary Houston to rescind the provision of the regulation.

(The provision remained in the regulations for the Federal-aid highway program for many years, and survives today as Subsection 635.411 (“Material or product selection”) of Title 23, Code of Federal Regulations.)

Preserving the Program

As President Wilson’s comment during the signing ceremony suggested, California was first. California Federal Aid Road Project No. 3 would be the first project completed under the Federal Aid Road Act. The project improved 2.55 miles of the “Alameda County boundary to Richmond road.” Highway historian Albert C. Rose described the project:

The work consisted of grading the roadbed, draining and installing culverts flanked with concrete headwalls, and laying a Portland cement concrete base, in the proportions of 1:3:6, with a width of 20 feet and a thickness of 5 inches, surfaced with a bituminous concrete top (Topeka mix) 1½ inches in thickness . . . [The] certificate of completion was issued by the District Engineer of the Bureau of Public Roads . . . 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]

(Topeka mix referred to specifications for use of mineral aggregate defining the character of the sand or other fine material employed to secure a satisfactory grading. [Blanchard, pages 240-141])

Despite these early activities, American entry into World War I in April 1917 sidetracked whatever progress the country might have made under the new Federal-aid highway program. OPRRE diverted resources to wartime activities while losing engineers to military service. State highway agencies and construction contractors also lost much of their workforce. According to *America’s Highways 1776-1976*:

By July 1918, the OPRRE had approved 572 projects, totaling 6,249 miles in length, estimated to cost \$42.28 million, of which \$16.05 million was Federal aid. However, only five projects, totaling 17.6 miles, had actually been completed. [*America’s Highways 1776-1976*, page 100]

During the war and after, however, the program proved flawed. One problem was the limitation to “rural post roads,” that is, any roads that presently carried the mail or might at some point carry the mail. This was a particularly burdensome definition for the large western States where the mail was carried over long distances by the railroads, not in motor vehicles. The result was that States tended to use Federal-aid funds in as many political subdivisions as possible, without regard for creation of a connected road system.

Moreover, the long-distance road advocates had not accepted defeat. After the war, they began promoting the idea of replacing the Federal-aid program with their favored program of Federal construction of interstate roads. The story of their efforts is told in *America's Highways 1776-1976*, pages 101-109, and in “Clearly Vicious as a Matter of Policy,” on FHWA's Highway History Web site (<http://www.fhwa.dot.gov/infrastructure/hwyhist01.cfm>).

The Federal Highway Act of 1921 ended the rift in the good roads movement. It bridged the gap between Federal-aid and national highway advocates by limiting eligibility for Federal-aid to up to 7 percent of the roads in each State, with at least 60 percent of those roads required to be “interstate in character.” This system orientation ended the rift and became a central feature of the Federal-aid highway program for decades to come.

To The Present

Although some provisions of the Federal Aid Road Act of 1916 required change before the Federal-aid highway program was truly effective, the legislation's legacy is not only the road improvements it financed, but the Federal-State partnership it established that remains strong in the 21st century.

The partnership that is the foundation of the Federal-aid highway program survived not only the growing pains of its early years, but the many changes in the country in the decades since President Wilson signed the legislation on July 11, 1916. The program and the partnership have evolved through war and peace, economic booms and busts, cheap and expensive oil, and a love-hate relationship with motor vehicles and highways over the course of a century of economic, cultural, political, and social change.

The resulting road network that helped make the United States the most mobile in history provided the foundation as the country shifted from an industrial to a service and information economy in a global marketplace; as the population moved from rural to urban and from northeast and midwest to the south and southwest; as officials increasingly saw roads as one part of an intermodal transportation system; and highway agencies became transportation agencies that embraced their role in enhancing the environment. Through these and many other changes, the Federal-State partnership that began in 1916 took a leading role within the transportation community as it adjusted with the times.