X. THE AUTOMOBILE AND GOOD ROADS

The good roads advocates hailed the ratification of the constitutional amendment in 1898 as the final step in the revolution in road-making methods. But they were destined to disappointment and long delays before they could enjoy the benefits which they hoped to gain from the hard-won battle, for not until 1905 was a law passed creating the highway commission provided for in the amendment, and it did not go into effect until January, 1906. The supporters of the amendment might have been prepared for this long delay had they analyzed the situation. The constitutional amendment scarcely could have been called popular. The proposal of 1895 to add the income from the internal improvement land fund to the five per cent fund received more than twice as many votes as the amendment of 1898, even though the amendment carried and the 1895 proposal failed to pass. In 1895 the people were voting on a proposition to insure aid from the state for building roads and bridges. For thirty-five years they had been accustomed to the existence of such a fund, and some of them, at least, were alarmed at the thought of losing it. Without state aid the people had to dig deeper into their own purses to pay for the roads and

bridges they sought to build. The extent of their concern can be perceived when the fact is considered that the measure lacked but ten thousand votes of having a popular majority. [1]

The constitutional amendment had this same feature, but in addition it levied a fresh tax on property, and the people of the nineties did not wish to add to their tax burdens. The amendment departed radically from the established custom of leaving the administration of road affairs to the local communities by making constitutional provision for a state agency to supervise the distribution of funds for roads and bridges and to keep a watchful eye upon their expenditure. It was this feature, in particular, which caused the people to lose interest in, or else to become actively opposed to, the amendment. They were not ready to permit the expenditure of funds for local projects to be supervised by any agency other than the people. The politicians on their part were equally loath to permit any other agency than the legislature -- in other words, themselves -- to assume the

1. See ante, p. 309-317, 373-378. A constitutional amendment, until after the election of 1898, required for passage only a majority of the votes cast on the amendment. The 1872 amendment, however, required a majority of the total votes cast at the general election to permit the expenditure of the income from the internal improvement land fund. It was possible to divert the fund to the road and bridge fund by a constitutional amendment which received a smaller popular vote than a direct vote on the measure itself had received. Kumm, Constitution of Minnesota, 215.

privilege of distributing the state fund for roads and bridges. Too many of them relied on this fund to fortify their political strength at home, for the man who could obtain legislative appropriations for his district stood high in public favor.

Beyond this there were conditions at the end of the century which made the future of the good roads movement uncertain. The greatest enthusiasm for good roads came from the cities and the editors of the country newspapers. Nineteenth-century Minnesota, however, was predominantly agricultural, and the farmers were not ready to admit that their system of making roads was a failure. They resented the interference of the cities in what they called a local problem. Until the farmers could be brought to see that they had a fundamental stake at issue in the road problem, the success of the movement could not but be uncertain. Up to this time they had failed to become aroused by the fact that it was costing them twenty-five cents to haul a ton of grain one mile over the rough, mud-clogged roads of the nineties, while the cost of hauling the same amount of grain over macadamized roads would have been but a fraction of that amount. It mattered little to them what statisticians figured the cost of hauling to be so long as they did not have to pay the sum in cash. [2]

2. Martin Dodge, "The Good Roads Movement," in the American Monthly Review of Reviews, 25: 66-72 (January, 1902).

It was about this time, too, that a breakdown occurred in the leadership of the good roads advocates. The movement in Minnesota owed a great deal of its impetus to the zeal of the Minnesota division of the League of American Wheelmen. By the closing years of the century, however, the league was declining, and no other body had arisen to take the leadership. The extent of the breakdown of the league is demonstrated by the fact that in St. Paul only one of the half-dozen organizations in existence in 1895 remained active in 1900, and it functioned only as a social club. In Minneapolis a similar breakdown occurred, climaxed in 1902 by the disruption of the leading bicycle club of the city -- the Flour City Cycle Club -- and the resignation of its officers and about half of its members, including A. B. Choate, the guiding spirit in the good roads movement for a decade.[3]

The downfall of the organization was caused by factors inherent in it. The wheelmen of the eighties and nineties had enjoyed an exclusiveness amounting almost to snobbery. They were united in a mutual enjoyment of a sport which, because of its expense, was denied most people. The good roads objective of the organization was based upon a selfish desire to enjoy to the fullest the recreational possibilities of the

3. Minneapolis Journal, November 20, 1899; Daily Pioneer Press, August 3, 1902; Minneapolis Tribune, May 11, 1902.

bicycle. A movement sponsored by such an organization could not arouse a permanent, widespread interest among those who had to pay for the roads which the bicyclists wanted unless they could be persuaded that they, too, would participate in the benefits. During the nineties the number of bicycles in rural communities increased tremendously, and many of their owners were associated in the bicycle clubs of the state, but with the enlargement of the membership came a disruption in the homogeneous spirit of the wheelmen. The organization lost the atmosphere of exclusiveness which had been an attractive feature of its earlier existence, and as time passed the need for an organization to protect the legal interests of the members disappeared. The league, therefore, became largely a social one, and its power as a leader of the reform movement was lost. The extent of the decline in leadership of the good roads movement at the end of the century is demonstrated in the voting at the election of 1898. One commentator observed that the heaviest vote on the constitutional amendment was in the country, where the movement was weakest, rather than in the cities, which hitherto had been the principal source of strength for the good roads advocates.[4]

There was little chance of success for the good roads movement until a motivating influence could be found which would apply with equal force to both the

4. Daily Pioneer Press, November 18, 1898.

country and the city. The League of American Wheelmen did not supply that influence, nor did the Good Roads Association, for it was made up of factors which were so heterogeneous that unified action was uncertain. True, it had a permanent organization, but its chief business was that of seeing that annual meetings were held. The Good Roads Association, moreover, was constantly suspected of being dominated by the manufacturers of road-building equipment, and, until that suspicion could be erased, it was not eligible for leadership. It was but a symbol of what the idealists desired. The farmers of Minnesota, as a class, were little interested in it.

But there were factors which, in due time, were bound to bring the farmers of the state into the ranks of the good roads advocates. Even before the end of the century, they were being jolted out of their accustomed way of doing things by the revelation that the creamery was more profitable to them when they could deliver milk and cream over smooth roads while it was sweet. The idea of the consolidated school was beginning to take shape, and, if it was to take the place of the old country schoolhouse, an improvement in the conditions of the roads of the state had to be made. More potent than either of these factors, however, was the action of the national government in extending to rural areas free delivery of mail. Under a ruling of

the post-office department, the service would not be granted in areas where roads were unimproved.

The first rural free delivery mail routes in the United States were established on an experimental basis in 1896 and 1897. In Minnesota, Farmington was selected as a point for experimentation, and there on January 1, 1897, delivery service was begun over four routes. By 1899 mail was delivered over fourteen routes in the southern portion of the state. The demand for the service was widespread, and the agent to whom was delegated the administration of the rural delivery service in Minnesota found that "districts anxious to secure the privileges incident to the service make it a point to charge the proper authorities with the improvement of badly built roads, and see to it that all new roads are constructed in the best manner possible." By 1907 there were more than fifteen hundred rural mail routes in operation in the state, and their influence in promoting better road conditions was everywhere apparent. [5] One commentator remarked that the prospects for getting mail delivery gave, in many communities, "a stimulus to the movement for good roads equal to that of the bicycle." [6]

Various explanations were given for the eagerness

5. Post-Office Department, Reports, 1899, p. 242-244, 1907, p. 350-353; Dakota County Tribune (Farmington), November 12, 19, 1896, January 7, 1897.
6. Daily Pioneer Press, September 4, 1899.

of the farmers to get the mail service. All agreed that it broke the isolation of farm life. The special agent of the post-office department in Minnesota in 1899 noted that as soon as a farmer got rural free delivery he subscribed for at least one daily newspaper. He inferred from that fact that the farmers desired to keep up with current events. One phase of the current events with which the farmer was particularly eager to keep in touch was the condition of the market. If he could take advantage of a slight rise in the price of corn, grain, or hogs, the gain for him often meant the difference between a profit on his crop and breaking even, or suffering a loss. The condition of the market meant a great deal to the average farmer of Minnesota, but he soon found that, if he could not travel over the roads to take advantage of the favorable prices, he gained nothing by knowing when they were high save an opportunity to curse the weather and the roads. It was easy then to convince him of the necessity of good roads.[7]

Another powerful incentive for good roads was in the near offing at the close of the century. The automobile, driven by an internal combustion engine, was more than a theoretical possibility by that time. Ever since the railroad had come into practical use, men had been trying to adapt steam to transportation on the com-

7. Post-Office Department, Reports, 1899, p. 242-244; Northwestern Agriculturist, 16: 382, 18: 227 (November 15, 1901, April 15, 1903).

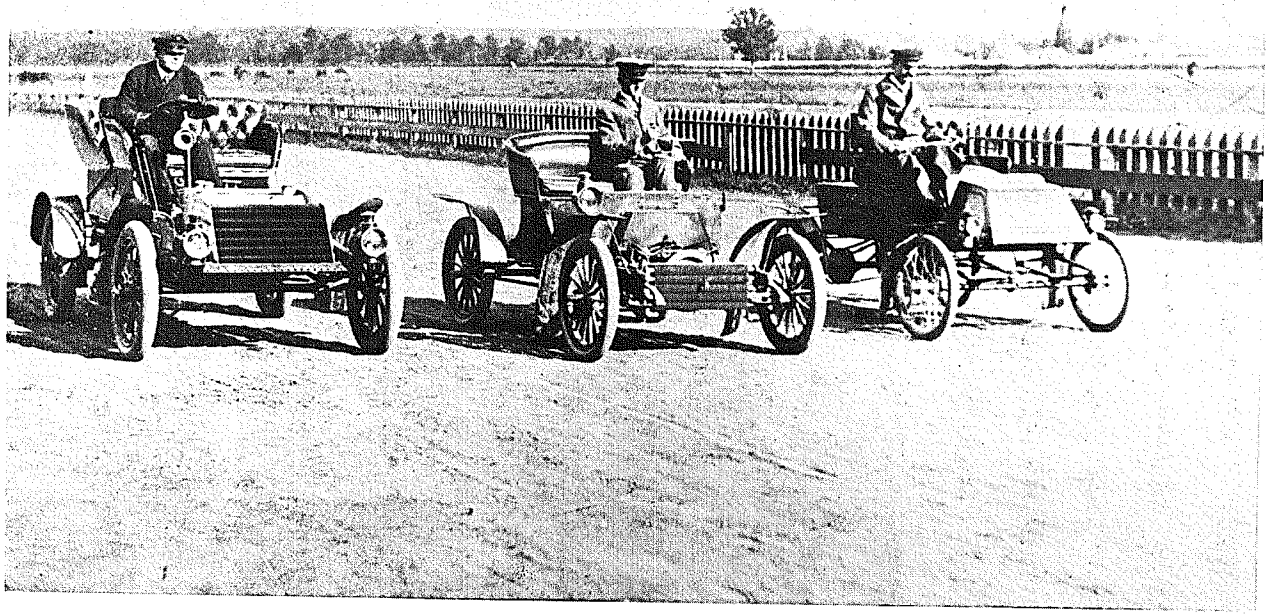
mon roads. The experiments of Joseph R. Brown on the prairie roads of Minnesota and Nebraska in the sixties were typical of what was going on in a dozen places in America and Europe. During the early nineties a car driven by a steam engine was placed on the American market by the Stanley Brothers, and it was followed by the Locomobile, a cheaper car made under the same patent. The steam automobile played a big part in making America automobile-conscious, but it was the internal combustion motor which made the automobile economically practicable. There had been successful European experiments with internal combustion motors as early as 1864, and during the eighties Daimler and Benz in Germany produced vehicles propelled by such motors on a commercial scale. In America George B. Selden filed an application for a gasoline-driven automobile in 1879, but it was not until the early nineties that Charles E. Duryea, Henry Ford, and Ellwood Haynes actually built successful automobiles driven by gasoline engines. The demonstration of the practicability of these American machines, together with those imported from Europe and the steam-power cars, soon made America as automobile-crazy as, a dozen years earlier, it had been bicycle-crazy. In 1894 the first automobile show was held in Chicago, although there probably were not many more than a half-dozen automobiles in the country. In 1898 there were said to be less than thirty of them, but by 1900 more than three thousand

automobiles were in use in the United States.[8]

A Minneapolis newspaper reporter attending the Chicago automobile show in 1894 conceived the idea of bringing an automobile to Minneapolis for the bicycle show which was to be staged in that city in 1895. So far as can be determined, that car, of obscure origin, was the first to venture on Minnesota soil. It was not long before the car fever hit Minnesotans. Within a short time, Swan J. Turnblad, publisher of Svenska Amerikanska Posten, and Edmund J. Phelps, a Minneapolis banker, had purchased automobiles, and the A. E. Chase Company of Minneapolis became the sales agent for the Oldsmobile, which was run by a fourteen horsepower motor and had earned the sobriquet of the "rolling peanut." Within a year the firm had taken orders for about 200 cars. By 1902 there were said to be approximately 125 automobiles in Minneapolis alone, and the number in St. Paul and the rest of the state cannot even be guessed at.[9]

The story of the growth of the popularity and use of the automobile curiously parallels that of the bicycle. Early in the history of the bicycle the devotees of the sport formed the League of American Wheelmen.

8. Ante, p. 253-257; Mitman, in Smithsonian Institution, Reports, 1934, p. 339-344; C. B. Glasscock, The Gasoline Age, 23, 38 (Indianapolis and New York, 1937).
9. Smith B. Hall, "How the Automobile Came to Minneapolis," in the Gopher-M, vol. 11, no. 4, p. 15 (January, 1926); Minneapolis Journal, July 19, 1902.



ENTRIES IN AN EARLY AUTOMOBILE RACE AT THE STATE FAIR GROUNDS IN ST. PAUL
[From a photograph in the possession of the Minnesota Historical Society.]

Almost as soon after the introduction of the automobile, owners of cars united to form the Automobile Club of America, the predecessor of the American Automobile Association. The first meeting was held in New York on October 16, 1899. In Minnesota the organization of car owners proceeded almost as rapidly. In 1902 the owners of cars in Minneapolis began to talk of forming an automobile club, while the following year the Automobile Club of Saint Paul was organized. Soon similar clubs were established in the smaller cities of the state. In 1907 they united to form the Minnesota State Automobile Association and by 1914 there were thirty-seven automobile clubs associated with the central state organization. At the end of 1918 there were sixty-three member groups.[10]

The motive behind the organization of the automobile clubs in Minnesota and elsewhere was much the same as that which had dominated the thought of the pioneer wheelmen. They were organized for mutual protection, and to facilitate "the efforts of the . . . clubs toward the procuring of fair and equitable automobile legislation and Good Roads for Minnesota." The good roads aim was even more dominant in the automobile organizations

10. Glasscock, The Gasoline Age, 30; Minneapolis Journal, July 19, 1902; Automobile Club of Saint Paul, Year Books, 1919-20, p. 3; Sparks from the Minnesota State Automobile Association, vol. 1, no. 2, p. 4, vol. 6, no. 2, p. 3, 5 (February, 1914, February, 1919).

than it had been in the League of American Wheelmen, and committees were constantly working to develop a good roads program in the legislature. The automobile clubs did far more than that to further the cause of good roads. From the proceeds of their membership dues and from voluntary contributions they gleaned a revenue which was applied to improving roads. In Lake City, for example, thirteen of the thirty automobile owners were members of the automobile club in 1909. This small group went on record as favoring a program to help the farmers build roads, and in evidence of their sincerity voted at one meeting to appropriate sixty dollars from the club's treasury to help build a badly needed road in the vicinity. The Minneapolis Automobile Club annually spent several thousand dollars to grade, oil, and otherwise improve the roads of Hennepin County. In one year, 1914, this item in the club's expense account amounted to more than $6,500. They devoted themselves to every phase of activity which would further the cause of good roads, sending out speakers to rural communities where interest was manifested, organizing good roads tours, and, in general, performing the work which the Good Roads Association had done a few years earlier. [11]

11. Sparks, vol. 1, no. 3, front cover, p. 7, 8, 12 (March, 1914); Lake City Republican, May 22, 1909; Automobile Club of Minneapolis, Reports, 1914, p. 14-21, 28-30.

As in the case of the bicycle, most of the owners of the early automobiles were city residents. So long as this condition prevailed, the cause of good roads suffered rather than benefitted from the automobile. The farmers of Minnesota were tired of listening to the "city sports" who owned bicycles clamor for good roads, and they were not inclined to look kindly upon the activity of the automobile owners in behalf of the country roads. The editor of Farm, Stock and Home, noticing this tendency, asked, "Is it true that the coming of the automobile has decreased the country peoples' interest in good roads? 'Twould not be surprising if true." The man whose team had been frightened into a runaway by one of the snorting, coughing "devil wagons" of the early twentieth century was not likely to approve of the efforts of the owners of such machines to improve the road which ran past his farm. [12]

Some groups, feeling that their economic welfare was dependent upon the permanence of the horse and buggy, deliberately fostered this attitude on the part of the farmers. Among them were the buggy and wagon makers -- although the outstanding success of the Studebaker Company as a manufacturer of automobiles belies that stand-- and the rural blacksmiths who feared that their business of repairing wagons and buggies and shoeing horses would

12. Farm, Stock and Home, 21: 335 (July 15, 1905); Lake City Republican, July 10, 1909.

be ruined by the competition of the automobile. It had not occurred to them that they might profit from the new form of transportation by learning the workings of the automobile and becoming the agents for repairing them when they broke down, as they frequently did. It was several years before the hostility of the blacksmith was sufficiently overcome to permit him to lay aside his farrier's apron and crawl beneath the awkward automobiles of the early twentieth century to repair their mechanical defects. The shift was a natural one, for the blacksmith was an all-round mechanic, the one man to whom all the countryside turned when farm machinery broke down. It was as easy for him to repair the temperamental automobile as any other piece of machinery, once he had become acquainted with its parts, and the work proved to be a great deal more profitable. A parody on the "Village Blacksmith" published in Crow Bar in 1906 shows that the blacksmith was beginning to awaken to the possibilities that the new machine offered for filling his purse.

Under the spreading motor car
  The village smithy lays.
The smith, a foxy guy is he;
  He's struck a job that pays.
No horse to shoe; no wheel to mend,
  But o'er his door this sign displays,
"Autos fixed from end to end." [13]

The evolution of the country blacksmith into a garage mechanic can be traced through the columns of

13. Crow Bar, vol. 15, no. 4, p. 6 (April, 1906).

Crow Bar, the mouthpiece of the blacksmiths of the Northwest. At the opening of the century, Crow Bar echoed the derision which most of its readers expressed for the "gas buggy." By the end of the first five years of the new century, however, Crow Bar was a little uncertain in its hostility toward the automobile. It began to carry items of information about internal combustion engines, particularly engines such as the blacksmith was likely to use for power production in his business. Soon designs of automobile engines appeared, and beginning in June, 1908, there was a regular column, entitled "Automobile Repair Department." Then the capitulation of the blacksmith was complete, and in an editorial in the issue for December, 1908, the confession was made that "if farmers will insist upon buying automobiles, it is important that the blacksmith learn enough of ordinary automobile repairing to do the class of work which would naturally come to his shop." This magazine in later years became a semi-official publication of the motor trades industry of the Northwest under the title, Automotive Journal. [14]

The secret of the change of heart of the village blacksmith toward the automobile lay in the increasing popularity of the machine. He was convinced that it

14. Crow Bar, vol. 17, no. 6, p. 20, 21, no. 12, p. 5 (June, December, 1908). An article describing the manufacture of automobile bodies in blacksmith and carriage shops is published in Crow Bar, vol. 14, no. 7, p. 22 (July, 1905).

had come to stay, and, therefore, he could ill afford to ignore it. The same change took place in the minds of the farmers. Whether the roads were good or bad, they found that the chugging automobile continued to travel past their doors. When an adventurous soul in a near-by village purchased a machine, they scoffed at him. They thought that the neighboring farmer who was persuaded to buy one of the contraptions was a first-rate idiot, but often their lingering resentment toward the machines was dissipated by a ride in the wonderful conveyance. When the era of the low-priced car arrived, the same farmer who so feelingly had cursed the automobile which frightened his team hesitatingly became the owner of one. The ownership of that automobile supplied the unifying influence that brought city and country together in a desire for improved roads. The power of the increasing number of automobile owners was not perceptible immediately, but by the end of the second decade of the twentieth century they were able to bring about the adoption of the revolutionary changes in the road system which were embodied in the Babcock amendment to the state constitution.[15]

15. As early as 1908 the growing popularity of automobiles among farmers was noted. See, for example, the Lake City Republican, September 19, 1908, and the Daily Pioneer Press, June 13, 1909. No count of automobiles before 1909 is available, because of the absence of a uniform license act. In 1909, when the first licensing act took effect, the secretary of state reported that there were 7,000 automobiles and 4,000 motorcycles

During this period of the emergence of the automobile age, good roads advocates in Minnesota continued their work for better roads. With the co-operation of the faculty of the college of civil engineering of the University of Minnesota, a two-fold program was undertaken. The professors in the college, for instance, made educational speeches throughout the state in favor of the good roads program. In addition, they trained students in the science of road construction, and one expedient that they tried was of particular value as a means for educating both the students and the public. Students enrolled in the course in highway engineering were sent out to selected localities to study road problems, and their findings, accompanied by appropriate maps and sketches, were submitted to the faculty as term papers. The best of these studies were published in an agricultural newspaper with a wide range of readers in the state. These essays presented the problems of scientific road construction in the specific localities which were studied so plainly that readers of the paper could hardly travel over those roads without critically examining them in the light of what engineers had to say about them. [16]

registered in the state. In 1920 there were 300,000 licensed motor vehicles. Secretary of State, Reports, 1909, p. 4, 1920, p. 3.

16. Farm, Stock and Home, 16: 175, 17: 57, 72, 163, 222 (April 1, 1900, January 1, 15, March 15, May 1, 1901).

Nationally, the good roads advocates were exceptionally active during the opening years of the twentieth century, with the greatest concentration of effort in the southern states where road conditions were worst. The railroads quickly found that it was to their interest to assist the good roads movement, and several of them employed somewhat novel means to popularize the good roads idea. One railroad company, for example, built short pieces of improved roadway in the vicinity of its depots. The officials in charge took pains to see that the improved portions terminated where the natural roadways were worst. This was claimed to be a very effective way of teaching the lesson of good roads.[17]

The railroad companies also participated in the good roads movement in other ways. In 1900, at a national good roads convention held at Chicago, the suggestion was made that a railroad train equipped with all the paraphernalia needed for constructing the best of roads should be sent out to demonstrate road-making methods. The promoters of the plan obtained the co-operation of the railroad officials, and the Illinois Central Railroad Company furnished without charge an engine and rolling stock sufficient to transport the necessary equipment. From the manufacturers of road-making equipment were obtained the machines and the men to operate

17. Earl Mayo, "A Good Road, A Good Investment," in World's Work, 2: 1285-1289 (October, 1901).

them. During the spring of 1901 the train traveled the entire length of the Illinois Central system, stopping at numerous places to hold good roads conventions and build demonstration roads. That good roads train proved so popular that another train was outfitted that fall to tour the southeastern states.[18] During the summer of 1902 the Chicago, Burlington and Quincy Railroad Company was persuaded to run a good roads train over its line from Chicago to St. Paul, and the Great Northern Railway Company agreed to run it over its road from St. Paul westward. The tour was so arranged that the train was at St. Paul during the state fair in September, where the demonstration work aroused great enthusiasm. In 1905 the Northern Pacific Railroad Company sponsored a good roads train which began at St. Paul and ran to Portland, Oregon, where a Pacific coast good roads convention was held.[19]

In many of the southern and eastern states the good roads movement by 1900 was considerably further

18. Proceedings of the National Good Roads Convention Held at St. Louis, Mo., April 27 to 29, 1903, 11 (United States Department of Agriculture, Office of Public Road Inquiries, Bulletins, no. 26 -- Washington, 1903); Martin Dodge, comp., Road Conventions in the Southern States, and Object-Lesson Roads (United States Department of Agriculture, Office of Public Road Inquiries, Bulletins, no. 23 -- Washington, 1902); Dodge, in American Monthly Review of Reviews, 25: 66-72; Earl Mayo, "The Good Roads Train," in World's Work, 2: 956-960 (July, 1901).

19. Minneapolis Tribune, July 13, 17, 20, 1902; Minneapolis Journal, July 18, September 1, 2, 3, 1902; Daily Pioneer Press, April 8, 1905; Northwestern Agriculturist, vol. 20, no. 22, p. 2 (June 3, 1905).

advanced than it was in Minnesota. In some respects, Minnesota was still a frontier state. There were whole counties in the northern portion which were unoccupied by settlers as late as 1905. In other counties the process of settlement was just getting under way. It was impossible, from the financial standpoint, for such counties to talk of building permanent roads or improved roads when they had no roads at all, or at best, but a few roughly cut trails. This frontier area kept the good roads movement from gaining the momentum it had attained in other states. More potent were the factors of climate and soil. One of Minnesota's most earnest good roads advocates returned from a visit to St. Louis in the winter of 1903 considerably humbled and grateful. He stated:

> We made a trip to St. Louis last week and came home more thankful than ever that we live in a region where w-i-n-t-c-r spells "freeze," and does not mean mud. The contrast between the hard, frozen roads of Minnesota and the mud, hub-deep, throughout rainy, drizzly, foggy Missouri, was great. We think we have need for road improvement in the North, but until we see the South in winter we should be modest in our complaints. . . . Perhaps other states south of the frozen ground are just as bad, but -- Oh Missouri! No wonder there were kickers against Jefferson's purchase of Louisiana Territory for $15,000,000, for it was made in the muddy season.

While Minnesota's roads were muddy and sticky during the spring and fall, they usually were covered with a cushion of snow during the winter months, and for a large portion of the state the road problem never was one of mud alone, but was equally concerned with sand.

Sand roads were seldom difficult to travel over when the season was wet; they became troublesome during dry weather.[20] Admittedly there was a need for improved roads, but, in comparison with southern conditions, it was far from acute, and the good roads movement lagged accordingly.

In the legislature, the good roads movement made slight progress during the half-dozen years after the adoption of the amendment of 1898. In 1901 an attempt to abolish the labor tax was rebuffed, and a compromise agreement was reached whereby counties with a population of 150,000 or more were permitted to levy road taxes in money instead of labor, but since this law applied only to the counties of Hennepin and Ramsey, it offered but slight encouragement. After the legislative session was over, the editor of the Northwestern Agriculturist, reviewing the futile efforts to enact good roads legislation, was decidedly pessimistic about the prospects for the good roads program. "Oh the perversity of some farmers in regard to methods of improving roads!" he exclaimed. "The hardest people in the world to arouse to an interest in real road improvement are the very farmers who use the roads most, and who annually pay the dearest for bad roads." The responsibility for defeating the bill abolishing the labor

20. Northwestern Agriculturist, 18: 92 (February 15, 1903); State Highway Commission of Minnesota, Reports, 1908, p. 54-56.

tax he laid on "some farmer statesman," who objected to the measure "because he feared some manufacturer of road scrapers would sell some scrapers, and make money under the new law. The question of whether the purchase of improved machinery might not be as true economy in county work as the use of a riding plow instead of a grub hoe is in farm work, cut no figure." The legislature in 1903 was no more willing to abolish the road labor tax than it had been in 1901. [21]

In 1903 a bill to establish a highway commission under the terms of the amendment of 1898 was allowed to die through the failure of the House to push it through.[22] In 1905 the situation was different. Before the session was a month old, three bills to provide for the establishment of the commission had been introduced in the House, and early in March a bill for the same purpose was introduced in the Senate. All four of these were scrapped, however, in favor of a substitute bill which was prepared by a joint committee of the House and Senate. It was accepted by both houses with surprisingly few amendments, and with a minimum of argument. In the House sixty-nine members voted for it, and only seven opposed it. In the Senate the vote was thirty-five to

21. General Laws, 1901, p. 411; Northwestern Agriculturist, 16: 144 (April 15, 1901); Senate Journal, 1903, p. 154, 256, 450, 600; House Journal, 1903, p. 1130, 1260.

22. Senate Journal, 1903, p. 328, 529, 644, 1011; Princeton Union, March 9, 1905.

five in favor of the bill.[23]

The highway commission bill provided for the appointment, by the governor, of a three-man, nonsalaried board of commissioners. To insure an equitable representation for all parts of the state on this commission, the law stipulated that not more than two of them should belong to the same political party, and that one member of the board should be appointed from the first, second, third, or fourth Congressional district, the second, from the fifth, sixth, or seventh district, and the third, from the eighth or ninth district. One of the appointees was to serve a one-year term, the second, a two-year term, the third, a three-year term, and their successors were to be appointed for three-year periods. Their only compensation was an allowance for personal expenses while they were engaged in official business. They were to appoint as secretary of the commission a competent engineer who was an experienced road builder. He was allowed a salary of $1,800 per year, and an additional allowance of $50 per month was made for a stenographer. It was the duty of the engineer to "give such advice, assistance and supervision with regard to road construction throughout the state, as time and conditions will permit and as the rules and regula-

23. House Journal, 1905, p. 54, 68, 129, 592, 593, 796, 820, 847; Senate Journal, 1905, p. 319, 563, 914, 915; Princeton Union, February 9, March 9, 1905; Daily Pioneer Press, March 4, 1905.

tions of the commission may prescribe." [24]

The duties of the commission were not onerous nor likely to interfere with the rights of local self-government. It was to locate road-building materials in the state, to ascertain the most approved methods of road building for this state, to collect information about methods in other states, and to "hold public meetings throughout the state when deemed advisable." On December 15 of each year it was required to submit to the governor a printed report telling the number of miles of state roads built during the year and the cost of building them, and making recommendations as to needed legislation for the state. The sum of $6,000 was appropriated annually to pay the expenses of the commission. [25]

The commission distributed the money in the road and bridge fund among the counties. The distribution was to be based on the amount of money the counties levied for roads and bridges, taking into consideration their size, the new roads needed, and the difficulty of constructing them. No county was to receive more than three per cent of the fund, nor less than one-half of one per cent in any one year, and in no case was the state aid to exceed one-third the amount raised by the county for roads and bridges. The county board could select any roads it saw fit to receive the state aid, and these roads were designated state roads. Wherever

24. General Laws, 1905, p. 198, 199.
25. General Laws, 1905, p. 199, 200.

practicable, the state engineer was to make the surveys and prepare plans and specifications for the roads to be built, although he could name the county engineer or surveyor as his deputy to do this work for him. The payments by the state were made annually upon receipt of a report from the county auditor showing the amount of money expended for roads during the year. [26]

The highway commission law was termed "an admirable measure," and "an excellent bill," but it fell far short of the ideal. The commission had only advisory powers, excepting in the distribution of road and bridge funds. It had one advantage, however, which the good roads advocates used to its fullest extent. In its official capacity, the highway commission could call meetings whenever it deemed them necessary. In doing so, its members were able to serve the cause of good roads well, for during the first year of its existence the commission held forty-one meetings, most of which were "exclusively good roads conventions." [27]

The detailed story of the activities of the highway commission and its successor, the highway department, is not a part of this story, except in so far as those bodies aided in furthering the revolution in road-making methods from the careless, local efforts of

26. General Laws, 1905, p. 200-202.
27. Daily Pioneer Press, March 4, 1905; Northwestern Agriculturist, vol. 20, no. 9, p. 16 (March 4, 1905); State Highway Commission of Minnesota, Reports, 1906, p. 13, 14.

the nineteenth century to the centralized system of highways which is characteristic of Minnesota after 1920. In that connection alone, their participation was great, for a large share of the progressive thought which led to that revolution emanated from them, and they established high standards of work which they forced the local units of government to follow. That this was true depended upon the caliber of the men who led the department, and the measure of their success is attested by the present-day system of roads. Governor Johnson named as the three members of the highway commission men who were interested in the good roads movement. Gustave Scholle of St. Paul was chairman, and serving with him were J. B. Galarneault of Aitkin and Charles Halvorson of Dawson. The state was particularly fortunate in the selection as state engineer of George W. Cooley, an engineer of distinction, who had a varied experience as a civil engineer for the Northern Pacific Railroad and as county surveyor of Hennepin County. In him a direct link with the good roads association was provided, for he was a past president of the state organization and long had been identified with the movement. The personnel of the highway commission was subject to change, but Cooley remained as head of the technical division of the commission for eleven years.[28]

28. Northwestern Agriculturist, 17: 50 (February 1, 1902); Minneapolis Journal, September 2, 1902. To illustrate the high standards of work of the state highway commission, see the series of Bulletins which were published by that body.

The passage of the act creating the highway commission did not mean that the revolution in Minnesota road making was complete. A dozen years passed before the commission was strong enough to take an independent stand on matters of policy. During that time it had to combat the half-resentful attitude of the rural districts and win them over to an acceptance of the high standards of scientific road building. It was handicapped by a dearth of funds, for the road and bridge fund provided but meager resources for an ambitious program. It had to overcome the conniving of politicians who were jealous of the loss of the power which they formerly had exercised in the distribution of the road and bridge fund.

As early as 1901 proponents of the good roads movement had sought to increase the amount of the tax levied for road and bridge purposes. An amendment to the constitution proposed that year provided for an increase in the levy from one-twentieth to one-tenth of a mill. The amendment failed to gain the approval of the voters at the general election of 1902. In 1905 a new constitutional amendment was proposed which raised the tax levy to one-fourth of a mill. After the election of 1906, the state canvassing board declared that the amendment had lost, but an appeal from this decision was made in the district court of St. Louis County in December following the election. The basis for the appeal was

that on the ballots the numbers for the road and bridge fund amendment and for another amendment which was submitted at the same time were reversed from the order in which they appeared on the tally sheets and tally books. As a result, votes cast for one amendment were credited to the other, and a general mix-up occurred. The canvassing board had assumed that the error in numbering was of no consequence, but when a portion of the ballots were recounted, it was found that the road and bridge fund amendment consistently gained in votes, and on the strength of this gain the court decided that the amendment had carried. Since there was no appeal from this decision, the amendment of 1906 became a part of the basic law of Minnesota.[29]

While the fate of the amendment was still undecided, however, the legislature had drawn up a new amendment which departed radically from the one supposedly lost in the election of 1906. This measure provided no limit to the amount of tax that could be levied and removed the minimum of one-half of one per cent which might be allotted to a county for state aid in any one year. Under the law in force, as well as the amendment voted upon in 1906, if the total cost of the work performed on roads within the county which were designated as state roads did not equal three times the one-half

29. Kumm, Constitution of Minnesota, 195; Anderson and Lobb, History of the Constitution of Minnesota, 153; General Laws, 1901, p. iii, iv, 1905, p. 280.

of one per cent minimum, the county could receive no state aid, and, because some counties had financial resources insufficient to expend such sums on a limited number of miles of road, they received no aid whatsoever. The highway commission felt that it would be fairer to pay the counties in proportion to the amount of work done regardless of a minimum, and this, clearly, was the intent of the new amendment. The electorate of the state, however, failed to take an interest in an amendment which would permit unlimited taxation, and in the election of 1908 it was lost.[30] In 1909 the legislature tried again to find a satisfactory solution to the problem of increasing the amount of state aid, and a more adequate method of dispensing that aid. A new amendment was drawn up for submission to the people which retained the principle of requiring a minimum payment of one-half of one per cent of the fund to every county, but it changed the proportion of state aid from one-third to one-half. This had the effect of reducing the amount of work that a county had to do in order to qualify for state aid, and on this basis it was approved by the highway commission, although that body would have preferred that there should be no requirement on the part of the counties. This amendment was approved by the voters at the election of 1910.[31]

30. Kumm, Constitution of Minnesota, 196; General Laws, 1907, p. 784.

31. Kumm, Constitution of Minnesota, 196; State Highway Commission of Minnesota, Reports, 1908, p. 4, 1909-11, p. 5.

During the summer of 1909 occurred an event which bore decisively on the question of the adoption of this amendment and upon the future development of the highway commission. This was the famous "pork barrel" verdict of the Minnesota Supreme Court which defined closely the limits of state participation in road and bridge building. It was a well-established procedure, before the creation of the highway commission, for the legislature to disburse, by specific appropriations, the money accruing to the road and bridge fund. The act creating the commission, however, specifically provided that state aid should be apportioned among the counties by the highway commission. Legislators then found that they had given away one of their biggest opportunities for building political fences, for many of them owed their popularity at home to the fact that they had been able to obtain appropriations for the construction of roads and bridges which popular fancy decided were necessary to the well-being of the different communities.[32]

In 1907 the legislature, confronted with this situation, sought to evade the consequences of this dele-

32. The Daily Pioneer Press for July 12, 1909, contains a letter written by a resident of St. Paul commenting on the history of the five per cent fund from which appropriations for road and bridge purposes were made prior to the creation of the new road and bridge fund in 1905. He said: "This old 'pork barrel' was a real legal one, and never did much good nor any damage. It made many a 2 x 4 legislator look like a tall pine tree at home, however."

gation of power by making a lump appropriation from the general revenue fund and distributing this sum among the counties in the same way that the politicians of the nineteenth century had apportioned the old road and bridge fund. Accordingly, a general law was passed in 1907 providing an annual appropriation of $200,000 for roads and bridges and stipulating that the sums appropriated for the different counties should be spent under the supervision of the boards of county commissioners. Not satisfied with this arrangement, the legislature in 1909 amended the act by increasing the amount of the appropriation to $300,000 annually, and providing that the sums should be spent by commissioners named by the legislature. [33]

These two general acts, and the appropriation measures accompanying them, constituted the so-called "pork barrel." [34] Undoubtedly many of those who voted for the measures were actuated by a desire to help the counties build better roads. The policy of the highway commission in requiring counties to designate specific roads upon which the money received from the state was to be spent before they were eligible to receive state aid meant that many counties which were dilatory in selecting roads received no aid. Other which failed

33. General Laws, 1907, p. 248, 1909, p. 82.
34. The laws making specific appropriations for counties are to be found in General Laws, 1907, p. 561-573, 1909, p. 638-699.

to spend the required proportion of county funds also failed to receive the aid. The money for these counties, therefore, was left to accumulate in the state treasury. The money appropriated from the "pork barrel" was subject to no such regulation, and might even be applied as the county's contribution to the construction of a state-aid road. In common talk, however, this appropriation was referred to as the "pork barrel," and the fund was admittedly "a sop to the country legislators who wanted an appropriation of some sort for their districts." [35]

Shortly after the session of 1909 adjourned, Senator L. O. Cooke of Lake City asked for an injunction to restrain the state auditor, Samuel G. Iverson, from issuing checks for the appropriations made by the 1909 legislature. The case was argued in the Ramsey County district court, and on June 7, 1909, Judge H. R. Brill granted a temporary injunction on the grounds that the state constitution prohibited the state from engaging in works of internal improvement, except to the extent permitted by the constitutional amendment of 1898, superseded by that of 1906. He held that the legislature had no constitutional authority to appropriate funds from the general revenue fund for that purpose. The state immediately appealed the verdict to the Minnesota Supreme Court, and that body, on July 9, 1909,

35. Daily Pioneer Press, June 8, 9, 29, 1909.

upheld the opinion of Judge Brill. The state's participation in road and bridge construction was clearly limited.[36]

The resentment aroused by Judge Brill's decision was directed at Senator Cooke, the Twin City newspapers, and the highway commission. On June 26 a meeting of thirty-five rural senators was held at the capitol. Only one of them had a kind word to say for the highway commission; most of them were as contemptuous of it as they had been of the early attempts to further the cause of good roads. A senator from Kittson County declared that "we know more about building roads in Kittson County than all these people in these offices in St. Paul." Another declared that the money in the general appropriation would "produce twice as good results as if it were given to the Highway Commission to spend." In a statement addressed "To the People of Minnesota" this group pointed out that the highway commission existed only at the will of the legislature, for the amendment adopted in 1906, which superseded that of 1898, omitted all mention of that body. They felt, presumably, that it could be abolished at the will of the legislature.[37]

36. Daily Pioneer Press, June 8, 9, 11, 29, 1909; Northfield News, July 17, 1909; 108 Minnesota Reports, 388-399.

37. Daily Pioneer Press, June 11, 12, 26, July 10, 12, 1909; Northfield News, June 12, 26, July 17, 31, 1909; Lake City Republican, June 19, July 17,1909.

The Supreme Court decision, however, acted as a bolster for the commission, for there was no disposition shown by following legislatures to abolish it, and, indeed, since the incentive for independent action was removed, succeeding legislatures showed a greater tendency to work with the commission. Moreover, the decision demonstrated forcefully the need for a systematic plan of road work. The decision probably had some influence in determining the success of the constitutional amendment at the polls in 1910. Its influence also extended beyond that date, for in 1911 the legislature proposed a new constitutional amendment which increased the tax levy for state road and bridge purposes from one-fourth of a mill to a mill. This amendment was ratified by the voters in November, 1912. More state aid for roads and bridges was needed, and in view of the "pork barrel" decision, the only way in which that aid could be granted was through an increase in the regularly authorized state property tax for roads and bridges.[38]

There was a fundamental, though unrecognized, need for a change in the whole system of road administration in Minnesota during these years, and the almost biennial submission of constitutional amendments and the "pork barrel" are but evidences of that need for a

38. Daily Pioneer Press, June 8, 9, 1909; State Highway Commission of Minnesota, Reports, 1914, p. 11; General Laws, 1911, p. 577; Kumm, Constitution of Minnesota, 197.

change. The road laws of Minnesota were based upon the requirements of an age which depended upon horse-drawn vehicles for its transportation. But Minnesota was emerging into a period when the means of transportation was changing. The automobile of the earliest years of the twentieth century, perhaps, could have been adapted to the road system as it was. It is characteristic of the automobile industry, however, that it has produced new and improved models almost every year since the birth of the industry. From the technological standpoint the machines of 1910 represented as great an advance over the models produced in 1900 as the cars of 1920 did over those of 1910. The speeds at which they could move was greatly increased. Their weights were much greater, and their other features were changed in proportion. Besides the technological advances made during a decade or more of manufacturing, the greatly increased number of automobiles in common, every day use had to be considered. In 1900 the appearance of an automobile was sufficient to arouse curiosity and excitement. By 1910 the ownership of automobiles had been extended to all classes of the population, and almost everyone at some time or other rode in them. The narrow country roads, with their frequent bumps and mudholes and sharp corners were inadequate for the new burden of traffic which they were compelled to bear.

In 1903 the legislature decided that something had

to be done to keep the automobile in check, and the law passed that year was the first traffic code enacted by the state legislature. It provided that all automobiles had to have a license to operate on the roads of Minnesota. A license, procurable at a cost of two dollars, was issued by the boiler inspectors of the state. One-half of the fee was turned over to the treasurer of the county in which the owner of the machine resided, and the other half was retained by the boiler inspector as his fee for issuing the license. The inspector gave each machine a number, which had to be displayed in figures not less than four and one-half inches high. The speed of cars was limited to eight miles an hour in towns and four miles an hour at street crossings. In the country a speed of twenty-five miles an hour was permissible, but the operator of an automobile upon meeting a team was required to come to a full stop on a signal from the driver of the horses. For night driving lights were required, and no motor vehicle was allowed to use the roads unless it had an adequate muffler.[39] A subsequent law placed the duty of licensing automobiles in the hands of the secretary of state, but for almost a score of years the license exacted for the operation of automobiles was simply a registration fee. It was in no sense a revenue-raising proposition.

39. General Laws, 1903, p. 646-648.

The fee varied: in 1909 it amounted to $1.50 annually; the next session set it at $1.50 triennially; and in 1915 the fee was raised to $5.00 for a three-year period, to be effective in 1918. It still remained a license fee, however, and the proceeds were not used for road purposes. [40]

During the period of the emergence of the automobile age, two men rose to take a lead in formulating a constructive program of road building in Minnesota. In the village of Elk River a country merchant, who had been graduated as a civil engineer from the University of Minnesota, speculatively watched the stream of automobiles plowing through the dust and confusion of the main street, and began to wonder why more adequate means were not provided for caring for the steadily increasing flow of traffic. All the defects of the nineteenth-century road system of Minnesota seemed to plague him, and, sitting there on his store steps, he became a rabid good roads propagandist. On his own initiative and at his own expense, he set out to gain converts for the good roads cause. His zeal and his intelligent grasp of the problems that had to be faced earned for Charles M. Babcock an appointment to the highway commission in 1910 and gave him an opportunity to put his theories to the test. [41] At Princeton Robert C. Dunn,

40. General Laws, 1909, p. 305, 1911, p. 493-505, 1915, p. 40-45.
41. St. Paul Pioneer Press, November 24, 1936.

founder of the Princeton Union and a leading political figure in Minnesota since the nineties, had been convinced of the necessity for doing something about the country roads of Minnesota not long after he had voiced his plain-spoken opposition to the bill of 1893 which sought to abolish the poll tax in Minnesota. From that time to his death in 1918 Dunn used his influence to further the movement for better roads in Minnesota. Babcock's achievement lay in the practical administration of the road laws. Dunn played a leading part in formulating those laws. [42]

In 1910 Dunn, who was convinced that the patchwork policy of legislating good roads was inadequate, was elected to the House of Representatives from Mille Lacs County. In 1911 the legislature revised the highway commission act. The new law raised the salary of the state engineer from $1,800 to $3,000, and increased the appropriation for the administration of the business of the commission to $150,000 annually. The law provided that deputy engineers, hired by the commission, could be assigned to the different counties to supervise the road work done, whether by townships, counties, or the state itself. Furthermore, no contract on any road work in excess of two hundred dollars might be paid until the assistant engineer approved it, and, when the contract exceeded five hundred dollars, the approval of

42. Ante, p. 359, 360; Princeton Union, October 31, November 7, 1918.

the highway commission itself had to be obtained. The act designated the method of distributing state aid in accordance with the amendment approved in 1910, and provided further that state roads designated by the county commissioners had to be approved by the highway commission. The law gave the highway commission more than advisory powers, for the additional personnel enabled it to supervise directly all road work. By putting road work under the supervision of trained engineers, the good roads advocates reached another of their objectives, one which had been denied them in 1907, when the legislature passed a measure permitting counties with a population of less than 200,000 to employ a superintendent of highways who had to be a competent road builder and a surveyor. That law was termed unconstitutional by the state Supreme Court because it exempted from its provisions the three most populous counties of the state. [43]

The 1911 session of the legislature passed the controversial state rural highways act, more commonly known as the Elwell law, which permitted a wider use of state funds than hitherto had been possible. Under the Elwell law, six or more land owners along the route of a road which it was proposed should be improved might

43. General Laws, 1907, p. 707, 1911, p. 45-51; State Highway Commission of Minnesota, Reports, 1909-11, p. 4, 37; 105 Minnesota Reports, 256-259.

petition the county commissioners or the judge of the district court to have a state rural highway laid out. When such a petition had been approved by the state highway commission, the road might be improved. The cost was to be so distributed that the state paid one-half, while the county and the property owners along the route of the road each paid one-fourth. To finance the construction of such roads, the county commissioners were permitted to issue bonds payable in ten yearly instalments. The law was admirably adapted to facilitate the construction of roads, and, therefore, it had the approval of the highway commission. The chief objection to it from the official point of view was that the highway commission had no power to specify what roads should be improved. A more serious flaw in it was that the decision of whether or not to issue the bonds rested not with the citizens but with the board of county commissioners. This arbitrary assignment of power to issue bonds led to indiscriminate expenditures. During the four years that the law was in force, fifty state rural highways with a total length of more than a thousand miles were constructed at a cost of about three and a quarter million dollars. The law enabled Minnesota counties to experiment with pavement -- both brick and concrete. In Winona County alone almost seventeen miles of concrete pavement were laid, together with twenty-seven miles of brick roads. Meritorious though the

experiment was, it was the excessive expenditures for these roads that caused the legislature to repeal the law. [44]

Dunn's conviction that the road laws needed remodeling had grown as he sat through the session of 1911, and he ran for re-election in 1912 with that idea uppermost in his mind. When the House of Representatives was organized at the opening of the session of 1913, he was given the post he most desired -- the chairmanship of the committee on roads and bridges. For several months before the election he had been working on a revision of the road laws, and immediately upon his assignment to the coveted post he began work anew. After several weeks of intensive effort, a bill was drawn up which incorporated not only his own ideas but those of Cooley and of the attorney general, who sat in on the conferences between Cooley and Dunn and gave the bill a form which would withstand legal examination. [45]

When Dunn's road code was taken up by the House, it was passed by the decisive vote of 90 to 13, and the only amendments offered were those presented by Dunn himself. The size of the affirmative vote was an interesting demonstration of the faith of the House members

44. General Laws, 1911, p. 352-354; Laws, 1915, p. 72; State Highway Commission of Minnesota, Reports, 1909-11, p. 41, 1916-17, p. 11-14; Princeton Union, October 29, 1914; Sparks, vol. 1, no. 11, p. 13 (November, 1914).

45. Princeton Union, March 13, 1913.

in the good sense of Dunn, for there were several highly controversial clauses in it. The Senate, which also passed the bill with but few changes, was not as amenable as the House, for there it met the opposition of the "Elwell combine." The opposition of the Elwell group in the Senate can be understood, for the Dunn bill contained a substitute for the Elwell measure.[46]

The Dunn bill was an attempt to overhaul the road laws of Minnesota in order to adjust them to the automobile world. It embodied within it the whole program of the good roads advocates during the twenty years which had passed. It codified and brought up to date the best of the laws in the road code, and shuffled off any that were outmoded. It was typically a good roads bill, and a prominent clause in it decreed that the governor should proclaim the third Tuesday in June each year as "Good Roads Day," and that on that day the citizens of the state should donate labor, money, or materials and join to improve some section of the roads in their respective communities.[47]

The Dunn law prescribed anew the relationship of the state highway commission to the counties and townships. State roads were to be constructed, improved, and

46. General Laws, 1913, p. 290-329; House Journal, 1913, p. 371, 486, 570, 1497, 1780; Senate Journal, 1913, p. 555, 1063-1066, 1080, 1111, 1135-1142, 1199-1202, 1230; Princeton Union, February 20, 27, March 13, April 3, 10, 17, 1913.
47. General Laws, 1913, p. 301.

maintained by the counties under the rules and regulations of the highway commission. County roads were to be constructed and improved by the counties in accordance with the rules and regulations of the commission, but the towns through which such roads passed were responsible for their maintenance. There was an exception to this ruling, for, in the three principal counties of the state where there were county superintendents of highways, the townships had no jurisdiction over county roads. Township roads were to be laid out, constructed, and maintained by the town boards. [48]

A considerable change was made in the manner of distributing state aid for the construction of roads. The maximum amount to be distributed to a county remained three per cent of the total amount available, but the minimum amount was increased to one per cent. If the county failed to use the full amount allotted to it, and if the unused portion, amounting to one-half of one per cent of the total amount available for distribution, remained unused for two years, it was to be returned to the state road and bridge fund. The uses to which state aid could be put were restricted. Twenty per cent of the fund allotted had to be used for the maintenance of state roads and bridges, and twenty-five per cent of the remainder could be used on county roads and bridges under terms prescribed by the

48. General Laws, 1913, p. 290-292.

highway commission. A varying proportion of state aid was allowed for the construction of individual roads. In counties where the assessed valuation was less than five million dollars, state aid could amount to as much as eighty per cent of the cost of the road. Where the assessed valuation was between five and ten million dollars, seventy per cent of the cost might be paid by the state, and, where the valuation was between ten and fifteen million dollars, the aid might total sixty per cent of the cost. In all other counties the ratio of state aid could not exceed fifty per cent. The upward limit of this state aid was defined by the amount of money available for distribution to the county.[49]

State roads were to be designated by the counties, subject to the approval of the highway commission, and that approval was to be based upon the desirability of the road, the traffic conditions over it, and its relation to other state roads. If a county board refused to designate a state road, the highway commission might do so if ten residents of the county petitioned for it and if, upon examination, the commission found that the road was necessary and that a sufficient amount of money had been allotted to the county for its construction or improvement. In villages and cities of the fourth class, a street could be designated as a state road if it was a necessary link to connect other

49. General Laws, 1913, p. 295-297.

state roads. State roads could be abandoned only by the joint consent of the highway commission and the board of county commissioners. To further the work on state roads, the commission, in accordance with the law of 1911, was allowed to employ assistant engineers. Their primary duty was to oversee work on state roads, but they were also instructed to supervise the construction of county and township roads when their services were requested. [50]

A section clearly intended to be a substitute for the Elwell law provided that counties could issue bonds for macadamizing or surfacing county roads upon the vote of the citizens. Such bonds could not draw more than six per cent interest, and they were required to be payable in from five to twenty years. A county tax was to be levied sufficient to retire the bonds within the period specified. Townships might issue bonds under similar circumstances, provided that the amount of the bonds issued, together with all outstanding indebtedness, did not equal more than five per cent of the assessed valuation of the town. [51]

The greatest change in the existing road laws related to the townships. The Dunn law abolished the labor tax and set a maximum tax for road purposes of fifteen mills. An emergency tax of five mills, however,

50. General Laws, 1913, p. 297-300.
51. General Laws, 1913, p. 305, 315.

might be levied after the town meeting had set the tax limit for the year. A special one-mill tax was to be levied, the proceeds of which were to be used exclusively for road-dragging purposes. But this tax was not to exceed a thousand dollars, and, where it was likely to do so, the county auditor was authorized to decrease the rate of taxation. The small road district, long an object of abomination to good roads advocates, was abolished, and each township was constituted a single road district, with a competent road builder, hired by the township, to care for the roads of the town. Where it was necessary, assistants to the road supervisor might be employed. [52]

There were also sections in the law relating to the construction and maintenance of bridges. The law made provision for the conversion of toll bridges into free ones by counties, townships, or villages, by purchase, lease, or other means. Every bridge, more than thirty feet long, toll or free, was to be inspected annually by the state highway commission. An incidental clause, which later came to have great importance, provided for the removal of snow from highways and the construction of snow fences. [53]

The Dunn law represented a great advance in road legislation. Its author was acclaimed as the "Father

52. General Laws, 1913, p. 310.
53. General Laws, 1913, p. 325-327.

of Good Roads," and yet he and his law were vigorously attacked. There were two main points upon which such attacks were made. One of them was the one-mill "dragging fund" tax. Rural portions of the state fought this section vigorously, but so sound was the measure and so good were the results obtained by it that the opposition to that clause died out. A "drag will not build a permanent highway," Dunn protested in his own defense, "but it will do wonderful work for a good roadway, if it is wisely and persistently used." [54] The other point of attack on the Dunn bill was that section which abolished the labor tax. The growth of sentiment in favor of this action had been very slow. In spite of the fact that the law permitting townships to abolish the labor tax had been in force since 1895, the highway commission had found as late as 1911 that the cash tax had replaced the labor tax in only 140 towns, while 1,084 of them still relied on statute labor. In 1914 the highway engineers throughout the state were asked to report on the sentiment of the people regarding the new road law. In a majority of the cases where the Dunn law was objected to, the chief point of attack was the clause repealing the labor tax. In Rice County opposition to the law was so strong that the farmers of the county were almost on the verge of a tax rebellion. The engineer in Rice County reported that "they seem to

54. Princeton Union, May 15, 1913.

think that the Dunn law was taking all the power away from the town boards." [55]

In Fillmore County those who were opposed to the Dunn and Elwell laws organized the "Fillmore County Taxpayer's Association," and during the pre-election campaign of 1914 quizzed every candidate for a legislative office to determine whether he could be depended upon to vote for the repeal of the new road laws. Dunn was inclined to place the responsibility for this opposition on the Elwell law, and to minimize the opposition to the Dunn law. Nevertheless, he was attacked so viciously for his part in enacting the road code of 1913 that a complimentary remark about him induced him to comment, "So many brickbats have been thrown at the publisher of this paper recently by obtuse ignoramuses in connection with road legislation that he will be pardoned for parading this bouquet." [56]

In other quarters the Dunn law was hailed as the "farmers' gain," and John H. Hohmann, a member of the board of county commissioners of Blue Earth County and president of the Minnesota State Automobile Association, declared that it put "all our road work on a business basis and it will, in a few years, if properly and vigorously applied, mean good roads everywhere." He gave critics

55. State Highway Commission of Minnesota, Reports, 1911, p. 41, 1914, p. 175. For reports from other counties, see p. 32-221.

56. Preston Times, July 8, October 14, 1914; Princeton Union, July 16, October 1, 15, 22, 29, 1914.

of the measure something to think about when he pointed out that seventy-eight of Minnesota's counties had an average assessed valuation of a little less than nine million dollars, and that they would on that basis contribute an average of about nine thousand dollars apiece to the state road and bridge fund which, for 1914, was estimated to yield about $1,400,000. In return these seventy-eight counties could not receive less than one per cent of the total, or a minimum of $14,000. In other words, the wealthiest and most populous counties were assisting the less fortunate ones to build their roads.[57] Other factors, too, tended to make opposition to the Dunn law disappear. By 1913 there were more than forty thousand automobiles registered in Minnesota, about half of which were owned by the rural population. The farmer had at last "been awakened to the fact that with good roads he can market his produce much cheaper, have easier communication with his neighbors, get to town occasionally without making a hard two days' work of it, but now 'it comes out,' he also wants Good Roads for his machine." [58]

57. Sparks, vol. 1, no. 4, p. 5, no. 5, p. 7 (April, May, 1914).

58. Secretary of State, Reports, 1914, p. 4; Sparks, vol. 1, no. 2, p. 6 (February, 1914). In Sparks, vol. 3, no. 8, p. 16 (August, 1916) is published a tabulation showing the total number of cars owned in each county of the state and the number of these which were Fords. The table demonstrates that far more than half of the cars were owned in rural counties and that, on an average, about one-half of the cars in these rural areas were Fords. During 1916 an automobile club was formed by farmers in rural Otter Tail County. It was reported to be the first farmers' automobile club in the state. See Sparks, vol. 4, no. 9, p. 14 (September, 1917).