

# JEFFERSON HIGHWAY DECLARATION



Business Section in Joplin, Missouri



Jefferson Highway in Upshur County, Texas



Sample of Forty-one Miles of Auto Boulevards in Minneapolis



The Old and New at Caddo, Oklahoma



A Busy Street in Kansas City



Park Scene at Denison, Texas, on the Jefferson Highway



A Country Road Near New Orleans



Historic Jackson Square, New Orleans



Itasca Lake Park, in Minnesota,  
Near Highway

# Minnesota State Fair and Exposition



A Ring of Drafters



Washing the Cattle



A Blue Ribbon Winner



The Agricultural Building, termed the Hub of the Fair Grounds



The Woman's Building, the Center of Interest for the Women



Listening to the Music



The Bee Building



The Dairy Building

The Jefferson Highway passes close by the Minnesota State Fair Grounds which are located at Hamline Park, between St. Paul and Minneapolis. The Minnesota State Fair is conceded to be the greatest all-round State Fair in the United States. Thousands of tourists will visit this fair via the Jefferson Highway.

# New Orleans and the New Louisiana

Great Strides Made by Crescent City and Historic Old State at Apex of Mississippi Valley in Past Two Decades. Destined to Loom Large in American Union

By P. SEFTON SCHNEIDAU

Chairman Land Immigration and Exchange Committee, New Orleans Real Estate Board.

**N**EW ORLEANS was founded in 1718 by Jean Baptiste Lemoyne de Bienville, a French Canadian. Governor of the French colony which had been planted nineteen years earlier at Biloxi, on the Mississippi Sound. A few years after its founding, when it was still but little more than a squalid village of deported galley slaves, trappers and gold hunters, it was made the capital of that vast Louisiana, which loosely comprised the whole Mississippi Valley.

The original city, as laid off by Bienville, comprised eleven squares front on the river, running from Customhouse street (Rue la Douane) to Barracks street (Rue des Quartiers), and five squares back from Levee street (Rue de la Levee) to Burgundy (Rue de la Bourgogne). These limits constituted for many years the boundaries of New Orleans. During the early French days houses were built back of this, along the road running towards the lake and Bayou St. John. Plantations were established on the river bank, both above and below the city. When the city was transferred from Spain to France, and thence to the United States, the great bulk of the population still lived in the old quarters. The Americans, however, began to establish themselves above on what was of old the Jesuits' Plantation, building up a new town, which became known as the Faubourg St. Mary or Sainte Marie. At the lower end of the town another suburb was laid out, known as Faubourg Marigny. This made New Orleans a perfect crescent in shape, for the river just in front of the city bends gracefully in the form of a half moon. To this circumstance is due the title of "Crescent City" bestowed upon New Orleans fifty years ago.

New Orleans comprises today what originally constituted the cities of New Orleans, Algiers, Carrollton, Jefferson City and Lafayette, the Faubourg Tremé, Delord, St. Johnsbury, Marigny, De Clouet, Sainte Marie, Annunciation, Washington, Neuve Marigny, Las Communes, and the villages of Greenville, Burtheville, Bouigny, Hurtsville, Fribourg, Rickerville, Milneburg, Feineburg, Bently, Marley, Foucher and others.

New Orleans includes the entire parish of Orleans. All the land between the river and Lakes Pontchartrain and Borgne is consequently a portion of the city and controlled by municipal laws and ordinances. The total area subject to municipal government is 187 square miles or 119,680 acres.

How much do you know of the "new" Louisiana? A trip over the "new" Louisiana's splendid agencies of transpor-

tation, the railroads, the bayous, the canals and rivers, and also over the shell and gravel paved roads now rapidly covering Louisiana like a net is intensely interesting. One should see the large plantations that at one time were used for growing cotton, rice and sugar cane, but are now being converted into farms for diversified crops of all kinds, grain, wheat, oats, alfalfa, lespedeza hay, for citrus groves, live stock and dairies.

The business men of all sections of the United States are finding opportunities that lie in the State of Louisiana, in her magnificent alluvial soil, which produces four crops of truck each year, without any commercial fertilizer. Bankers, brokers and land investment companies are lending large sums of money on these lands for reclamation and drainage, and are reaping big returns in increased wealth.

To those who are not acquainted with the soil and fertility of this state the following facts are interesting: The production of cotton, rice or sugar on a five-thousand-acre farm or plantation usually netted from twenty to forty dollars per acre. The same land cut up into farms of

five acres or more, and set out in citrus fruit and garden truck, will yield one hundred dollars, and up, per acre.

There are today in Louisiana nine million acres of unreclaimed wet lands, the value of which the local business community had no idea a few years ago. Only during the past few years, after numerous and repeated proofs by outside drainage developers, it was proven, beyond the question of a doubt, that these lands are richer than those found in any section of the world. So extremely fertile are these lands of Louisiana that they require no commercial fertilizer, and in some instances and for certain kinds of crops it was found necessary to impoverish the soil in order to secure the best results. The developers of Louisiana lands are chiefly brought from the Middle Western states. Chicago and other Western capitalists have invested fifteen million dollars in the purchase and reclamation of Louisiana wet and swamp lands within the past seven years.

All taxes on mortgages have been abolished. Taxes have been abolished on money in possession or on deposit, and loans made by homestead associations to their stockholders upon the pledge of the stock in the homestead. Foreign banks and banking associations are now permitted to deal in bills of exchange and lend money within the state upon the payment of a minimum tax. The law now gives municipalities jurisdiction over



Entrance to Metairie Cemetery, New Orleans, La. New Orleans has the most beautiful and picturesque cemeteries of any city in the United States.



Good Roads, St. Bernard Parish, La.

seashores, so that they may be beautified and improved for the use of the public at large.

The following article published as an editorial in the Outlook as early as July 26, 1913, shows that the prejudice against New Orleans is rapidly diminishing and that her worth and endeavors are being recognized:

**A State's Constructive Work**

"Louisiana as a state is doing a great work of public improvement of which the people of the country at large know little or nothing. Louisiana is proving herself not only a progressive state, but a conservationist of the highest type, by proposing to add nine millions of fertile acres to the territory of the United States without giving the promoter or get-rich-quick operator an opportunity to impose upon the credulous investing public. The great Mississippi, running from the far north to the Gulf of Mexico, has for centuries deposited silt and virgin soil from three climatic zones which it drains, and has thereby created millions of acres of wet prairie lands, which when drained not only yield semi-tropical products, but many of the products of Kansas, Wisconsin and Dakota. These delta lands thus formed are believed to be richer, indeed, than those of the Nile, which have been called the richest lands in the world. This vast acreage of lower Louisiana only awaits levees, canals and ditches to prove its worth. Some of the honest-minded sons of the state became fearful that speculators would associate her in the public mind with wildcat land operations and despoil her fair name as others had done during the days of the carpetbaggers. As a result, her public-spirited citizens determined to put the seal of sovereign approval on the work of reclamation in such a way that the speculator would have no foothold.

**How the Project Is Financed**

"An amendment to the state constitution was adopted permitting the creation of drainage districts and giving them quasi-municipal standing. These districts were granted the right to issue bonds against the land to be reclaimed, to cover the cost of reclamation, and were given the right to levy taxes not exceeding three and one-half dollars per acre per year, to provide for the payment of principal and interest on those bonds and the maintenance of the drainage. The tax levied is co-ordinate with and covered by the same liens as state and parish (county) taxes. The bonds are not to run more than forty years, and are to be retired serially after five years. The courts have passed their approval on the constitutionality and legality of these bonds; therefore the legal tests have all been made. Within the next two or three years all acreage of the City of New Orleans and a great many thousands of acres of the surrounding land will be drained through the issuance of these drainage bonds.

New Orleans is just now undergoing a process of evolution. The country is now co-operating with the city, state government with the city commission, farmers with commission merchants. All realize that the proper development of Louisiana is a gigantic task and presents gigantic opportunities for the city, state

and country. In the reclamation of these thousands of acres of wet lands, practically enclosing New Orleans, the city itself is being opened as a market to the surrounding parishes, because transportation facilities now opened were formerly denied. The Farmers' Co-operative Associations formed throughout Louisiana are doing good educational work in the line of handling, packing and shipping.

New Orleans, as a great commercial center, the largest of the South, and ranking as the second port in the United States, is chiefly dependent upon the surrounding country. The business men of New Orleans now recognize the fact that Louisiana must be developed, that its agricultural success means the commercial success of the city and that without the foundation of rural up-building and development she cannot progress as rapidly as necessary. Therefore, New Orleans is giving the country its market by building rail and water terminals, modern docks, wharves and warehouses. All warehouses and docks are connected with all railroads by the Public Belt, which entirely encircles the city. A number of the railroads are building docks and terminals so that they will



Boat House—City Park at New Orleans, La., southern terminal of Jefferson Highway; a great mecca for winter tourists. New Orleans aspires to be known as the Winter Capital of America.

be able to unload their cars directly to ocean-going steamers. A "Lake-to-River Canal" is now being projected. This canal will be centrally located in the city, will have railroads, warehouses, private factory switches and terminals on both sides and make a shorter route from the river to points on Lake Pontchartrian and Lake Borgne and the Gulf Coast.

New Orleans is an ideal winter resort. Temperature in the winter, usually between 50 and 60 degrees; temperature in the summer, between 75 and 90 degrees. While the Northern city is sweltering in the heat and people are overcome by heat, New Orleans is enjoying a cool breeze from the lakes and Gulf of Mexico, water practically surrounding it on three sides. Heat prostrations in New Orleans are unknown. The Board of Health through their monthly bulletins shows the mortality rate, giving the high death rate of years ago, and the improved conditions of the past decade, also the constant decline in the death rate of whites and colored, both local and non-residents:

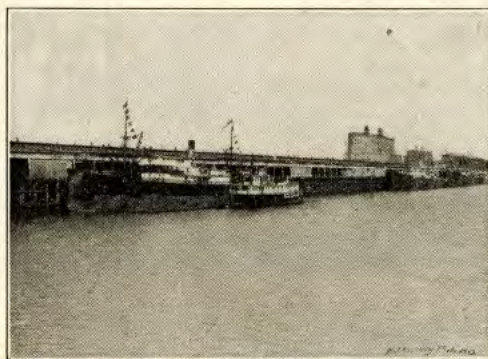
Ten years	Per thousand
1860-9.....	60.49
1860-9.....	40.22
1870-9.....	37.77
1880-9.....	27.62
1890-9.....	27.05
1900-9.....	21.04
For 1914—White,	16.01;
Colored, 30.30 .....	19.88

The above table of rates includes all deaths, white and black, and includes non-residents who were injured in the surrounding states and brought to the hospitals in New Orleans for treatment.

To show that New Orleans does not have added deaths, either through heat prostrations or otherwise, during her summer months, we quote the Board of Health's statistics for white people, including non-residents:

	Jan.	Feb.	March	June	July	Aug.
1910.....	18.17	17.30	16.85	14.03	13.72	13.76
1911.....	14.46	14.03	17.99	16.54	14.03	13.76
1912.....	16.54	19.23	16.18	13.27	15.26	14.07
1913.....	15.88	17.38	15.66	14.42	13.90	14.78

And for the month of June, 1915, the rate was 14.51.  
—The Trade Index.



Scene in New Orleans Harbor, New Orleans, La. The City has many miles of modern warehouses on its river front, and literally scores of great ocean freighters are at its docks every day in the year. It is the second shipping port in the United States.

# JEFFERSON HIGHWAY DECLARATION

Volume I



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## News and Progress Along the Route "From Pine to Palm"

### CLARKSON NAMED GENERAL MANAGER

President of Live Highway Association at Carthage, Mo., Is Given Appointment by E. T. Meredith

J. D. Clarkson of Carthage, Mo., President of the 365-Day-Road Club, has been appointed general manager of the Jefferson Highway Association by President E. T. Meredith.

Although from another state, Mr. Clarkson is not unknown in Iowa. For some months he has been preaching the good roads gospel in many Iowa towns. In fact, it was his work in towns along the Jefferson Highway in Iowa and Minnesota that attracted the attention of E. T. Meredith and H. H. Polk when they were instructed by the meeting of the Association at Kansas City in February, to appoint a general manager. Mr. Meredith's personal assistant in the Jefferson Highway work heard Mr. Clarkson speak at an Iowa road convention early in 1915 and was so impressed that he has been following Mr. Clarkson's work closely, more recently with the Jefferson Highway appointment in mind.

Mr. Clarkson has had much experience in all the phases of the good roads game from methods of financing to methods of construction, and is therefore thoroughly equipped to take the supervision of all field operations.

Mr. Clarkson is now in Des Moines acquainting himself with the affairs of the Highway and getting ready to commence active operations looking to the thorough organization of the Jefferson Highway Association from New Orleans to Winnipeg. He already has some very definite plans in view which are to be submitted for approval as soon as Mr. Meredith and Mr. Polk return to the city.

### Plans for Inspection

In a general way these plans embody two trips over the entire route. The first one by railroads, visiting the vice-presidents and directors in their home towns to get in touch with the local conditions of the nine states through which the Highway extends. The second trip to be made by automobile over the entire route visiting the seventy-five counties through which the Highway runs, getting first hand information of what they need, that the Association can supply and ascertaining what



help they can render to the Association. In addition to the above, one of the objects of this second trip is to pathfind and prepare for a trip, of the officials of the Jefferson Highway, over the entire route, sometime during the summer vacation time.

The official headquarters of the Association is at the home town of the President which of course is Des Moines, as Mr. Meredith lives here, but the headquarters of the General Manager, according to Mr. Clarkson should be in his automobile, on the firing line, "Somewhere on the Jefferson Highway." With this end in view it is planned to fit up his automobile with an office equipment including filing devices and a dictograph.

### APPOINTMENT GOOD NEWS TO CARTHAGE

From Carthage (Mo.) Press—Notice has been sent out that J. D. Clarkson, who recently went from here to Moline, Ill., to engage in road promotion work, has been appointed to take the general management of the proposed Jefferson Highway.

This will be good news for those who are hoping that Carthage will remain on the main line of this Highway. While the road construction plans to be followed will not be changed in connection with this appointment yet the appointment means much to Carthage.

Carthage has been tentatively placed on the main line of this Highway, but it must be remembered that this locality must measure up to requirements and expectations in building highways in the very near future, or this advantage will be lost.

That means that Carthage and the towns north of here and the country between must keep on getting busy in plans for road building and execution of the work, without loss of time. A great deal must be accomplished within the next few months, else all advantages thus far won will be lost and that might mean great loss for all time to come.

### Jefferson Highway Association

D. N. Fink, Vice-President

Muskogee, Okla., March 29, 1916.

Mr. E. T. Meredith, President, Jefferson Highway Association, Des Moines, Ia.

Dear Mr. Meredith: I beg to acknowledge receipt of your favor of the 27th inst., announcing the appointment of Mr. J. D. Clarkson, of Carthage, Mo., as General Manager of the Jefferson Highway Association.

In my judgment a better selection could not



have been made. Mr. Clarkson has been connected with business matters in Southwestern Missouri for many years. I have known him ever since I was a boy. The results of his labors speak for themselves in and about Jasper County, Missouri. I feel certain that he will organize our Association into an effective, working body.

The people in Oklahoma are getting along very nicely, and we would be very glad, indeed, to have a visit from him.

Yours truly,

D. N. FINK, Vice-Pres.

#### Clinton Falls Nursery Co.

Owatonna, Minn., April 5, 1916.

Mr. J. D. Clarkson, Gen. Mgr., Jefferson Highway Association, Des Moines, Ia.

Dear Mr. Clarkson: Your favor of the 3rd inst. received. I will be glad to have you come to Owatonna any time. Will try and get out a crowd for you.

I think your program is fine. You will be a mighty busy man this summer if you carry it out. But I am satisfied that no one can come nearer doing it than yourself.

With best wishes, I am

Very respectfully,

THOS. E. CASHMAN, V-Pres.

Pittsburg, Kans., April 3, 1916.

Mr. J. D. Clarkson, Gen'l Manager, Carthage, Mo.

Dear Sir: I wish to congratulate you, and feel like congratulating the Jefferson Highway Association, on your selection as General Manager, and will look forward with considerable interest to your visit to Pittsburg.

With best wishes for your success and assurance that as a Director of the Jefferson Highway Association I stand ready to assist you in every way possible, I beg to remain Very truly yours,

A. H. SHAFER, Director,  
Jefferson Highway Association.

#### Ozarks Trails Association

Office of Secretary

Joplin, Mo., March 28, 1916.

Mr. J. D. Clarkson, Moline, Ill.,

My Dear Friend Clarkson: Have just learned that you have been chosen to superintend the Jefferson Highway movement. Good. We are for you and the Jefferson Highway. Our publication, the Southwestern Automobilst Good Roads Journal, will co-operate with you in any way possible, and we ask that you consider us a part of the movement—and command us.

Can't you come to our convention? We want you to speak and demonstrate some of your excellent ideas.

Yours truly,

CHARLES W. FEAR.

#### Greater Iowa Association

Mason City, Ia., March 29, 1916.

Mr. J. D. Clarkson, Carthage, Mo.

Dear Sir: I wish to congratulate you on your appointment as General Manager of the Jefferson Highway Association. The appointment is in full accord with my wishes and in fact I made some suggestions to Mr. Meredith in regard to your fitness for this position while at the Kansas City meeting last month.

I will be pleased to co-operate with you in any way possible to assist in the success of the Jefferson Highway.

Yours truly,

HUGH H. SHEPARD.

#### The Automobile Club

of St. Joseph, Mo.

March 29, 1916.

Mr. E. T. Meredith, Pres., Jefferson Highway Assn., Des Moines, Ia.

Dear Mr. Meredith: Replying to your favor of March 28th, will state that the writer has made assessment through the various counties between Kansas City and the Iowa Line for the benefit of the Jefferson Highway. No doubt some of this money will be coming in within a very short time and as fast as it comes, will forward it to Mr. Walter Parker.

Am glad to receive your letter announcing the appointment of Mr.

J. D. Clarkson of Carthage, Mo., as General Manager of the Highway. Certainly will be a great help and will be glad to see him at the very earliest possible time, as there are a great many things I would like to talk over with him.

Yours very truly,

GEO. E. McININCH.

New Orleans, La., March 31, 1916.

Mr. J. D. Clarkson, Carthage, Mo.

Dear Mr. Clarkson: I have learned with much interest that you have been elected as General Manager of the Jefferson Highway Association. I have today written Mr. Meredith, assuring him that the New Orleans Association of Commerce, as well as the writer who is the Secretary-Treasurer of the Jefferson Highway Association, are ready and willing at all times to extend you every co-operation possible.

Yours very truly,

WALTER PARKER, Sec.-Treas.

Jefferson Highway Assn.

Prior to his appointment as General Manager of the Jefferson Highway, Mr. Clarkson was invited to visit Hampton, Iowa, to deliver an address on 365-Day-Roads.

The Declaration is in receipt of information from Hampton that following his visit a fund of some seventeen hundred and fifty dollars have been raised by subscription in the town as a nucleus toward graveling the roads out of Hampton including the complete graveling of the Jefferson Highway in the county this season.

This is a good example of what a live community can do and shows the practical help Mr. Clarkson can render as General Manager of the Jefferson Highway Association.

His services are at the disposal of any community on the Highway to assist it along similar lines.

#### OKLAHOMA COUNTY ORDERS BOND ELECTION

Jefferson Highway Association, Des Moines, Iowa.

Gentlemen: Pittsburg county has authorized an election for the purpose of issuing \$600,000.00 road bonds; other counties are following on the heels of this in the very near future and I do not doubt that this state will be all right when the proper time comes, with reference to the work and the kind of work we will do.

Yours truly,

D. N. FINK, Vice-President, Muskogee, Okla.

#### FROM THE AUTOMOBILE BLUE BOOK

Mr. E. T. Meredith, President Jefferson Highway Association, Des Moines, Iowa.

Dear Sir: I feel sure that from my knowledge of the route, it will open up a territory where many people want routes. This will be particularly so south of Kansas City. There isn't any question about the amount of travel north of Kansas City, but to the south, there has been nothing done to our knowledge in the way of a real effort to open up a through route and we have hundreds of inquiries each year from people desiring to get into that section of the country, some of them as far as your route will go, clear to New Orleans.

Very truly yours,

JOHN P. DODS, Mgr.



J. H. BEEK

Secretary, St. Paul Association of Commerce, Vice-President of Jefferson Highway for Minnesota, and one of the Highway's strongest backers.



Caught by Guests of Summer Hotel at Bemidji, Minn., on proposed Itasca Park route.

#### NEW MAPS OUT

A new general map of the United States showing the route of the Jefferson Highway has been issued. Copies can be had by addressing the Jefferson Highway Association, Des Moines, Iowa. Single copies free, quantities, 10c per copy.

#### POLK COUNTY, IOWA

On Wednesday evening, March 1st, there was held at the Polk (Continued on Page 8)

# Why the Jefferson Highway?

By HARRY W. GRAHAM

**T**HE "National Old Trails" is only one of a system of Trails projected by the Father of Highways—Thomas Jefferson. This may be news to a great many people.

In 1806 Thomas Jefferson inaugurated a system of highways that was to extend from Washington D. C., out to the frontier country—then the Mississippi Valley country. He had in mind four systems, one down along the Atlantic Coast into Georgia and extending westward to New Orleans. Another extending westward, known now as the National Old Trails Road, then as the "Old Cumberland Road." It was surveyed, graded and hard-surfaced as far west as Indianapolis by the Government. Something like \$7,800,000.00 was spent by Congress on this highway. The Pikes Peak Ocean-to-Ocean Highway Association has since taken up this trail and extended it west to the Pacific Coast via Springfield, Illinois, Hannibal, Chillicothe, and St. Joseph, Missouri; Colorado Springs, Salt Lake and San Francisco.

Then Jefferson had in mind another trail that was to lead over a northern route into the Northwest frontier country by way of Chicago to St. Paul, now partially covered by the Lincoln Highway. After these were constructed, it was his intention to connect them all up with a north and south trail, from New Orleans to St. Paul. This is the great Jefferson Highway, now being agitated and to be a hard surfaced national road running from New Orleans to Winnipeg.

Over a hundred years have past and gone, but Thomas Jefferson lives. His wishes and ambitions with respect to national highways will yet be achieved. The construction of this north and south road will largely be the completing of his great system, once started, but later vetoed by Monroe.

The first great American road of which we have any history was laid out in 1711, from New York to Philadelphia,—“The Old York Road.” The opening of roads was an important factor in those early days and by studying the history of the “Old York Road” we at once recall the old adage—“the history of roads is the history of civilization.” Then, it was the Indian Trail, the blazed trees, the footpath and later the rough roads for carts and wagons. Those were the first stepping stones to higher degrees of transportation and civilization.

In those early days, roads were built and maintained by the use of volunteer aid or free labor. The settlements had what was called a “village green;” in these public places the citizens assembled to discuss public affairs, of which roads, then as now, were subjects of leading discussion. At these meetings citizens would offer their services free of charge to the community for building or maintaining roads. These offers became limited in after years and the communities were forced to pass rules “compelling all able-bodied men to work the roads a specified number of days” or pay a money tax to the road overseer.

These early methods as indulged in by the scattering communities called forth the following letter dated, November 30, 1785, by George Washington to Patrick Henry, then governor of Virginia:

“Do you not think, my dear sir, that the credit, the saving, and convenience of this country all requires that our great roads leading from one place to another should be straightened, shortened, and established by law, and the power in the county courts to alter them be withdrawn?”

To me these things seem indispensably necessary, and it is my



HARRY W. GRAHAM  
Secretary Chillicothe, (Mo.), Chamber of  
Commerce and one of the organizers of  
the Jefferson Highway Association at  
New Orleans.

opinion they will take place in time. The longer, therefore, they are delayed, the more people will be injured by alterations when they happen. It is equally clear to me that, putting the lowest valuation upon the labor of the people who work upon the roads, the existing law and the customs of the present day, the repair of them by way of contract, to be paid by an assessment on a certain district, would be infinitely less burdensome to the community than the present mode. In this case the contractor would meet no favor; every man in the district would give information of neglects; whereas negligence under the present system is winked at by the only people who know the particulars or can inform against overseers, for strangers had rather encounter the inconvenience of bad roads than the trouble of an information, and go away prejudiced against the country for the polity of it.”

This was a strong plea for National Highways by the Father of his Country. There was much delay and inconvenience caused by the deplorable condition of the main roads. The roads running out of the large cities and towns were no exception. Later the “turnpike” road was inaugurated by chartered companies during the last quarter of the eighteenth century. Tollgates, charging \$2.00 for every 70 miles were allowed these companies,

which the traveler had to pay, although they had to frequently carry tools in their vehicles with which to repair portions of the pike that were impassable.

The desire to speculate in the organization of these turnpike companies caused a mad rush for shares of stock in those days. In one instance after a charter was secured on a sixty mile turnpike, 2,275 subscribers made application for stock within ten days. This was 1,675 more than the law allowed, they were all placed in a lottery wheel and 600 were drawn. The road builders of that day knew nothing regarding highway construction. The mistakes made taught them some valuable lessons. The gigantic error of these road builders were soon made plain. Many indignation meetings were held, at which turnpike companies were condemned and legislatures blamed for giving the charters.

Early in the nineteenth century, the movement started by Telford and Macadam in England, in favor of broken stone roads, attracted attention in America. The importance of improved roads for military, postal and commercial purposes began to be widely appreciated. Road reform assumed such proportions, that it was advocated by many great patriots of the day. The movement became so strong in this country that it became one of the leading questions of national politics and was supported by such men as Thomas Jefferson. Next to the tariff, it was considered the leading question in Congress.

Those who believed in a liberal construction of the Constitution were favorable to the building of roads by the general government. During President Jefferson's second term important measures were taken providing funds for national road construction. A provision setting aside five per cent. of the net proceeds from the sale of all public lands.

In 1806 the first appropriation passed both Houses of Congress, and the construction of the “Old Cumberland Road” was begun. Thomas Jefferson was supported by Calhoun and Clay in his movement for national highways to be constructed by the government. In one of their addresses to Congress the following language was used, showing it was Jefferson's idea to construct four systems of national highways, one of which was to be a north and south road, now being agitated as the Jefferson Highway:

"Let it not be said that internal improvements may be wholly left to the enterprise of the states and of individuals. I know that much may justly be expected to be done by them; but in a country so new and so extensive as ours there is room enough for all, the general and state governments and individuals, to exert their resources. Many of the improvements contemplated are on too great a scale for the resources of states or of individuals, and many of such a nature that the rival jealousy of the state, if left alone, might prevent. They require the resources and general superintendence of the government to effect and complete them."

"But there are higher and more powerful considerations why Congress should take charge of this subject. If we were only to consider the pecuniary advantages of a good system of roads and canals, it might indeed admit of some doubt whether they ought not to be left wholly to individual exertions; but when we come to consider how intimately the strength and political prosperity of the Republic are connected with this subject, we find the most urgent reasons why we should apply our resources to them. Good roads and canals, judiciously laid out, are the proper remedy. Let us, then, bind the Republic together with a perfect system of roads and canals."

"The first great object is to perfect the communication from Maine to Louisiana. The next is the connection of the lakes with the Hudson River. (Now partially covered by the Lincoln Highway.) The next object of chief importance is to connect all the great commercial points on the Atlantic with the Western States. (Now the National Old Trails Road and Pikes Peak Ocean-to-Ocean Highway) and, finally, to perfect the intercourse between the West and New Orleans." (Now the Jefferson Highway.)

With some few amendments, this bill passed. The advocates of the policy were for a time successful and numerous appropriations were made from the national treasury, in all, something over \$14,000,000.00, but in March, 1817, President Monroe vetoed this bill on the grounds that it was unconstitutional. An attempt was made to overrule the President, but failed of the necessary two-thirds majority.

In the meantime the "Old Cumberland Road" had been pushed westward, surveyed to the Mississippi River "to a point near St. Louis;" graded to Vandalia, Illinois, and hard surfaced as far west as Indianapolis, at a total cost to the Government of something like \$7,800,000.00.

This road was so well built it was described as follows by a writer in 1879:

"It was excellently macadamized; the rivers and creeks were spanned by stone bridges; the distances were indexed by iron mile-posts. There were sometimes twenty gaily painted four-horse coaches each way daily. The cattle and sheep were never out of sight. The canvas covered wagons were drawn by six to twelve horses. Within a mile of the road the country was a wilderness, but on the Highway the traffic was as dense as in the main street of a large town. Ten miles an hour is said to have been the usual speed for coaches, but at some points they claimed to have made twenty-six miles in two hours. These coaches finally ceased running in 1853. There were also through freight wagons which carried ten tons. They were drawn by twelve horses, and their rear wheels were ten feet high."

Thus we have the "Why the Jefferson Highway" answered, this question that has been asked so very many times since the announcement of the meeting at New Orleans last November. It is because Thomas Jefferson had it in mind. He saw its need.

He was a great agriculturist, his great agricultural library is now in the Library of Congress. He was a great agricultural investigator and perhaps possessed and studied more works on the needs of agriculture than any other man. Aside from his advocacy of good roads, his interest in agriculture is perhaps best known from his improvement of the plow. Like Washington, he directed practical operations on his own estate and his books were a constant aid to him for this purpose.

## News and Progress Along the Route

(Continued from Page 6)

County Poor Farm the most enthusiastic good roads meeting ever held in the State of Iowa. At this meeting there were between four and five hundred farmers and their wives, boosting for a better road between Des Moines and Ames. The northern extension of the proposed Jefferson Highway in Polk County extends from Des Moines to Ankeny and thence east and north to Nevada, in Story County. The farmers between Ankeny and Ames propose to improve the Ankeny and Ames county road during the year 1916, by the construction of a permanent pavement, and it is quite probable that if this road is paved, the location of the Jefferson Highway will be switched from the line from Ankeny to Nevada unless the farmers along this road show the same degree of enterprise as the farmers between Ankeny and Ames.

Mr. Roy DeMarce, Secretary of the A. D. Good Roads Association, states that two-thirds of the farmers between Des Moines and Ankeny will sign up now for a permanent road between Des Moines and Ankeny. However, there is no law in Iowa applied to rural districts whereby a majority frontage can be petitioned for an improvement. It would require the signature of every foot of land between Des Moines and Ankeny to put the paving through unless those who have signed would be willing to assume the assessment of those who refuse to sign. This, of course, is too much to expect. We will get the right law from the next legislature.

### MINNESOTA MEANS BUSINESS

#### Becker County Commissioners Adopt Resolution Which Provides for Improvement of Proposed Road

That the Board of Commissioners of Becker county are fully awake to the possibilities of the proposed Jefferson Highway, the route of which it is hoped will be laid through Frazee, Detroit, Audubon and Lake Park, is evidenced by the following resolution



Section of Jefferson Highway, Carlton County, Minn.

which was adopted at a special meeting held on Tuesday:

Whereas, the importance of the location of the Jefferson Highway so that it will run through Becker county on the route of the State Road leading from the south line of the county at Frazee, through Detroit, Audubon, Lake Park and on west to the west line of the county, connecting with the State Road leading to Moorhead, has been brought to the attention of the County Board of Becker county;

And Whereas, the county believes it a matter of sufficient importance to justify it in favoring the early construction of the same according to the rules laid down by the State Highway Commission of Minnesota;

Therefore, Be it Resolved by the County Board of Becker county, that it pledges the County of Becker to provide the necessary means and cause said road to be constructed during the years 1916 and 1917, and that work thereon will commence early in the road building season of 1916.

That this resolution is adopted especially to encourage the location of the said Jefferson Highway on the route mentioned through Becker county, Minnesota.

Work approximating \$10,000 has been planned on this Highway for this year and, if the Highway is designated as the official route of the Jefferson Highway, whatever amount is necessary for its completion and maintenance will be provided for next year.

The action of the board is an important one and furnishes indisputable and material evidence of the earnestness with which our people are going after the Jefferson Highway proposition.

(Detroit, (Minn.), Record.)

### BIG GIFT OF GRAVEL TO JEFFERSON ROAD

#### Missourian Donates 500 Car Loads, Worth at Lowest Estimate \$3,000

J. D. Clarkson has credentials to prove that Carthage has a brand of road boosters of whom no one need be ashamed. The latest

(Continued on Page 11)



# Gravel Roads—Their Construction and Maintenance

## The Great Ready-Made Material for Road Building

By JOHN H. MULLEN

Deputy Engineer, Minnesota State Highway Commission

**T**HE selection of a standard type of road by a state, county, or other municipality about to enter upon an extensive program of road improvement should be influenced by the kind and volume of traffic to be served, but is generally determined by the availability of funds and material and the length of road necessary to satisfy the taxpaying community. The ultimate economic value of one type of construction as compared with others would apparently be the logical governing factor in making a selection, but in practical road administration it is found advisable to heed the demand of the road user for the greatest possible mileage of "all weather" hard roads. Both requirements can more nearly be met by the construction of gravel roads, for not only can a large mileage of satisfactory road be built by surfacing with gravel, at a comparatively small expenditure but in rural communities gravel roads have proved most economical, taking into consideration first cost, interest and maintenance. This might not be true in the case of roads leading into the larger cities, but even in those locations it is frequently advisable to first surface with gravel in order to prepare the road bed for a more permanent and expensive kind of road metal. Without doubt a well constructed and properly maintained gravel road is the most satisfactory type of construction from the road user's point of view, for it is noiseless, comparatively dustless, easy on horses, resilient enough to be smooth riding for any kind of vehicle, and offers but little comparative resistance to traction. To secure such a road however, it is necessary to take into account certain principles of construction and carry on the work with the exercise of considerable skill and judgment.

The preparation of the subgrade is essential to the success of gravel as well as any other road surface, and although we all agree as to the necessity for this work, it is frequently overlooked in actual construction. The drainage must be thorough and along permanent substantial lines, with road gutters of sufficient depth to not only carry all water which may come to them, but will allow for cleaning without damage to the road surface. The grading of the subgrade should be carried on in such a manner as to give the best possible foundation and prevent less of the more expensive surfacing material. This may be accomplished by providing for use of clay to make a crust on sandy soil, or surfacing with sand to prevent loss of gravel in heavy clay. In prairie sections, clay cuts are generally encountered which may be used to advantage in furnishing a substantial covering for the loose bottom soil occurring in such locations. Such treatment of the subgrade not only pro-



Graveled road on Jefferson Highway near Windom, Cottonwood Co., Minn.

vides a good foundation for the gravel, but gives a more satisfactory temporary roadway. If conditions permit, it is always advisable to allow for weathering and settlement of the subgrade at least a year prior to gravelling. Immediately before placing the gravel the roadbed should be brought to a smooth uniform surface, free from ruts and undulations, with as slight a crown as the character of soil will permit. In heavy clay this may be as much as one-half an inch per foot, and on sandy soil nearly flat. There are two general methods of placing gravel; by depositing it in a trench dug out from the roadbed to the required width and slightly less than the thickness of metal, or by spreading the gravel on a slightly crowned subgrade. Newly placed gravel is quite pervious and therefor should be deposited in such a manner that water seeping through may drain out at the sides and not remain to soften the subgrade and result in cutting up the surface. Even with blind drains through the shoulders the trench method is objectionable on this account, but by crowning the subgrade and spreading the gravel on the surface, without having shoulders except as they are formed by shaping the roadbed after gravel is placed, it will be found that one of the foundation troubles is eliminated.

The width to which surface shall be placed will be determined locally, but the minimum should be twelve feet on light traveled roads, and at least sixteen feet where there is heavy travel; surfacing on the latter being preferably 18 or 20 feet in width. The crown of a gravel road should be low, not more than one-half inch per foot, in order that travel will spread and not follow one rut as happens with a high crown; and it will be found that both the additional width and the low crown will aid substantially in maintenance; the first on account of having material at the sides which will permit of dragging without bringing up inferior soil to the surface, and the latter on account of spreading the travel over a wider area and thereby preventing ruts.

The thickness of gravel surfacing must be sufficient to form a protecting crust and to distribute the wheel loads over enough area on the subgrade to prevent breaking down of the surface. Ordinarily about six inches of compacted material is the proper thickness, but this thickness need only be maintained in the center eight feet, which usually carries 90 per cent. of the traffic, and it may be decreased toward the edges to a thickness of from one to three inches. Frequently the surface has to be built up in layers on account of the grade of material, so that for a time there may be only about three inches of metal. This apparently furnishes



Sky-line photograph of business district Minneapolis, Minn.—One of the principal terminal cities on Jefferson Highway.

a good road but should not be allowed to remain long without completion as heavy hauling during unfavorable weather may cause the loss of practically all the surface. A good gravel, containing 60 per cent. of material from one-fourth inch to one and one-half inch with a well graded fine aggregate having 15 per cent clay, may be placed on the road at a depth of from six to eight inches, by rolling in two layers, and will furnish a good surface immediately. Or if material is at hand which will allow for mixing in approximately those proportions, a good surface can be obtained by placing first four inches of gravel then an inch of clay well rolled, then a top of two inches of gravel, rolling thoroughly until compact. The problem however, is not how to build a surface with machinery and ideal material, for it is seldom available, but to build what the local people are pleased to call a "gravel road" using the best material at hand, which frequently is nothing more than sand. This brings into action the judgment and ability of the engineer, for he must make a study of the material in the vicinity of the work, in relation to the soil in the subgrade to be surfaced, and determine where and in what manner it may be used to best advantage for the class of traffic it must carry. It sometimes develops that the material in the country is very inferior and that gravel may be shipped in cars from distant points. This should be carefully investigated and the relative cost and efficiency determined. In considering shipment of gravel, it is advisable to add to estimated costs from 25 cents to 50 cents per cubic yard for shrinkage and for delays to the outfit caused by irregular deliveries. In selecting material, when there is a choice, the preference should be given to gravel containing the greater amount of hard pebbles with enough fine material to fill the voids, and sufficient binding quality to hold it in place.

The pit run gravel which must be used for the most of gravel surfacing in the Western states, generally contains a great excess of sand, and in some cases is practically all sand. As a rule this is used for surfacing on clay or heavy soil which becomes soft and rutted in wet weather. Best results under these conditions, when there is no chance to correct the gravel, may be obtained in building up a surface by placing two or three layers of the required width to a thickness of from three to four inches each at intervals about one year apart. Occasionally a coat of this sandy gravel is placed and will not pack, in which case a layer of clay becomes necessary.

This may be added successfully by the use of a manure spreader.

Gravel should be shoveled in place rather than dumped on the road, to aid in preventing the waviness found on so many roads of this kind, but the objectionable waves are not entirely or largely from this cause,

but are occasioned by uneven subgrade, by lack of proper dragging and care during setting up, and usually from non-conformity of the surfacing material. To secure a more uniform material on the road surface it is recommended that the gravel be loaded from bins at the pit. The cost of this kind of equipment is not

excessive and will not only reduce the loading charge, but by additional handling through the conveyors and bins, will mix the sand, gravel and clay which usually occurs in pockets in the pit and will allow for the screening out of over size material. Every gravel or sand surfaced road should be dragged before surfacing, during the time that surface is being placed, and continuously thereafter until it has become hard and smooth. The ordinary two blade road drag, without runners, is not the best for this purpose, for it tends to gouge out the depressions, but a planer should be used, similar to the Minnesota Road Planer, which has a tendency to iron out the

irregularities. The question whether a gravel surfaced road must be rolled is usually answered by the fact that no roller is available in the vicinity, but although it is sometimes found advisable to build a roller of concrete to consolidate the gravel, this is only effective when the gravel is well graded, and ordinarily it is just as well to bring the surface to a smooth compact condition by dragging and raking with the aid of packing by wheel traffic.

As a road is improved the traffic increases, and it therefore becomes necessary to provide for maintenance of the graveled roads immediately after construction. The most effective method is by patrols, giving one man from four to seven miles to care for, and placing piles of material along the road for his use in making repairs. On roads receiving heavy motor traffic the patrolman has difficulty in maintaining the surface and it then becomes necessary to use an artificial binder in order to hold the fine material and prevent ravelling. The actual cost of maintenance of gravel roads ranges from \$100.00 to \$250.00 per mile per year, and on one road leading out of the city of Minneapolis it amounted to \$500.00 per mile in one year.

The cost of building gravel roads varies with the length of haul so that it is difficult to give an estimate unless actual conditions are known. In the construction of State Rural Highway No. 22 of Minnesota, a record of haul was kept, of which a plat is given herewith. It is interesting to note from this diagram, the difference in distance traveled

by the average team in a day on short and long hauls. On a four-tenths mile haul, fifteen loads were handled with a total of twelve miles traveled, while on a two and one-half mile haul five loads were hauled with twenty-five miles of travel. This is based on a nine

(Continued on Page 20)



Lake Itasca, Minn., near proposed Itasca Park route of Jefferson Highway. The feature of this scene is that the outlet in the background is the actual beginning of the mighty Mississippi.



A view in the beautiful City Park at Bemidji, Minn., on proposed Itasca Park route.

# Jefferson Highway Benefits

Cost of Great Road an Investment—Five Million People Directly Interested

By COL. WM. POLK

**A**UTHENTIC details of the route of the Jefferson Highway are not at my command, so they might be utilized in compiling the necessary statistics that are desired, but I have taken as a basis, the cities and towns enumerated, (but which are not accurate), by a map published in the Jefferson Highway Declaration. I presume however, that the route is near correct, and in time an authentic map will show the cities and towns interlocked by this Highway. We find incorporated towns and the states on the route of the Jefferson Highway are populated as follows: Minnesota, 733,000; Iowa, 115,645; Missouri, 585,451; Kansas, 159,143; Oklahoma, 62,468; Texas, 36,457; Louisiana, 480,014.

In compiling these figures with the exceptional of Missouri they were taken from the census of 1910, and many cities and towns have increased in population anywhere from five to one hundred per cent. in many instances. The total urban population will be approximately three million people, by taking an average of the states per square mile of population, will show thirty people per square mile. We would have an additional rural population along this route of not less than 550,000 people. The directly influenced population in my judgment, should not therefore be less than five million people.

It is estimated that the total mileage of this road would be about 1,800 miles, and taking the plans and specifications made by the Highway Commission of the State of Louisiana, a good sixteen foot hard surface road, (where your material is convenient) will be approximately \$7,000 per mile, making the total cost of the road \$12,600,000. The average cost per state would be \$1,800,000. You observe from the population and the cost of the road, that the per capita tax would not exceed \$2.50 per person. Another feature of the construction of this road, is the fact that no one should recognize in voting a tax or any other contribution, that they are incurring a debt, but to the contrary they are making an investment.

We are simply utilizing the credit of the various



COL. WM. POLK  
Secretary Louisiana Good Roads Association  
and prominent worker for Jefferson Highway.

political sub-divisions for securing cheap money, and investing same in good roads. This is the proposition in a net shell. Besides the great benefits derived in good roads, we will put in circulation along this route, twelve and a half million dollars, which will remain in circulation and become a part of the bank deposits of the various cities through which this road passes. In fact nearly all of this money is invested in the various communities, and at once circulated in all the different branches of trade. It is an economic theory that whenever the wage earner and the farmer are prosperous the whole country is prosperous, and they are the medium through which money is kept in circulation, and these two classes of people would be immensely benefited in this construction.

The building of the Jefferson Highway would give employment to the laborer along its route, and would create a demand for labor. There are examples in communities which illustrate the great benefits derived by the construction of

good roads, by the business of communities, especially during their construction.

Frequently we find opposition by some unthinking men, on the basis, that he is settling a debt on prosperity. The proper presentation of this business enterprise, will dissipate this erroneous conviction. So much for the business community and the laborers' relation to the Jefferson Highway. The farmer who will be the recipient of the greatest benefits, will be enabled to haul his produce at a basis of 9 cents per ton mile, instead of 28 cents per ton mile. Then taking into consideration the saving on ware and tare would more than pay any tax that might be imposed upon him.

It has been demonstrated that the increase in land values have run from as high as \$10.00 per acre to \$35.00 per acre, within a radius of five miles of any highway. It brings the farmer closer to markets; it brings his family into closer contact with new ideas; it elevates the morals of a community, and dissipates the tendency to become suspicious, and timid, a characteristic that always develops in people when isolated.

## News and Progress Along the Route

(Continued from Page 8)

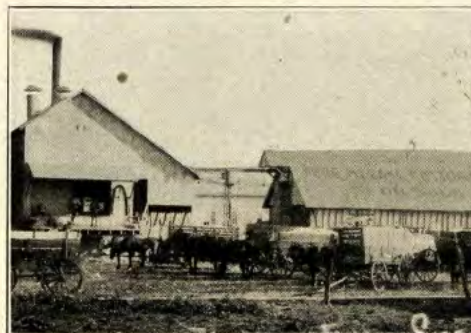
demonstration of real worth while interest in good roads comes in the form of an offer by Charles A. Blair, of Cartersville, Mo., to donate \$3,000 worth of gravel to be used on the Jefferson Highway outside of the county. Mr. Clarkson lost no time in nailing down the offer.

But here's the correspondence that tells its own story:

Cartersville, Mo., March 29, 1916.—J. D. Clarkson, General Manager, Jefferson Highway, Des Moines, Ia.—My Dear Clarkson: Would it be worth the while of the General Manager of the Jefferson Highway to secure a donation of 500 cars of gravel, loaded for use outside of this county?

If so, get busy and persuade me. Would be f. o. b. at mine. Am reserving it in a gravel contract am now making, if you want it.

CHARLES A. BLAIR.



Cotton Mill, Caddo, Okla.

Mr. Clarkson answered promptly:  
Day telegram—

Des Moines, Ia., March 31, 1916.—Chas. A. Blair, Cartersville, Mo.; Consider yourself duly persuaded and cinch the 500 cars of gravel. Accept my personal thanks for this handsome donation. Mr. Meredith, the President of the Association, is out of the city. Will leave it for him to express the appreciation of the Association when he returns.

Will use the gravel soon as grade is ready. How fast can you deliver?

Jefferson Highway Assn.,

By J. D. Clarkson, General Mgr.

The reply from Mr. Blair came back in just thirty minutes:

Carthage, Mo., April 1, 1916.—Jefferson Highway Association, Des Moines,

CHARLES A. BLAIR.

This donation came as a surprise to Mr. Clarkson. He expected

to get some donations before long, but did not expect to have them thrown at his head in this way.

It seems that Mr. Blair is one of the many good roads boosters in Jasper county. He lives at Carthage but has mining interests to look after in Missouri and Oklahoma and does his traveling almost exclusively by automobile. This is made possible by the excellent gravel roads in that territory.

Blair was one of the originators and is Secretary of the 365-Day-Road Club of Missouri, and according to Clarkson would rather spend a day boosting for good roads than to go fishing.

While this donation is a large one, amounting to \$3,000 at the very low estimate of 10 cents per wagon load, it is not the only one, and possibly not the largest one that Mr. Clarkson expects will come from that locality for use elsewhere; as the people of that locality recognize their obligation to help other localities build roads which are not so well able to do it.

### Help Outside the State

This principle of the obligation of the larger and wealthier community to aid the smaller ones has been practiced, according to Mr. Clarkson, for some time. Carthage and other towns have reached out many miles to aid in building 365 days roads and Joplin, the premier town of the district has gone out thirty-five or forty miles with its money and machinery to aid in building hard roads—not only outside the county but outside the state.

John M. Malang of Joplin is commissioner of that special road district.



Gilmer State Bank, Farmers and Merchants National Bank and First National Bank, Gilmer, Texas.

### MISSOURI MOVING

#### Barton County to Form Special Assessment Districts

According to the Lamar Democrat, the Barton county, Missouri, people are planning to build their section of the Jefferson Highway by forming special assessment road districts, under the new state law which was recently declared constitutional in a test case.

When this law was passed two years ago or more, much was expected of it, and steps were taken in many portions of the state to utilize it. Suddenly it was given a black eye by a court decision that it was unconstitutional. The case in which the constitutionality was at issue was appealed to the Supreme Court, and in the meanwhile the law could not be utilized. The Supreme Court very recently decided the case, affirming the constitutionality of the law.

#### HOW THE LAW OPERATES

An assessment road district formed under this law, extends for a mile on each side of the road which it is proposed to build, and is as long as it is proposed to build the road, inside of certain limits. The cost of the road is apportioned to the land inside of this district.

The majority of the people in this district must favor the proposed road improvement. When they do, if they represent enough land, the district is formed and each person in the district must pay his share of road cost. This plan gives the enterprising men in a community, who are in favor of good roads, a chance to go ahead, if there are enough of them, and the men who hang back are forced to pay their share.

If there are one or two men in a given community who would otherwise be a clog, refusing to help in road building in any way, though they get the benefit of it as much as anyone when it is done, such people have to help pay the road cost in proportion as they are benefited, like other people. There is much road work in the country which will go forward under this law which would otherwise fail of being accomplished.

#### BARTON COUNTY BOOSTERS BUSY

The Barton county people have concluded that this law affords the most satisfactory plan for carrying the Jefferson Highway across Barton county.

George Schreiner, Elmer Collins, C. D. Goodrum and James Box, who are Barton county road boosters, spent a day or two last week in Richland township planning such a district. As planned this district will begin at the north line of Jasper county at a point north of the city of Jasper, and extend north for nine miles. It will be two miles wide. They have already secured signatures for 3,900 acres, enough, they believe, to assure the project a successful start. This will carry the road half way across Barton county.

### Factory Campaign Is Postponed

The Carthage, (Missouri), Business Men's League last night decided to postpone starting the campaign for the overall factory fund for one week, in order that the organization of the 365-Day-Road Club might be completed first.

Nearly half of the necessary membership of the 365-Day-Road Club has now been secured in only a few hours canvassing. It is believed the organization can be completed in the coming week, though naturally the last half of the list will be harder to obtain than the first half.

E. R. Jacobs spoke briefly on the necessity for diligent effort to build speedily the Missouri section of the proposed Jefferson Highway. The Kansas route is being actively pushed and Missouri must keep up.

He said that the Jasper people have already begun the construction of a rock road 18 feet wide, extending from the base line north to the county line. Barton county seems to be getting busy with preparations for her share of the work. In Kansas City a strong

organization is prepared to help supply funds for building the road through bad places, such as the worst river bottoms, where the cost of the road will be greatest and yet where the road is through land that is not of enough value to supply much road revenue itself. These are all encouraging signs that the road will soon be a reality, but a watchful eye will have to be kept that work does not lag somewhere.

### Jasper Road Boosters Busy

The Jasper News has an account of a meeting held at the Blue Star school house in the interest of the proposed Jefferson Highway in Richland township in the south part of Barton county, Missouri. E. W. Scott made a comprehensive address on the cost and benefits of hard surface roads. He used figures from government publications on the subject and also those from the Lincoln Highway Commission and the Dixie Highway Commission. Other speakers were Bert Webb, J. E. Hull, James Box, Dr. J. J. Martin, H. Beall and J. D. Harbur. A committee composed of J. E. Hull, H. Beall and Homer Stockdale was appointed to solicit contributions for building the Jefferson Highway through Richland township.

### Editorial Note

The 365-Day-Road Club mentioned in the above is the original 365-Day-Road Club organized six years ago by Mr. J. D. Clarkson our General Manager and is composed of not less than one hundred men who each pay in \$5.00 per month or \$60.00 a year.

It is a significant fact worthy of notice that a factory subscription campaign was postponed to clear the way for the Road Club. While the people of Carthage are keen for factories, they have learned that good roads means as much to a town as factories. One of

Mr. Clarkson's most telling arguments for better roads is where he shows by actual count that just one mile outside the present limit, of the trading territory of any town, is a more valuable trading population than would be secured by the locating of any reasonable sized factory in the town itself.

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Douglas Lodge, Itasca State Park, Minn. Near Jefferson Highway.

# The Lincoln Highway

This and Other National Highways of Vital Importance to Whole of United States

By HENRY B. JOY

President the Lincoln Highway Association

**T**HE LINCOLN HIGHWAY ASSOCIATION was organized in 1913, with the idea that the good roads sentiment of this country had already reached a point where it was only necessary to turn its attention to the accomplishment of some definite task in order that real progress might be made, and a real start secured toward a nation-wide system of good roads in the United States.

The coming of the automobile and the popularizing of a new method of individual travel has forced upon the overcrowded attention of the American public the necessity for a means of rapid and easy inter-communication between city and town, farm and station, railroad and ranch, not from the standpoint of pleasure or convenience alone, but for good sound business reasons. America is awakening to the fact that the development of our permanent, connecting roads is as important in this day and age as was the development of our first through, connecting railroad lines in the age just past.

It is the public awakening to a realization of what good, permanent roads mean to the prosperity of any community, state or country that has made the good roads question one of the foremost topics of national concern today. Ten or even five years ago we could go into almost any section of this country and find the germ of the good roads idea embodied in local organizations, headed by men with a gift of vision, advocating the establishment and construction of good roads. There were hundreds of these organizations in every part of the United States, as there are now, but little was being accomplished, due to a lack of concerted effort or definite aim. It was with the idea of crystalizing this growing interest in a subject of more real, vital concern to the people of the United States than is the tariff that the Lincoln Highway Association was organized two years ago, for, argued its founders, with two million miles of unimproved roads in the United States, and each locality aggressively urging and agitating for the immediate construction of its own roads under conflicting plans, there is slight prospect of accomplishing any definite, tangible work toward the ideal of a national system of improved roads.

The answer was to provide some definite accomplishment toward which this tremendous amount of good roads effort could be directed, and the Lincoln Highway, the most logical trans-continental route connecting the two coasts, was the result. Its dedication to the name of our martyred President, as a most appropriate and enduring memorial, was a later thought, and one which has added to the movement a touch of sentiment which has done much to interest the thousands of Lincoln Highway supporters.

Two years ago, with all the good roads agitation which was under way, and with no one knows how



Drive on Lincoln Highway nearing Reno, Nevada.

many good roads organizations actively expending effort toward the construction of improved roads, it was absolutely impossible for the motorist to leave any large city in this country for an extended trip through one or more other states to any other large city. It was beyond the range of possibility to leave New York City for a drive to California with any idea of what roads would be followed, what time would be consumed en route, or whether, in fact, an arrival on the Pacific Coast would be possible.

Today, after two years of persistent and consistent national effort directed toward the achievement of a good, through, connecting route between the two coasts, it has not only been possible, but it has been actually the fact that thousands of motorists from the east and middle west have driven across this country into Pacific coast states, over a highway which, while by no means perfect, was nevertheless marked for practically every mile of the distance, and which was for over 75 per cent of its length in good or fair condition.

Three things were responsible for this wonderful increase in trans-continental touring—an increase which amounts to over 600 per cent. in two years. The most potent of the three was the fact that the Lincoln Highway presented a means by which the individual could drive across this country with some degree of comfort, and with some assurance of reaching his destination in a predetermined time.

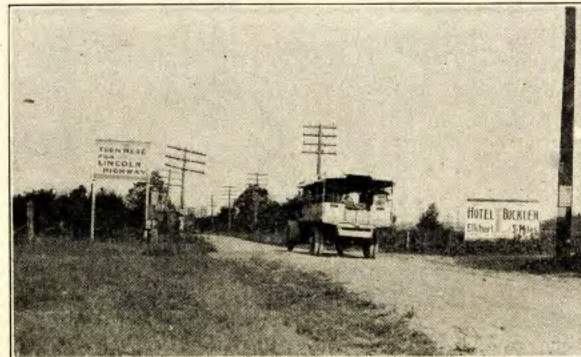
The second was that the thousands of automobile owners, people of wealth, who every year have flowed over-seas, carrying at a conservative estimate two hundred millions of American dollars to England, France, Germany and Italy, were compelled this year to seek their pleasure in their own country and see something of America, if not first, at least eventually.

The third was the California Expositions, which provided such an enticing goal for the trans-continental journey.

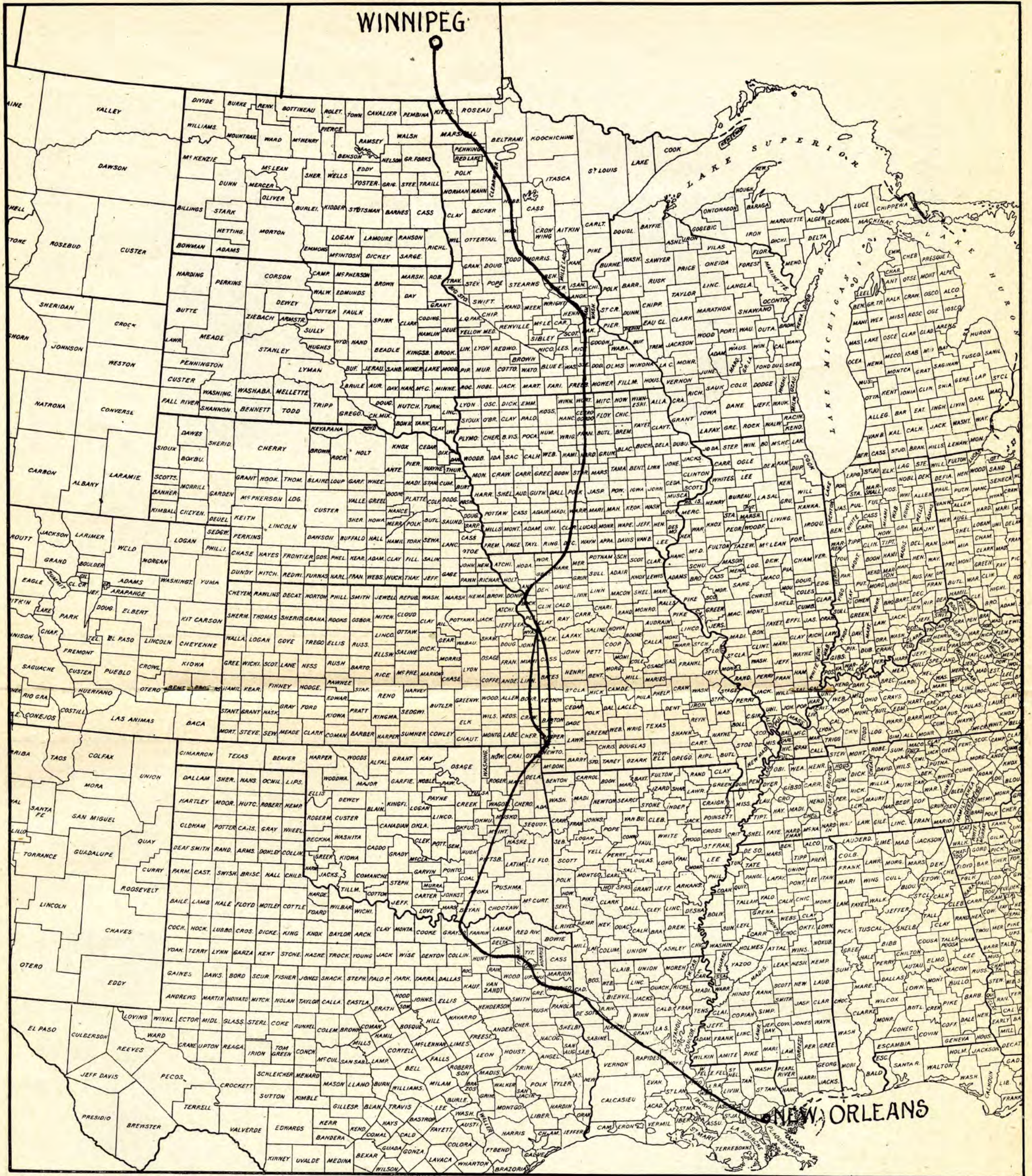
Many of these tourists started out with the idea that the Lincoln Highway was a concreted boulevard, stretching without end from coast to coast. These people were disappointed. Many of them encountered this year in the Middle West some terrible road conditions on the Lincoln Highway which were the result of natural mud roads, combined with the terrific and

unprecedented rainfall which was experienced from the Great Lakes to the Rocky Mountains this spring. These people possibly did not realize the tremendous accomplishments which have marked the efforts to improve the Lincoln Highway during the past two years since its announcement and dedication. If they had attempted to drive across the continent previous to 1913, and then made the trip this year as I did, the measure of effort which has been expended would have

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Entering Elkhart, Ind., on Lincoln Highway.



## County Map of Jefferson Highway

The Jefferson Highway will be built largely in county units. It means concerted highway construction on the part of approximately seventy-six counties between the Canadian border of Minnesota and the City of New Orleans. It means organization down to the small workable unit of the single county, which gets at the center of bond-issuing power for good roads building. It means seventy-six Jefferson Highway county organizations, each devoted to and directly responsible for a certain small mileage of the Jefferson Highway. As a result of this united effort and connecting up of County Highways for a Great National Highway that "starts somewhere and gets

somewhere," bond elections and actual road construction are proceeding with surprising rapidity. What can be said for your county? This map may be made to show later the counties that have voted bond issues for good roads and those that have not. It may also be made to show the percentage of hard surfacing (gravel, rock or concrete) on the Jefferson Highway in each county and in each state. (The portion of the Jefferson Highway north of Minneapolis and St. Paul is not definitely located as yet. The map shows the first proposed or Itasca Park route. Slight changes in other sections may be required.)

## THE LINCOLN HIGHWAY

(Continued from Page 13)

seemed prodigious and the actual results which have been accomplished on the 3,400 mile road would have been apparent.

Here is a task comparable only to a work like the Panama Canal, and which in its far-reaching effects over-balances that accomplishment of the concentrated forces of a mighty nation.

The aid of every American is needed to bring the Lincoln Highway to that state of completion which will make it a model road of the world—a modern Appian way. To no better cause could the American motorist devote his interest, attention and money. If only the tourists who drove the Lincoln Highway this season were to aid the Association to the extent of but five dollars each, many of the worst sections now encountered on the Lincoln Highway where road improvement is slow and unsatisfactory, due to long

mileage and sparse population, could be made boulevards. Yet the average tourist does not realize the difficulties which many of the Western sections in particular encounter in trying to present acceptable driving conditions on their main roads, and content themselves with abusing the communities and criticising road conditions, when in reality the communities are doing their utmost, and it is the aid of the tourist himself that must be had to put these roads in the condition which the average Eastern tourist considers fair.

Travel by motor car across Indiana, Illinois, Iowa and Nebraska, those great farm states where much of the wealth of the nation originates, just after or during a heavy rainstorm has been, to all intents and purposes, impossible. Yet the result of the Lincoln Highway Association's efforts and the co-operation of the people is becoming evident. Hard-surfaced road construction is becoming the rule in Indiana, and many miles of perfect concrete construction are now enjoyed by the motorists on the Lincoln Highway in that state. The same is true in lesser degree of Illinois, although, good gravel roads are the rule.

In Iowa the thirteen counties through which the Lincoln Highway passes have spent during the seasons of 1914 and 1915 over \$200,000 in grading and maintenance alone upon a section of the route about 386 miles long. Bad bridges and culverts were torn out and replaced with concrete and steel. For mile after mile the tops of the hills have been cut off with steam shovels, and dumped into the valleys, making what is almost a railroad grade across the state, in some instances the cuts and fills being from fifteen to thirty feet deep.

In Nebraska, the Lincoln Highway Association, by contribution of cement, has built on the Lincoln Highway in two different counties the first two standard sections of hard-surfaced Lincoln Highway in that state. The natural dirt roads across Nebraska are kept in excellent condition in dry weather by constant dragging. But here, as in Wyoming and other states to the

West, the great problem of long mileage and sparse population—lack of funds to construct proper hard-surfaced roads—is the great drawback, and it is in these Western states that the maximum aid of the Association and, through the Association, the people of the entire United States, is needed. The people of Wyoming, Utah and Nevada are doing everything possible to make the Lincoln Highway as perfect a road as their limited resources will allow. One county in Wyoming, with a population of 12,000, and a section of Lincoln Highway, some 152 miles in length, has spent in one season over \$100,000 for road improvement and maintenance. Churchill county, Nevada, with 3,000 population and an area of over 5,000 square miles, has spent an amount equivalent to over \$3.65 for every man, woman and child in the county.

Nevada, with a population of some 80,000 people, is the fourth largest state of the Union, has 425 miles of trans-state Lincoln Way, and by no possibility and no matter how great an effort could the necessary funds for the improvement of this entire road be raised within the state. It is here, as in Utah and Wyoming, that the Association appeals for the aid of the people of the country, and the populous and wealthy East must realize that if a good, through, connecting, trans-continental road is desired, its financial aid must be had. Funds should be sent to the National Headquarters of the Lincoln Highway Association, Detroit, Michigan.

The eastern end of the Lincoln Highway, like eastern roads in general, does not present much of a problem. You can drive today from Forty-second street and Broadway, New York to Chicago in thirty-five hours of driving time if you wish to push your car. The Lincoln Highway in New Jersey may be considered perfect. The Pennsylvania section is, in the main, good hard-surfaced road, well kept, while but a few miles of the Lincoln Highway in Ohio remain to be hard-surfaced.

The tourist driving from the Pennsylvania-Ohio line west along the Lincoln Highway this year could not drive fifty consecutive miles without encountering either actual road work in progress or sections of road which gave indications of having recently been worked. A national co-operation is needed to extend the Eastern road conditions through to the Pacific Coast.

The question is a national problem. The Lincoln Highway is a national project. The entire country must co-operate to put through our main routes of travel. The building of the Lincoln Highway is a problem of vital interest to sixty millions of Americans. If all of them could be made to realize it, and give it their aid and support, as the people along the route are doing, it would be completed next year, and the people of this country could really begin to "See America."

on each side of the proposed road. The proposition is to vote bonds at the rate of \$1 per acre. This would supply funds at the rate of \$1,280 per mile. It is believed that subscribed funds can be secured to add \$200 a mile, and thus practically \$1,500 per mile would be supplied for building the Barton county section of this road. Over the good sections of the road, it is thought that gravel alone will be sufficient to apply as the road sur-



Concrete road on Jefferson Highway near Marshall, Texas.

## News and Progress Along the Route

(Continued from Page 12)

### BUILDING OF ROAD ASSURED

BARTON COUNTY TO FORM ASSESSMENT DISTRICTS TO CONSTRUCT HIGHWAY

Saturday's Lamar Democrat states that the building of the Jefferson Highway across Barton county is now assured by means of special assessment districts. Committees have been busy organizing four of these districts, each two miles wide, thus taking in land for assessment one mile



Volunteers repairing levee at Sulphur Springs, Texas.

on each side of the proposed road. The proposition is to vote bonds at the rate of \$1 per acre. This would supply funds at the rate of \$1,280 per mile. It is believed that subscribed funds can be secured to add \$200 a mile, and thus practically \$1,500 per mile would be supplied for building the Barton county section of this road. Over the good sections of the road, it is thought that gravel alone will be sufficient to apply as the road sur-

(Continued on Page 20)

# The Good Roads Train

By J. D. CLARKSON

General Manager Jefferson Highway Association

**S**OME one has been preventing the people of Iowa from doing what they want to do with the public road system of the state so the Greater Iowa Association has inaugurated a hunt, on a somewhat extensive scale, to run to earth the meddlesome party or parties who persist in putting water in the gasoline, every time, a bunch of people want to get the road machine out to improve the road system.

This is to be no indiscriminate hunt wherein every man grabs a gun and shoots at anything that moves in the brush, frequently bagging a calf instead of a cougar.

It is a well organized movement, and as the police would say; the guilty parties are well known by the authorities so the Greater Iowa Association in order that no ammunition might be wasted or innocent by-standers killed, sent to Washington and secured a bunch of experts who know the difference between a calf and a cougar by a glance at an inch of its tail. They know several other things, also, which will appear later.

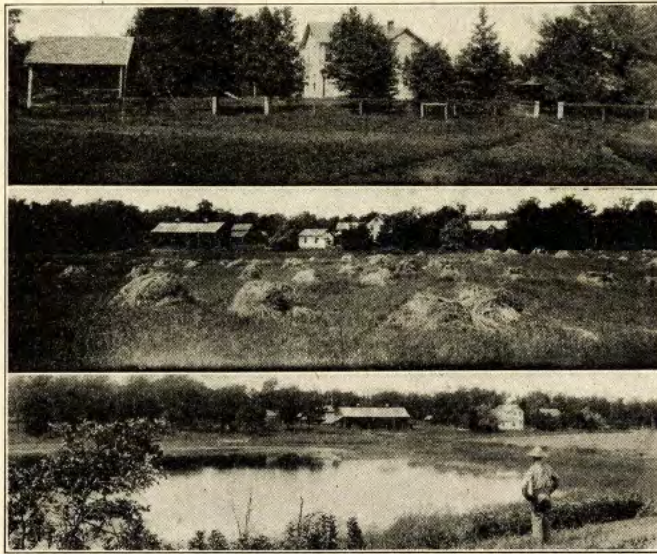
It seems that two desperados have been terrorizing Iowa for some years and have so far escaped punishment because the people have been too busy about other things. However, it has now been determined to drop some other urgent matters and run these two fellows to earth.

In this hunt after Ignorance and Inertia, the two fellows who have levied and collected a greater tax from the people of Iowa than any other one taxing power in the state, it is entirely appropriate that the Greater Iowa Association should take the lead and backed by the Greater Des Moines Committee and the Iowa Bankers Association should send to Washington for a company of experts who know at a glance the difference between a convex and a concave surface and have demonstrated by actual experiment that water will not run up hill without assistance.

When the knowledge, on road building problems, in the possession of these government experts, is imparted to the crowds that board the train, to hear the lectures, it is confidently expected that Ignorance and Inertia will be banished from the state and their place filled by Intelligence and Information.

As the depredations of these desperados, Ignorance and Inertia, have been confined mostly to the public roads and these Washington experts are road experts, one could naturally expect, when they got to Iowa at least, that they would take to the public roads but for some reason they are not using the public roads in making this hunt but are using the railroads exclusively as a means of transportation.

But dropping metaphor; as these government experts



In the rich wheat growing districts near Detroit, Minn., where a great many farmers have private lakes. The above views are of one farm, typical of this wonderfully beautiful district. This is on the proposed Red River Valley route.

can not stay with us always, many prominent Iowa citizens are accompanying the special good roads train with a view of gaining sufficient information, of the fundamental principals of road building, to continue the work, after the experts leave, applying the information in the intelligent building of roads that shall be good 365 days in the year. Among these are: H. H. Polk, President of the Greater Des Moines Committee; Ralph Bolton, Secretary of the Greater Des Moines Committee; I. J. Tobin and A. L. Hooper, representatives of the federal office of roads and rural engineering; J. S. Dodds of the State Highway Commission. T. R. Wats, Grand Junction; D. W. Norris, editor of the Marshalltown Times-Republican. Mr. Norris, aside from editing one of the greatest newspapers of the West, is chairman of the better roads committee appointed by Governor George W. Clarke.

The North Western Company provided the entire equipment for the trip. The train was arranged by Assistant General Superintendent F. H. Hammill of this city, assisted by Superintendent F. H. Byington. Both accompanied the boosters on the trip.

The exhibit car is equipped with twelve models, showing different types of road building from a Roman road laid down in 300 B. C. to the latest type of asphalt block road, and shows also a model of a reinforced concrete bridge and a model of the special foundations and drainage. At the sides of the cars are twenty large photographs furnished by the Iowa State Highway Commission, showing styles of construction of highways and bridges and twenty views furnished by the government showing roads under process of construction and the resultant benefits of improvement.

## Roman Road Exhibit

The model of the Roman road is shown for the interest which attaches to a road which has lasted and is still usable after 2,200 years.

The second exhibit is the model of an earth road in Iowa. The earth road model, showing the typical bad road, the road crowned with the grader and the road when dragged, together with a small model of a road drag, is of especial importance because nine-tenths of the 2,260,000 miles of roads in the United States are dirt roads.

The third model, the gravel road, probably attracted a large share of the attention of

the visitors to the car in view of the fact that the boosters have adopted the slogan "Travel on Gravel" for the trip and cards bearing that motto were conspicuously placed throughout the train. The model shows the prepared subgrade, the first course which

(Continued on Page 22)



Lake Calhoun, Minneapolis, Minn. "Finest inland bathing place in America."



# JEFFERSON HIGHWAY DECLARATION

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Volume I April, 1916 Number 3

## COMPLETED

*Caddo Parish, Louisiana, reports 36 miles of gravel road completed on the line of the Jefferson Highway.*

The above item should be set up in Box Car letters, if we attempted in type to express the item's full meaning. One trouble with our road work is that too little attention is given to it after we have accomplished what we set out to do.

In the seventeen words above is expressed the result of an enormous amount of work, and thought by some person or persons. Undoubtedly much of this work and thought was not paid for in money. Undoubtedly some one or more than one has spent a lot of time and attention producing this result and the least any community can do when such is the case is to show appreciation by public approval of this action.

In fact, if the public was wise, it would make a habit of showing this appreciation for purely selfish reasons, if no other; as the return for the showing of a little appreciation is wonderful.

## ONE CENT AS A MUFFLER ON THAT MILLION DOLLAR SOUND

One cannot do very much with one cent. It will not buy very much these times; possibly a paper or a postal card. But one can use a cent as a unit of calculation in cost of road construction that will make the subject much more attractive than larger units do. In fact, is it not time to put the muffler on that million dollar sound heard so frequently and fearfully about bond issues for road purposes.

While it may be necessary for the aggregate issue of road bonds to run into the millions the issue in its million dollar unit does not touch the individual. All he is really interested in is the number of one cent postage stamps it would require to pay the annual assessment on his property made necessary by the bond issue.

Many farmers have not even a speaking acquaintance with a million dollars but they know all about a one cent postage stamp. When the bond issue is introduced to them in its million dollar clothes they do not think it will be a very pleasant acquaintance. In many cases it really scares them and gives them an impression that they, their children and their grand children will not live long enough to see the bonds paid.

We muffler our automobile engines so that the explosions shall not be annoying and scare horses. Lets put the muffler on the million dollar sound in bond issues and use the cent as the unit by which to compute the individual obligation entailed by road bond issues.

## DOLLAR "BILL"

Complaint is heard from some quarters that the farmer will not do his share in road building. We do not believe this is true but if it were true there is, if not a good reason for it, at least a good excuse for it.

A man who is now at the head of large affairs said:

"When I was a boy working my way through school, I never spoke of Dollar "Bill." With me it was always Dollar "William," because I wasn't on good enough terms with One Dollar to feel at liberty to call him "Bill."

This is the case with our farmers. Their prosperity is of recent growth. While they may be now on familiar terms enough to call the Dollar by his nick-name, many feel that they are just commencing a new acquaintance which promises to be quite interesting and they may quite naturally hesitate to break off this acquaintance by sending "Bill" off to do road work for fear he may not return.

But we do not believe the farmer is unwilling to do his share in building and maintaining a system of 365 Day Roads. His past experience in getting acquainted with "Bill" and the hard labor, frugality and sagacity he had to exercise in the near past before he could get close enough to "Bill" to say, Hello! as he passed has taught him to take a little look ahead before he turns "Bill" loose and see what the chances are that this very pleasant little acquaintance has a fairly good chance to return or send something back in his stead, that will make equally as desirable and pleasant an acquaintance.

Once satisfy him on this point and the farmer will not only turn "Bill" loose like a colt in a pasture but also slap him on the rump, as he would the colt, to see and take pleasure in his action.

There are localities where the farmer has been given this information and assurance and he has not only turned "Bill" loose but stood in line and waited his chance to turn him loose.

It is the province of the Jefferson Highway Association to furnish the information and assurance that if turned loose "Bill" will return and that maybe a "Woods Colt" will be trailing after him when he gets back.

## STOP GUESSING

An enterprising corner grocer once filled a quart jar with beans, placed it in his window, and offered five dollars to the person who guessed nearest to the number of beans it contained.

Many widely differing guesses were registered. But one man bought some beans, carried them home, filled a quart jar and then proceeded to count them. He got the five.

That is the way we are going to proceed with the Jefferson Highway problem. We are going to eliminate the guess work that has been going on for years in road building.

Our problem is really no more difficult than was the bean problem and can be just as easily solved if we adopt the right means.

Our problem is the bean problem over again, only on a larger scale, and really but little more difficult of solution if a little gumption is used. We have nine cases (states) each containing a different number of glass jars (counties) and each of these jars are full of problems the answer to which we are asked to guess. We are going to decline the invitation to guess and proceed to make

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# Must Have Bond Law in Iowa

By D. W. NORRIS

Publisher Marshalltown Times-Republican

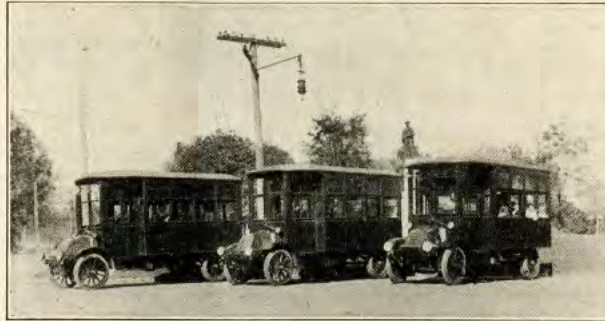
**T**OURING the Jefferson Highway from Texas to Minnesota one wonders why the beautiful graveled roads and sometimes paved roads of Texas should be separated from the graveled roads of Minnesota by the bottomless mud and muck of Kansas and Iowa. Corn and good roads never grow to their best in the same county a farmer will explain but that is no explanation for hard roads have been built in the black lands of Texas and

they are being built in the corn lands of Illinois. The richer the land the more able should its people be to pay for good roads. There is no excuse for finding hard roads in the vicinity of \$50 land in Texas and \$75 land in Minnesota and nothing but mud in the region of \$200 land in Iowa and Kansas.

But even if it were all a problem of price the laugh would still be on the fellows with the high priced land for they are paying vastly more taxes for mud than either Texas or Minnesota pay for gravel, more than Missouri pays for stone. Texas has twice as many miles of hard-surfaced road as Iowa and its people pay less in road and bridge taxes. Minnesota and Missouri each have three times as many miles of hard-surfaced roads as Iowa on less tax money. Kansas on about the same tax expense as Missouri has only one mile of hard roads to Missouri's twenty. Minnesota raises less road tax than Kansas and has twenty miles of hard roads to one in Kansas.

The mud road state of Iowa puts up more tax money every year for its roads and bridges than any other state in the union excepting two and yet twenty-six states have more miles of hard surfaced roads for less tax money. Why is it? What becomes of the money? Mud. Just mud. That explains it all. Iowa and Kansas spend their road money upon dirt roads and about the time all the roads are in fairly good condition the next day it rains and the work has to be done all over again. Iowa spent last year \$7,000,000 upon her dirt roads and lost \$5,000,000 in temporary work. These figures are official at the office of the State Highway Commission. In

Texas they do not try to build a complete road out of one year's tax money. They realize down there that a hill once cut to grade will stay cut forever and that a bridge of masonry will outlast several generations of men. They issue forty year bonds for their roads and thereby assess the tax payers of forty years pro rata for their fair share of the road improvement which they are to enjoy. In this way roads are graveled and paved in Texas without taxing anybody as high as the mud road taxes of Iowa. They create special districts for road work just as we do in Iowa for drainage and the county issues its bond to obtain the money. The bonds are then paid from the taxes raised within the district. If we would do that in Iowa every market town could become the center of a system of good roads financed upon the thirty payment easy bond



A type of motor busses which may carry vacationists over Jefferson Highway. The above are in use at Fayette, North Carolina. Courtesy Kelly-Springfield Truck Co.)

plan. In Minnesota the first cost of a road is spread over a period of twenty years by means of a county bond and then the bonds on main roads are paid partly by the state so that the locality does not feel the burden. The tax payer residing in Minnesota today pays only his pro rata share of a road improvement and if he moves to Dakota tomorrow or dies someone takes his place and pays the future assessments. In Iowa the tax payers will build one hundred

year bridges and one thousand year road grades and pay for them all out of one year's tax money. The result is that Iowa tax payers put up twice as much tax money as is raised in Minnesota and they have only one-third as many miles of hard roads. They graded only 544 miles of county roads last year out of 16,000 and graveled only 168. At this rate of progress Iowa will be thirty years grading its county roads system and one hundred years graveled it and then there are five times as many miles of township roads besides.

Down in Missouri the counties issue twenty year bonds so as to make the building of stone roads possible without burdensome taxation. If the counties do not improve a county system of roads localities can form special districts and issue fifteen year bonds. Part of the cost can be assessed directly to the land within a mile of the road improved and Missouri has three miles of hard roads to Iowa's one on less tax money each year.

The average county in Iowa will raise \$3,000,000 for its roads and bridges during the next twenty years at its present rate of taxation. What will it get for three millions of money? About what it has obtained during the past twenty years. Mostly mud. Its bridges will nearly all have been built but its roads will still be nothing but dirt. What could it obtain? By issuing bonds so as to anticipate taxes which are going to be paid anyway the bridges could be built as fast as needed and the bridge bonds paid with about one-third the total taxes. The remainder of the taxes, which are going to be paid for mud, would be sufficient to pay the fixed charges



Noyes Boulevard looking north as it enters Jefferson Highway St. Joseph, Mo.

for principal, interest and maintenance on bonds enough to build better graveled roads than either Texas or Minnesota now enjoy; in some Iowa counties they would be sufficient to actually pave a portion of the county roads and gravel the rest.

If we would pay for our roads in Iowa upon the installment plan instead of trying to build them that way we would get them sooner and enjoy them longer. If you would travel the Jefferson Highway through Iowa regardless of rain as you can in Texas, Missouri or Minnesota you must finance your road work with bonds just as we finance our school houses, our court houses and our water works. Even our city pavements are built upon the seven year assessment plan. Had we never abandoned long time improvements out of one year's tax money Main street would still be in the mud in front of the court house in our cities and towns.

## GOOD ROADS

(Continued from Page 10)

hour working day by contractors under ideal conditions in the month of November, teams hauling one and one-half yards per load, three men and driver loading, measurements being taken by checker in employ of the county.

From nine large gravel contracts let in Minnesota recently, the following average costs are taken:

Cost of gravel in pit.....	10c
Cost of loading.....	15c
Haul up to one-half mile.....	25c

Haul from one-half to one mile.....	40c
Haul from one to one and one-half mile.....	54c
Haul from one and one-half to two miles.....	65c

Haul over two miles flat price of 65c plus 22c per yard mile for additional distances.

Cost of dumping, spreading and compacting (by raking and maintenance) 10c.

On this basis, to gravel a three mile stretch of road using 1200 cu. yds of gravel per mile, with pit one-half mile from road at half way point, the cost would be \$3,168.00 or \$1,056.00 per mile. This does not include any preparation of roadbed but the 10c per yard for spreading, etc., includes maintenance until compact.

## STOP GUESSING

(Continued from Page 18)

a few calculations to arrive at the unit of difficulty, then we can soon add and multiply to get at the total.

With this end in view, it is being planned for the General Manager to make two trips over the territory, the first one by railroad to visit each of the Vice-Presidents and Directors in their home towns.

The second trip by automobile over the entire route of the Jefferson Highway.

The definite knowledge to be gained and things to be accomplished on these trips will receive fuller treatment later.

## FUNCTION OF JEFFERSON HIGHWAY ASSOCIATION

At the present time Chile is supplying us with a most valuable commodity, nitrate. But the experiences of the Great War suggests that a situation might arise when our supply might be cut off. This has led to the discovery and suggestion that nitrate can be extracted from the air and that our great water power only fifteen per cent. of which is now developed, should be further developed to supply our own wants in this article.

The presence of this nitrate in the air and the possibility of its extraction for commercial purposes are known to but a few out of the entire population, yet this possibility of supplying our own nitrate through the utilization of the water power and the air is not a new situation. We have always had both the water power and the air. The possibility of war now suggests their utilization.

The same situation exists as to good roads. The material and power out of which to make them is even more plentiful than the air and water power.

We have had a vociferous demand for better roads for some time, for use in the pursuits of peace, but the possibility of war has accentuated that demand. It is now being brought to the knowledge of the people that it is within the power of every community to do every single thing that is necessary to construct 365 Day Roads because it has already been done by many communities. These communities have not only constructed these roads but have found the means and power to do so in what had heretofore been a waste product in those communities just as the undeveloped water power and the unused air have not been utilized in extracting nitrogen from the air. The general government has a function to perform in the development of our water power. The Jefferson Highway has a function to perform in developing this unused power of the various communities on its system.

# News and Progress Along the Route

(Continued from Page 16)

face. Through bottoms and sloughs and bad places, crushed sand rock probably will be used as a base, and the chat gravel will be placed on top of this. Sand rock is abundant in that county.

## LOUISIANA LINES UP

### Monroe, (La.), Holds Big Road Meeting with Col. William Polk

The movement for better roads in Ouachita parish was given a strong boost at a mass meeting at the court house Thursday night when enthusiastic approval of the words of the speakers was shown in frequent outbursts of applause. It was as representative a gathering of Ouachita men and women as ever assembled in the court house. Many prominent citizens from the country joined with substantial business, professional and laboring men of the city showed that the interest in good roads is real.

The meeting was called to order by O. C. Dawkins who spoke very briefly in introducing the permanent chairman, C. H. McHenry. Mr. Dawkins said the main thing needed in Ouachita parish is good roads; that other improvements would follow. Mr. McHenry reviewed the movement for good roads and how the police jury create the districts. He gave figures to show that the tax rate on the bond issues to be made would be approximately three and one-half mills and would decrease as the assessed valuation of property increased.

The city is nearly divided between the two districts. The ordinance plans a bond issue of \$200,000 in District No. 1 and \$250,000 in District No. 2.

Col. William Polk of Alexandria, Secretary of the Louisiana Good Roads Association was introduced as the first speaker of the evening and said he saw a revival in Monroe as evidenced by the new street lighting system in the business district. "It is an evidence you have confidence in your town," said the speaker. Taking up



GEO. W. COOLEY  
Secretary and State Engineer, Minnesota  
State Highway Commission

the subject of good roads Col. Polk said this was the only way to create stable land values. He said the wealthy man who refused to pay his portion of the taxes is a bad citizen; that every citizen should bear his pro-rata in community development. The city of Alexandria paid 87 per cent. of the tax for the bond issue which built good roads out of that city. Col. Polk stated that Calcasieu parish had spent \$1,200,000 for good roads, that land values had more than doubled as a result. "Other south Louisiana parishes are building good roads and coming here for your gravel while you right at the source of supply are doing nothing," said the speaker. The ladies present applauded the speaker when he said that every woman in Alexandria eligible to vote cast her ballot in favor of the tax. "Some of these fellows that are whining like a tom cat about the burdens of taxation usually pay the least. One of the loudest mouthed whiners I ever heard lived in Red River parish and his road tax amounted to 45 cents a year. These are some of the obstacles that should be run over with a steam roller." Col. Polk made the point that as the source of supply for the gravel is in the parish that practically all of the \$450,000 bond issue would stay here and be added to our capital. Only

the profit on the freight and perhaps the contractors' profit would go out of the parish. Col. Polk presented figures to show that nearly half of the tax would be paid by railroads, timber corporations and other non-residents. As a rule, he said, these non-residents favored the tax and would vote for the improvement. "The development of the adjacent territory will be reflected in Monroe and the business men of your city must help. You owe it to Ouachita parish to start this campaign and to brook no interference. Half of the rich land along the railroad south of Monroe is idle and it is sad to compare it with the days gone by when these fields grew large crops of corn and cotton. Don't let Monroe go back. As Secretary of the Louisiana Good Roads Association I appeal to you business men to get behind this movement and make it a success. I know

there is not a lady here who will not vote the tax, but will help."

### Prominent Men of Points Near Baton Rouge Plan to Aid Jefferson Scheme

By C. F. Pool, Times-Picayune Staff Correspondent

Baton Rouge, La., March 21.—Prominent men from Pointe Coupee, Iberville, West Baton Rouge, and the cities of Baton Rouge, and Melville, filled the council chamber in the city hall tonight in the interest of a gravel road from Rosedale to Port Allen. The road is to follow the route of the old Louisiana Central Railroad and is to utilize the abandoned roadway of that road. The matter was thoroughly discussed by representatives of each of the parishes, and all offered the support of their sections. It is contemplated to make the road a link in the Jefferson Highway, from Winnipeg to New Orleans, but the prime object is to supply a first-class neighborhood road, connecting with Baton Rouge.

The meeting chose as permanent chairman Horace Wilkinson, of West Baton Rouge, and later unanimously made him ex-officio chairman of all the committees of the organization: Eugene Cazdessus, Mayor Alexandria Grouchy, Jr., Dan Cohen, Geo. W. Carig, Baton Rouge; O. M. Mary, A. W. Noran, L. P. Burchman, L. M. Morley, West Baton Rouge; S. Kleinpeter, Henry Lafaux, Charles Rowe, John Wilbert, Iberville; Father F. Savorie, Pointe Coupee; Chas. Smith Fardoche, Dr. Lester Williams, Melville, and Mr. Kuhlman, Red Cross. This committee was authorized to appoint a finance committee and a "steering committee," to complete the organization.

The executive committee will make a trip over the route of the road Friday, and a number of persons from the capital city will go with it. Baton Rouge is much interested in the new road, which is expected to open up a rich territory for its trade.

### Alexandria First to Pay

It gives us great pleasure to announce that Alexandria of the Parish of Rapides, Louisiana, has the honor of being the first town to collect and remit the mileage assessment made by the Board of Directors at the Kansas City meeting. This is due, largely, to the active interest taken in the matter by Col. William Polk, Secretary of the Louisiana Good Roads Association. He deserves much credit for this and many other things of a constructive character which he has done for the Jefferson Highway.

### THE NATIONAL GOOD ROADS PHOTOGRAPHIC CONTEST

Washington, April 9th.—A nation-wide photographic contest in the interest of the "Good Roads Everywhere" movement, with cash prizes of \$2,600 open to everybody, was announced at the National Highways Association headquarters here today.

Colonel Theodore Roosevelt and the two well-known writers, Miss Ida Tarbell and Mr. Mark Sullivan, will serve as judges in the contest.

### Purpose of Contest

The photographs selected in the competition will be used to establish in Washington a national exhibit primarily to promote a nationally conceived scheme of highways. In connection with the pending legislation in Congress to have the federal government shoulder a part of the task of "good roads" construction, the National Highways Association, it is explained, desires to have adopted a plan for a system of national highways, surveyed and located by expert engineers, so that federal funds will not be spent in a hit or miss "pork barrel" fashion, but in accordance with a scientific plan as any railroad is built or as the government itself did in the case of the Panama Canal. By means of the photographic contest it is proposed to gather a complete picture



T. M. KERBOW

of Sulphur Springs, Texas, who claims to have promoted more bond issues for Good Roads than any man in Texas. Mr. Kerbow is now devoting most of his time to the interests of the Jefferson Highway.

of the good and bad road problem as it exists in every section of the country, and this the Association will use in its effort to obtain scientific "non-pork" legislation from Congress.

### Prizes to be Awarded

The cash prizes of \$2,600 were subscribed by General Coleman du Pont, Chairman of the Board of National Councilors, and Charles Henry Davis, President of the National Highways Association. The competition will be known as the du Pont-Davis Road Photograph Prize Contest.

The first prize, to be given for the most striking (good or bad) road photograph, will be a \$500 cash award. In all there will be five second prizes of \$100 each, twenty third prizes of \$25 each, forty fourth prizes of \$15 each, and one hundred fifth prizes of \$5 each, making 166 chances in all for each person entering the contest.

The competition will be kept open for eight months, closing at noon, Tuesday, November 7th. All photographs should be addressed to "Good Roads Everywhere" Photograph Contest, National Highways Association, Washington, D. C.

### NORTHFIELD

Remember always when describing Northfield's advantages to a stranger to call his attention to the fact that this city is a station on the Jefferson Highway—the Winnipeg to New Orleans trail, which is destined to be one of the most important highways in the United States.

### SULPHUR SPRINGS, TEXAS, REPORTS

Mr. E. T. Meredith, President Jefferson Highway Association, Des Moines, Iowa.

Dear Sir: The writer has just returned from a trip of inspection of the Texas division of the Jefferson Highway and would have the Directors of same thoroughly familiar with progress being made in Texas, and, in order to thoroughly familiarize you with what is going on down in Texas we wish to say that every county in Texas that is not actually at work on their roads has on a bond issue to build them or has previously voted and preparing to begin work at once, while today in looking over the Texas section we find out of the ten counties through which this road is designed to pass four counties have practically completed their road, three counties have voted bonds and will begin construction at once; the remaining three counties have on bond issues and within a few days will have funds for the construction of this great highway, throughout Texas.

Not being familiar with laws governing road construction in all states through which this great highway has been designed to pass and in order to familiarize good roads promoters with our Texas laws we will say that as far as Texas is concerned they (we think) have real good roads laws, as, our laws provide that any political sub-division designated can vote bonds to one-fourth of its assessed values for road construction, therefore the Texas division of the Jefferson Highway or a majority thereof has previously been provided for and the remaining portion being in hands of men who can be depended upon to complete this portion of the Texas section as

soon or really sooner than would be expected of us.

Yours very truly,

T. M. KERBOW.

### RED RIVER VALLEY BOOSTERS ORGANIZE FOR JEFFERSON HIGHWAY

One of the best good roads meetings ever held in this section ended late yesterday afternoon at the Comstock hotel in Moorhead.



Section of Jefferson Highway near Marshall, Texas.

## THE GOOD ROADS TRAIN

(Continued from Page 17)

is rolled and of four inches compacted, and the second course completed with two inches compacted.

### Other Kinds of Roads

Other models shows the simple macadam road, the macadam road with bituminous surface treatment, the resurfaced macadam road treated by the penetration method, the bituminous macadam road built by the

mixing method, the sand clay road, the concrete road, the asphalt block road and the brick road.

The sand clay road is still under experimentation by the government experts and more than 26,000 miles of such road have been built and are under observation in North and South Carolina.

### Model Concrete Bridge

The reinforced concrete bridge model is of the incased I-beam type and shows the bridge half completed and with the forms in place of the other half.

## News and Progress Along the Route

(Continued from Page 21)

Fifty men, representing nearly every city and county in the Minnesota Red River Valley, within a radius of 100 miles, met and formed an association, the purpose of which will be to route the Jefferson automobile highway, a road being constructed from New Orleans to Winnipeg, through this section of the valley.

### Name Association

After a dinner to the visiting delegates by the Moorhead Commercial Club at the Comstock Hotel the Association was organized and named as "The Park Region and Red River Valley Association for the Development of the Jefferson Highway." Mr. Welter was chosen president and Senator Marden, treasurer. They today named Miss Agnes Waddell of Senator Marden's office as secretary of the new organization.

### Officers of Association

President—Leslie Welter.  
Secretary—Miss Agnes Waddell.  
Treasurer—Charles S. Marden.

Directors—M. Walz, Perham, Ottertail county; John K. West, Detroit, Becker county; Charles Loring, Crookston, Polk county; O. D. Larson, Hendrum, Norman county; Charles Wittensten, Warren, Marshall county; P. H. Konzen, Hallock, Kittson county; A. J. Wright, Moorhead, Clay county; H. L. Loomis, Fargo, Cass county.

### Adopt Route

In the interests of the Jefferson Highway the following resolution was adopted: Be it resolved that the cardinal points on the route, to be promoted, favored and developed by, through and under this Association shall be as follows: Wadena, New York Mills, Perham, Frazee, Detroit, Audubon, Lake Park, Hawley, Glyndon, Dilworth, Moorhead, Georgetown, Perley, Hendrum, Halstad, Shelly, Neilsville, Climax, Eldred, Crookston, Euclid, Angus, Warren, Argyle, Stephen, Donaldson, Kennedy, Hallock, Northcote, Humboldt, and St. Vincent.

### Committees Subscribe \$500

President Welter called attention to the necessity of immediately having some funds in the treasury of the Association and it was the consensus of opinion that at least \$500 should be subscribed.

He suggested a tentative basis of assessments, as divided amongst the various counties, with the result that the following amounts were pledged by the gentlemen named, representing their respective counties:

Otter Tail, \$50—Messrs. Shea and Olson; Becker, \$100—Messrs. West and Baker; Clay, \$100—Messrs. Welter and Wagner; Norman, \$40—Messrs. Larson and Flickie; Polk, \$100—Messrs. Selvig and Loring; Marshall, \$50—Mr. Wittensten; Cass, \$50—Mr. Hardy; Kittson, \$10—Mr. Konzen.

### Adopt Four Resolutions

The Association officially adopted the following resolutions setting forth the aims and plans of the new body:

1. Be it resolved that we do most heartily offer and tender to the officers and directors of the Jefferson Highway Association and

to the members of the Minnesota Highway Commission, our loyal support, both financial and physical, for the purpose of designating, promoting, improving and maintaining the Jefferson Highway.

2. Be it further resolved, that we do hereby recommend the designation of the section of the Jefferson Highway passing through northwestern Minnesota from Wadena to the international boundary line at St. Vincent, through the following named towns: New York Mills and Perham in Ottertail county; Frazee, Detroit, Audubon and Lake Park in Becker county; Hawley, Glyndon, Dilworth, Moorhead, Georgetown in Clay county; Perley, Hendrum, Halstad and Shelly in Norman county; Neilsville, Climax, Eldred, Crookston, Euclid and Angus in Polk county; Warren, Argyle and Stephen in Marshall county; Donaldson, Kennedy, Hallock, Northcote, Humboldt and St. Vincent in Kittson county—in each of which towns there is organized a local Jefferson Highway Association.

3. Be it further resolved, that a committee of three be appointed to draw up a brief setting forth the various reasons why our proposed route is the best and most logical one for the said Jefferson Highway through northwestern Minnesota, passing, as it does, through the celebrated park region of Minnesota and the world renowned Red River Valley.

4. And be it further resolved, that a copy of the foregoing resolutions, together with the report of the committee on brief, be transmitted to the officers and directors of the Minnesota Jefferson Highway Association, and to the members of the Minnesota Highway Commission.

### Committee on Brief

A committee of three to prepare a brief as recommended by the resolutions committee was appointed by President Welter as follows: Attorney Charles Loring of Crookston, Senator S. Marden of Moorhead and John K. West of Detroit.

### \$250,000 IN DE SOTO PARISH, LA.

Mr. E. T. Meredith, President, Jefferson Highway Association, Des Moines, Iowa.

Dear Sir: Replying to your favor of the 8th inst., I take pleasure in advising that the parish of DeSoto has called an election for the voting of \$250,000 of bonds to build their link of this Highway. (Later this election carried.) The parish of Ascension has already voted a bond issue and will build its link.

The parish of Sabine is holding Jefferson Highway meetings. In fact, more or less interest all along the proposed route is being manifested, and will, in my opinion, be only a comparatively short time when the entire road will be built through this state.

W. E. ATKINSON,  
State Highway Engineer.



View near Jefferson Highway at Mason City, Iowa. Mason City is famous for its many beautiful residences built of concrete.



Section of Inter-State Trail at Iowa Falls, Iowa, a part of the Jefferson Highway. This view was taken to show marking post which appears at right of picture. The Inter-State Trail is well marked from St. Paul to Kansas City.

### JEFFERSON HIGHWAY ASSOCIATION WANTS PHOTOS

Nothing can advertise a highway better than photographs of scenery

# Joplin and Jasper County, Mo.

Remarkable Locality is This—The Nation's Zinc and Lead Center

By F. L. YALE

Secretary Commercial Club of Joplin

**T**HE City of Joplin is situated on the prairie, at the base of the Ozark Mountains and has an altitude of 1,000 feet. It is bordered on the south by timber and on the north, east and west by prairie land, much of which is in cultivation. The land is just rolling enough to take care of the drainage. On every side there are numerous springs, creeks and rivulets, among which are Shoal and Spring Rivers adjoining the city, fed and sustained by springs from their sources to their mouths. From the former we receive our water supply and both are utilized by the Empire District Electric Company in the development of electricity from which the city and mining district receives its light and power.

The population of the city is about 50,000. The increase of business for November, 1915 over November, 1914 was a greater gain than that of any city in the United States and Canada, as reported by the Associated Advertising Clubs of the World, and later Babson's report on fundamental conditions in North America verified the above.

We have seven steam railroads and two electric inter-urban lines with about 200 miles of trackage, connecting us with forty or fifty towns ranging in population from 2,000 to 20,000 each, and we have splendid rock wagon roads reaching out from fifteen to fifty miles in every direction from the city, so that as a distributing point, we are not surpassed by any city of our size West of the Mississippi River.

Our chief industry is zinc and lead mining and being situated in the center of this mining district, has become the general distributing point. The Joplin mining district is practically about forty miles square and only one-fortieth of this is partially developed, and yet our mineral production for the last ten years has



Street in Residence District, Joplin, Mo.

averaged an annual value of at least \$15,000,000. In 1912 the value was over \$18,000,000 and in 1915 over \$28,000,000. All the great zinc smelting companies in the United States maintain offices here and their agents take the ore at the mines, paying a higher price for it than is received in any other part of the world.

The value of the agricultural production of this same district in 1915 was \$3,156,600.

Our usual method of developing a tract of land is to drill holes and if pay ore is found, follow with a shaft into the deposit and then develop same. Some of the small operators clean their ore on

hand jigs for a short time, when the mine is developed sufficiently to justify it, building a mill.

Our miners are all Americans and the majority of them own their homes. A large number of the employees of the district are always prospecting for ore. They lease a small tract of ground.

Two of these employes start a shaft and ten or more pay in their part of the expense each week, until ore is developed in paying quantities, when they immediately become operators, so that it is almost impossible to put on a successful strike among the miners, because they are, in many instances, employers as well as employees.

Our citizens are greatly interested in good roads and for some twenty years have been building macadam roads connecting all the mining camps with Joplin, and are perhaps more enthusiastic along this line than ever before in our history, since we have learned that a good road extending out thirty or forty miles from Joplin practically attaches that territory to Joplin and make it in a way, a part of us and interested in our growth and prosperity.

## News and Progress Along the Route

and interesting places along the route. Members of the Jefferson Highway Association and all citizens living on or near the Highway and interested in its welfare are invited to send in photographs of beauty spots and historical localities. These photos will be used in the literature put out by the Association and in magazines and newspaper articles published from time to time.

Not only will the Jefferson Highway be advertised in this manner but quite naturally all sections of the country along the Highway will be benefitted by the publicity. The fact of the matter is, the Jefferson Highway is bound to be a commercial booster and advertiser for the states traversed as well as a great trunk line of travel.



On Jefferson Highway between Sulphur Springs and Greenville, Texas.

county met in the commercial club rooms at Leon and organized the Decatur County Jefferson Highway Association. The following officers were elected to serve the first year: J. F. Harvey, Leon, chairman; C. E. Blair, Lamoni, vice-chairman; James Hurst, Leon, secretary; Daniel Anderson, Lamoni, treasurer; C. W. Robinson, Davis City, Charles Akes, Leon and M. Luce, Van Wert, constitute the Advisory Committee.

At this meeting it was decided to raise \$425. Part of this amount will be used to pay the Jefferson Highway assessment and the balance will be left in the treasury and used as needed. The assessment was fixed as follows: Leon \$200, Lamoni \$150,

and Davis City \$75. This meeting is a move in the right direction and we trust the officers and all interested will work untiringly for hard surfaced roads especially over the county road system. We have made a good start, let all get behind the movement and boost it.

(Continued on Next Page)

### DECATUR COUNTY, IOWA

Last Friday about fifty of the good roads boosters of Decatur

### SEND MAIL OVER HIGHWAYS

With a report at hand from the British post office department that motor trucks are far more satisfactory and cheaper than rail service in the transportation of mail up to 125 miles, it is time we gave renewed attention to the good roads question from the standpoint of governmental economy.

The British post office department never could have reached such a conclusion had English roads been of the type we maintain in Iowa. Motor truck service is only satisfactory and economical over hard surfaced roads, with low grades to climb and regular traffic assured.

Iowa also has to face the fact that good rural mail service will not be restored until we have permanent roads. Reorganization of the rural routes has in general followed the lines of what might afford satisfactory service if the roads were good. Every attempt to improve conditions will be met with a notice to improve the roads. When hard roads are built throughout the United States, or in any considerable section—such as two or three adjoining states—mail service will be put on a totally different basis. Mail will be sent by train only to central distributing points, and all mail matter whose origin and destination are within 100 or 150 miles of each other will be hauled by auto truck. Routes will be established through every city and town, mail will be sacked and routed with reference to these auto lines, and radiating from them will be rural delivery routes serving the farm communities.

The United States government, in appropriating money for the improvement of highways, might well take steps to see that federal funds are used to promote the transportation of mail. This is the national government's chief interest, the justification of extending its aid to the states.

### CLARKSON WIRES FROM BETHANY, MO.

Jefferson Highway Association, Des Moines, Iowa.

A Magnificent send-off here. Three special excursion trains. Three bands. Banquet serving nine hundred plates. Overflow meeting was bigger than main one. Speaking continued till midnight. Hopkins and McIninch here. Paper issued special edition. Bethany speeding pace. Elaborated and gave capital to our plans. Work unanimous. Mileage assessment made up. J. D. CLARKSON.

### THE WAY THEY DO IT IN TEXAS

#### A Few Live Wire Reports from W. N. King

##### Hunt Starts Campaign for Road Bond Issue

Greenville, Tex., March 17.—By a practically unanimous vote here yesterday afternoon the Hunt County Good Roads Association decided to request an election of the commissioners' court for a bond issue of \$1,000,000 for the purpose of constructing 180 miles of additional good roads in Hunt county, and it was voted to commence a campaign at once to further the movement.

#### All Right! Answered

"If the bonds are voted will the money be spent on the Jefferson Highway only, and if so, what is the route of the Highway?"

A Voter.

If the bonds are voted the money will be spent on all the roads in Road District No. 2, regardless of where the Jefferson Highway is located. The route of the Highway through the county has not been determined and will not be until after the official engineer makes his report of the State Association, about May 1st.

Thank you. Anything else please. No trouble to answer questions. We want you to know all about it, and intend to come clean with you, and want to show you that it is to your interest and even to the interest of your posterity to get in line with us and vote for the bond issue.—(W. N. King)

#### Road Bond Issue Wins in Camp County

Pittsburg, Texas, March 17.—Precinct 1 of Camp county yesterday approved a good roads bond issue of \$100,000 by vote of 685 to 72.

### A TEXAS ARGUMENT FOR THE JEFFERSON HIGHWAY AND GOOD ROADS

To the Voters of Precinct One of Camp County Texas: Never in your life have you been called on to cast a ballot involving more interest to your community and town than the one you may cast on March 16th. The Jefferson Highway will be a magnificent macadamized road of national repute, and traveled over annually by thousands



One bale of cotton made a good load on this mud road in Tennessee. But—

of tourists from all over the world. It will be constantly improved and beautified as the years go by, by the National Government, and in time will also become a great commercial and military Highway over which the products of your labor may find a quick and profitable market. Its construction will give employment for the next twelve months to all of your surplus labor at good wages. The camps of these laborers will furnish a ready market for your vegetables, potatoes, fruit and feedstuff, and put in circulation in this county about \$75,000 of foreign money.

This Highway will enhance the value of every farm in Camp county 25 per cent. Outside people with an accumulated fortune are seeking homes along these national highways because there they

are in daily touch with the world at large. These people seek these kind of places in which to build beautiful homes. Many such will come to your county when this road is built. If they come, which they certainly will do, they will invest some of their money here. Will it help you? Most assuredly it will. If you are dissatisfied and want to get out, your property will sell at a good price. If you are pleased at the situation and want to stay, you and your children will soon find your condition improving from every standpoint.

A bigger Pittsburg and a wealthier county, which will necessarily result in taxes being

lowered as there will be more people and more wealth to lay it upon.

#### Are We Able to Build It

Let's reason together and see. Your county tax now is 80 cents



Green Lake on Jefferson Highway in Upshur County, Texas.

# Repairing Old Stone or Macadam Roads

## How to Make Them Better Than New by Use of an Asphalt Binder

**T**AKING the country over, millions of dollars have been invested in our old turnpike and macadam roads. But the farmer, whose road taxes represent a large share if not the total cost of many of these roads, is now told that they are obsolete. That may be, taking a road just as it stands, but the material of which it is composed is not obsolete.

These roads are built of crushed stone, exactly the material used today in the construction of the most modern types of permanent roads. Neither is the solid foundation, which has been compacted by years of travel, obsolete.

The truth is that these old roads possess two of the most important factors essential to the successful construction of every modern type of road—established foundations and good stone. All this costly work has

stone roads together under horse traffic, but which is sucked out and dispersed under motor traffic. The foregoing applies to practically every type of new road. Then why not utilize the binding principle for stone roads already established instead of tearing them up and building entirely new roads at high cost?

Why not shape up, instead of digging up, these solid old macadam roads, giving them a covering of two or three inches of stone just as would be done in the case of ordinary repairs to macadam, but instead of using fine screenings or rock-dust for a filler, use a material that will hold the stone in place?

This has already been done in the case of a number of important and extensively traveled stone roads by using natural asphalt as a binder. The most important economies resulted, especially through the practical elimination of outlay for maintenance. This was conspicuously the case in the resurfacing of a Maryland stone road subjected to constant traffic of all types. It was treated with the natural asphalt binder in 1910 and up to date maintenance has been a practically negligible factor.

The process does not require costly mechanical equipment, and the prolonged obstruction to traffic such as attends the construction of an entirely new road is avoided. After the natural asphalt has been poured and has penetrated to every void and recess in the stone, the road is rolled and at once opened to traffic. These roads are durable, free from mud and dust, and meet all traffic requirements.

Where roads are treated in this way the investment over and above the cost of usual procedure is merely the cost of the binder. Here is the proposition from the investment standpoint—the economic side:

Where stone roads subject to motor traffic are kept in repair, maintenance runs anywhere from \$400 to \$1,000 per mile per year. The Maryland Highway Department says that state has been paying, on the average, \$450 per mile per year. This sum represents 5 per cent. on \$9,000. It means that over and above the construction cost of the road this annual tax for maintenance represents an investment of \$9,000 per mile.

For a fraction of the sum an asphalt binder can be provided which, if it is of good quality and properly applied, will last for years. Here is a way to capitalize our huge investment in old stone roads. Use them for foundations for new asphalt-bound tops, instead of throwing them away and making a new investment in costly roads, new from the ground up.



when this same road was hard surfaced the farmers could haul ten bales at a load with no trouble.

been done. The stone has been quarried, broken and hauled onto the road.

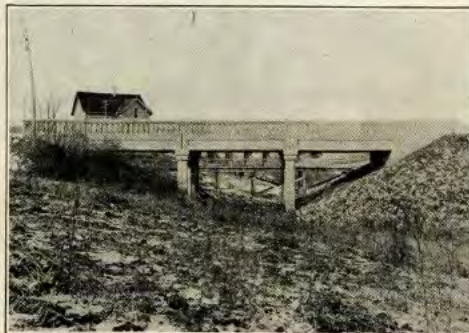
It is preposterous to say that these valuable roads must be torn up and thrown away because they have failed under motor traffic. They do fail, but not because they were bad roads of their kind or because of any defect in the quality of the wearing material.

They lack just one essential, and that is an indestructible binding material such as natural asphalt. And it is merely the application of this simple principle of binding stone together that has given us several types of new and costly roads designated by a dozen different names. These are practically the old macadam or stone roads over again, plus a stronger and more tenacious binding material. Methods of construction may differ as to details, but after the road is finished it is the same old stone road with a new binding material substituted for the unstable rock-dust and water that held

## News and Progress Along the Route

(Continued from Page 24)

on the hundred dollars valuation of property. It has been on this rate since 1900. But you say, "My taxes have increased." Yes, your state tax has more than doubled in the last three years, but it will be lowered by the next Legislature. You say the county is heavily in debt. Go to the county records and study its indebtedness and compare with the present valuation and you will find that excluding your school debts, the county is in as good financial condition as she was ten years ago, and you heard no complaint then. What do we owe? You owe \$7,000 in jail and vault bonds, which is owned by your permanent school fund and is in



Bridge on Pembina Highway, part of Jefferson Highway at St. Norbert, Manitoba.

the custody of your County Treasurer, to be paid off at our own pleasure—the schools only want the interest annually. You owe, besides these bonds, \$22,000 road warrants, due one, two, three and four years hence. Your commissioners' court paid off this year \$9,853 on its road indebtedness, and says it has over \$15,000 in the treasury. If the court pays off half as many road warrants annually for the next four years as it paid this year this debt will be wiped out in four years, and at the same tax rate there will be an annual surplus of \$5,000 above the amount necessary to keep the county on a cash basis. This is exactly the



interest at 5 per cent. on the road bonds. But you say the county at large is not to pay this. Certainly not. We are simply trying to show that it could be carried at the present rate, on the valuations of the county at large. The county at large has about three and one-half millions valuation, while Precinct 1 has about two and one-half millions. So figuring it on this basis, the court can lower the rate on the outlying precincts and raise it 20 cents on the \$100 valuation in Precinct 1 and take care of the bonds. After four years, when the present road warrants shall have been paid, the rate can be lowered to the present rate of 80 cents and still take care of the bond issue.

Now, if the bond issue carries, people in Precinct 1 may expect to pay 20 cents on the \$100 valuation increase in taxes for four years and then continue at the present rate. A tax payer whose property is valued at \$1,000 will pay \$2 annual additional tax; on \$1,500, \$3; on \$2,000, \$4; on \$3,000, \$6, etc. Is it worth the cost? \$50,000 of this money will build our part of the Jefferson Highway from Cypress on the north to the Upshur county line on the south. The other \$50,000 will be used in further improving the other roads in Precinct 1—all of us will be benefitted in ways too numerous to discuss in this paper.

It is estimated according to property valuations in Precinct 1 that the city of Pittsburg and the railroads will pay 78 per cent. of the tax. Out of \$7,500 to be raised annually for interest and sinking funds of the bonds the city and railroads will pay \$6,054 and the country districts \$1,446.

Congress has a bill before it now, which has passed the lower house, giving to the various states \$25,000,000 annually for the maintenance of these National Highways. It is said that Texas' share will be about \$3,000,000. If this is correct, it will give between two and three thousand dollars per mile for these roads. On this basis, Camp county's share will be anywhere from \$15,000 to \$30,000 annually. This will be more money put back into circulation annually in this county than the amount you pay for the interest and sinking fund of the road bonds. In other words, it will be money to us to vote these bonds and build our part of this National Highway. Vote for the bonds!

Who will have charge of the building of these roads and disbursing this money? The Good Roads Committee, consisting of your leading business men and farmers, will co-operate with the commissioners' court in letting out contracts and seeing that this money is well and properly spent to the best advantage. Contractors will be under bond, supervised by experienced road engineers.—From Pittsburg, (Tex.) Gazette.

### COURTESIES

The courtesies shown the Jefferson Highway Man by the management of the Muehlebach Hotel made his two days strenuous work on the 11th and 12th in Kansas City a pleasure instead of a task.

Any of the six thousand members of our Jefferson Highway family who have occasion to visit Kansas City will find a genuine Jefferson Highway atmosphere permeating the Muehlebach Hotel.

### THE ADVERTISING HAS COMMENCED

Pontiac, Mich., March 31, 1916.  
Mr. L. R. Putnam, Secy and Mgr.  
Northwestern Arkansas Lumber  
Co., Fayetteville, Ark.

Dear Sir: We have fully noted your letter of the 29th and we are pleased to advise that we have anticipated your request and have already authorized a page of advertisement for the next issue of the Jefferson Highway Declaration, and we hope that the good people in your line of business and in all others that need transportation will give us an opportunity to go more into detail regarding GMC trucks whenever they are in the market for additional equipment.

GENERAL MOTORS TRUCK COMPANY.  
J. E. BAIRD, Advertising Manager.

### FROM MELVILLE, LA.

The Jefferson Highway Declaration, Des Moines, Iowa.

Gentlemen: At this present time we are forming a road district to connect Melville with Palmetto, a distance of ten miles, which when completed will finish a direct line from Alexandria through Bunkie to Melville, and are lending our assistance to the section across the Atchafalaya River in their endeavor to establish a road district to build a road from Red Cross, the settlement directly across the river from Melville, to Ravenswood, three miles away. This will complete a direct route from Port Allen to the Atchafalaya River.

The census of 1910 gives Melville 1,093 inhabitants and we now number about 1,500. She has more paved sidewalks than any other town of her size in the state. An electric plant recently completed gives a perfect service both day and night. Melville's high school ranks with the best in the state both as to building and equipment. A splendid faculty of teachers do most effective work, and give Melville each year an honor capturing graduating class.

Geographically Melville is almost direct upon an air line from Baton Rouge to Alexandria, being the town of most importance on the Atchafalaya it furnishes the most desirable point

for the Jefferson Highway to cross the Atchafalaya River. We have an efficient ferry service with a fixed tariff regulated by the board of Aldermen of Melville, and being under the control of the town will meet all demands put upon it.

Our hotels are excellent, with ample room to accommodate the traveling public, reasonable prices are charged, typical southern cooking and expert service are found in all of Melville's hostleries.

Just as soon as we are notified that Melville has been designated as an official point on the Jefferson Highway, you are at liberty to draw on us for the customary hundred dollars contribution to the Jefferson Highway fund. (Melville is an official point. Ed.)

We are enclosing herewith several subscriptions to the Jefferson Highway Declaration from our citizens of the town, and are enclosing exchange sufficient to pay for the list.

With expressions of high esteem and best wishes for the success of your highly valued publication, I am,

LESTER J. WILLIAMS, M. D., President.  
Melville Progressive League.

April 6, 1916.

### BOND ISSUES IN OKLAHOMA

McAlester, Okla., April 7, 1916.  
Mr. E. E. Meredith, Des Moines, Ia.

Dear Sir: Our county commissioners meet today to call an election to vote \$600,000 of bonds and the county commissioners of the adjacent county north of us will call an election for a bond issue next week, also the two counties south of us. I don't know just what kind of a letter you want to send out to advertisers, but I am sending you twenty-five letter heads and authorize you to write any letter you see fit and sign my name to them.

Yours in haste,  
R. W. DICK.

### \$250,000.00 BOND ISSUE VOTED

Honey Grove, Texas, March 4.—Good Roads District No. 4 in Fannin county, which embraces Honey Grove, today voted bonds to the amount of \$250,000 by a majority of 106 to 1, 567 votes being cast for the issue.

The proceeds will be used in building improved highways in this district.

### MORE NEWS FROM LOUISIANA

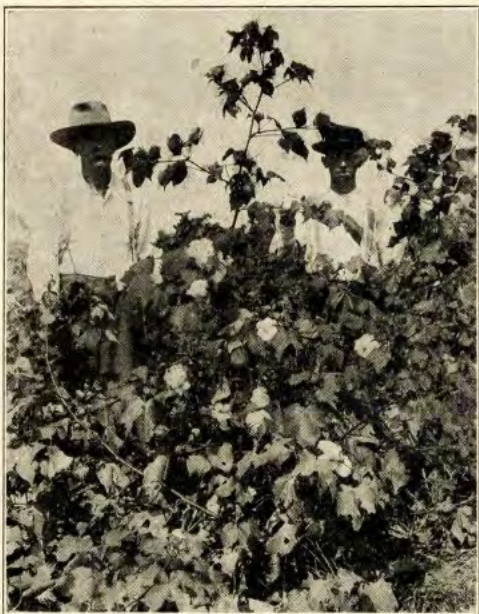
Mansfield, La., March 10, 1916.

Mr. E. T. Meredith, Des Moines, Iowa.

Dear Sir: In am sending you under separate cover a copy of our



A type of "freighter" that will be much in evidence on Jefferson Highway and other good roads in a few years. (Courtesy Kelly-Springfield Truck Co.)



King Cotton in Grayson County, Texas, on Jefferson Highway.

# News and Progress Along the Route

local paper, you will note that we have passed the necessary ordinances creating our road district and calling an election to vote the bonds to build our section of the Jefferson Highway.

We have an active campaign committee in charge of the work and there is no doubt that we will carry the election with a good majority. Sabine Parish, which joins us on the south, has organized a strong committee to forward the good work in their parish and build a gravel road from the DeSoto line to Natchitoches Parish.

The writer addressed a good roads meeting at Zwolle Sabine Parish on the third inst. and from the enthusiasm displayed at the meeting I have no doubt they will carry out their plans and build the road through to Natchitoches. If you have any literature or information that

will be of use to us kindly send it on and I will have it published in our local papers. With best wishes for the success of our undertaking, I am,

Yours sincerely,  
W. M. PETRIE, Sec'y Good Roads Com.

## JEFFERSON HIGHWAY DEPARTMENT

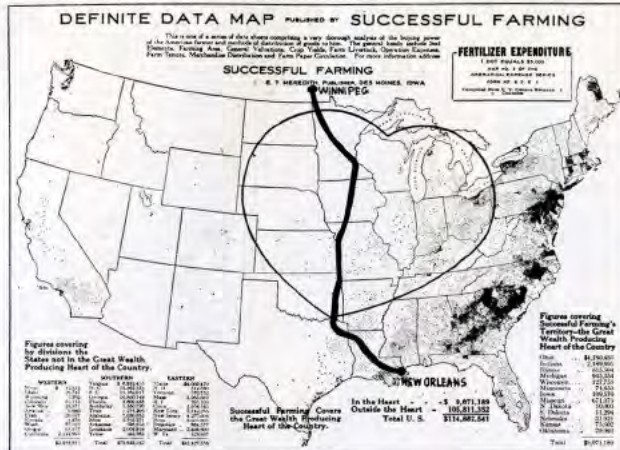
This department conducted in the interest of the Kansas Division of the Jefferson Highway and the copy is supplied by the Press Bureau at Pleasanton.

### Important Things to Remember

If Kansas builds the Jefferson Highway within the present year the Hodges law will have to govern in the matter of taxes. It is the only road law available.

Under this law if the rock road costs \$3,500 per mile and the district is four miles wide and townships will pay \$875 and the 2,560 acres to each mile of road will pay \$2,265 or \$1.02 per acre tax on an average. The county commissioners have the power to assess the cost according to the benefits derived. If desired each land owner can have ten years in which to pay the tax or an average of 10 cents per acre per year for the ten years.

The county commissioners may also build any part of the road out of the general county funds. Or they may aid in any unusually expensive part of the road, such as extra cuts or grades or other causes.



This map shows where commercial fertilizer is and is not used in the United States and it is a remarkable tribute to the quality and condition of the Great Agricultural Heart traversed by the Jefferson Highway.

## What a 365-Day Road Means to Community

Rock roads save time, labor, power, horse flesh, vehicles and temper.

Rock roads bring the consumer and the producer closer to each other.

Rock roads help to maintain a steady, uniform market by allowing farm products to be marketed any day in the year. At the same time rock roads prevent farm products from suffering a loss by not being marketed at the right time.

Rock roads solve the consolidated school problem, since transportation is the only draw back to the system now.

The country church problem must be largely solved in the same way.

Rock roads will keep the boys and girls on the farm.

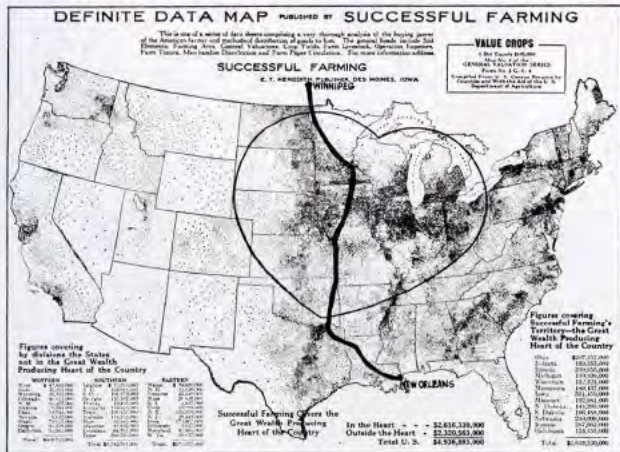
Any investment that adds quality to a community is a

good business proposition. Eastern Kansas is no exception and the eyes of the country are now turned toward the counties along the Jefferson Highway to see what real class there may be to its people.

## IOWA COMMISSION AGREED

The Better Roads Commission of Iowa, appointed by Governor Clark, had made a very careful study of various methods of financing public improvements, giving special attention to the application of these methods to the building of "dependable" highways. The commission has definitely agreed, and will recommend to the next legislature, that the state be divided into road districts and that these

districts shall be given the power to anticipate the cost of building dependable highways by the issuance of bonds which shall mature within the probable life of the improvement; it being stipulated that the bonds so issued shall be limited to such an amount that the taxes now levied for roads, bridges, and culverts shall be sufficient to pay interest on the bonds, provide a sinking fund for the retirement of the bonds at maturity, and provide for the maintenance of the highways during the life of the bonds. In other words, the Better Roads Commission proposed a scheme by which Iowa may have better roads now without an increase in the present road tax levy.



The Jefferson Highway is to serve the great crop producing section of America. Each dot in above map represents \$100,000 worth of farm crops. Note the excess in crop values in the Jefferson Highway Territory.

## HAVE YOU SUBSCRIBED FOR THE DECLARATION?

The Declaration will bring to you every month the important news about the Jefferson Highway from all points along the route. If you expect to tour the Highway sooner or later as you certainly do, you can't afford to miss any number of the Declaration. Each issue will contain many views of and important information concerning points of greatest interest in every state along the great Vacation Route of America.

The Declaration is to be far more than a report of the Highway progress. It is a commercial and opportunity journal for the states and cities on the Jefferson Highway.

The Association desires to have the circulation increased as rapidly as possible. The price is 50c per year—dirt cheap for the quality of this publication. Send in your individual subscription and get your Commercial club to subscribe for a hundred or more copies at once.

JEFFERSON HIGHWAY ASSOCIATION, Des Moines, Ia.

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# Better Trucking Means Bigger Business

By extending your delivery radius—by saving time in your delivery—by reducing the cost of your trucking—by increasing the efficiency of your force, you out-do competition, satisfy customers, enlarge your business.

All of these benefits are sure to follow the installation of trucks of quality—if the proper size and right power is selected.

The GMC line includes trucks ranging from 1000 lbs to 6 tons capacity. It includes gasoline and electric power, worm drive, chain drive and shaft drive.

In no other factory in the world can such a variety of motor trucks be found. In no other factory can better quality be had.

In the GMC line the Manufacturer, Merchant, Municipality, Dairyman, Truck Gardener, Contractor—any man or corporation with hauling to do can find the truck that will fit the work to be done. **That** makes motor trucks profitable.

We will gladly offer suggestions when desired and co-operate with you in selecting the size and kind of trucks that will be most economical for you.

Tell us what you have to haul, the kind of roads you have—whether hilly or level. Our suggestions should be helpful, for we have no prejudice in favor of any particular size of truck or kind of power.

*"We make a truck to fit your business"*

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