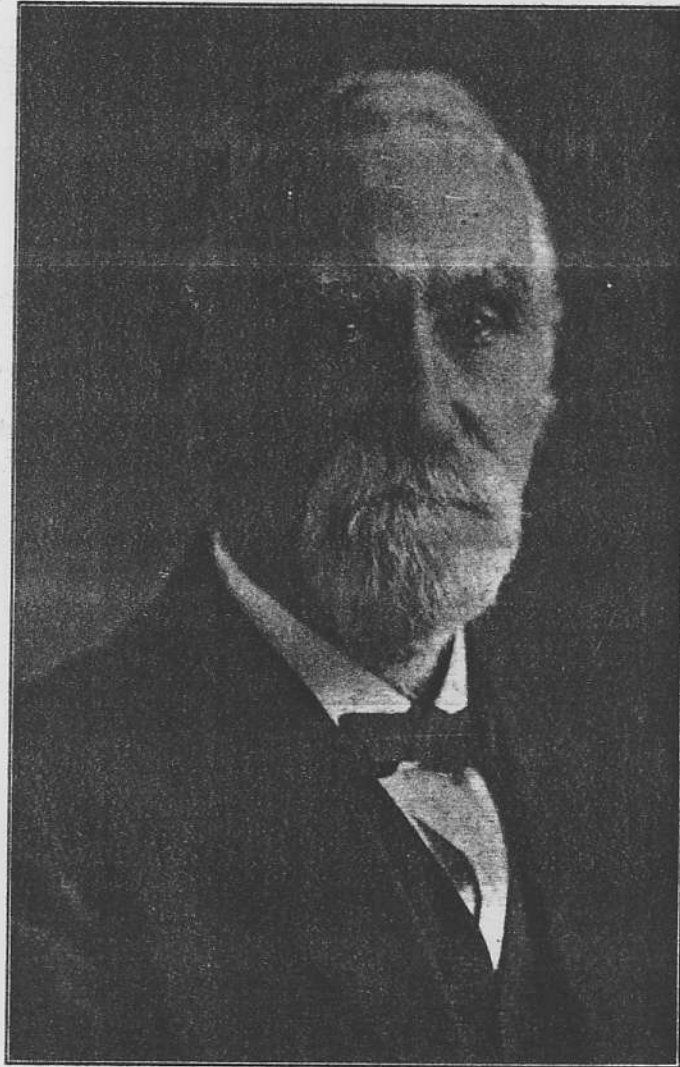


121
ARKANSAS HIGHWAYS



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Thos. Maxfield

1844-1926

APRIL

VOL 2

1000

NO 1

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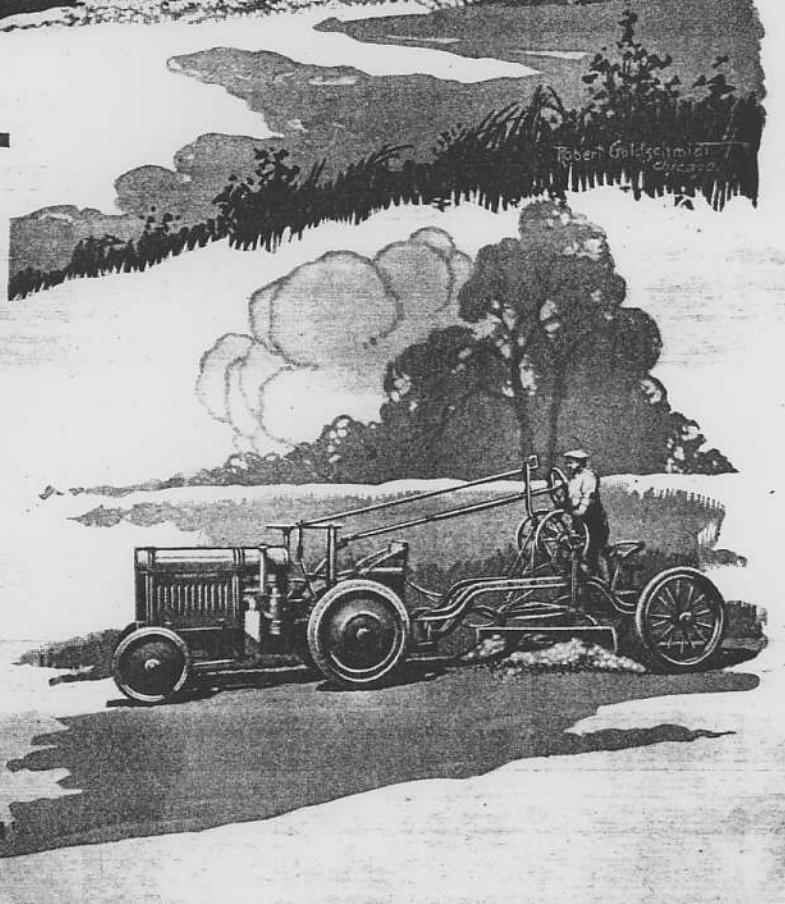
Tractor pulls instead of pushes

One of the outstanding features of this combination is that the tractor pulls instead of pushes the blade, thus enabling the weight of the tractor to overcome the side draft on the blade and hold it to a straight course.

Other advantages

The blade-lifting control has a machine-cut worm and gear which eliminates lost motion and is self-locking. These outfits do not need any more room to turn around in than the tractor itself and are steered as easily as a high-powered automobile. Timken Tapered Roller Bearings and large rubber-tired rear wheels add much to the smoothness of the work.

A special bulletin describes these machines in detail. Write for your copy today.



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Chicago, Ill., U. S. A.



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SIX Novo LH Hoists are being used by Stone & Webster in constructing the new Philadelphia Electric Company plant at Philadelphia.

This plant, one of the largest in the world, will have a generating capacity of more than a million horse power. The buildings are approximately 100 feet high. The Novo LH Hoists place form lumber and reinforcing steel in the upper stories.

Stone and Webster know industrial equipment. What they use must do the work. That is why they use Novo hoists.

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Novo Hoists—Single and double drum, electric motor and gasoline drive, for pile-driving, steel-setting, clamshell bucket, platform elevators, concrete chuting equipment, etc.

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MISSOURI PACIFIC RAILROAD
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INTERNATIONAL-GREAT NORTHERN RAILROAD

The Contribution of the Railroads to the Prosperity of the Nation

PROSPERITY is intangible but every citizen knows when the nation enjoys it and every individual is affected when there is a lack of it. The United States is enjoying prosperity today, despite the fact that some people from time to time, seem to think and publicly express opinions to the contrary.

There is an infallible method of measuring prosperity. That is the volume of revenue traffic handled by the railroads. When traffic is moving in record breaking volume it means that industry is busily engaged in production; the railroads are busily engaged in the transportation of that production; and the so-called ultimate consuming market is absorbing the production. It is interesting to note that for the first 10 weeks of 1926 revenue car loadings totaled 9,073,140 as compared with 9,012,040 in 1925 and 8,855,470 in 1924.

Improved transportation in the last few years has enabled the nation to do business with smaller stocks of commodities and merchandise on hand and in transit and this has, in turn, made possible the purchasing of requirements in smaller quantities and more frequently as needed. Dependable railroad service alone is responsible for this. And this dependable railroad service has in this way released millions of dollars for investment in productive channels, by making possible reduced "stand-by stocks."

The increased railroad transportation efficiency has been made possible partly by the investment of \$3,117,000,000 of new capital in the last four years or an average of \$780,000,000 a year. This expenditure has also had a tendency to stabilize employment on the railroads and in other industries.

Reasonably stabilized employment, at present wage levels, for the average of 1,769,099 railroad workers in the United States in 1925, has been one of the determining factors in a stabilized consuming market.

Conditions throughout the country, as reflected in the foregoing figures, are even better in the territory served by the Missouri Pacific Lines, judged by the figures for this section of the country.

The railroads of the middle west and southwest have not yet shared proportionately in this prosperity. The rate of return, figured on either property investment or the tentative valuation used by the Interstate Commerce Commission for rate making purposes, has never, since the passage of the Transportation Act of 1920, exceeded 4.83 per cent. The Commission has said that 5.75 per cent would be fair. They are continuing, however, to improve their operating efficiency and to effect further economies in order that they may continue to provide an adequate, dependable and generally satisfactory service, and otherwise make contributions to the prosperity of the country.

WHEN THE RAILROADS PROSPER THE NATION PROSPERS.

I solicit your co-operation and suggestions.



President

ARKANSAS HIGHWAYS



Roads That Go Somewhere!

Official Monthly Bulletin of the State Highway Commission

"Arkansas Highways" is edited in the offices of the Highway Department at Little Rock. Communications relative to advertising or articles and photographs submitted for publication should be sent to The Editor, care Highway Department, Little Rock. The bulletin is sent free to State and County officials, newspapers of the State and Road Commissioners who apply for it. Permission to reprint any matter contained in "Arkansas Highways," with proper credit, is granted to all newspapers of the State.

VOL. III

APRIL, 1926

NO. 4

Death Removes Valuable Member of Highway Commission

Commissioner Theodore Maxfield Dies at Batesville.

THE traditional joy of Easter Sunday was clouded this year by the news which came to the highway department of the passing of Theodore Maxfield, representative of the First Agricultural District on the State Highway Commission, at his home at Batesville.

While Commissioner Maxfield had been in feeble health for some time, as a result of the natural infirmities of age and the aftermath of an attack of pneumonia, it had been thought that his remarkable vitality might again pull him through a crisis, and his death cast a shadow over his many friends in the department.

"His passing is a very great loss to the highway department," Herbert R. Wilson, State highway commissioner, said. "Col. Maxfield, since his appointment by Governor McRae in 1923, under the Harrelson Act, had taken an active part in the working out of the new highway policies, and in spite of his age, he attended meetings regularly and worked enthusiastically and sympathetically with his colleagues on the commission.

"He was never contentious, obstructive or opinionated, and he contributed much to the success of my administration during the difficult period of reorganization that followed the enactment of the Harrelson Law. Personally and officially, I regret, more deeply than I can say, his passing."

Commissioner Maxfield was born in Batesville, July 9, 1844, the son of Uriah and Leah Scarbrough Maxfield, pioneers, who came to this State from Maryland in 1841. He had spent his entire life, with the exception of time served in the Confederate army, with the First Arkansas cavalry, in his native city.

During that time he engaged in the mercantile business, in manufacturing, river shipping and farming and transportation of various sorts.

With his brothers, Edward, Charles, Fred and Harry, he prospered greatly, and left his impress on much of the development of Batesville and the White river country.

He was a prime mover in the agitation which resulted in the building, now under way, of the big free bridge over the White river at Batesville. This structure, when completed next year, will be christened the Maxfield-Wilson bridge, in honor of the work which he did in connection with Commissioner Wilson, in pushing the project through to successful consummation, in spite of many obstacles.

Commissioner Maxfield's funeral was one of the largest and most notable ever held in Batesville, attracting representative citizens from all parts of the State.

His successor, who will be appointed by Governor Tom J. Terral, has not yet been announced.

Surface Treatment of Macadam and Gravel Roads

By G. Hunter Sykes, Construction Engineer, Arkansas State Highway Department.

ONE of the most interesting subjects on road building, to road builders, road engineers, administrators and taxpayers, is the salvaging of the numerous water-bound macadam and gravel roads which have been constructed in the past and which are already costing large sums annually for maintenance due to our roads becoming connected and having to carry loads and traffic far in excess of the amounts reasonably anticipated by the public at large, as well as the engineers and administrators who were in direct charge of the design and construction.

Until a road is subjected to traffic greater than approximately 300 vehicles per 24 hours, the gravel road can be economically maintained as a gravel road, but when the average daily traffic exceeds this amount, the maintenance cost becomes excessive and we must either lose our original investment and build a higher type of road which will withstand the traffic under the new conditions, or salvage our original type by supplementing same with a surface treatment, or other satisfactory method.

Highway engineers as a whole have been somewhat to blame for not making a careful study of surface treated roads and applying this method, and have rather fallen in line with public sentiment and tried for higher type roads. Such action is naturally along the lines of least resistance for they have had the backing of propaganda of the cement associations for concrete roads and the asphalt associations for asphaltic concrete roads, who have properly promoted their products and thoroughly sold the idea to the public. It is also true that from an engineering standpoint the higher type of pavement is much more interesting and satisfactory to construct, but if we, as engineers, do our duty and are fair to the public, we will conserve as much of the results of previous expenditures as possible.

We, in Arkansas, occupy a unique position for the following reasons:

1. We can profit by the expensive experiences of the States who have been in the road building game for a number of years and are now resorting to surface treatments.

2. Surface treatments depend on the use of tars or asphalts in conjunction with crushed stone or gravel. Arkansas is fortunate in having one of the largest single oil fields within her border, and with the local refineries she can take advantage of the low freight rates on the asphalt due to the closeness of the jobs to the refineries.

One of the greatest mistakes which has been made in highway affairs is allowing the public to think of types of construction rather than of the road as a means of transportation. As a matter of fact, the public is not interested in whether it rides from New York to Los Angeles over a concrete pavement, sheet asphalt pavement, asphaltic concrete pavement, penetration pavement or over a water-bound macadam road. It is however, interested in riding over a well maintained road, serviceable every day in the year.

If we can train the public to demand good roads, but not good roads of a certain type, we will be doing them a

great favor, save them money, and will be putting the road building of the nation on a scientific basis as it should be.

A few years ago, when surface treatment for roads was in the experimental stage, most people became thoroughly disgusted with the idea because the roads were drenched with an excess of oil, tar or asphalt and it stood in pools to be splashed on every car that passed, and it was impossible to take a drive of over 100 miles without running over one or more sections where the treatment was being applied.

At the present time, however, most of the experiments have succeeded in doing away with the undesirable features and the surface treatment can be applied with very little inconvenience to the traveling public.

Many millions of dollars have been wasted by the abandoning of water-bound macadam and gravel roads of higher types, when in reality, the addition of a surface treatment would have made them satisfactory for the traffic they would be called upon to accommodate for a number of years.

Let us, therefore, study and watch the many miles of water-bound and gravel roads which have been built at great expense, and when the time comes that the traffic shows the present road to be inadequate, let us salvage what we have and surface treat it, and by so doing we can get many years of satisfactory use out of the old road at a very small expense compared with the cost of the new construction of a high type, or even as compared with the cost of maintenance as a water-bound macadam or gravel road.

The surface treatment of macadam and of gravel roads will be discussed separately because different materials and methods are employed in each case.

Macadam Roads.

The application of the surface treatment should not be attempted when the temperature is below 50 degrees Fahrenheit, neither should it be done during wet weather if the best results are to be obtained.

All pot holes and irregularities should be patched and the surface brought to proper cross-section, which can best be done by using a macadam binder and crushed stone. Traffic should then be diverted and kept off the road by the use of detours. The surface of the macadam road should then be thoroughly swept with a rotary broom and completed with hand brooms to remove all foreign material.

The bituminous material should then be applied (at the rate per square yard specified for the particular job) under pressure and immediately covered uniformly with crushed stone or washed and screened gravel uniformly graded, of specification given below under Cover Material No. 3. This cover material should be applied at the rate of approximately seven pounds for each 1-10 gallon of bituminous material. This should be immediately rolled with a self-propelled roller weighing not less than five tons. A gas-line propelled roller is better for the fact that it can be kept rolling continuously. When a steam roller is used, one-third of the time can be figured as unnecessary with

the average operator for refueling, one-third of the time for taking on water and it is doubtful if the remaining third will be devoted to rolling.

The application of the first treatment should be continuous on one side of the road, followed later by the application on the other side. After a given section has received its first application it is usually best to follow same with a second application, applied as stated for the first application, especially when the road has not received a surface treatment before. However, where the road has been treated before, usually one application is all that is necessary.

After the surface treatment is applied and the cover material spread and rolled, the project should be maintained by a patrolman who should be equipped with a small portable hot pot, small tools, some bituminous material and some cover material, whose duty shall be to repair all breaks and pot holes as they form in the surface.

Oil for Hot Application, which is satisfactory for use in Arkansas, should meet the following requirements:

The oil asphalt should be homogeneous, free from water and shall not foam when heated to 175°C (347°F).

1. Specific gravity 25°C/25°C (77°F/77°F) not less than 1.000.
2. Flash point—not less than 200°C (392°F).
3. Melting point—30°C (86°F) to 50°C (122°F).
4. Penetration at 25°C (77°F) 100 g. 5 Sec.—250 to 300.
5. Loss 163°C (325°F) 5 hours—2 to 5%.

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ARKANSAS CITY, ARKANSAS

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GRAVEL —Screened, washed and sized to suit your requirements.

**CONCRETE
MIXTURE**—Thoroughly washed and prepared ready for use.

Prompt shipments and large capacity—

Try us with an order.

C. C. HAWKINS, President.

(a) Penetration of residue at 25°C (77°F) 100 g. 5 Sec. not less than 150.

6. Total bitumen soluble in carbon disulphide, not less than 99.5 per cent.
7. Material for any one contract shall not vary more than 0.02 in specific gravity nor more than 10°C (50°F) in melting point within the test limits specified above.
8. Organic matter insoluble—not more than 0.2 per cent.

Cover Material No. 1 and No. 2:

Passing three-quarter (¾) inch screen, 100%.

Retained on one-quarter (¼) inch screen, 85 to 100%.

Retained on (20) mesh screen, 100%.

Gravel Roads.

The surface treatment of gravel roads differs somewhat from the surface treatment of macadam roads, in that the first application should consist of a lighter bitumen in order for it to penetrate into the gravel road. Tars as well as asphalts give satisfactory results, but on account of the proximity of the source of supply in Arkansas, asphalt only will be considered.

The preparation of the road bed to receive the surface treatment is made in the same manner as for macadam roads, then the first application of bitumen or prime coat is applied and allowed to stand open to the elements and sunshine for at least three days, so that the light oils may evaporate, as they are of no use after they have carried the asphalt down into the road bed. Should it be necessary to allow traffic to use the section of road under treatment, it is necessary to use some cover material to prevent the picking up of the prime coat and a covering of No. 1 cover material in the quantity specified above is desirable, which should be immediately rolled. Some bleeding will occur after the first application, due to the cut back agent in the prime coat, and this should be covered daily with additional material to prevent picking up. All loose material should then be removed and the second application made with bitumen described under macadam road surface treatment. The application of the bitumen shall be immediately followed by the cover material No. 2 and thoroughly rolled.

The amount of cover material required will be approximately seven pounds per 1/10 gallon of bitumen but shall be in sufficient amounts to leave an excess of loose material on the surface to take care of the subsequent bleeding in warm weather.

It has been found that one initial application on gravel roads does very little good and will not last through the season satisfactorily, but when two initial applications are used, it is possible with careful maintenance, that it will last two or three seasons, depending, of course, on the amount and kind of traffic to which the project is subjected.

Oil for Hot Application Prime Coat—50% to 70% Asphaltic Oil 250-300 penetration—50% to 30% Crude Oil or Naphtha vehicle.

NOTE:—Asphaltic oil 250 to 300 penetration same as given below, for second application plus the crude oil or naphtha.

Oil for Hot Application Second Application shall meet the following requirements:

The oil asphalt shall be homogeneous, free from water and shall not foam when heated to 17°C (347°F).

1. Specific gravity 25°C/25°C (77°F/77°F) not less than 1.000.
2. Flash point not less than 200°C (392°F).
3. Melting point—30°C (86°F) to 50°C (122°F).
4. Penetration at 25°C (77°F) 100 g 5 Sec. 250 to 300.
5. Loss 163°C (325°F) 5 hours 2 to 5 per cent.
 - (a) Penetration of residue at 25°C (77°F) 100 g 5 Sec. not less than 150.
6. Total Bitumen soluble in carbon disulphide not less than 99.5 per cent.
7. Material for any one contract shall not vary more than 0.02 in specific gravity nor more than 10°C (50°F) in melting point within the test limits above specified.
8. Organic matter insoluble—not more than 0.2 per cent.

Cover Material No. 1 and No. 2:

Passing three-quarter (¾) inch screen, 100%.

Retained on one-quarter (¼) inch screen, 85 to 100%.

Retained on (20) mesh sieve, 100%.

An interesting example of the amount of money actually saved by resorting to the bituminous surface treatment may be here stated.

The El Dorado-Smackover road in Union county is of gravel construction, 18 feet wide and 11 miles in length. This project when completed as a gravel road was subjected to the oil field traffic, and based on the traffic census, it was found that 7,500 vehicles of all kinds passed over this project every 24 hours.

During the summer of 1925 this project cost the State on an average of \$300 per day for maintenance of this 11-mile stretch with State equipment, and then the road was just about holding its own without any signs of improving.

In the early fall of 1925 it was decided to surface treat this stretch, which was done by State forces with State equipment, at a cost of \$1,500 per mile, or about 14 cents per square yard for a double surface treatment. One small gang with a hot patch pot is now maintaining this section satisfactorily at a cost for labor and materials of between \$20 and \$25 per day and the road surface is improving all the time.

WIDE RIGHT-OF-WAY A HIGHWAY ESSENTIAL

The highway department refuses to spend money on narrow, irregular roads. A state highway must be wide, and must proceed "somewhere" in a reasonably straight line. This makes the question of securing the right-of-way one of the first to be solved in many sections, even where there has been an old road. Modern, permanent roads cannot be built until there has been secured a right-of-way, properly located, which is wide enough for the present and future needs of highway construction.

Permanent roads are a good investment—not an expense

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Your own observation and experience will tell you that the road which was good enough twenty years ago, or perhaps even ten years ago, simply will not do today.

It lacks the strength, the rigidity and the firmness necessary to withstand the terrific wear and tear of motor transportation.

Only pavement will do this. And the pavement that meets all tests is concrete.

Built in accordance with approved standards of highway construction, the concrete pavement remains free of ruts and bumps, year after year.

Requiring practically no maintenance, it costs less in the end than any other pavement.

Isn't that the kind your community ought to have? Then let your local authorities know that you want your highways paved with concrete.

Our free booklet, "Concrete Facts about Pavements," will be sent promptly on request. Write for it today.

PORTLAND CEMENT ASSOCIATION

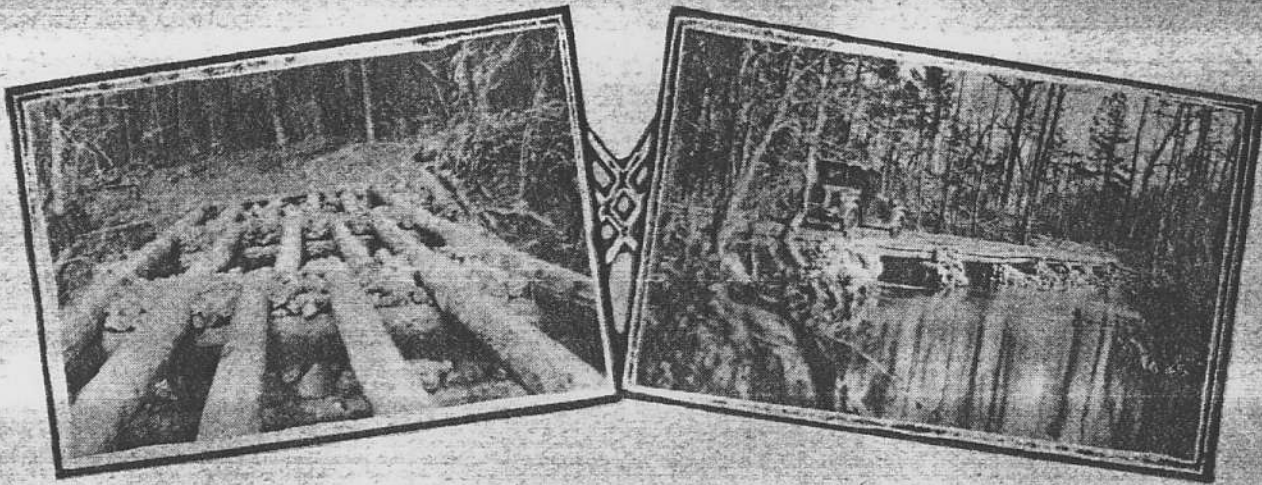
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St. Louis, Missouri.

A National Organization to Improve and Extend the Uses of Concrete

OFFICES IN 31 CITIES

Hot Springs-Morrilton Highway Nearing Completion

By R. A. Kern, District Engineer, District No. 6.



Showing Type of Bridge Construction Used on Mountain Road.

CONSIDERABLE interest to the citizens of Hot Springs, Perry, Perryville and Morrilton, is in the announcement that the road leaving the Little Rock-Hot Springs road at Crow's Store, 19 miles east of Hot Springs, north to Morrilton, will be completed this summer.

Before the Highway Commission placed this road on the State System, the only mode of travel over it was by airplane. Construction work was started last summer, but owing to the condition of the weather was stopped on the 15th of December. The clearing of the right of way (eighteen and one-half miles) was practically completed and there remains only about six miles to be grubbed. Over half of the road has been graded the standard width of 24 feet, with drainage structures in place.

In opening this road, the State highway department assumed an Herculean task, as it traverses a mountainous section of the State through Saline and Perry counties and crosses a number of large streams such as Big Maumelle, Alum and North Fork of the Saline river. The ridges of this section of the State lie in an east and westerly direction, so this road going due north must cross hundreds of small streams and ridges which add to the difficulty of construction.

Judge Kirkpatrick of Saline county, the citizens of Hot Springs and Morrilton, and Judge Taylor of Perry county were very liberal in their donations in assisting the highway department to construct this road.

The accompanying photograph shows one of the low water bridges being constructed on this road. This bridge is over the Alum Fork of the Saline river, which previously could not be crossed by auto more than nine months of the year.

It is a very economical bridge, the logs for the cribbing being cut in the near-by woods and rocks gathered on either side of the stream.

The cribs are placed 24-foot centers, 16x8 feet, and the logs are notched and drift-bolted together. The floor

is tied down by one-half inch cables to the bottom of the cribs and also to trees on the bank. Since construction, the water has been four feet over the bridge floor without doing any damage to the structure.

The reckless motorist will assist any pedestrian in obtaining his rites.—*Arkansas Gazette.*

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1500 East 6th Street

Little Rock, Arkansas

"We Repair Contractors' Machinery"

No Tax On Land to Build Harahan Viaduct Approach

Plan Is Worked Out, Relieving Adjacent Property of All Burden.

THE one and only objection to the building of the badly-needed million-dollar concrete approach to the Harahan bridge opposite Memphis has been wiped out.

This objection was the tax which it seemed would have to be imposed on the landowners of the eight counties adjacent to the structure to help finance the big project.

It was removed at the recent meeting of the Highway Commission when an agreement worked out by Herbert R. Wilson, State highway commissioner, with Judge W. L. Fish and other Eastern Arkansas leaders was approved under which tolls from the present wooden structure will be used to supply the \$220,000 designated as the viaduct district's share of the cost of the new structure. This sum was to have been raised through the sale of bonds, which will now be unnecessary.

The signing and approval of this agreement eliminated the only feature of the recent plans for the building of the viaduct approach on which there was any difference of opinion, and paved the way for prompt and complete co-operation between all the various agencies participating in the work. Engineering plans are virtually complete, and actual work will be commenced early this summer. The approach should be finished in 18 months, barring unforeseen interruptions.

"Financing this project without any new burden on the landowners adjacent to it has been a difficult job, but

well worth the time and effort which it cost," Commissioner Wilson said, "inasmuch as it conceded that the structure is worth much more to the State and inter-State traffic that uses it than it is to the agricultural lands of Eastern Arkansas that happen to lie close to it."

"Under the agreement just ratified, the entire cost will be borne by the Federal government, the State governments of Tennessee and Arkansas, the city of Memphis, and the traffic actually using the temporary structure during the construction of the new."

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Good Roads
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These Things Tell the Story

CALVERT-McBRIDE PRINTING CO.

Fort Smith

Arkansas

Advances Are Made to Counties for Spring Road Work

Vouchers for Half of County's Share of Road Money Distributed.

FOLLOWING out a custom established two years ago, Commissioner Herbert R. Wilson this month has forwarded to the various county judges of the State vouchers for a total of \$600,000, or one-half of the entire sum the counties will receive this year for road work on county roads not a part of the State system.

The Harrelson Act provides for a distribution on July 1 of both bond relief funds and funds for aid of county road work, but in order that this work might be done by the county judges as early in the spring as possible, before dry weather makes such road work difficult and costly, Mr. Wilson each year makes an advance of half the sum, distributing the balance at the same time bond relief is given to the various districts of the State. The distribution is made under section 21 of the Harrelson Act, which sets aside annually a fund of \$3,000,000 to be distributed among the counties on a population basis to be used in the construction of county roads and the retirement of district bonds.

The proportion of each county's share which goes to the construction of roads was fixed by the special session of the legislature, and for that reason the payments made are not indicative of the total amount which the county will receive, although they do represent one-half of the county road aid. In some counties of the state the entire county's share goes to road construction, while in others the entire share has been set aside for the aid in the retirement of bonds. Counties in this latter class receive no funds under the distribution.

In Pulaski county, 90 per cent of the county's total distribution goes to the retirement of road improvement district bonds, and 10 per cent to the construction of county roads. In the distribution made, Pulaski county receives only one-half of the 10 per cent going to road construction, or only five per cent of the county's total share under the distribution. In Sebastian county, however, the county's entire share goes to road construction, and the amount which it will receive under the current distribution represents 50 per cent of the total amount to be received this year.

The amount of the distribution made totals approximately \$600,000.

The amount which each county receives follows:

Arkansas	\$
Ashley	5,010.00
Baxter	2,186.25
Benton	3,103.50
Boone	10,334.25
Bradley	13,671.00
Calhoun	10,105.50
Carroll	7,613.25
Chicot	
Clark	5,485.50
Clay	23,350.50
Cleburne	10,869.00
Cleveland	5,247.75
Columbia	13,028.40
Conway	
Craighead	9,040.80
Crawford	22,033.50

Crittenden	
Cross	7,952.25
Dallas	6,174.00
Desha	4,344.00
Drew	14,010.75
Faulkner	5,942.25
Franklin	12,432.37
Fulton	3,829.20
Garland	16,555.50
Grant	
Greene	22,347.00
Hempstead	13,526.25
Hot Spring	15,225.00
Howard	7,946.25
Independence	10,226.25
Izard	2,968.50
Jackson	2,178.30
Jefferson	12,911.62
Johnson	4,507.50
Lafayette	6,656.25
Lawrence	1,891.80
Lee	24,699.00
Lincoln	4,017.75
Little River	
Logan	19,928.70
Lonoke	7,147.87
Madison	3,192.75
Marion	8,692.50
Miller	10,281.75
Mississippi	
Monroe	4,623.00
Montgomery	7,134.75
Nevada	17,277.00
Newton	4,793.25
Ouachita	17,664.00
Perry	6,359.62
Phillips	
Pike	10,612.50
Poinsett	
Polk	3,512.25
Pope	2,324.40
Prairie	
Pulaski	9,370.80
Randolph	11,372.62
Saline	7,182.75
Scott	11,326.50
Searcy	3,322.62
Sebastian	48,571.50
Sharp	
Sevier	
St. Francis	
Stone	3,757.50
Union	25,416.00
Van Buren	
Washington	15,181.50
White	14,811.00
Woodruff	
Yell	10,980.75

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A combination of the material production with the construction business means an ultimate economy to the purchaser.

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R. S. WILSON,
Secretary and Treasurer.

Pulaski county's unit in the Arkansas-Missouri highway, the splendid concrete ribbon running from the Capital City to the Lonoke county line north of Jacksonville, which was opened in December, received its final Federal aid payment from the State highway department this month. The check, which was forwarded by Commissioner Herbert R. Wilson, was for \$22,775. Other similar checks of the month included the Conway-Damascus road in Faulkner county, \$6,672; the Emmett-Prescott road in Nevada county, \$6,261; District No. 2 of Johnson county, \$5,258; Greenwood-Mansfield road in Sebastian county, \$3,104, and the Sulphur River district of Miller county, \$2,675.

More and more the larger cities of the State are realizing the importance of routing through highways around the edge of town rather than straight down Main street. Traffic congestion of our cities and towns has been the factor which has brought about the change of ideas. So rapid has been the increase in the number of cars in the last few years that city fathers have had to study ways and means of reducing the congestion rather than increasing it by the old method of diverting outside traffic through the central districts.

Not too much or too often can the editors of Arkansas lift their voices to urge the beautification of roadsides along the State highway system. Other States are finding ways to plant trees, flowering shrubs and hardy flowers along their highways. Arkansas must do it, too, if we are to properly impress the tourists who follow our good roads.

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can be relied upon for safety and all-
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tions in All Parts of the State*

Conway County Road to be Completed

Long Controversy Over Federal Aid Is Settled.

IF there have been skeptics who were slow to believe that the Conway county controversy, which was the basis for Arkansas' original dispute with the Federal Bureau of Public Roads which developed into the open rupture in which Federal Aid was for a time withdrawn from the State, had been ended, it is now time for them to give up.

The State highway commission, at a recent meeting, received bids, and will soon award a contract, for the construction of the last nine and one-half miles of asphaltic macadam road in District No. 5 of Conway county.

R. J. Lynch was the low bidder, with an estimate of \$54,000.

This was the district in which it was claimed assessments made by commissioners were unequal and confiscatory, and in which a readjustment was worked out by the highway department satisfactory to all parties. The late Charles H. Miller, drowned in the "Norman" disaster at Memphis, was appointed by Commissioner Wilson to investigate the case, and his report, filed shortly before his accidental death last year, was the basis for the agreement finally worked out.

At the same meeting of the Highway Commission at which the bids for the Conway county work were received, O. A. Graves of Hope and W. H. Arnold of Texarkana were named as special counsel to handle legal matters pertaining to the proposed construction of a toll bridge at Fulton under authority of a special act of the 1925 legislature.

The State highway department is doing everything possible to make Arkansas highways safer for tourists—eliminating grade crossings wherever possible, widening curves, removing obstructions to sight, and placing warning signs at needed intervals. It is well to remember, however, that no highway can be made fool-proof, and no safety devices designed to save the neck of the reckless or hooch-crazed driver.

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There can be *only one* purest and most uniform iron made for culverts. The chemist, the metallurgist, the microscope ALL say this is genuine ARMCO Ingot Iron and NO OTHER. In every other culvert metal impurities are either purposely left in or purposely added.

In ARMCO Ingot Iron the Microscope shows a *uniform* ferrite grain structure—a solid, unbroken wall against corrosion.

If you want corrugated culverts exactly like those which have definitely established the economy of this construction during the past 18 years you will look for the Blue Triangle Trademark. They can be found under NO OTHER BRAND.

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Page Hy-Way Guard

Thirty-two States of the Union now are publishing highway bulletins giving the taxpayers official "dope" on the good roads program and its progress under State direction. Some of the publications are paid for out of State funds. Some are paid for by subscription charges made to the individual reader. *Arkansas Highways* does not cost the State treasury anything, neither is the reader charged for it. Advertising has made it *entirely self-sustaining*, even the postage and mailing charges being thus paid for. The advertisers who make this possible deserve the consideration of our readers who have use for their products.

But then what is the use to keep on widening the highways if they still go on widening the trucks.—*Hot Springs Sentinel-Record*.

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Benton, Arkansas

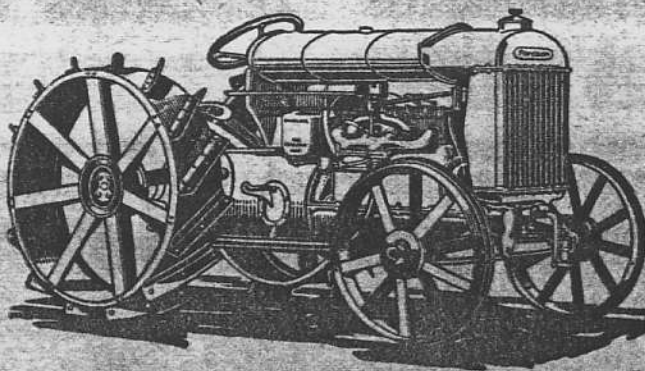
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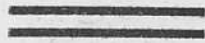
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Our gravel and clay mixture, proportion 78 and 22 per cent, weighing 3,000 pounds per cubic yard, is unsurpassed for road and street surfacing purposes.

Our facilities for loading, one No. 60 Marion Steam Shovel, 2.5 yards' capacity; one 60-ton Baldwin Locomotive and other equipment, enables us to handle 75 cars in ten-hour shifts.

In our seven years of operation, in which 900,000 tons have been shipped, we have had no lawsuits or squabbles with any of our customers.

Our prices are quoted f. o. b. the cars at Newark, Ark., per ton basis, with railroad weights to govern. Information on any part of our business will be furnished on application.

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Has everything that conforms to
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AUTOMOBILES IN ARKANSAS.

While the majority of them may be of the type called "Lizzies" yet the State of Arkansas reports one automobile to every nine citizens of the State, and when this is compared to the number of cars in other states as compared to the population of the states, the ratio is very high.

It proves of course that the Arkansas people have adapted themselves to the modern vehicle, that they like to ride, that they transact their business in cars, and that other important phase of the situation—they have the wherewith to keep on getting cars, paying for them, and paying the abnormal tax against them that is charged for State highway purposes, through the gasoline tax.

Cars are not worth much without good roads, so after the people as a unit began paying out their millions for cars, their next step was to pay out millions for road improvement. All of which is keeping pace with modern times.—*Hot Springs Sentinel-Record.*

Commissioner Herbert R. Wilson was a guest of honor on Friday evening, March 26, of the Chamber of Commerce of Sheridan at a dinner which was largely attended by Grant county citizens interested in good roads. The dinner was the closing event of a week crowded with similar meetings throughout western and northwestern Arkansas, incident to a tour of inspection made by Mr. Wilson and Capt. R. C. Limerick, preliminary to the opening up of spring work.



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ROADS OPENING UP THE COUNTRY*Perryville News.*

Roads are opening up the country as no other agency could. The county will soon have two trunk highways traversing the entire width from north to south. One is the Morrilton-Hot Springs road, the other is the Ola-Hot Springs road in the western end of the county. These trunk highways will be connected by two roads running east and west; one in Fourche valley, the other adjacent to the Rock Island railroad. From Bigelow also there will be a road leading to Little Rock. Not all these roads are complete but that is only a matter of time. When this network of roads is completed no settlement will be very far from some road.

Much land can be opened and settled which will be admirable for fruit, dairying and poultry. In the region around Thornburg there are thousands of acres suitable for these industries. The hills between the railroad and Fourche river will likewise be suitable for fruit, poultry and dairying. In the South Fourche section, also, there are vast acres waiting for settlement.

The fact that Perry county is suited for such industries is amply demonstrated by the Wye community and many individual farmers throughout the county. When the available lands are thus put to use Perry county will witness a wonderful transformation. Our villages will be alive with busy interests and the hill and valley farms will thrive and bustle with energy.

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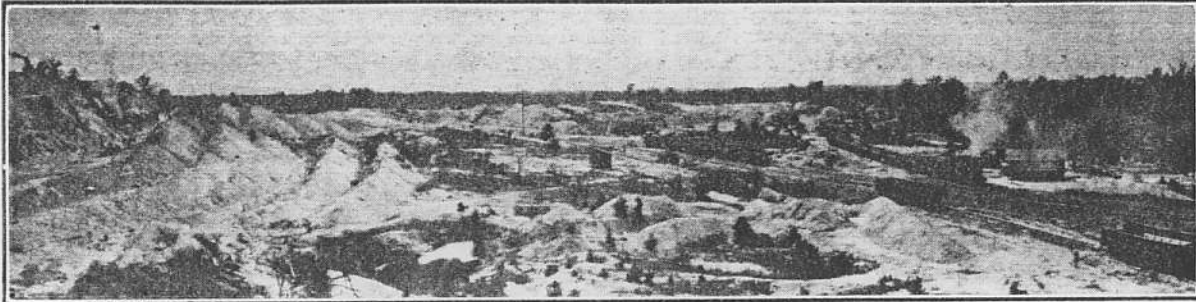
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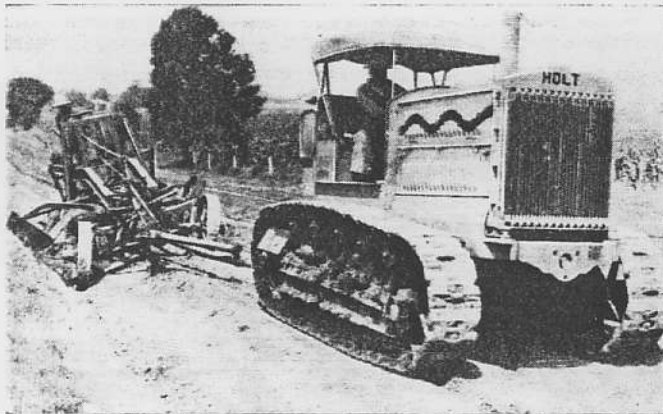
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A mighty task has been done! There is a mightier task yet to do! "Caterpillar" Tractors are road builders.

Five models of "Caterpillars" on display at Memphis:
"SIXTY" "THIRTY"
"10-TON" "2-TON" "5-TON"

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