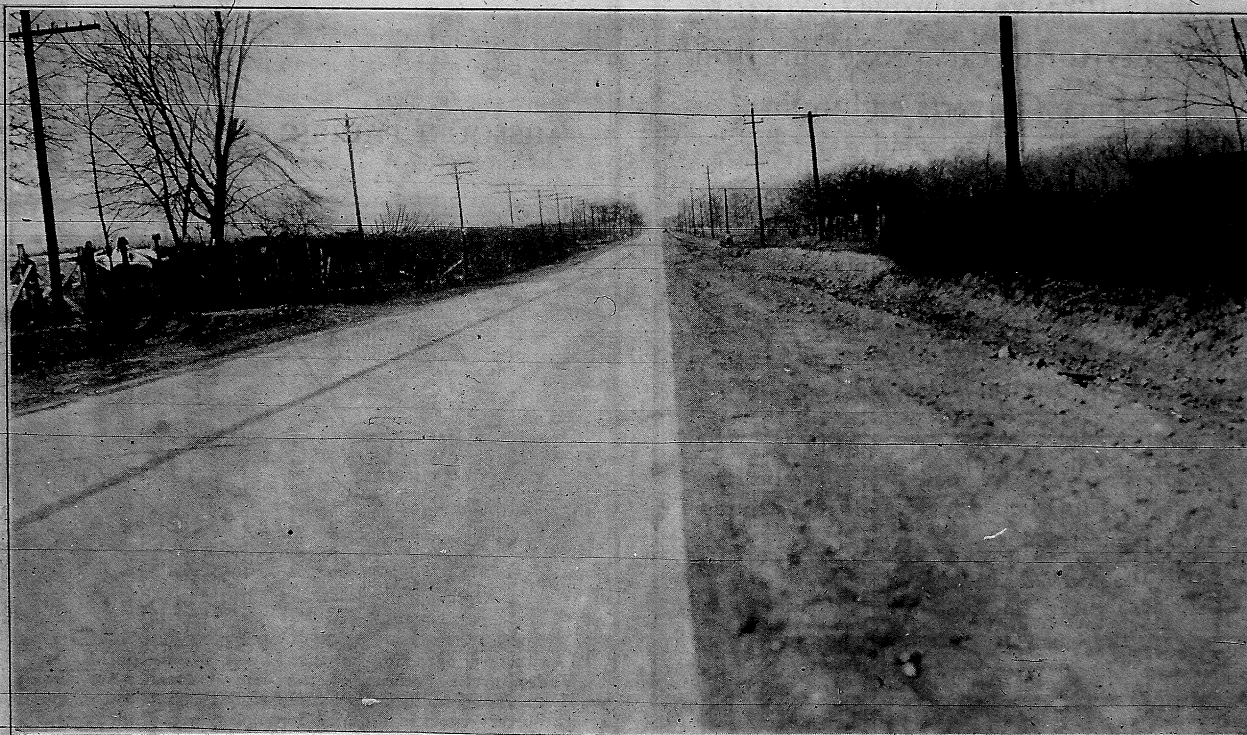


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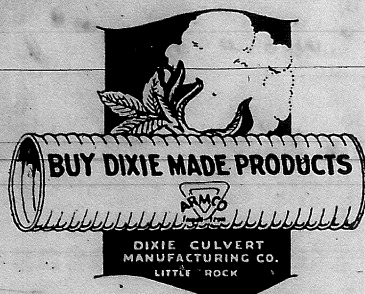


Project 108-A—Highway No. 71—Between Bentonville and Rogers

Vol. 7

SEPT. 1930

No. 9



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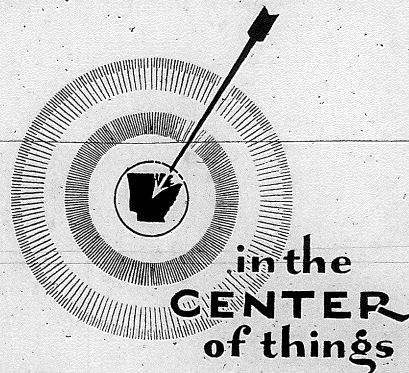
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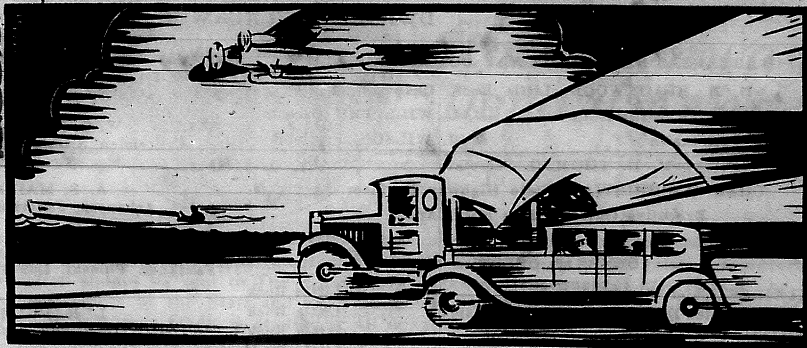
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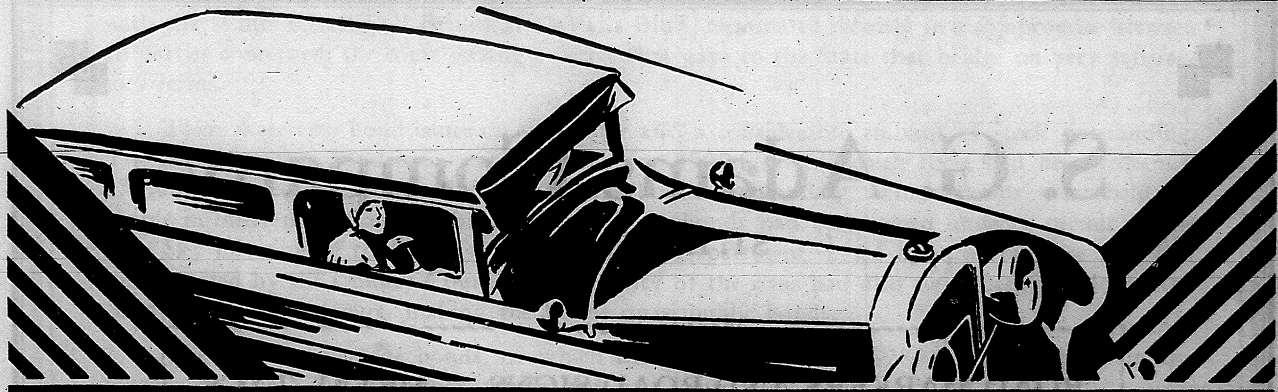
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*Official Monthly
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*State Highway
Department*

"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. VII

SEPTEMBER, 1930

No. 9

State To Operate White River Toll Bridge At DeValls Bluff

By Dwight H. Blackwood, Highway Commissioner



The court action instituted some time ago by the State Highway Department in connection with the White River Toll Bridge at DeValls Bluff, terminated recently in a compromise between all parties concerned, the court issuing a decree that gave to the State that bridge on very satisfactory terms.

There were two bond issues on the bridge and a considerable amount of stock outstanding. The first mortgage bond issue was originally for \$500,000, of which there had been redeemed \$37,000, leaving \$463,000 of first mortgage bonds outstanding, which bonds were held by people in different sections of the country. These bonds had been issued under a permit of the Blue Sky Division of the Arkansas State Banking Department, based upon a franchise that had been granted by the County Court. The validity of the issue had also twice been upheld by the Arkansas Supreme Court, making the bonds quasi public bonds.

The second mortgage bonds, of which there was a total of \$280,000 were held by the owners, as was \$250,000 stock which had been issued.

The State Highway Department paid the sum of one dollar to the owners for the bridge and assumed the first mortgage bonds, with the privilege to the original owners of operating the bridge until November 1, 1930. At that time the bridge will be taken over by the State and operated by the Highway Department as a toll bridge, the charge to be reduced from seventy-five to fifty cents, and when the purchase price has been collected in tolls it will be opened to free passage to the public.

This development marks the settlement of a long drawn out issue and the reduction of tolls at a point that has brought much unfavorable comment from the traveling public. The length of time required for the final free opening of the bridge will, of course, depend upon the income derived from tolls charged those who cross it.

State To Operate Toll Bridge At DeValls Bluff

By an agreement entered in the records of the Circuit Court at DeValls Bluff, the Arkansas State Highway Department has agreed to take over the \$463,000 block of bonds issued by the White River Bridge Company, operator of the privately-owned toll bridge which crosses the White River at DeValls Bluff on Highway No. 70.

The State will assume control of the bridge November 1. The agreement ended condemnation proceedings filed six months ago by the State against the privately-owned bridge. J. G. Thweatt of DeValls Bluff, special attorney for the State who has entered suit seeking to collect back taxes from the bridge company, protested against the price for the bridge on the grounds that it was too low.

Highway Commissioner Dwight H. Blackwood said the tolls will be reduced from 75 cents to 50 cents and that it will be operated on the same basis as State-constructed toll bridges.

The agreement reached and made of record through a court order approved by Circuit Judge W. J. Waggoner, ended a six-year controversy. The bridge is located on the State's most heavily traveled road, Federal Highway No. 70, an east and west transcontinental highway.

The bridge was built by private interests under a franchise granted by Prairie County Court. It was opened in 1924 and was operated with a charge of \$1 per car until a few months ago, when the rate was reduced to 75 cents by order of the War Department,

which has jurisdiction over privately-owned bridges and ferries across navigable streams. The reduction followed a hearing at which automobile associations, chambers of commerce and other organizations throughout the United States entered protests against the dollar fee.

The company was operated as an Arkansas corporation until about two years ago when it was reorganized as a Delaware corporation. W. E. Lenon and Ike Kempner of Little Rock were officers and principal stockholders in the Arkansas corporation. Highway officials said they do not know who owns the outstanding bonds. They are said to bear six per cent interest and will be due in 1942.

NEGOTIATIONS LONG DRAWN

The State Highway Department began negotiations four years ago for control of the bridge, and it is said that an offer of \$500,000 was made at one time. The bridge company, however, asked \$700,000 and the negotiations were abandoned for a long period.

The Highway Department last year sponsored introduction of a bill in Congress to authorize it to build a free highway bridge across White River near DeValls Bluff and a State-owned toll bridge across Cache River, a few miles further east on Highway No. 70. This measure still is pending in Congress.

Last spring the Highway Department filed a condemnation suit against the bridge company in Prairie County Circuit Court, seeking to have a board of appraisers appointed to fix a value on the structure, which then would be taken over by the State under the power of eminent domain.

The agreement filed was a result of the suit. Negotiations were handled for the Highway Department by Claude Duty, Assistant Attorney General, and Frank Pace, special attorney. J. W. House of Little Rock represented the bridge company.

Highway No. 70 now is being reconstructed practically the entire distance between the Pulaski County line and West Memphis, and it is planned to complete pavement of the route within the next two years. Highway Department officials said. The distance will be reduced by several miles by eliminating curves and unnecessary meanderings. Nine grade crossings will be eliminated and driving time from Little Rock to Memphis will be reduced to less than four hours for cars of average speed.

URGES ACTION ON BRIDGE EXPLOSION

Congressman Parks Asks Secretary of War To Assist in Finding Culprit

Urging the Federal Government to assist in solving the mystery connected with the blowing up of the new Garland City highway bridge, Congressman Tilman B. Parks of Camden, who has just returned from a honeymoon trip, today telegraphed Secretary of War Pat J. Hurley, Senators Joe T. Robinson and T. H. Caraway, Congressman Otis Wingo and Governor Parnell.

Congressman Parks was strong in denunciation of the crime and said that he will do all in his power to help solve the mystery. He also urged the Texarkana Chamber of Commerce to call a mass meeting, which he will attend, to consider plans for rebuilding of the bridge.

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BROADWAY AT FIFTH

Improving Conditions In Highway Construction

By Thomas H. MacDonald, Chief, Bureau of Public Roads

You have asked me this question: What constructive steps have been taken to improve conditions in the production of public works, with particular reference to the production of highways?

The apparent attitude of the public, so far as I have been able to understand it in years of public service, is to demand contractors and engineers who can satisfactorily complete public works contracts, within the specified period and at reasonable prices. We approach neither of these two desirable ends by talking in a general way and so I will confine my remarks to a few specific propositions.

A BILLION DOLLAR EXPENDITURE

In the years of Federal Aid since I have been connected with the Bureau of Public Roads, we have had something over 18,000 projects, involving more than that number of separate contracts. Practically all of these contracts have been satisfactorily completed. There have been very few, proportionately, that were not satisfactorily completed in the end. We have paid out over \$800,000,000 for Federal Aid highways and bridges through the states; more than \$68,000,000 for forest highways; and \$11,000,000 for National Park highways, through the organization of the bureau. With an expenditure totaling nearly a billion dollars, we feel that we know something about contractors and their methods. It is a pleasure to be able to say there prevails throughout our organization an appreciation of the work and of the service that the contractors have given to the production of public roads in the United States; and further, without the hearty co-operation, loyalty, and spirit of public service that the contracting industry has put into this business, we would not have been able to make the progress that we have.

So that on the whole, my message is one of gratification and congratulation to the contracting industry, including both the material and the equipment men, as we all have a great appreciation for the remarkable development of modern construction equipment which has taken place.

THE CAUSES OF UNSATISFACTORY PROGRESS ON CONTRACTS

We receive each month from our districts, which cover all of the United States, a statement as to Federal Aid Projects which are unsatisfactory—on which progress has not been such as to complete within the time limit. For the present fiscal year, the cumulative reports show that the reasons for unsatisfactory progress, as detailed by our engineers in the field, have been:

	Per Cent
Labor shortage	0.5
Materials	1.2
Inadequate equipment	8.2
Financial	1.1
Management	52.7
Weather	26.4
Construction difficulties	6.0
Cause not stated	2.6
Preliminary difficulties	0.3
Legal	1.0

As you see over 75 per cent of the reported reasons for unsatisfactory progress revolve around the two items of management and weather. One of these can be largely controlled, while no contractor can entirely eliminate some of the weather vicissitudes. In approaching the question, this report in summary perhaps does not absolutely accurately detail the real reasons for delay in completion of work, but we regard it as reliably indicative.

There are two or three different lines of endeavor we have been promoting which we feel are directed toward the elimination of some of the difficulties of management, and may extend to obviate some of the slowing down due to the weather causes. I refer, first of all, to this matter of prequalification bidders.

THE COMPETITION OF EFFICIENCY

As one of our engineers suggested, the right to bid on public works seems to be a matter that the public feels is an inherent right of citizenship, along with the right to vote; and that any public official who dares to take the stand that a contractor ought to be reasonably qualified to perform before he bids upon a contract, large or small, is in some way entering into an intrigue to stifle competition. There can be no competition of inefficiency and efficiency, or between inefficiencies, that is helpful to the public. The only competition that can be helpful to the public is the competition of efficiency. And in the forest road work, and in the National Park



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road work we have for three years prequalified the contractors. The details have been well reported at other meetings, and I do not intend to go into the subject at any length. But I give you the results of the last two years.

PREQUALIFICATIONS OF CONTRACTORS

In 1928, we had 793 applications for prequalification blanks; and from that number qualified 189. The truly wholesome effect of this qualification of bidders seems to be that the man who is not financially qualified or properly equipped to conduct a contract comes to that realization when he quietly faces one of the prequalification blanks before he has put in a low bid. In the old days, as you know, the awakening came sometimes after making the low bid. Neither he nor the public official knew what to do about it, because after a low bid is once recorded in the minutes of the public body and repeated in the press, the public looks upon it as a nice juicy plum just within reach. If the public official takes it away by saying, "This man can't do the work at these prices—can't possibly do the work at these prices," the public mind at once is turned questioning toward his veracity. So the public official in self-protection hesitates to turn down the low bidder. Consequently, he is in a much better position if he never receives an unreasonably low bid than to have it entered in the record. There will always be those who feel, "Well, maybe we could have gotten satisfactory work at those prices," regardless of their impossibility.

So the important point to prequalification is that the man who would bid upon work faces the issue of responsibility before, and not after he has put in his bid. This seems to be all of the limitation of competition

that is involved. In 1929 we had 276 applications for blanks, and qualified 262. In other words, in two years, only 18 applications for prequalification were turned down; which was less than 4 per cent of the total number who applied.

With this record, I believe no one can truthfully say that prequalification limits competition. As I remarked before, there can be no competition that is of advantage to the public when inefficiency with inadequate equipment and inadequate financial resources is placed in competition with efficiency, adequate equipment and financial responsibility. The public would never benefit from competition of inefficiency with efficiency and the awarding of work to the inefficient contractor rather than the contractor who can and does satisfactorily perform his undertaking.

After prequalifying contractors, we received in 1928, 470 bids—1929, 393 bids. The average number of bidders at each letting in 1928, was 4.7 and in 1929, 5.4. In other words, five contractors bid for each job in each of the two years. There was only one default in each of the two years. In 1926, the first year preceding prequalification, we had six defaults. It seems to me that on the basis of the facts as I have given them, we need no other arguments for prequalification. We have also pretty well exploded, with the prequalification experience, the idea that any contractor who can furnish a bond is a properly equipped contractor.

CONTRACTOR'S BONDS

In common with many other public officials, I had reached the point several years ago of doubting whether

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we ought to continue to demand contractors' bonds. That is, we had come to the point where we were about ready to break away from the old established idea that the public should be protected by surety bonds, and to set up some other form of protection that should be less abused. There are today some conditions which are to be eliminated. May I say to you contractors assembled, that no contractor taking a Federal Aid contract has to take a bond from any particular company in any State in the Union. We occasionally get information that agents of bonding companies are trying to control contracts. They cannot control Federal Aid contracts in that way—if we know it. And I believe that the contractors ought to have enough back-bone to pass the information along to us if any attempts of this kind are made.

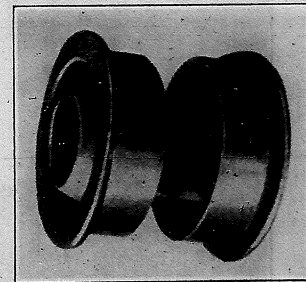
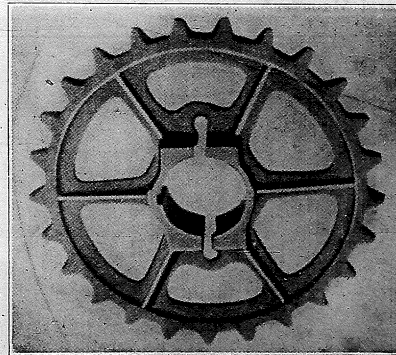
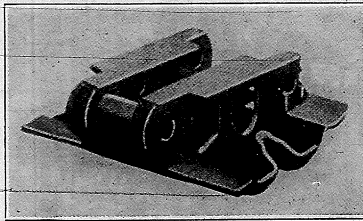
The best movement that has taken place to reinstate contractors' bonds to a favorable position in the minds of public officials is the establishment of the Bureau of Contract Information, under the general auspices of the Associated General Contractors. We will make progress by getting the facts, by the work that will be done through this bureau, and I am very much pleased with the support that this work is receiving from those who are in the position to give contract information in detail.

It seems to me that with the facts which are collected and made available through this bureau to the public official and others entitled to them, we will eliminate the inefficient contractor to a considerable extent and will help to stop some of the practices which very nearly destroyed public faith in contractors' bonds themselves.

As I say, there are still some spots to be cleared up in that field, and I only hope that the contractors will, through their own bureau and in other ways, help to weed out practices that are bad.

For example, we have a suit pending against us right now, brought by a bonding company on some work conducted by the Bureau of Public Roads in the days before prequalification. It was in the days when every contractor who could get a bond was a qualified contractor. We didn't want the contractor—he was not a real contractor, he had neither the equipment or the financial backing to support the job. He was able to induce a poor fellow to go into partnership with him and supply some financial backing, and had a bond written by the company which is now suing the government, through an agent whom it had expressly forbidden to write the bond. So, the bonding company, through the act of the agent, gave itself a contractor that it did not want, and gave the Bureau of Public Roads a contractor that we did not want. Nobody was pleased, unless it was the agent who got the commission on the bond, and as far as I know, he is the only one who made any money out of the deal.

And so, when I speak of bonding practices, I am not speaking of practices which may be ordered by the bonding companies themselves. There are bad practices which grow out of a failure to control the agents. The companies who issue bonds are responsible for their agents and must bring them under control. While there is no criticism of agents who earnestly pursue the business of writing bonds, we do not want these same agents engaging in the contracting field in attempts at politi-



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cal manipulations or otherwise blocking public officials in their efforts to conduct public lettings in a clean cut and wholly fair manner.

CONSTRUCTION MANAGEMENT STUDIES

In the setting up of the management studies being conducted under Mr. Allen of the Bureau of Public Roads we have taken a step that will be helpful in establishing better relationships between the contractors and public officials and their engineers. The bureau established these management studies with the idea of training young engineers to a greater understanding of the difficulties of production and the adequate methods by which to produce work, to secure a supply of such men to feed our engineering organization. It has been a time honored custom, as you know, to start the engineer at the end of a transit and level or pulling a chain, or over a drafting board. We have rather reversed this idea, and are starting our young engineers in the field, studying in co-operation with the contractors and the engineers in charge of the work the production of each part of the work in relation to the whole.

So we start our young engineers, each year, in the business of studying the production of roads and the contractual management. Referring back to these causes for inadequate progress on Federal Aid projects, management is listed as bearing the burden for over half of the slow or unsatisfactory progress.

Each year we pick out from the colleges twenty or thirty young men and, in co-operation with contractors who are interested in studying their own organization, we place these young men on the job to study each oper-

ation; to study the equipment relative to the key equipment on possible production. For example in concrete road production, the amount of concrete that the mixer can produce is considered the key to the plant production. We estimate the amount of concrete that can be put through the mixer with efficient management and against this measure the progress in all parts of the work.

IDLE EQUIPMENT

Some of you know of the results but it may surprise some that in a very careful study of more than 100 concrete jobs, we found that the contractors' equipment, due to major delays, that is, delays above 15 minutes each, was idle 40 per cent of the time. This was due to major delays, and take account only of the time elapsing after the crew was on the job and equipment assembled and ready to work. We found further that the second class of delays, the minor delays, amounted to another 16 per cent of the time. So you see that today the bids really are necessarily based on somewhere around 50 per cent of the efficiency of the key equipment.

This does not mean that we are able to get 100 per cent production; so it is not fair to use such figures to say that the contracting industry is only 50 per cent efficient. For example, just to illustrate the matter of major losses on concrete road production.

CAUSES OF DELAY

Rain accounted for 9½ per cent—this is an average for about 100 jobs, which varied all the way from inefficient jobs up to jobs that ran 90 per cent efficient.

JESS. B. KIRTEN, President and General Manager

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and wet subgrade 8 per cent. You see, there is 17½ per cent that probably could not be avoided. Lack of prepared subgrade—which could be avoided, 3 per cent; lack of materials, which could be avoided, 3½ per cent; moving plant set-up, 3½ per cent; inadequate supply and faulty operation of hauling equipment, 3 per cent; mixer trouble, 2 per cent; lack of water at mixer, 2 per cent; loading plant trouble, 1½ per cent, miscellaneous causes, 4 per cent; a total of 40 per cent, all exacting delays more than 15 minutes each in length. I am not going into that subject further. I am not only giving you this as indicative of the policy which we are pursuing, of attempting to feed men into the engineering organization of the Bureau of Public Roads after a training on production.

You will find through my talk that there has been no attempt to say that the engineer is perfect and the contractor is always wrong. We knew that while there may in some cases exist a feeling, sometimes on one side and sometimes on the other, that the other side is one hundred per cent wrong, after all the causes of difficulties are probably about equally divided. For example, until we started these management studies, we had not appreciated—and I confess it with some chagrin—that we may design a road so that the contractor with proper equipment can produce efficiency, or we make it impossible for him to use his equipment—any given equipment, efficiently. That is, we may design the cuts and fills so that the length of hauls so vary from day to day, that the number of wagons necessary to keep the shovel busy one day may be too many or too few for the next. The contractor then is bound to compromise, and to

have his whole equipment operating something under its efficiency, due to poor design by the engineer.

DESIGNING FOR EFFICIENCY

We cannot charge such results to the contractor if the engineer does not design the work so that the contractor can, with any given equipment, build efficiently. We have a long way to go in the engineering field to design with efficient production in view. All of these matters reach into important possibilities of reducing costs of public works production. Each of these—the prequalification of contractor; the eradication of the incompetent; better bonding practices that we are getting through the information supplied through the Bureau of Contract Information; the study by the engineers of their design for proper execution by the contractor; and the bringing of men into the engineering field who know the contractors' problems, sympathize with him, and can be helpful in solving them, are important advances toward better public service. These thoughts are expressed as the thoughts which we have with us all of the time in the conduct of this Federal Aid work. We appreciate that with the increase of \$50,000,000 in the Federal appropriation for this year we must have the friendly and vigorous co-operation of many more contractors than we have had before. We hope for attractive prices, of course, but we want to get these prices attractive to the public through efficiency of production, and not through loss to the contractor, or by throwing the work back on the bonding companies to complete.

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Newport Bridge Opened Formally

New White River Structure Dedicated With Colorful Pageantry

Following a moment of silent prayer and the sounding of "taps" for the nation's war dead, Miss Nora Armstrong, queen of the Jackson County centennial celebration and bridge dedication, cut the white satin ribbons across the new highway bridge over White River, formally opening it after a colorful ceremony on Wednesday morning, September 10.

Opening of the bridge followed coronation of the queen at the Missouri Pacific park by United States Senator T. H. Caraway and a pageant-parade depicting the progress of Jackson County during the last 100 years. The queen was presented by Col. W. H. Howze and Lieut. E. G. Wallace, United States Army, retired.

Hugh U. Williamson, as master of ceremonies, introduced the speakers, who were:

Oran J. Vaughan of Searcy, State Commander of the American Legion; former Gov. Charles H. Brough, personal representative of Governor Parnell, who was unable to attend; and Dwight Blackwood, chairman of the Arkansas Highway Commission.

At a banquet following the bridge opening, Justin Matthews, member of the Highway Commission, offered an explanation of why the Martineau law did not include bonds of bridge districts.

MR. MATTHEWS SPEAKS

Mr. Matthews said:

"The Martineau road law contemplated only building of bridges of ordinary cost and the building of such large structures as the one at Newport as toll bridges. Our road revenue receipts were such in the beginning that it would have been impossible for the State to have undertaken the payment of bridge bonds as well as road bonds and also to have built as free bridges the nine large toll bridges that now are completed or nearing completion.

"Inasmuch as our taxing bridge districts have been collecting taxes in practically every instance for five years or more, and inasmuch as our first State-owned toll bridges have been opened only this year, and as our road revenue will not be able to assume the entire burden at one time, I feel that the coming Legislature should make a start in this direction under a definite plan to eliminate ultimately both the taxes of the bridge dis-

tricts and tolls on toll bridges. The lands in taxing bridge districts should obtain relief first because they already have paid taxes for several years."

A crowd of about 7,500 persons attended the coronation and followed the parade of many decorated floats to the bridge for the dedication ceremony.

Three planes of the 154th Observation Squadron, Arkansas National Guard, dropped poppies on the bridge while the opening ceremony was in progress.

A fireworks display was given at the bridge that night, followed by a street dance and the queen's ball.

FIVE CONTRACTS AWARDED

On Thursday, September 18, the State Highway Commission awarded contracts for the construction of 19 miles of concrete paving and a 522-foot structural steel bridge across Fourche River in Scott County at a total cost of \$254,658.32. Bids were submitted on the five projects by twenty-seven contractors.

The projects and successful bidders follow:

Job No. 2137, State Highways Nos. 65 and 3—Approximately three and a half miles of grading and drainage structures and concrete paving on the Dollarway-Route No. 3 cut-off, Jefferson County, Sullivan, Long & Hagerty, Bessemer, Ala., \$68,375.56.

Job No. 2138, State Highway No. 65—Approximately one-half mile of grading, drainage structures and concrete paving on the Ohio Street connection (Pine Bluff) road, Jefferson County, J. P. McNulty, Pine Bluff, \$8,784.98.

Job No. 4153, State Highway No. 71—Approximately eight miles of grading, drainage structures and concrete paving on the Mountainburg-North and South road, Highway No. 71, Crawford County, Sandy Hites Company, Warsaw, Mo., \$76,932.60.

Job No. 10148, State Highway No. 67—Approximately seven miles of concrete pavement on the Hoxie-Alicia road, Lawrence County, J. B. McCrary Engineering Corporation, Atlanta, Ga., \$51,672.79.

Job No. 4155, State Highway No. 28—Approximately 522 lineal feet of structural steel bridge over the Fourche River on the Parkes-Gravelly road, in Scott County, Vincennes Bridge Company, Vincennes, Ind., \$48,892.39.

ASSESSMENT REDUCED

At a meeting of the Arkansas Tax Commission on Thursday, September 18, the assessment of the White and Black River Bridge Company, operator of the Des Arc toll bridge across White River and the Powhatan toll bridge across Black River, was reopened and the company's assessment was reduced from \$142,200 to \$128,200. The reduction was allowed on representation of the company that both bridges have been operating at a loss since their construction, members of the commission said.

The longest paved motor road in the world is said to be U. S. Route 40, from Wilmington, Delaware, to St. Mary's Kansas, a distance of 1,254 miles.

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Highway Construction In 1929

In 1929, the highway departments of the forty-eight States improved a total of 32,522 miles of State highways, according to reports received from the departments by the Bureau of Public Roads, U. S. Department of Agriculture. In the year they expended a total of \$910,485,291 for highways. They also reported a total of 314,136 miles of highways in the State systems at the end of 1929.

The total mileage improved is an increase of 3,270 miles over the 1928 figure, and includes 7,451 miles of graded and drained earth roads and 25,071 miles of new surfacing. New surfaces were placed on three types of roads—on unsurfaced roads, on roads already improved with a lower type of pavement, and on roads of the same type of surfacing, which is classed as reconstruction work. Of the 25,701 miles of new surfacing, 14,014 miles were laid on unsurfaced earth roads, 4,337 miles on a lower type of surfacing, and 6,720 miles on the same type of surfacing.

The types and mileages of new surfacing are as follows: sand-clay and topsoil, 2,399 miles; gravel, 12,183 miles; waterbound macadam (treated and untreated), 1,642 miles; bituminous macadam, 1,200 miles; sheet asphalt, 166 miles; bituminous concrete, 440 miles; Portland cement concrete, 6,991 miles; and brick and other block pavements, 100 miles.

The total of 314,136 miles in the State systems represents an increase of 7,694 miles over the 1928 figure, and includes 208,324 miles of surfaced highways, 28,553 miles of graded and drained roads, and 77,259 miles of unimproved and partly graded highways.

The surfaced mileage consists of 133,211 miles of low-type and 75,113 miles of high-type surfacing. The low-type surfaces include 15,442 miles of sand-clay and top-soil; 97,838 miles of gravel; and 19,931 miles of water-bound macadam. High-type surfaces include 14,043 miles of bituminous macadam; 1,498 miles of sheet asphalt; 5,722 miles of bituminous concrete; 50,584 miles of Portland cement concrete; and 3,266 miles of vitrified brick and other block pavements.

For construction and right-of-ways the State spent \$557,400,625; for maintenance, \$173,060,321; for equipment and machinery \$18,056,509; for interest on outstanding bonds and notes \$45,834,531, and for miscellaneous items, \$5,524,358. The states also paid out \$42,384,378 in retirement of the principal of outstanding bonds and notes and transferred \$45,791,374 to county and town funds for local roads. Other obligations assumed by the State highway departments amounted to \$22,433,195.

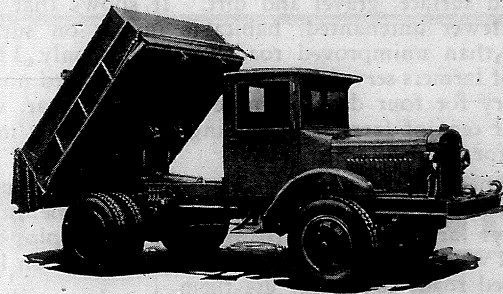
The total sum available to the 48 States for 1929 for State highway and bridge work under supervision of State highway departments (including bond payments and transfers to counties) amounted to \$1,194,775,026. This was made up of an unexpended balance of the previous year's funds of \$232,967,988, and an income of \$961,807,038. Of this sum, motor vehicle fees of \$278,092,734 and gasoline tax receipts of \$287,258,416 allotted to State highways represented more than 58 per cent. Sales of State bonds and notes issued for State highways amounted to \$161,229,297, or more than 16¾ per cent of the income. Federal-aid fund allotments of \$77,572,691 represented 8 per cent. High-

way taxes levied in several states amounted to \$11,431,349, and appropriations for highway funds by several states amounted to \$11,431,349, and appropriations for highway funds by several states totaled \$60,305,631. Miscellaneous income was reported at \$11,726,508, and funds transferred from local authorities as \$74,190,412. The states reported an unexpended balance of \$284,289,735, at the end of 1929.

The late Sam Davis, editor of the Carson Appeal, was known as the oracle of the Nevada Sagebrush. Once he was instructed by the San Francisco Examiner to meet Mme. Sarah Bernhardt at Reno and bring her over the mountains of California on her first tour of the western slope. Davis was a most likable person. The great French actress became so fond of him that thereafter she declined to be interviewed by any other newspaper man during her sojourn on the coast. If she had anything to say for publication, he said it for her. The day came when the train bearing her private car was about to start back East. As the locomotive bell was ringing, she put her hands upon his shoulders, kissed him upon either cheek, and then squarely upon the mouth, remarking as she did so, "The right cheek for the Carson Appeal, the left for the Examiner; the lips, my friend, for yourself."

"Madam," said Davis, without the slightest sign of bashfulness, "I also represent the Associated Press, which serves 380 papers west of the Mississippi River."

—Readers' Digest.



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SOUTHWEST ROAD SHOW AND SCHOOL

February 24, 25, 26, 27, 1931, are the dates for the Sixth Annual Southwest Road Show and School, to be staged at Wichita, Kansas, advised Mr. F. G. Wieland, manager.

The educational program will be arranged under the supervision of the Kansas State Highway Commission and the Kansas State Agricultural College in co-operation with the Highway Commission of the Southwest States, United States Bureau of Public Roads, Colleges and Universities.

This educational feature has attracted the attention of the entire Southwest to the extent that nine states surrounding the Show and School, not including the Colleges and Universities, had exhibits at the last School and required more than 16,000 square feet of space to take care of the educational exhibits alone. At this early a date, many have signified their intentions of exhibiting at the 1931 Exposition.

Additional floor space has been added to take care of the machinery, equipment, accessories, and material exhibits, which last year taxed the exhibit space to its limit.

Mr. Wieland anticipates that the interested attendance will exceed 25,000 at this Exposition as it has had an exceptional steady and rapid growth.

ROADS AND ECONOMICS

The effect of road conditions on the economic life of rural communities has been thoroughly studied by the Cornell University Agricultural Experiment Station.

This study deals with roads under three classifications—hard surface, gravel and dirt. It shows that there were fewer untenanted, habitable houses on surfaced roads than unimproved roads, and that only 13 per cent of farmers served by surfaced roads received no mail delivery for four days or more during the year, while 59 per cent of farmers depending on dirt roads missed mail for this period or longer.

Farmers on improved roads possessed more motor trucks than those on gravel or dirt roads. The number of days farmers on dirt roads could not employ their trucks was more than double the time farmers on hard-surfaced roads could not use them.

Of greater importance is the statement that, of farmers on hard-surfaced roads, only 12 per cent reported loss in marketing due to roads being blocked with snow, while on gravel and dirt roads 25 per cent and 61.7 per cent, respectively, reported loss from this cause. The estimated loss in dollars varied from \$100 to \$2,000.

Permanent farm relief will be secured when every State embarks on an intensive farm-to-market road building program. Transportation is said to be the life blood of industry and the same holds true for agriculture.

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Executive—“If you should enter this office tomorrow morning and find a wallet containing \$100,000, what would you do?”

Applicant—“What would I do? What would I do? I'd do nothing, and live on my income.”

—Wall Street Journal.

Not Him

“We are now passing the most famous brewery in Berlin,” explained the guide.

“We are not,” contradicted the American tourist, as he hopped off the sight-seeing bus.”—Aetna-izer.

Golfer—“Terrible links, caddy, terrible!”

Caddy—“Sorry, sir, these ain't links—you got off them an hour ago.”

Matter of Location

Small Boy—“Father, what do they mean when they say ‘Civic Pride?’”

Father—“Well, it's something like this. If the State institution for the demented is located in our own city we refer to it as the State hospital; if, however, it is located in another city, we call it the insane asylum.”

—Adv. Club News.

Not in Market

Office Boy—“There's a salesman outside with a mustache.”

Executive—“Tell him I've got a mustache.”

Southern California (home from a vacation trip out of the State)—“Ahhh! Doesn't the old bus ride nice, now that we've got the tires filled again with this wonderful Los Angeles air!”—De Laval Monthly.

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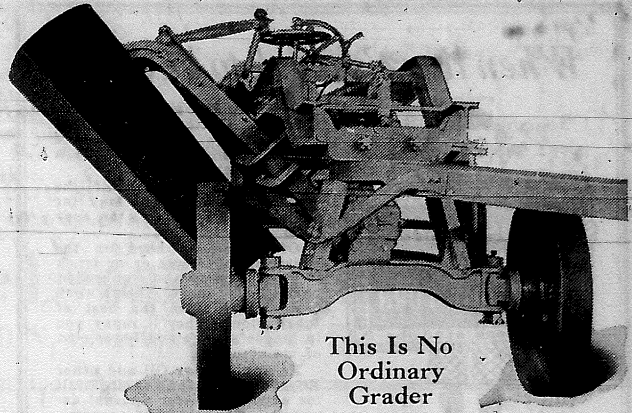
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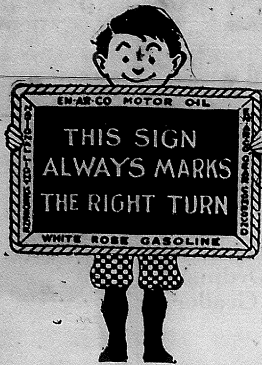
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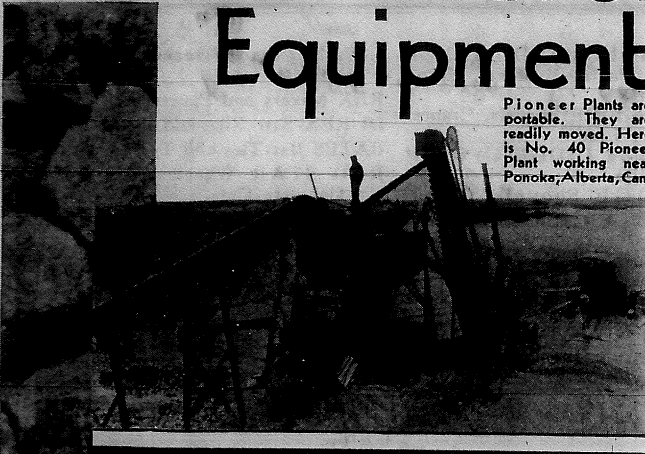
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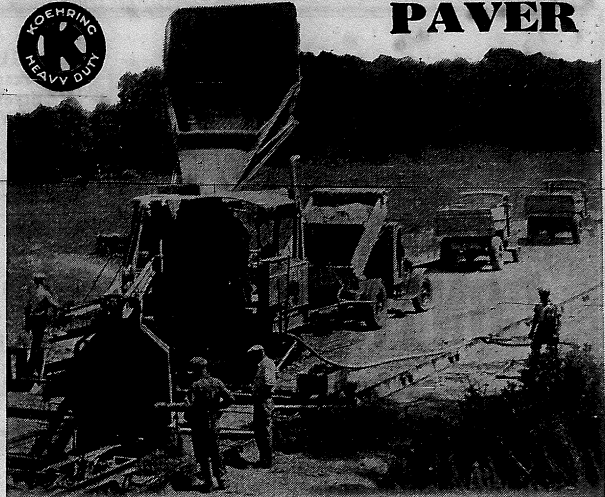
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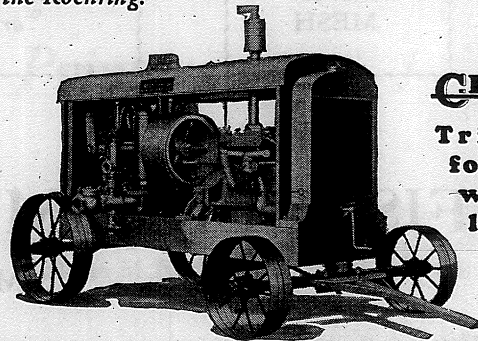
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A MERICAN railroads annually consume 25 per cent of the bituminous coal produced in the United States. They also consume approximately 20 per cent of the fuel oil, 20 per cent of the total timber cut and 16 to 20 per cent of the iron and steel output of the country.

Q The largest single item of expense for these four major commodities amounts to more than \$300,000,000 a year for bituminous coal. Timber, including cross ties, switch and bridge ties, and lumber costs the railroads more than \$160,000,000 annually. Steel rails cost approximately \$100,000,000 a year.

Q Exclusive of miscellaneous material and supplies such as lubricating oils and grease, ballast, electrical materials, commissary supplies, paints, chemicals, etc., American railroads annually expend about \$1,000,000,000 a year for coal, oil, forest products and iron and steel products and the miscellaneous group of items costs annually more than a third of a billion dollars.

Q The fuel bill of the American railroads has increased from \$250,000,000 a year in 1916 to more than \$350,000,000 annually in recent years and the cost of other materials and supplies has increased from approximately \$500,000,000 a year to more than \$1,000,000,000 a year.

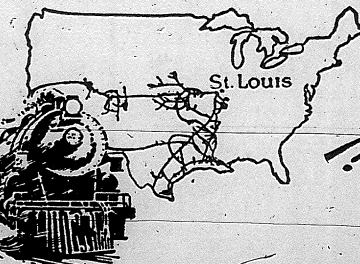
Q The foregoing figures are quoted to show the tremendous influence exerted by the railroads in fields outside those of transportation. When it is remembered also that the cost of labor on American railroads has increased from \$1,365,000,000 in 1916 to an amount nearly double, or slightly more than \$2,600,000,000 in 1929, it is easy to understand the extent to which the prosperity of this country is dependent upon the prosperity of the railroads.

Q Super excellent service which is so dependable that all business can be conducted with reduced inventories and with material savings also contributes immeasurably to what we are pleased to term the prosperity and development of the nation.

Q Regardless of temporary adjustments that may be necessary in the regulation of production and distribution, the American railroads will continue to be the best customer of American industry as well as the most indispensable servant of that industry and they will continue to provide an economic background for our national well-being in years to come as they have in years past.

Q The railroads have a profound appreciation of their responsibilities and they are striving to the extent of their abilities to fulfill those obligations. I feel that if the public also appreciates the extent to which this country is dependent upon railroads, the sympathetic understanding and support of the American people will be what it should.

I solicit your co-operation and assistance.

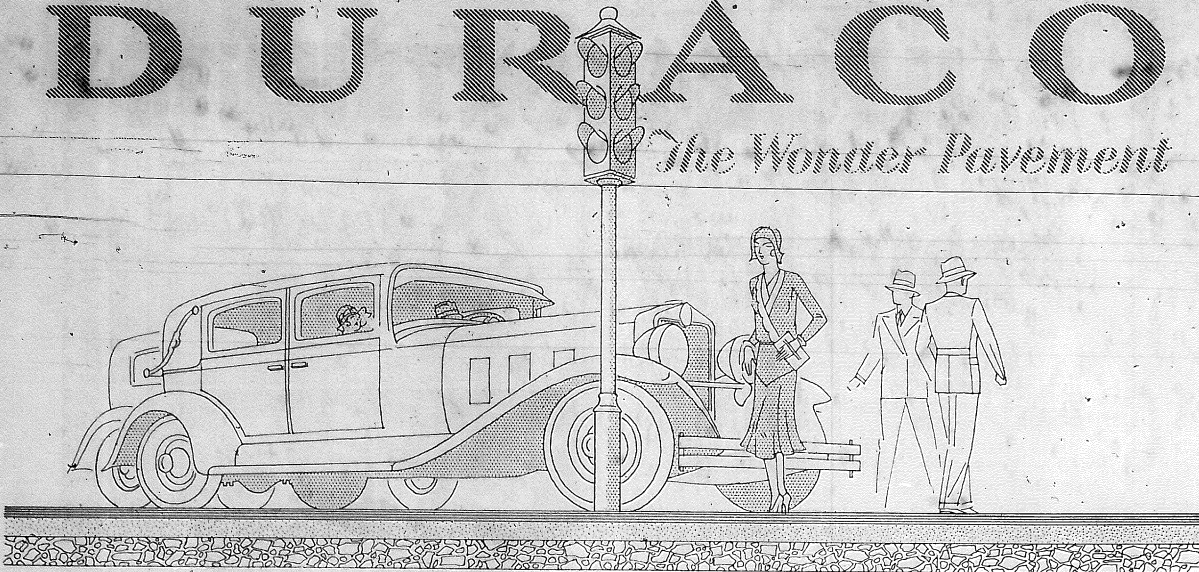


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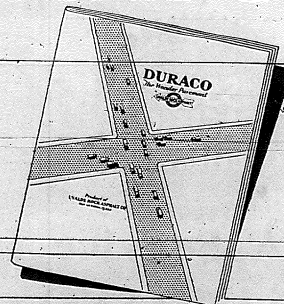
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