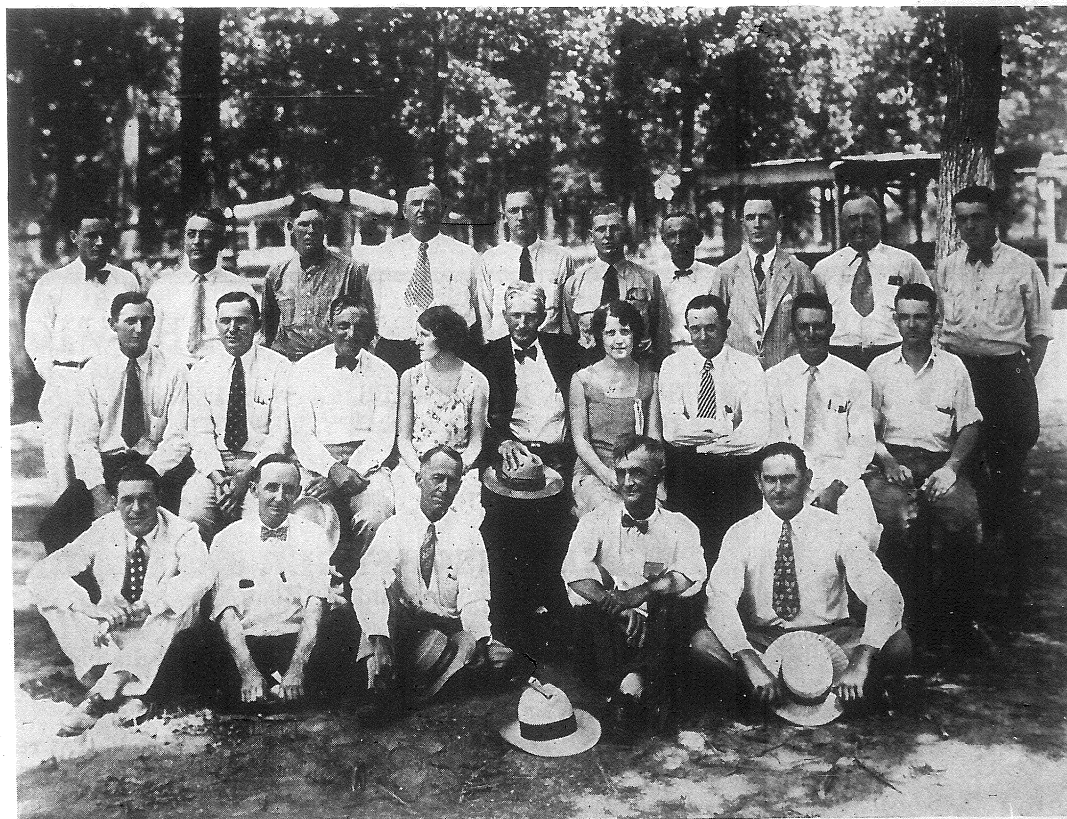


# ARKANSAS HIGHWAYS

The Official Magazine of the Arkansas  
State Highway Department, Little Rock



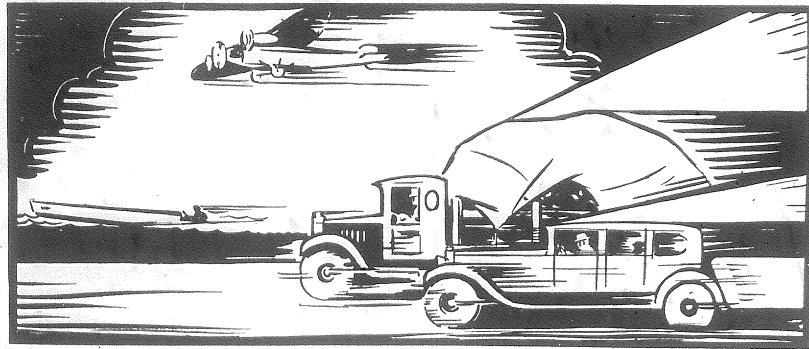
HOPE DISTRICT OFFICE FORCES

Vol. 6

DEC. • 1929

No. 12

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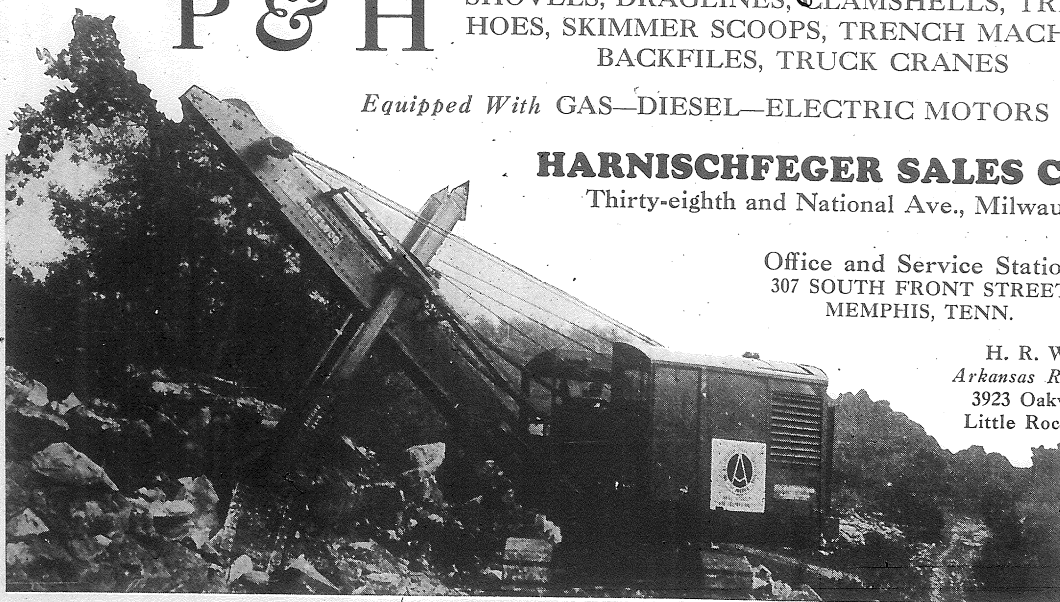
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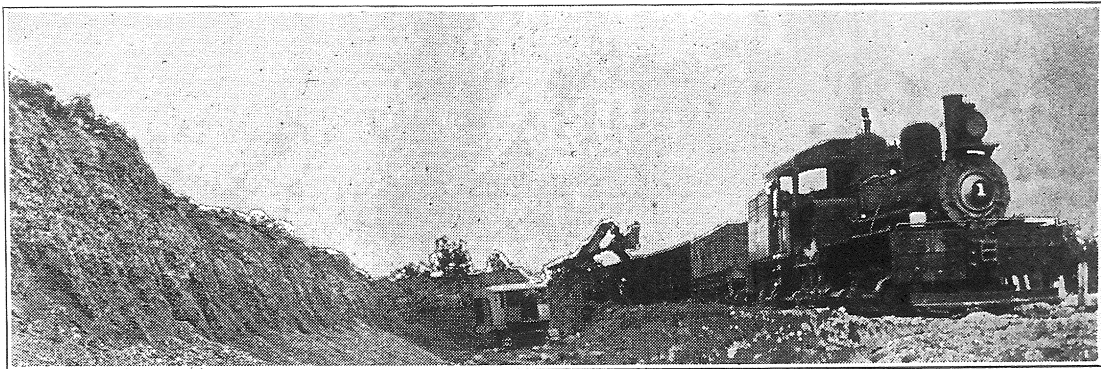
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WRITE FOR CATALOG



# ARKANSAS HIGHWAYS

*Official Monthly  
Magazine*



*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. VI

DECEMBER, 1929

No. 12

## Right-of-Way Disputes and Highway Progress

By DWIGHT H. BLACKWOOD, Chairman of the Arkansas Highway Commission

In pushing forward the present highway construction program, there have been comparatively few tie-ups on account of right-of-way.

This happy, and somewhat surprising situation, doubtless has resulted from the general approval of the program, and the force of public opinion which has kept otherwise contentious individual property owners from obstructing our progress unduly through unreasonable demands. Communities which are tremendously interested in the building of a new highway which will link them up with the State system usually are on the alert to prevent obstruction by individuals who want to make a tidy sum for themselves.

There have been instances, however, and one or two horrible examples now are pending, in which the construction of much-needed units of the State system is being delayed by persons whose land has suddenly acquired, in their own minds, a value not justified by adjacent prices.

Under a law passed by the last General Assembly, Act No. 205 of 1929, ample powers of condemnation and purchase of lands for rights-of-way now lie in the hands of the State Highway Commission, in cases where the county courts, for one reason or another, fail to



function in the procurement of the needed lands.

The method of fixing the price of the lands is so prescribed as to make it impossible for a highly fictitious value to be placed upon them by the owner. Court processes also are speeded up, so that in cases of emergency, quick action can be secured.

The Highway Commission, however, prefers to have no disputes, where it is possible to avoid them, and gives preference in the pushing forward of the work to those projects in which the local communities voluntarily have come forward with rights-of-way free from any possibility of litigation. In one recent, outstanding case, it appears that the construction of an important highway, already planned and contracted for, will be delayed while our engineers back up and survey a new route, on which there will be no question about right-of-way disputes.

One sure way to guarantee the uninterrupted highway progress of your particular section is to see to it that all the folks learn to think and talk sense about right-of-way values.

After all, what will the rest of the land be worth, if the State Highway goes some other way through somebody's would-be greediness for right-of-way profits?

## Low Cost Methods of Surface Treating Studied

Situation in Arkansas Lends Interest to Federal Bureau of Public Roads' Proposed Survey

Because of the situation which will confront the Arkansas Highway Commission during the coming year in the temporary saving of cheap rock and gravel surfaces until revenues will justify permanent concreting or asphaltting, there is much interest in a study that is to be made by the United States Bureau of Public Roads of various low-cost methods of seal-coating that will prove economical and satisfactory.

According to H. S. Fairbank, an engineer of the Bureau, who discussed the question before the recent asphalt paving conference at West Baden, Indiana, there are hundreds of thousands of miles of gravel, rock, sand-clay and top-soil highways on the Federal system which demand some such low-cost treatment.

These highways, of which Arkansas has a considerable mileage, have sufficient traffic to require a smooth and dustless surface, but not enough as yet to warrant the expenditure of the large sums necessary for standard cement or asphalt paving.

According to Mr. Fairbank, a joint technical committee representing the asphalt industry and the Federal Bureau is to make a detailed study of the results of the methods of bituminous treatment developed in many parts of the country, to study the efficacy of the methods of applying and mixing asphalt and aggregates, to analyze the asphaltic materials actually used in work done to date and all available materials which might be used, and to build and study experimental roads of various types. Some of this work has been under way for some time.

A detailed analysis of the methods, material, cost and service of the various types of low-cost surfaces thus far developed in various localities will be made. Among the types to be studied are the sand-clay and topsoil surface treatments in the southeastern States; sand-asphalt surfaces in Massachusetts, North Carolina and other States; bituminous treatments of clay roads in Illinois and elsewhere; the retread method of Indiana and somewhat similar treatment of stone roads in other States; the so-called blotter treatment of gravel roads in Minnesota and adjacent States; oiled sand roads in California, Nebraska, Nevada, and elsewhere; and in the mixed-in-place treatment of fine-crushed rock and gravel surfaces, which has reached its highest development in the western States.

Studies have already been made of surfacing treatments of sand-clay and top-soil in Florida and South Carolina, and also of oil treatments of clay roads in Illinois and of the retreat method in Indiana. The data gathered by engineers of the Bureau, the asphalt indus-

try, and the respective States, are being analyzed and reports on the three types will be published shortly.

Studies of the efficiency of construction methods and equipment are being conducted by the Bureau with the advice and assistance of the asphalt industry. These studies are similar to those previously made by the Bureau in grading and concrete and bituminous pavement construction.

The study and analysis of the available bituminous materials is the particular responsibility of the industry, under the plan of co-operation that has been agreed upon.

The construction and study of experimental roads has been started and will be actively prosecuted, mainly by the Bureau of Public Roads, in co-operation with several of the State highway departments, but always with the active assistance and advice of representatives of the asphalt industry.

Three experiments are now in progress. One is the continuation of surface treatments of top-soil in South Carolina; another is a series of experiments in California involving the treatment of fine-crushed rock and gravel surfaces with several types of bituminous materials by surface treatment and mixing-in-place; the third is a series of experiments in the treatment of sandy soil in the sand-hill section of Nebraska with various asphaltic materials.

About six years ago the Bureau first became interested in the development of low-cost surfacings, using bituminous materials to lay the dust and reduce the loss of surfacing material. At that time increase in traffic on the forest roads, which had been constructed under supervision of the Bureau, gave rise to a dust-nuisance and loss of surfacing material. The forest roads had a surfacing of finely crushed rock or gravel, which had been adequate for traffic up to that time. A similar type of surface had been adopted by a number of the western States and a rather considerable mileage had been built.

Oregon and California took the lead in the experimental use of petroleum oils by various methods. Later the Bureau joined with the California highway department in an investigation of the various methods that had been tried with a view to ascertaining what methods or combination of methods and materials would afford the greatest relief. At about the same time the Bureau was co-operating with the highway commission of South Carolina in similar experiments of top-soil roads.

### FORD EFFICIENCY

It seems that one of the employes of Henry Ford dreamed that Henry died. He dreamed that he saw the black casket being borne by six of Henry's oldest and most faithful employes. As the casket came by, Henry raised up, looked around, and offered the following suggestion:

"If you would put rollers under this casket, you could lay off five men."

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## Hot Springs Proud of Big New Glenwood Bridge

Citizens Turn Out in Large Numbers for Barbecue and Celebration of Recent Opening

Dwight H. Blackwood and Justin Matthews of the Arkansas State Highway Commission, with virtually all the other officials, engineers and contractors having any part in the building of the big bridge over the Ouachita River on the Glenwood road just completed by the Lutten Bridge Company were entertained recently at a monster barbecue staged by the Chamber of Commerce of Hot Springs at the bridge site.

More than 2,000 pounds of pit barbecue, pigs, lambs and beeves, was necessary for the feeding of the great throng which gathered from all parts of Central Arkansas for the event, and the barbecue committee headed by Will Lake, dished out 150 gallons of coffee to "wash it down." Unlike many large events of the kind, however, the supply of food was ample and all were taken care of.

W. G. Bouic, prosecuting attorney, was master of ceremonies, other branches of the arrangements being handled by Robert A. Jones, F. Leslie Body, Sheriff Garland Van Sickle, Gilbert Hogaboom, T. K. Martin, George Ellenbrook and Harvey Haley.

Speakers included County Judge Charles Davis, Harvey C. Couch, Dwight H. Blackwood and Justin Matthews. Mr. Couch was given an enthusiastic "hand" when Chairman Bouic, Mr. Blackwood and other speakers told of the participation of his company, the Arkansas Power and Light Company, in the cost of the bridge, which was built many feet higher than had been planned, to take care of the impounded waters of Lake Hamilton, soon to be created by the construction, below the bridge, of Carpenter Dam, a hydro-electric project.

Mr. Matthews went into interesting detail concerning the building of the bridge, declaring it of such a design of steel and concrete as to assure its permanence for several thousands of years. He also told of the work and plans of the Highway Commission for early completion of various trunk highways across the State.

Mr. Blackwood, while declaring himself gratified at the enthusiasm shown by the people of Hot Springs over the opening of the bridge, said the rejoicing was not confined to the immediate section.

"News of the opening of this great structure," he said, "has been received throughout the State with general acclaim for the reason that it is regarded as significant of the stage of progress which we have reached in our State-wide highway program.

"Since the actual beginning of construction activities under the Martineau law in July, 1927, we have passed the half-way mark of the four-year program to which the State dedicated its intensive effort when the new road law was formulated and adopted as the ruling policy of our government.

"In so ambitious a program as was undertaken at that time it was only natural that there should be a period of preliminary organization work in which but little actual accomplishment might be pointed out. It was, therefore, quite some time after the launching of the program that actual activities could be begun. The situation was further complicated and the inevitable

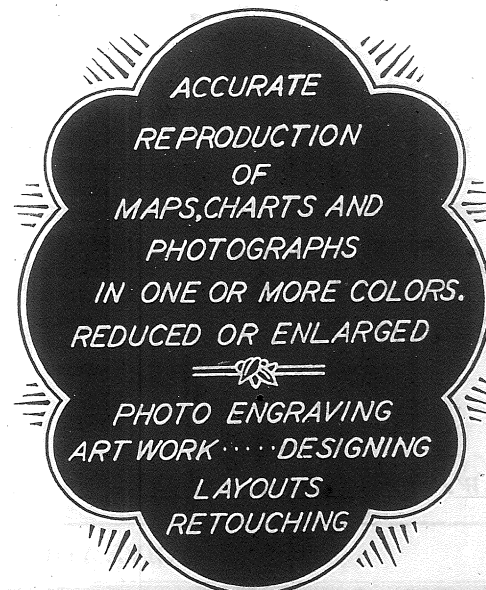
delay prolonged as the result of the unprecedented flood conditions which prevailed just at that time and which wiped out much of the good work that had previously been done on our State highway system.

"It is only now, therefore, that the machinery necessary for our State-wide program is beginning to function at full speed and complete efficiency and that here and there outstanding examples of the actual results may be pointed out.

"This beautiful Ouachita bridge, which in future years will mean so much to Hot Springs, is one of the first completed jobs of major importance. Hence the State-wide significance of your celebration. In the opening of this great and permanent structure, anchored to the bed-rock of your native granite and built of imperishable steel and concrete along engineering lines of superlative beauty and dedicated to the free use of the traveling public for all time, Arkansas sees the first tangible evidence of the wisdom and the practicability of the great constructive program to which our resources and energies have been irrevocably committed.

"What has been done here will of course be duplicated in many other parts of the State. Perhaps with the progress of the work even greater and more beautiful structures may be thrown across our streams, but nowhere in any part of our program will there be a more significant event or one more calculated to inspire the confidence of our people in our highway program than the one which is here celebrated.

## PEERLESS ENGRAVING CO.



"At every stage of the proceeding from the designing of the bridge by one of your citizens, Ira G. Hedrick, nationally known bridge engineer, to its completion by the contractors, the Lutén Bridge Company, of Little Rock, the plans of the department have been prosecuted more economically and more successfully than we had a right to expect.

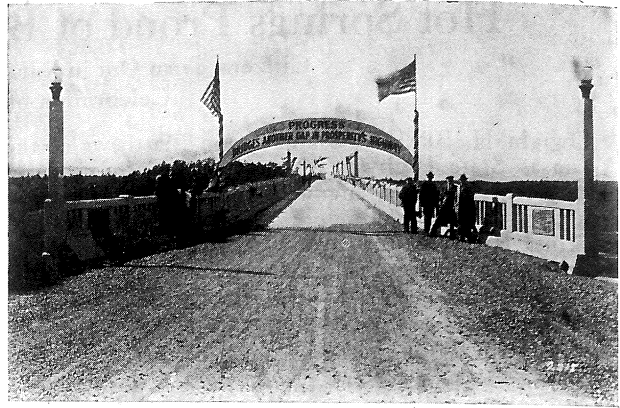
"Bidding on the contract was very spirited. Competition among contractors was very keen due, doubtless, to what all felt would be the great advertising value of such a structure located within four-and-one-half miles of a national health resort. At any rate and from whatever cause, the job was awarded and the structure completed at a price to the people of the State approximately fifteen per cent less than it had been estimated by our own engineering forces that the bridge would cost. The final figures, which were \$232,339.34 are conceded by all to represent in this great structure one of the best "buys" ever made by any State under similar conditions.

"There were many conversant with construction costs who predicted that the successful bidder would "go broke" as the result of the very low terms of his bid. However, such was not the case, and by rigid economy and by the most admirable efficiency of its organization, the Lutén Company has completed the work within the limits of its contract.

"A few days over one year were required for the completion of the structure, from the breaking of ground for the foundation on May 2, 1928, to the official acceptance by the State Highway Department on May 20, 1929.

"The construction of the Carpenter Dam across the Ouachita below the bridge by the Arkansas Power and Light Company, necessitated the raising of the bridge and the road which approaches it considerably above the level which otherwise would have been necessary and in view of this fact a substantial portion of the cost of the bridge has been borne by the utility company. Hot Springs, itself, however, will be the principal beneficiary of this situation as the waters of Lake Hamilton, bridged by so beautiful a structure, must soon become popular as both a summer and winter resort known throughout the country and attracting tourists in increasing volume to this section.

"As I have pointed out, the completion of the Ouachita bridge is only a type or symbol of what is going on all over the State. During the two-year period of ac-



"All Dressed Up for the Barbecue"

tual construction under the present program the State Highway Department has completed or has definitely under way road and bridge contracts representing an expenditure of approximately \$40,000,000. This includes work done or contracted to be done on 6,223 miles of road and approximately twenty-four miles of free bridges. It does not include any of the eight toll bridges now projected for river crossings previously served only by expensive and dangerous ferries.

"The twenty-four miles of bridge work which I have mentioned itself represents an expenditure of approximately \$7,000,000, including everything from timber-treated bridges on up to the very highest type of steel and concrete designs exemplified by the Ouachita structure.

"Among these latter types another similar structure is of equal significance and familiarity to the people of Hot Springs. That is the Ouachita river bridge on the Arkadelphia road recently completed by the Koss Construction Company. This bridge also was designed by Mr. Hedrick, and is almost a "twin" structure to the one on the Glenwood road.

"Of the 6,223 miles of road work mentioned, 3,500 miles has been the grading and drainage work which is necessarily the first step in the construction of a permanent highway. While it represents a large proportion of the total cost of such permanent highway, it is not until the dump has settled that the permanent surface can be laid and the work actually made permanently and pleasantly useful to the traveling public. Hence it

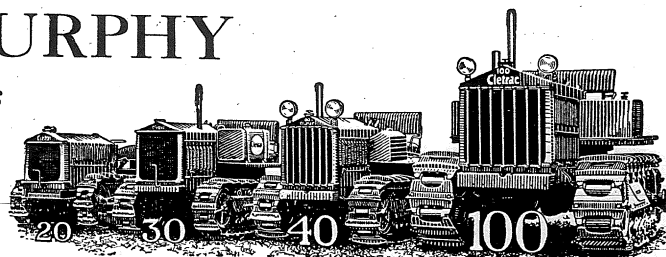
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is that in many instances, up until the very last step has been taken, the laying of the surface, either of concrete, asphalt or gravel, the public can see very little return for its money and often is disposed hastily to say that no work has been done on such and such a road, although vast sums have been expended.

"Of the remainder of the 6,223 miles of highway mentioned, 2,500 miles has been gravel surfaced and approximately 300 miles of high-type concrete has been laid. The slight difference in totals of the items enumerated is due to the fact that in some places conditions were right for the immediate surfacing of roads that had been graded and drained.

In any estimate of the work which has been done it is well to recall that there are approximately 9,000 miles of road on the State highway system. Of this, a little more than two-thirds has been reached and measurably improved as we pass the half-way mark of the four-year program originally contemplated under the Martineau law.

"Of the approximately 2,500 miles of gravel surfacing mentioned 1,500 miles has actually been completed and approximately 1,000 miles is under construction.

"Other items in the same detail include concrete paving, completed 102 miles; under construction, 51 miles. Reinforced concrete bridges, completed, 155, totaling 21,575 feet, under construction 151, totaling 28,168.

"Concrete bridges with steel spans completed, 12, totaling 3,750 feet, under construction 16, totaling 6,417 feet.

"All-steel bridges completed 2,159 feet; under construction one, 83 feet. Creosoted timber bridges completed 254, totaling 27,641 feet; under construction 107, totaling 14,903 feet.

"Untreated timber bridges completed 12, totaling 14,903 feet.

"Untreated timber bridges completed 12, totaling 1,455 feet.

"With this look at the accomplishments of the past two years, people of the State will naturally be interested in a glimpse of the future. Considering the large amount of foundation work completed, including the throwing up of new dump, grading and alignment and the building of permanent drainage substructures, the next two years may be expected to produce much greater results from the viewpoint of the traveling public than have been accomplished up to the present. This for the reason, that as I have already shown, the public is not

very much interested in, and often is seriously inconvenienced by, the early stages of the construction of a highway. During the next two years a great mileage of highway dump which could not be permanently surfaced until it had had opportunity to weather and settle will be given the permanent surface of concrete, asphalt or gravel which will open it up and make it a real joy to the traveling public. Then and not till then will much of the work which the State Highway Department has already accomplished under the Martineau law be appreciated and properly valued by the Arkansas public.

"It is only human to fail in many instances to appreciate the value of preliminary work and it is easy for the traveler when inconvenienced by the necessity for traveling over a freshly made dump or to use a difficult detour to throw up his hands and ask the silent heavens or the nearest roadside audience the often repeated question, 'Where in the ----- is our highway money going?'

"To one who analyzes the actual figures to date, however, honestly and dispassionately, it is easy to see what great strides have been taken toward actually lifting our State out of the mud and that in its very nature the program now under way inevitably will increase in its momentum and effectiveness if only it is continually and consistently backed by the militant good road sentiment which made the Martineau law and is continuing to make possible its very effective administration."

#### A EUROPEAN HIGHWAY

A fine, paved highway is planned to extend from Paris to Constantinople in Europe, with possible future extension through Asia.

"The provision of automobile highways," says an American who has been conducting negotiations with the Turkish government, "is of equal importance with the improvement of railroad facilities. A straight-line concrete, high-speed highway between Paris and Constantinople would bring untold benefits to the countries through which it would pass.

"In the United States we have succeeded in spanning the continent from east to west and from north to south with the Lincoln, Dixie and other noted highways."

When the people of Europe get the motoring habit that Americans have, and go touring in their flivvers for their vacations, peace movements should receive quite a boost. Such traveling makes for understanding and liking.—*Little Falls Transcript.*

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## Airport Engineer of Department Cooperates in State Program

Charles W. Holderbaum Meets With National Aeronautical Association  
in Discussion of Airport System

At an important meeting held recently at the Albert Pike Hotel in Little Rock, under the auspices of the Little Rock Chapter of the National Aeronautical Association, at which several important figures in aviation were present, Charles W. Holderbaum, airport engineer of the State Highway Department and the Arkansas Aircraft Board, discussed tentative outlines of plans for the encouragement of a system of airways which will be of great value in the attraction to this State of passenger and commercial aircraft lines.

Mr. Holderbaum's plan contemplates the co-ordination of the proposed system of airports with the State's main highways, in order to assure the easy accessibility of airlines to automobile traffic.

W. J. Mackenzie, airport specialist for the Department of Commerce, spoke of the prime necessity of educating the people to the high standards demanded by the modern air-liner. He told of systems of airports in other sections of the country which have intermediate fields at intervals of 30 miles and weather observation points from 125 to 150 miles apart.

Mr. Mackenzie commended Mayor Pat L. Robinson of Little Rock for his active campaign in behalf of a 640-acre modern airport for Little Rock. He explained why he could not approve of a site less than 600 acres in area for a city of the size of Little Rock.

Representatives of practically all of the civic organizations in Little Rock participated in the meeting and agreed to support an educational campaign suggested by Robert B. Snowden, Jr., head of the Command-Aire factory and school in Little Rock, to acquaint the people with the general features of the program and the ways in which they can co-operate.

In addition to Mr. Holderbaum, Mr. Mackenzie, Mr. Snowden and Mayor Pat Robinson, those who spoke included Felix Smart of Pine Bluff, a member of Arkansas Aircraft Board; Wright Vermilya, aviation instructor, Cincinnati; Moorhead Wright, Fred I. Brown and Dudley V. Haddock of Little Rock.

Under a law passed by the last General Assembly the State Highway Department is required to designate an engineer to co-operate with local authorities in the laying out of airports and the use of State Highway equipment was pledged in aid of local communities participating in the movement for the establishment of modern airports throughout the State.

### OUR COVER PAGE

The good-looking group on the front page comprises the highway force operating under Major R. B. Stanford in District No. 3. The personnel shown is as follows:

Front row, left to right: B. B. Brown, Construction Engineer, Hope, Ark.; Stith Davenport, Auditor, Hope, Ark.; Chas. Cutler, Resident Engineer, Arkadelphia, Ark.; Chas. McLarey, Asst. Maintenance Supervisor, Saratoga, Ark.; B. C. Lewis, Chief Location Engineer, Hope, Ark.

Second row, left to right: J. R. Henderson, Resident Engineer, Amity, Ark.; Roy L. Coulter, Resident Engineer, Washington, Ark.; Hayden Hancock, Resident Engineer, Glenwood, Ark.; Byrdie Card, Stenographer, Hope, Ark.; Major Richard B. Stanford, District Engineer, Hope, Ark.; Opal Rankin, Chief Clerk, Hope, Ark.; Frank Witte, Material Inspector, Hope, Ark.; G. E. Williams, Resident Engineer, Nashville, Ark.; C. A. Shumaker, Resident Engineer, Prescott, Ark.

Third row, left to right: J. P. Beale, Resident Engineer, Lockesburg, Ark.; Brown Arnold, Assistant Maintenance Supervisor, Gurdon, Ark.; J. L. Tedder, Master Mechanic, Hope, Ark.; W. E. Kinard, Maintenance Supervisor, Hope, Ark.; J. D. Hamilton, Resident Engineer, Hope, Ark.; P. E. Gurvin, Resident Engineer, Hope, Ark.; W. B. Perkins, Resident Engineer, Texarkana, Ark.; J. B. Howard, Engineer of Plans and Surveys, Hope, Ark.; L. A. McClendon, Maintenance Inspector, Lewisville, Ark.; J. R. Scott, Resident Engineer, Prescott, Ark.

The Delaware Legislature has passed a new motor vehicle act closely approximating what is known as the Hoover Code. The maximum truck and bus load was increased from 22,000 to 24,000 pounds for pneumatic tires, and a gross load of 36,000 pounds established for six-wheel vehicles.

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BROADWAY AT FIFTH



## "A Deceptive Phrase In Road Building"

By James W. Brooks, Director, American Highway Educational Bureau, Washington, D. C.

From the passage of the first highway law at Jamestown in 1632 down to this good hour, the whole course of highway progress is strewn, in a figurative sense, with the debris of impractical ideas. No sooner was one illusion dispelled than another showed up, until by and by the first illusion was back again, clothed in its customary habiliments of false logic. Experiments, legislative and otherwise, have cost the taxpayers of this country a pretty penny, and it is not amiss to be on guard against the deceptive phrases in highway educational work which tend toward wasteful and altogether impractical highway investments.

One illusion which has been laid low many times in State and national legislative debate on highway matters during the past twelve years, again threatens to show up, and will result only in confusion in the public mind as to what constitutes true highway progress.

This illusion is cloaked as before in the misleading phrase of "farm to market" roads and carries with it an implication that the farmer's interests are not being taken care of properly, that he is being left in the mud, while roads are being built elsewhere, despite the fact that every road is a farm to market road, regardless of whether construction starts at the farmer's gate or at the more logical point where tonnage begins to converge and increase on the way to his trading point. It is his road and his neighbor's road all the way. The phrase is demagogic in the extreme, whether its aim be political or otherwise. That any plan which has for its main objective the securing of Federal-aid on back roads is impossible of practical fulfillment at the present stage in road building, may be seen readily from a glance at the back road.

The impossibility of the practical fulfillment of a plan of this kind is readily seen when the details are given sufficient study. In the first place, there are approximately 1,270,000 miles of mail route roads. If \$225,000,000 should be appropriated to cover a three-year period as has been proposed in Congress with the aim of creating a secondary Federal-aid zone in road building, the amount which might thus be made available for back roads would not approximate over \$320.00 per mile per year, taking Federal-aid and the State's share together. The per mile fund so provided would be less than the annual per mile maintenance cost on the type of road which so limited a fund would be able to buy. And this does not take into consideration the fact that in appropriating Federal funds for highways, it is required that the money must be spent under Federal and State supervision, which naturally would entail additional expense on the part of Federal and State governments, so that the money referred to could not all be expended on the highway.

The impracticability of the plan is readily apparent and would really defeat the purpose for which even its friends contemplate. Besides, this proposed plan would naturally take from the Federal treasury funds that should be expended in completing the main system already under construction, every mile of which is a "farm to market" road.

Altogether, such a step would lead back to the very thing which caused many States to embody in their re-

spective constitutions the inhibition, as it was usually termed, against pledging the State's credit to so perishable a project as an earth road. It required hard work and many legislative sessions throughout the country to remove these constitutional limitations in order to obtain capital for modern construction, and it is not to be expected that the government, Federal or State, will be led back to the making of ephemeral highway investments of this character.

### PINE BLUFF INDUSTRY EXPANDS

Announcement has just been made of an extensive expansion program to be carried out during the coming year by the Finished Steel Products Company of Pine Bluff, Arkansas, manufacturers of brakeshoes and iron and steel repair parts for highway tractors.

This company, formerly known as the Standard Brakeshoe and Foundry Company, has been numbered for several years among the most consistent advertisers in "Arkansas Highways" and it is with great pleasure that we hear of the increased business which has made the expansion necessary. The plant is located in the northwest suburbs of Pine Bluff where several acres of adjacent land providing space for the expansion have recently been purchased.

## "DECEMBER ROADS"

An Editorial Worth Reading from  
"The American Motorist"

On every side are the harsh outlines of a world unadorned,

Scars bitten deep into hillsides by the teeth of floods,  
Trees stripped bare of all that fairy finery which so short time ago came from the looms of spring and summer.

And fields gray and cold, grim playgrounds for whistling wind and whirling snow—

A panorama eloquent of solitude and despair.

But at the end of the road is a home whose yellow-lighted windows thrust beckoning fingers across the murk of early evening,

And within the house the family chorus shot through with child laughter, and the magic of leaping flames on the hearth, and the loving welcome to warmth and happiness.

Thus December roads are a picture of the lives we have to live:

—These same roads are but a continuation of summer's trails, and from the loveliness of summer we come upon the harsh trails of winter, only to find that this very harshness puts an emphasis upon men's ability to conquer it and, in the midst of it, build up palaces of peace and plenty.

December roads! They are a reminder of beauties we have known and a promise of that new loveliness which even now the spring prepares to parade before our eager eyes.

## Auto License Fees Remain The Same As Last Year

Under Opinion of Attorney General Norwood, Commissioner Dwight Blackwood Nullifies Higher Rates Prescribed by Last Legislature

In spite of the fact that the last session of the General Assembly made changes in the law increasing annual license fees on smaller trucks and on heavier types of passenger cars, no licenses collected by the department in 1930 will be higher than those collected this year, according to a statement issued last week by Dwight H. Blackwood, chairman of the Arkansas Highway Commission.

Chairman Blackwood, after careful study of the new schedule reached the conclusion that it would be discriminatory and called on General Norwood for an opinion supporting his position.

Under the opinion, officials of the Highway Department find that instead of increasing any licenses, slight decreases should be shown on some of the smaller trucks which have previously been improperly classified.

Chairman Blackwood said:

"The commission ruled that vehicles formerly classified as trucks requiring one-half-ton license are not correctly classified. For example: Ford roadsters with the turtle back removed and what is commonly called the slip-on body in its place, have been classified by the commission as roadsters and not one-half-ton trucks. This virtually amounts to a decrease in the cost of li-

censes on what were last year listed as one-half-ton trucks.

"Full explanation of these classifications has been mailed the sheriffs and collectors and the public should be informed of the correction of the statement that any motor vehicle licenses have been increased."

### HIGHWAYS HAVE SPIRITUAL VALUE

"Highways cannot be valued alone by their cost or by their saving in dollars and cents in the cost of transportation. It has been rather successfully proved that a hard-surfaced highway is a paying investment to the public in what it saves in the cost of transportation, but the benefits of a connected system of highways extend in so many different directions and so far that it is impossible to name every resulting good. The expression may sound odd, but good highways have a spiritual value to the community, in the opportunity afforded the citizenry to intermingle and acquire education through travel. We want more roads in this generation, more roads per dollar, and Texas out of the mud in five or ten years."—*Extract from inaugural message of Governor Dan Moody of Texas.*

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## Railroads Co-operating In Improvement of Grade Crossings

Standard Plans Worked Out by Highway Department Being  
Adopted by Railroad Engineers

While the complete elimination of the highway-railroad grade crossing is an objective toward which the Arkansas Highway Commission is working, it is realized that because of the great cost, it will be many years before the last hazard of this kind is removed from the highway system. With this in mind, engineers of the department have made an exhaustive study of the most approved methods of improving the grade crossing so as to insure the maintenance at all times of a safe and smooth junction between the highway paving, and the roadway between the railroad tracks that are crossed.

Blueprints of typical sections for the areas to be surfaced by the railroad companies, involving the use of wood planks, railroad irons, concrete slabs, and asphaltic concrete filler have been prepared and transmitted to the engineering departments of the various railroads operating in Arkansas, and without exception, all are co-operating to the fullest extent in the Highway Department's plans to make the surfacing of a type comparative to the adjacent improvement, and of a nature to assure a smooth crossing surfacing at all times.

One of the most satisfactory methods of treating the railroad right-of-way where it is crossed by the State

highway is in the laying of railroad irons at close intervals parallel to the tracks, anchoring them to the ties, and filling the voids with asphaltic concrete.

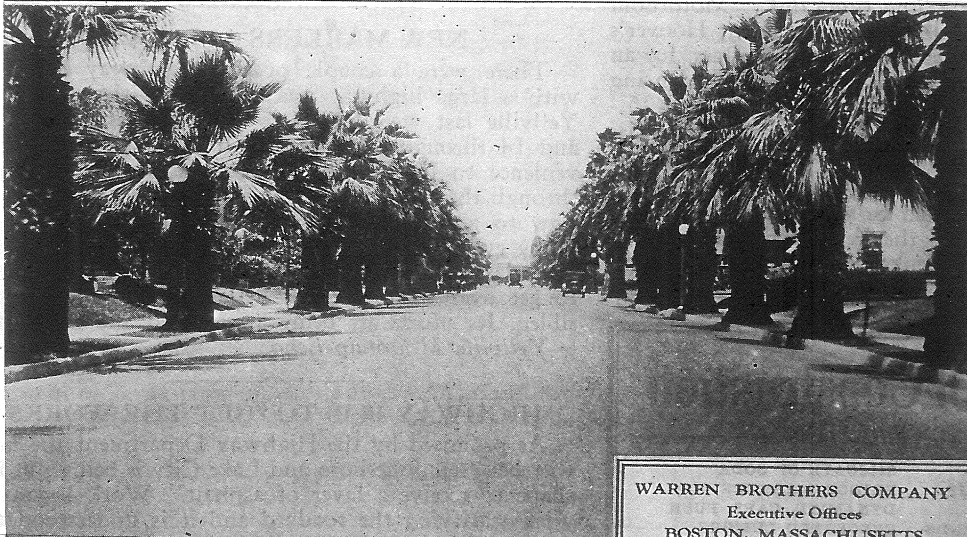
Another approved method is in the use of movable concrete slabs, pre-cast so as to be removed and replaced at will. These are usually interchangeable and fitted with lifting sockets so as to be shifted by four workmen when necessity arises. The space between the slabs usually is filled with asphalt.\*

The importance of the work is recognized by the railroad companies, who realize that in addition to the safety factor involved, there is a great element of good will involved. The average automobile driver thinks less of the danger of an unsatisfactory crossing than he does of the discomfort. If crossings are so rough as to force him to slow down, or if they cause actual discomfort to him when he does not, there is generated much ill-will against the railway company maintaining the rough surface there.

"Where has your car been for the last two weeks?"

"I'm having a one-day paint job done on it."

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U-T-I-L-I-T-Y

## Federal Aid Program Wins Commendation

American Road Builders' Association Gratified Over Three-Year Program

Commendation of the Federal Government's program to expend \$125,000,000 per year, for the next three years, on the Federal-aid highway system of the United States has been expressed by the American Road Builders' Association.

"The increase from 75 to 125 millions per year in the Federal Government's appropriation, for each of the next three years, as provided in Senator Phipps' and Representative Dowell's bills, will mean a speeding up of 50 per cent in the Federal-aid highway construction program," declares Frederic A. Reimer, president of the Road Builders.

What an increase of 50 per cent in the nation's highway construction program means, is visualized by the following figures showing the amount of Federal-aid authorized and the mileage completed each year under Federal-aid on the nation's ultimate program of 188,857 miles of Federal-aid highways:

YEAR	Amount of Federal-Aid (Millions of Dollars)	Mileage Completed with Federal-Aid
1916-20	175	3,821
1921	100	3,648
1922	75	10,247
1923	50	8,829
1924	65	8,621
1925	75	11,329
1926	75	9,417
1927	75	8,307
1928	75	8,184
1929	75	7,402
1930	103 (available)	

"The rapid increase in automobile registrations makes imperative a speeding up of the Federal, State and county highway construction programs. Motordom and the general public will support President Hoover's recommendation in his first message to Congress, for an increase in the Federal Government's share of financing Federal-aid highways. A vast majority of the 25,000,000 motorists of the United States will likewise give their whole-hearted support to passage of the Phipps-Dowell measure," President Reimer declares.

"Assurances that if elected he would pledge his support for a continuance of the Federal-aid program of the United States Government were given officials of the

American Motorists' Association and our American Road Builders' Association on September 20, 1928, by Herbert Hoover, then Republican nominee for the presidency. The manner and promptness with which he has fulfilled his pledge to support Federal-aid will receive the hearty commendation of every motorist and road builder in the United States."

### MANY STATES VOTING LARGE ROAD ISSUES

Arkansas has been so busily engaged in her own program that many of us lose sight of the way in which other States are forging ahead in the matter of road construction.

Some of the contemplated programs have a tendency to make our own road budget, ambitious as it is, seem rather small. Our neighboring State of Texas heads a list of States which are planning a big thing in road construction. Her people are about to vote on a projected issue of \$225,000,000. Oklahoma is planning to secure \$150,000,000 for its program and the folks in Georgia expect to raise \$75,000,000. The last Legislature gave South Carolina Highway Department \$65,000,000.

In all, thirty-one States are putting their highway programs through with bond issues.

Supplementing the work which the States are planning to do Congress has been asked to appropriate \$125,000,000 direct for Federal aid as contrasted with the \$75,000,000 which it has been appropriating, the sentiment seems to indicate that at least a good share of the increase asked will be granted.

### NEW MARKERS APPROVED

There were a couple of State highway employes, with a large highway truck loaded with markers, in Yellville last week marking State Highways Nos. 12 and 14 through the town. This will be a great convenience to the traveling public, as it can now pass through the town without losing time to ask some one how to get out. The State Highway Department is doing everything in its power to keep the highways in first-class condition, and in assisting the traveling public to get over them with as little inconvenience as possible. Its efforts are being appreciated and recognized.—*Yellville Mountain-Echo.*

### HIGHWAY 18 IS TO "GET THE WORKS"

As promised by the Highway Department the highway between Jonesboro and Lake City is being put into shape to receive a layer of asphalt. Work began last week scarifying the roadbed and it is understood that work will not let up until the entire strip is in condition. The laying of asphalt will probably begin early in the spring.

This road has been in very good shape the last year but the cost of maintenance has been enormous. A grader has to be kept at work on the road daily if it is to stay in condition.—*Monette Sun-Times.*

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## Arkansas Comes Into Her Own

An Editorial From the Jackson, Mississippi, News

Arkansas, once the most derided State in the Union, now ranks third in highway improvement during the current year.

Arkansas has constructed 1,675 miles of permanent highways, as compared with a total of 29,252 for the United States.

Arkansas, like Mississippi, imposes a gasoline tax of five cents per gallon for road-building purposes.

But Arkansas, unlike Mississippi, is expending that five-cent gasoline tax wisely and judiciously.

Instead of wasting public revenues in a vain effort to maintain obsolete and worn-out graveled roads, Arkansas is building permanent highways.

Arkansas, thanks to an honest, efficient and progressive State government, is not worried about prospective treasury deficits.

Quite to the contrary, Arkansas has a comfortable surplus of \$17,000,000 in her State treasury and is planning to spend that surplus in modernizing of her State institutions—new colleges, agricultural high schools, hospitals and eleemosynary institutions.

Pitiable is the contrast!

### IDAHO PLANNING TO "PAY-AS-YOU-GO" IN HIGHWAY BUILDING

Idaho, with more than 37,000 miles of highways to be improved, still is adhering to the "pay-as-you-go" policy for State highway improvements.

It is estimated that at the present rate of income it will take the State more than fifteen years to bring its roads up to a uniform gravel standard. While the "pay-as-you-go" policy sounds mighty good, and many of us would doubtless be better off if we adopted such a policy in our own personal affairs, in the matter of public improvements, and especially in the building of highways, it is very poor economy.

During the fifteen years that Idaho is waiting for a completed highway system the rest of the world will be moving very rapidly forward and what the State will save on interest charges will be lost several times over as the result of the lack of good highways. If there is any place in the world where modern financing pays big dividends it is in the field of highway construction.

### Sounded Rather Fishy

A man suffering from an excess of stimulant and tottering perceptibly, arrived home as the clocks were striking three.

After carefully removing his shoes, he tiptoed softly to his door.

He slipped the key in and was half way down the hall when he upset a goldfish bowl, causing it to fall with a mighty crash.

His wife, hearing the commotion, appeared at the head of the stairs and called sharply:

"John! What on earth are you doing?"

"I'll teach these blooming goldfish to snap at me," replied John.



Mother—"What do you think, children—your father has ordered a new automobile."

Children (in chorus)—"I want to bust the first fender!"

They were seated at a table in a night club. Suddenly there was a loud crash.

"Come," he said, taking her hand, "let's dance."

"Don't be foolish," she answered, "that wasn't the orchestra. The waiter dropped a tray of dishes."

Timid Wife (to husband who has just fallen asleep at the wheel), "I don't mean to dictate to you, George, but isn't that billboard coming at us awfully fast?"

"Who will drive this car away for \$50.00?" read a sign on the old Hunka Scrap parked in the dealer's window.

A man stopped at the window, read the sign and entered the shop. "I'll take a chance," he offered; "where's the money?"

Customer (to barber)—Your confounded hair restorer has made my hair come out more than ever!

Barber—Ah, you must have put too much on, sir! It made the hair come right out instead of only halfway.

A collision between a wheezy Model T and a new Buick, which accident was beyond all doubt the fault of the Model T driver had just happened.

Said the driver of the ancient Ford, "I am very sorry, indeed, and that's all I can say."

"Is that all you can say?" replied the irate owner of the Buick, "well, just listen to me."

Doctor: "Say, you're going to ruin your stomach drinking that stuff!"

Old Soak: "'Sall right, Doc, 'sall right; it won't show with my coat buttoned."

### 'Taint Possible

"The man I marry must be a gentleman and a scholar," Enid proclaimed.

"My dear," objected June, "that's asking too much of any college man."

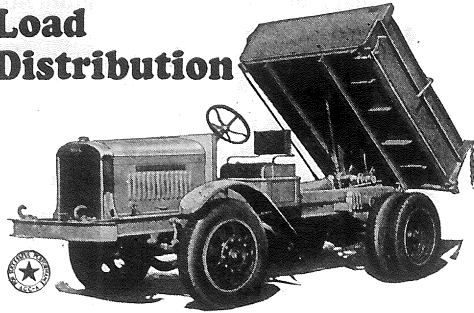
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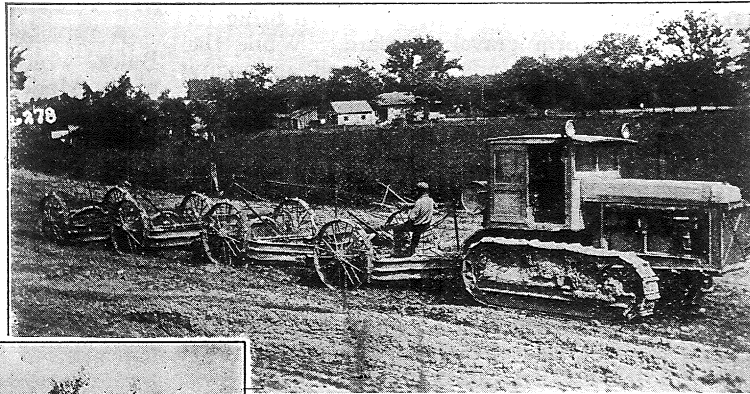
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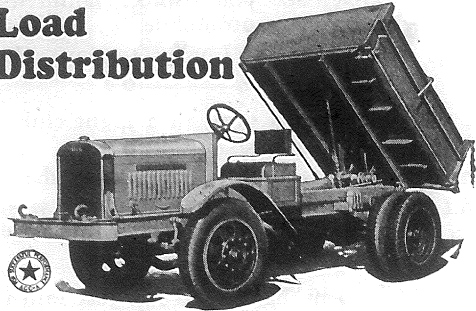


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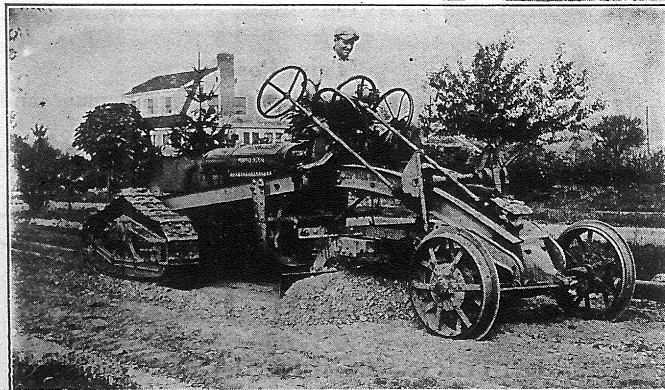
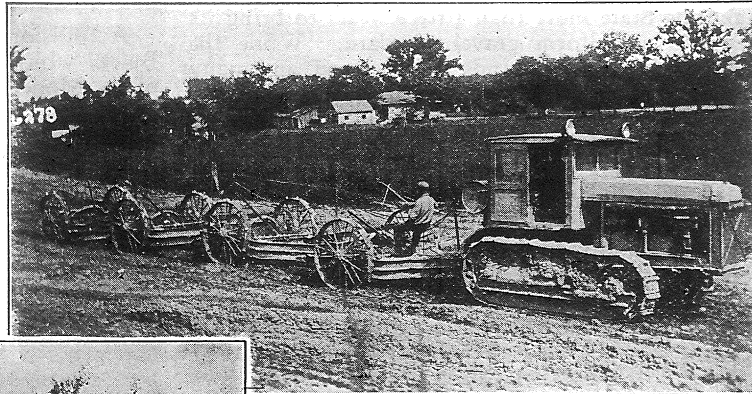
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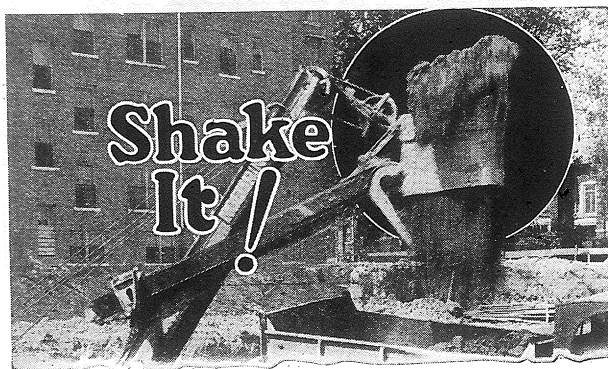
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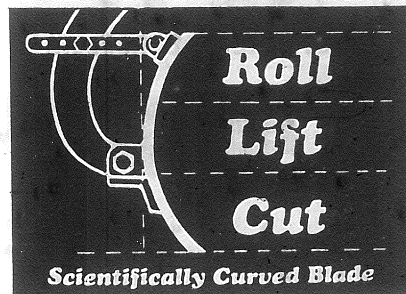


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Long experience in writing Contract Bonds in Arkansas has given us a complete understanding of the Contractor's problems.

*Bond Your Next Project in the HOME*

**HOME**  
Accident Insurance Company

Established 1900

HOME INSURANCE BUILDING  
LITTLE ROCK



## Armco Culverts

For Economy

*"Look Under Your Roads"*

Thirty-three years prove flexibility.

Twenty-three years prove pure iron

Armco Culverts endure in  
drainage service

### PRE-PROVED DURABILITY

"Twenty-two Years of Service pre-  
prove the durability of every culvert  
I use." —By a Highway Official.

Good roads are dry roads—It is the business  
of Culverts to keep roads dry. If roads endure  
Culverts must endure.

ARMCO Ingot Iron Culverts have proven  
their durability by more than 20 years of service.

No other Culvert can claim the same.

## Dixie Culvert Manufacturing Co.

LITTLE ROCK, ARKANSAS

ARMCO CULVERT PIPE  
Welded Underground Oil and Gas Tanks  
Page Highway Guard  
Calco Automatic and Slide Drainage Gates  
Road Building Equipment

## ELLIS & LEWIS

GENERAL CONTRACTORS

*Builders of Roads  
and Bridges*

SINCE 1916.



ALFRED C. ELLIS

307 Pyramid Life Building

LITTLE ROCK, ARK.

Phone 2-1572

CEYLON S. LEWIS

506 Surety Building

MUSKOGEE, OKLA.

Phone 6108



We Handle

*Good Equipment and*

*Good Supplies for Building*

*Good Roads*

## FONES BROS. HARDWARE CO.

LITTLE ROCK, ARK.



## Road and Bridge Equipment



Air Compressors, Drills, Steel Hose,  
Rock Crushers, Screening Plants,  
Shovels, Cranes, Draglines,  
Pile Hammer-Hoists



### FRANK WRIGGLE

1010 Rector Building  
LITTLE ROCK, ARKANSAS



## Our Pride Mark

*The Sign of Absolute  
Quality in Printing*

**T**HE QUALITY of our publication printing, of which the magazine you hold in your hand is a sample, is based on the same principle that carries throughout our entire line of efforts—that of making each job as good as it ought to be.

In addition to publication printing we do commercial printing, book printing, print catalogs, do ruling and binding, make blank books and loose leaves—in all offering a complete service, and

*"We Actually Do Better Printing"*

**CENTRAL PRINTING COMPANY**  
Phone 7138 209 Louisiana Little Rock

# EVERYWHERE...

*... road building materials furnished by  
Big Rock Stone and Material Company are recognized  
as being of the highest quality!*

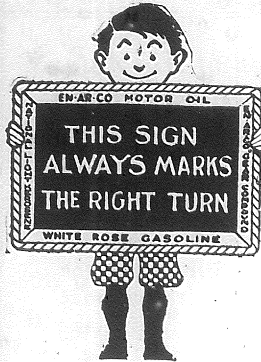
We Give Special Attention to the Production  
and Supply of the Highest Grade  
Road Materials, Stone and  
Blue Trap Rock.

**CRUSHED STONE, SAND, READY-MIX CONCRETE  
AND OTHER ROAD BUILDING MATERIALS**

*Our Ability To Serve On Prompt Shipments  
and Carload Orders Is Unsurpassed*

**BIG ROCK STONE & MATERIAL COMPANY**  
FOOT OF ASHLEY STREET LITTLE ROCK, ARKANSAS

*When there's work to be done!*



Tractors and trucks to whose lot falls service in road construction are unaccustomed to travel on roads "smooth as a billiard table."

Their's is the job of the worker, preparing the way for their brothers and it's no easy task!

Of course its hard on the constitution of tractor or truck to grind its way along unbroken paths. To make their work easier, give them the best of lubrication. They'll repay you in longer service and lower cost of maintenance.

En-ar-co Motor Oil and other En-ar-co Lubricants are built for extra duty—for unusual demands. They are the economical lubricants for your equipment.

*At the Sign of the Boy and Slate*

**EN-AR-CO MOTOR OIL**  
LIGHT—MEDIUM—HEAVY—EXTRA HEAVY

**THE NATIONAL REFINING CO.**  
Memphis, Tenn. Little Rock, Ark.

National Headquarters, National Building  
CLEVELAND, OHIO

## Reinforcing Bars

*Where you want them—How you want them and When you want them*

IMMEDIATE SHIPMENT FROM  
LITTLE ROCK STOCK

## IRON and STEEL

FOR BRIDGES AND BUILDINGS  
Plain or Fabricated. Over Two Thousand  
Tons in Stock.

Bridge Bolts and Hardware  
Manhole Rings and Covers  
Catch Basins and Covers  
Road Center Strip  
Reinforcing Bars  
Wire Mesh

*"It Pays To Get Our Prices"*

## Arkansas Foundry Company

1500 East 6th Street

Little Rock, Arkansas

*"We Repair Contractors' Machinery"*

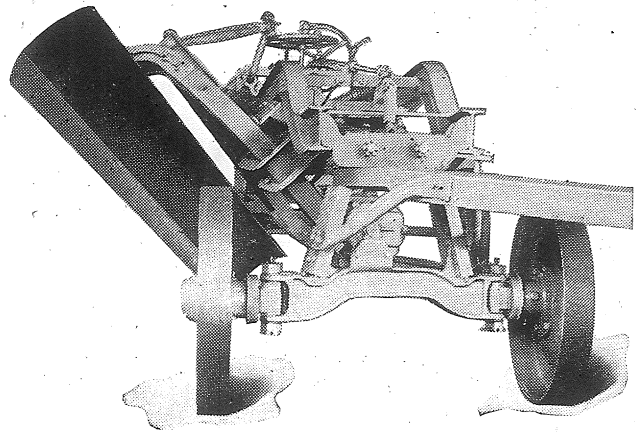
*"Forty Years  
Experience"*

Grading and drainage, rock work, and earth moving of every kind our specialty.

Inspection of any of our Arkansas jobs is invited.

**E. A. LUCK**  
GENERAL CONTRACTOR  
Pocahontas, Ark.

403 Rialto Building  
Kansas City, Missouri



## ROME GRADERS

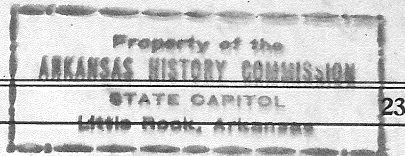
Simple in design—Rugged in construction—Easy to handle. Economical to operate. Service by Little Rock Factory Branch.

## THE ROME MANUFACTURING CO.

IRA GRIFFIN, Branch Manager

Phone 5362

107 Terminal Warehouse 500 East Markham Street  
LITTLE ROCK, ARKANSAS



JAMES SPENCER

DEWEY SPENCER

## James Spencer & Son

HOT SPRINGS, ARKANSAS

*Road Construction :: Bridges*

Grading and Drainage Structures  
a Specialty

No job is too hard for the Spencer organization to tackle—Especially is it proud of its record on difficult mountain work in the present State program, notably the 17 miles completed on the Hot Springs-Glenwood road, U. S. Route No. 70; the 10½ miles on State Highway No. 6, Royal to the Montgomery County line, and the 13 miles now building on State Road No. 7, Arkadelphia to Hot Springs.

*"Helping to write the Martineau Law in indelible characters across the Arkansas landscape."*

SEWER PIPE

4-in. to 24-in.

REINFORCED PIPE

15-in. to 72-in.

## Shearman Concrete Pipe Company

LITTLE ROCK, ARKANSAS

PHONE 4-0380

MANUFACTURERS OF

REINFORCED CONCRETE CULVERT  
PIPE MEETING ARKANSAS STATE  
HIGHWAY SPECIFICATIONS

We also manufacture and carry in stock a complete range of sanitary and storm sewer pipe meeting A. S. T. M. Specifications.

Four plants located at strategic points throughout the great Southwest enable us to give the utmost in service to contractors operating in Arkansas, Louisiana, Texas, Oklahoma and Missouri.

Plants Located At

Little Rock, Ark.

Shreveport, La.

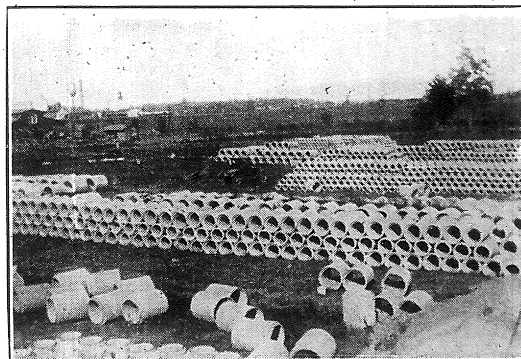
Dallas, Texas

Oklahoma City, Okla.

# "Hollywood" Concrete Pipe

For Federal and  
State Aid Roads

We highly recommend this pipe to all counties for use in the construction of permanent culverts. State tested and inspected pipe carried in stock for immediate shipments.



*View of one corner of our Storage Yard*

For Sanitary and  
Storm Sewers

It is machine made, has a smooth, glazed interior surface, which insures free flow without stoppage. It is more uniform, denser and stronger than any other type of sewer pipe.

USE "HOLLYWOOD" PIPE FOR PERMANENCE  
Also Complete Line Contractors' Dependable Equipment

## Choctaw Culvert & Machinery Co.

LITTLE ROCK

MEMPHIS



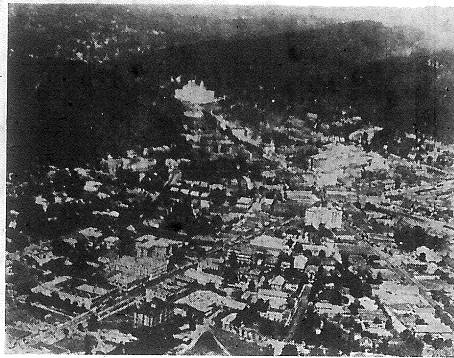
# Yesterday ~ Today ~ Tomorrow?

Invention and science have revolutionized travel. Distance is no longer measured by mileage, but by time. One hundred miles in distance one hundred years ago was a question of three or four days on the road. Today, through the scientific construction of modern highways this mileage can be traveled with safety and comfort within less than three hours.

The horse-drawn covered wagon has been replaced by the luxurious automobile and motor coach and the Arkansas State Highway Department, through its constructive program, is bringing Hot Springs closer to the citizens of the State.

## HEALTH-GIVING BATHS

Internationally recognized as the premier health resort, Hot Springs National Park is today more popular than ever before. The radio-active thermal baths are giving relief and a new lease on life to countless thousands annually. Not only are the baths assisting in regaining health, but are a valuable agency in retaining health.



"THE VALLEY OF HEALTH"

## ARKANSANS!

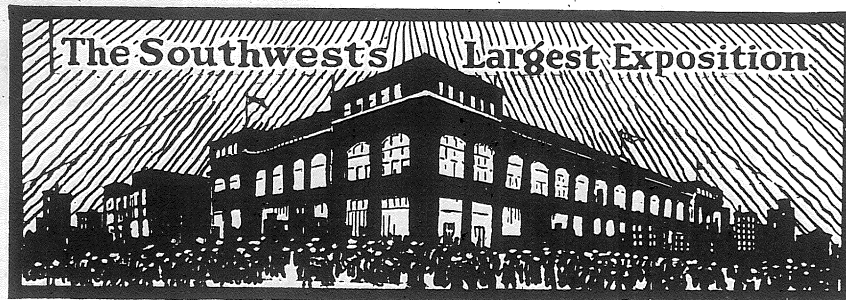
Arkansans, pack your week-end grip and drive over to your resort for a few days rest and recreation. Bring your play equipment to enjoy golf, fishing, tennis, boating and all healthy outdoor recreations. The change will do you good.

## KTHS

America's favorite broadcasting station extends the invitation daily and reminds you to  
KUM TO HOT SPRINGS.

Write for road information or descriptive literature to

**HOT SPRINGS CHAMBER OF COMMERCE**



◀ FIFTH ANNUAL ▶

**SOUTHWEST  
ROAD SHOW AND SCHOOL  
WICHITA, KANSAS**

February 25-26-27-28, 1930