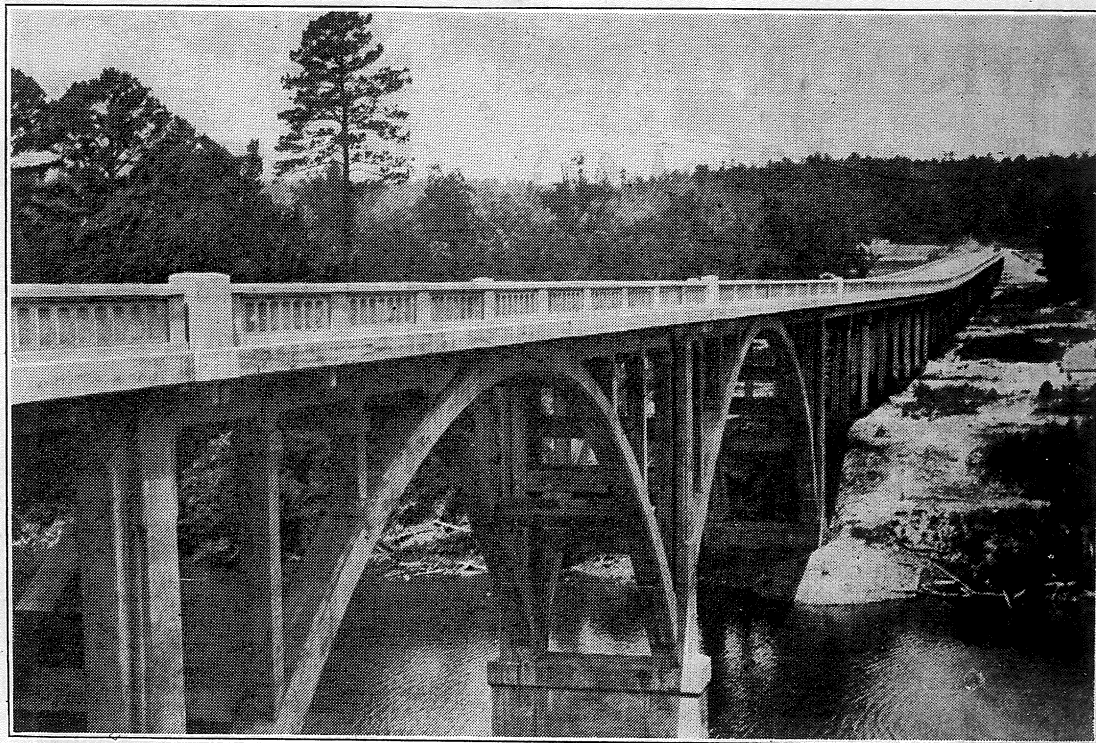


ARKANSAS HIGHWAYS

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

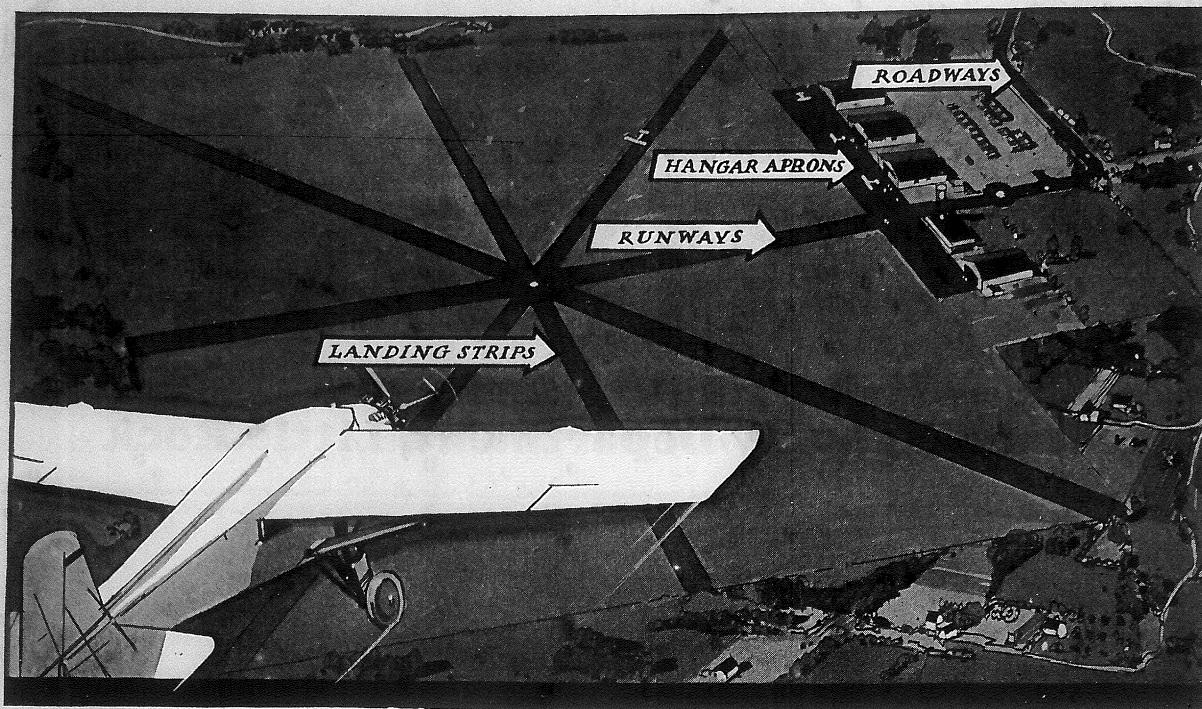


NEW SALINE RIVER BRIDGE NEAR BENTON

Vol. 6

AUG. • 1929

No. 8



AIRPORT PAVING at LOW COST with

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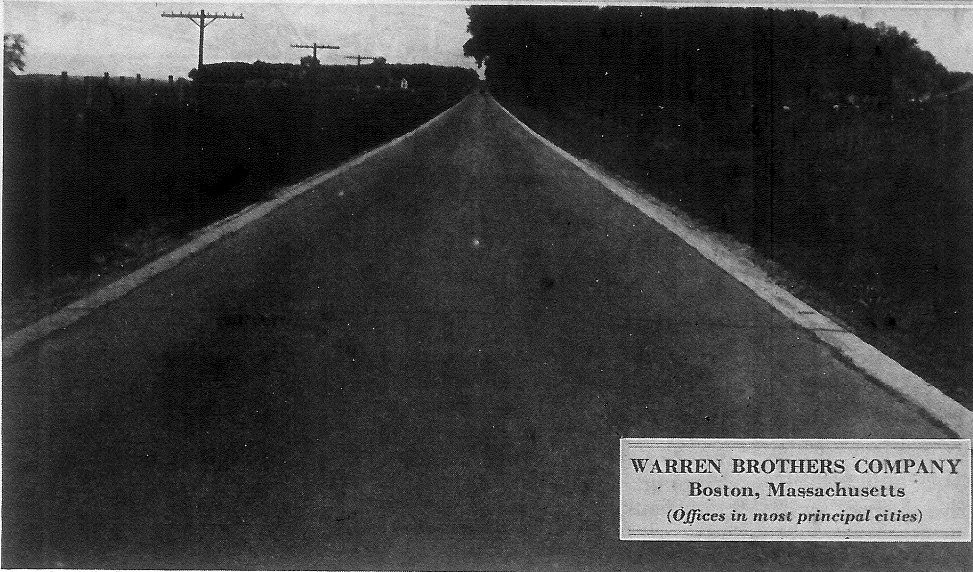
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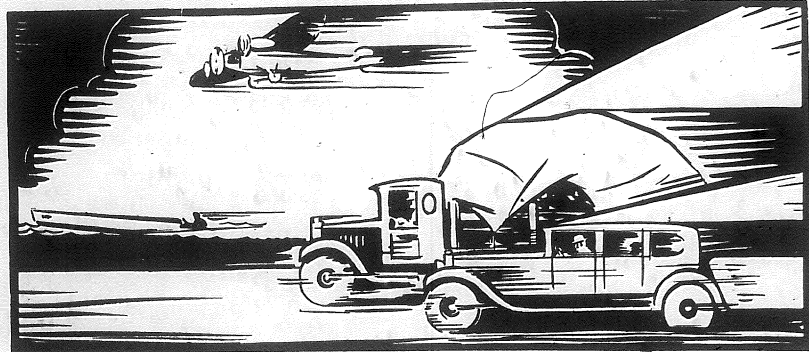
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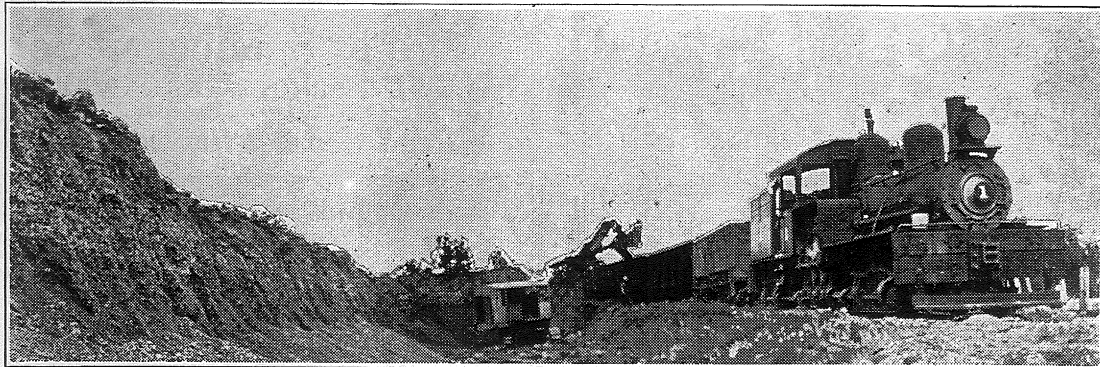
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ARKANSAS HIGHWAYS

*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

AUGUST, 1929

No. 8

Team Work in Highway Building

By Dwight H. Blackwood, Chairman, Arkansas Highway Commission

I have been very much impressed with a message sent recently to employees of the Rock Island Lines by President J. E. Gorman on the subject of team work.

Mr. Gorman, who is himself a great baseball fan, takes his text from the national game. Along with other enthusiastic supporters, Mr. Gorman points out that he applauds thrilling individual plays but that after all the thing that counts is not these sensational plays so much as the less spectacular co-operation of the rest of the team with the brilliant individual player.

The thing that counts, Mr. Gorman says, is winning the game, and it is constant team work which brings success. This team work consists in the willingness of the individual player "to play according to the rules and do the thing he is supposed to do which will successfully fit into the work of the other players and accomplish definite results."

The lesson which Mr. Gorman has drawn from baseball and has applied to the working out of railroad problems applies with equal force to the great highway program now under way in Arkansas.

From top to bottom, from the members of the State Highway Commission and the chief engineers directing the various phases of the program, on down the line to the humblest worker, the State Highway organization is a team. The success of the program depends upon the team work displayed by the various members of the organization. Not all of us can work in the limelight, not all of us can be Ruths or Gehrigs and hear the music of the world's applause. But more important than this to the success of the program is the prompt and efficient execution of the job in hand by each employee, wherever he may be assigned to duty.

As Mr. Gorman says in his message to his own workers, "The co-operative effort of employees, sometimes widely scattered, who realize that their particular job, whether of great importance or more humble, can only produce the best results when it fits into the whole scheme and when everybody is working in harmony and friendly co-operation."

I feel that this is an ideal which may well be held before the attention of all those who are assisting in the highway program. There is no room in the organization for any who may desire to "star" at the expense of the general success. There is no room for those unable to play their part in the general program loyally, efficiently and harmoniously.

We all, in our several activities, are essential to the success of the highway program. Let us not lose sight of the fact and let all of us in our individual places seek to give the best that is in us towards the winning of the great game now being played in this State against the natural forces which, up until the present, for so long have kept Arkansas in the mud.

Contract Is Let For Calion Bridge But Cotter Is Delayed

Keliher Construction Company Is Low With Bid of \$376,992.00—Cotter Design To Be Changed

L. J. N. Keliher, Little Rock contractor who constructed the North Little Rock viaduct, and now is completing the Fulton bridge over Red River, was low bidder at the August letting for the contract for construction of a steel and concrete bridge over the Ouachita river on the El Dorado-Calion road, his bid totaling \$376,992.83.

Mr. Keliher was awarded the contract by the State Highway Commission, as were all the other low bidders at the letting, with one exception. A contract covering several small reinforced-concrete bridges on the Hot Springs-Arkadelphia road, totaling 653 lineal feet of bridge construction, was given to the Westark Construction Company of McAlistar, Oklahoma, the second low bidder, at \$48,632.24.

On Job No. 939, an arch bridge over White river at Cotter, on State Highway No. 12, it was felt that all bids were too high and the Commission decided to change plans and readvertise the project.

Other jobs awarded at the August letting, including the job number, State highway number and location and character of the improvement, name of the contractor and price at which the job was bid were as follows:

Job No. 188, State Highway No. 1, approximately 73 lineal feet of treated timber pile bent bridge on the Wynne-North road, Cross County, Prentice & Prentice, Little Rock, \$3,566.24.

Job No. 3110, State Highway No. 19, approximately 667 lineal feet of treated timber pile bent bridges on the Prescott-Rosston road, Nevada County. J. W. Covington, Benton, \$17,994.68.

Job No. 583, State Highway No. 14, approximately 663 lineal feet of treated timber bridges and structural steel bridges and 150 feet of earth embankment approaches thereto on the Red Stripe-Locust Grove road, Stone County. Langston & Ray, Luxora, \$27,852.17.

Job No. 5107, State Highway No. 16, approximately 83 lineal feet of structural steel bridge over the Missouri and North Arkansas Railroad tracks on the Edgemont-Shirley road, Cleburne County. Prentice & Prentice, Little Rock, \$4,568.37.

Job No. 676, State Highway No. 38, approximately 613 feet and the redecking of 839 lineal feet of treated timber bridges on the Des Arc-Cotton Plant road, Prairie County. J. F. Mullins, Pine Bluff, \$33,307.44.

Job No. 957, State Highway No. 5, approximately 347 lineal feet of structural steel and reinforced concrete bridges on the Mountain Home-South road, Baxter County. Cook & Ransom, Ottawa, Kan., \$19,881.06.

LITTLE ROCK TO HAVE UP-TO-DATE MUNICIPAL AIRPORT

By overwhelming vote of the people of Little Rock on August 19th endorsement was given to the proposal of Mayor Pat L. Robinson for the spending of \$200,000 for the purchase and construction of an up-to-date municipal airport adequate to care for modern air mail and transcontinental passenger and express traffic.

Chairman Dwight H. Blackwood has tendered the assistance of the State Highway Department and of Charles Holderbaum, recently designated airport engineer, in helping to work out the problems connected with the establishment of the airport.

Mayor Robinson's plans still are indefinite, but it is probable that the new airport will be located about two and one-half miles east and south of the present government airport in East Little Rock. Approximately seven hundred acres of ideally-located farm land has been placed under option, as a guarantee that the city will be able to secure a site for the airport at a reasonable figure.

COMMISSIONER MATTHEWS HONORED

On his return from a brief vacation spent in Canada and the Northwest, Justin Matthews, member of the State Highway Commission from the Magnolia Agricultural District, was honored by the business men of North Little Rock August 7th with a luncheon at which he was presented with a sterling silver loving cup inscribed "Arkansas' Greatest Builder."

The presentation came as a complete surprise to Mr. Matthews, at the conclusion of an address which he had been asked to make on the progress of the highway program in Arkansas. One of the largest crowds ever in attendance at the Elks Luncheon Club was recorded.

Several selections were sung by the celebrated Dixie quartet and several addresses were made by friends of Mr. Matthews who paid tribute to his work as a community and State builder.



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Chairman Blackwood to Aid In Building of Airports

Complying with New Act, Chairman of Highway Commission Names C. W. Holderbaum
As Airport Engineer

Carrying out the provisions of Act No. 96 of 1929, D. H. Blackwood, Chairman of the Arkansas Highway Commission, has designated C. W. Holderbaum, maintenance engineer, as airport engineer for the Department. Mr. Holderbaum, who will serve in the new capacity without extra compensation, will hold the forces and equipment at his command in readiness to co-operate with local officials of towns and cities of the State in laying out and grading local landing fields.

Act No. 96, which has just gone into effect makes Mr. Blackwood and Jim B. Higgins, Secretary of State, members of the honorary State Aircraft Board, of which the other members are Capt. Wright Vermilya, Major Carrol Cone of Little Rock and Felix G. Smart of Pine Bluff.

Mr. Holderbaum will not only assist local authorities in the actual work of laying out and grading local landing fields, but he will co-operate as an engineer with the local engineers in designating sites adjacent to main traveled State highways.

In designating Mr. Holderbaum to the new position Chairman Blackwood said:

"Act No. 96, which was passed by the General Assembly of 1929 authorizes the use at my discretion of the facilities of the Highway Department in assisting in developing a system of airways and airports in the State of Arkansas.

"As a preliminary step toward assembling necessary data and information on this subject, I am appointing C. W. Holderbaum as airport engineer for the Highway Department. His work along this line will be performed in addition to his regular duties as maintenance engineer for the western division and without additional salary.

"It is realized that the needs of this latest means of transportation should receive thoughtful consideration at this time and co-operation and assistance in its establishment should be given by all. It is not possible, in the present stage of aviation, to visualize its future. The same condition as to the automobile prevailed 30 years ago. Today, hundreds of millions of dollars are being used for automobiles and highways. With this thought in mind, I am glad to use such means as are within my power to foster and encourage aviation in Arkansas."

Progress which is being made in the State of California in the construction of great airline terminals, paved with concrete and located along the main-traveled concrete State highways, emphasizes the way in which the automobile and the aeroplane are to be tied together in the future development of transportation.

Most of the big air terminals being built in California have concrete runways at least 72 feet wide and 3,000 feet long, with shorter concrete taxi-ways extending in three different directions.

Because of the necessity for going out into the country to find the smooth level spaces necessary for such terminals they are in all cases located adjacent to permanent, all-weather highways. The air-passenger brings his plane down on to the permanent all-weather surface of the airport, taxis into the hangar, transfers from the aeroplane to a waiting automobile and is transported in a few minutes over hard-surfaced highways to a hotel in the heart of the city.

More and more it is being realized that the aeroplane as well as the automobile must be freed from the limitations of mud and wet weather, and it will not be long until it will be necessary for any city which expects to remain on the airways of the country to provide an adequate air terminal where planes may take off and land without regard to the question of whether it has rained recently in that particular vicinity.

LUCK COMPLETES TOUGH JOB

A difficult rock job of considerable interest and importance in the State's highway program just has been completed by E. A. Luck, general contractor, on State Highway No. 9 in Perry County. This is an important section of the new route from Perryville to Hot Springs, which will bring Northwest Arkansas much closer to the Vapor City, allowing Hot Springs-bound traffic from that section to turn directly south at Morrilton, eliminating the round-about trip through Little Rock.

Mr. Luck is now starting work on an important section of Highway No. 79, running from Pocahontas to Maynard.

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More Than 2,800 Arrests Made By Highway Patrolmen

Most of Them Were For Violation of License Laws Or Overloading of Trucks

According to figures compiled by A. V. Denny, in charge of the State Highway patrol authorized under an act of the 1929 Legislature, more than 2,800 arrests have been made since March 30th when the law became effective.

Most of the arrests were for the violation of the license laws or for the overloading of trucks. A few were for minor traffic violations, including reckless driving and driving while intoxicated. Three of the later cases resulted in convictions.

Most of the license violations were dismissed when proper licenses were procured and the license laws which were being violated were complied with.

Fourteen highway patrolmen have been operating under Mr. Denny's direction, in various parts of the State, two of them spending most of their time in and around Little Rock. These patrolmen formerly were license inspectors without police powers but under the new law, sponsored by Senator D. L. Purkins, police powers were conferred upon them. No additional patrolmen have been put on although the law authorizes additions to the force as roads are completed and the highway system is extended.

The problem of the enforcement of the license laws increases in importance each year. During the first seven months of 1929, 205,832 automobile licenses were issued by the Highway Department, comparing with 190,322 issued during the similar period in 1928. Each year the number of cars using the State highways increases in about this proportion, making the enforcement of license and traffic laws increasingly difficult.

ILLINOIS CHECKS ACCIDENT CAUSES

Through its maintenance employees and highway patrol officers, the State of Illinois has kept a close check on accidents of the State highways and their causes.

Last year there were 565 accidents reported, and 205 people were killed and 668 were injured.

Principal causes of the accidents included reckless driving, 75; collisions, 48; skidding, 49; speeding, 42; intoxicated drivers, 29; and mechanical defects of the vehicle, 15. It is significant of the mechanical perfection of the modern automobile that only 15 out of such a large number of accidents have been the result of mechanical defects. All the remainder were chargeable in one way or another to the personal factor.

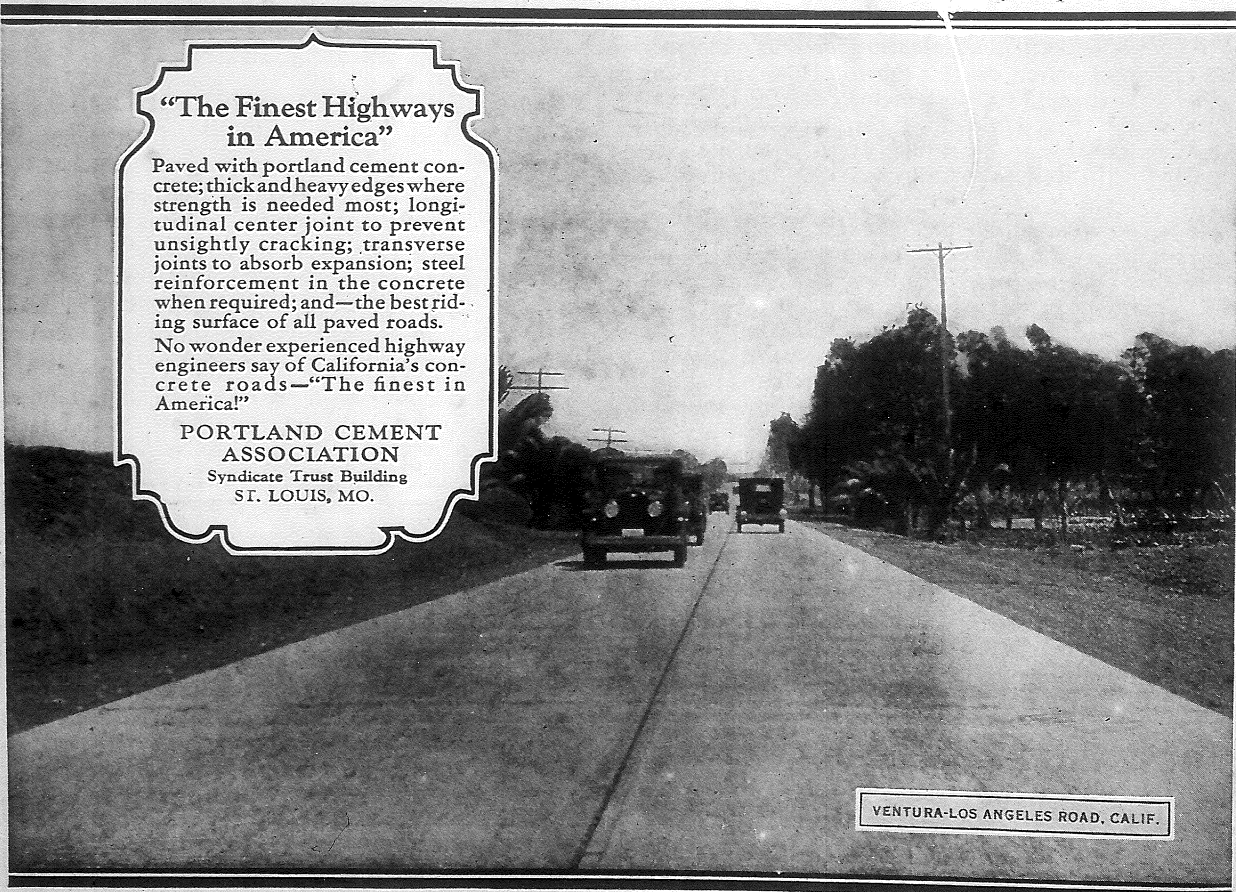
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VENTURA-LOS ANGELES ROAD, CALIF.

Construction In Arkansas Still Going At Low Figures

In Spite of Large Amount of Work Being Done Under Martineau Program,
Competition Among Contractors Remains Keen and Prices Low

Among the pessimistic predictions made at the inception of the gigantic road program authorized under the Martineau Law of 1927 that have failed to materialize was the prophecy that, because of the great amount of work to be done, prices of labor and materials and other units of construction would rise to a point where the State could not expect to receive fair values for the money expended.

Figures just compiled by W. W. Zass, Engineer of Construction for the State Highway Department, at the request of Chairman Dwight H. Blackwood, show that for the period beginning January 1, 1925, and ending June 30, 1929, a period offering a fair basis for comparison, unit prices on items of work entering into contract projects remained practically constant. In fact, during the 1929 period slight decreases have been noted in a number of major items. The year 1925 was not a year of unusual highway activity, and it offers a fair criterion by which prices paid in subsequent years, of greater activity, may fairly be judged. Compared with average prices paid in 1925, Mr. Zass' figures show the cost of 1926 work was one per cent lower than the 1925 base. In 1927 the cost of the work averaged four per cent higher. In 1928 the cost of the work ran two per cent lower. During the first six months of the present year it was approximately three per cent lower than the 1925 base.

According to Mr. Zass, the greatly increased volume of work initiated in 1927 and 1928 might, indeed, have proved embarrassing had it not been for general conditions which took a very favorable turn, so far as the State Highway Department was concerned. It developed that these two years showed declining commodity prices. This was supplemented by a temporary cessation of improvement activities in adjacent States, which made the competition among contractors for Arkansas work very keen. During the thirty-month period mentioned, an average of seven proposals per project was submitted by contractors who had the most modern equipment and organizations laying idle as the result of general conditions in surrounding States. These contractors were very anxious to keep their organizations together and their machinery operating and as a result they sharpened their pencils to a point where rock bottom prices were secured by the State.

Nor was the high quality of the work performed affected by the prices paid. The standards of the Department were rigidly maintained and comparatively little trouble was experienced with irresponsible contractors. In fact, during this period only nine projects had to be placed in the hands of surety companies for completion, such projects having a monetary value of less than one per cent of the total amount of the contract commitments.

During the period from January, 1927 to July, 1929, 530 contracts were placed by the State Highway Commission, calling for a total expenditure of approximately \$35,000,000.

Of these contracts the mileage, segregated by types, is tabulated by Mr. Zass as follows:

	Total	Completed
	As of June 30, 1929	
Earthwork and Minor Drainage	2,086	1,193
Structures, miles.....	1,393	602
Gravel Surfacing, miles.....	43	9
Shale Surfacing, miles.....	240	74
Portland Cement Concrete Paving, miles.....	5	5
Asphaltic Surface Treatment, miles.....	15	1
Bituminous Concrete Paving, miles.....	45,706	28,001
Timber Bridges, linear feet.....	63,590	22,662
Reinforced Concrete Bridge, linear feet.....	10,246	5,593
Structural Steel Bridges, linear feet.....		

The above work has been consummated in practically a 24-month period, although the tabulations indicate a period as from January 1, 1927, to June 30, 1929. Only four contracts of the total shown were awarded during the first half of the year 1927, as the activities contemplated under the provisions of Act No. 11 of the Acts of 1927 were not initiated until June 30th of that year, the first note issue under the provisions of the act being sold June 14th and the money made available July 14th.

Improvements in design during the period stated have contributed largely to the successful field results achieved. Lighter curvature, reduced gradients, wider crown widths of roadways with flatter slopes and a more economical design of minor drainage structures

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ANOTHER representative company—the Commercial Concrete Material Company—have recognized the superior earning capacity of the Hug Roadbuilder truck, and have purchased a fleet of specially designed Hug Roadbuilders for the transportation of wet concrete.

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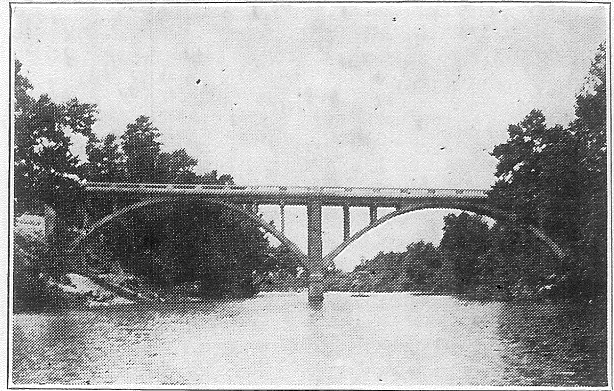
provide the basis of the construction standards of the Department at the present date. Constant attention is concentrated on this technical feature of the work wherein results in this and other States are studied and correlated so that economic and satisfactory consequences may be obtained.

The same constant analysis and study is given to the specifications governing the work as to the construction standards themselves, the design and specifications being interrelated, each wholly dependent on the other in governing the successful execution of the work. The results of continual research work in this and other States are being incorporated in our current practice as quickly as such results can be properly substantiated. The present Portland cement concrete paving specifications may be cited as a pertinent illustration of the application of latest proven developments in the paving field, wherein a direct saving of \$400 to \$500 per mile has been effected to the State through the application of the best results of modern practice. The placing of gravel surfacing may be cited as an additional illustration, in that the typical section now required provides for a saving to the State in construction costs of approximately \$150 per mile as compared to previous years. Other items could be cited showing economies perfected in lesser degrees. Experience, plus the result of test and experiment, has indicated modifications that could be adopted without sacrifice of results.

NEW HIGHWAY FOR HELENA AND WEST HELENA

Plans for repairing the present narrow highway between Helena and West Helena have been abandoned

by the State Highway Department, and an engineering survey is going forward for an entirely new thirty-foot concrete highway connecting the two cities. The repairing of the old highway was found to be uneconomical, due to the necessity for widening and relocating several sections, due to the heavy traffic which is borne by this highway.



OUR COVER PAGE

An interesting and important structure which has supplied us with our cover page this month is the new concrete bridge over the Saline river on Highway No. 67 near Benton. A supplementary view of the structure, taken from the middle of the river, is shown herewith. The bridge consists of two 110-foot arch spans and an east approach 50 feet long and a west approach 950 feet long. The bridge with its approaches is designed to give ample clearance for the great floods which may be expected occasionally on Saline river.

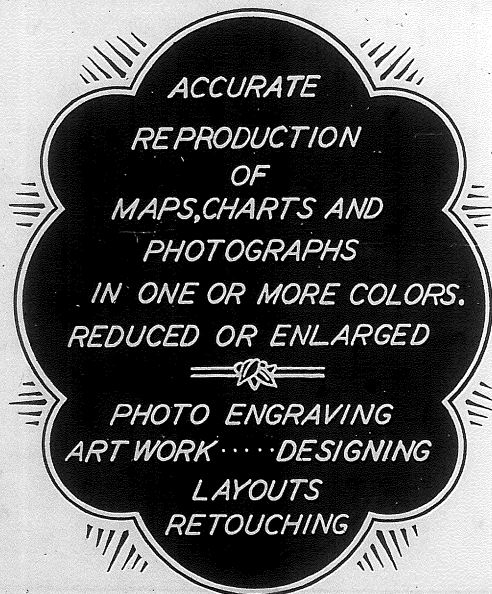
State Highway No. 67 is the principal road between Little Rock and Texarkana, and the old-fashioned steel bridge formerly used was frequently put out of use by the floods. The new bridge and approaches place traffic at this point for all time above the threat of interruption.

The official opening of the bridge on August 15th was a gala event with more than 5,000 persons attending the barbecue and program which was held under the auspices of the city of Benton.

More than 3,000 pounds of meat was barbecued for the event and music was furnished by brass bands from Benton, Bauxite and Malvern.

Speakers included the Rev. Conrad Glover, of Sheridan; John L. Hughes of Benton; John T. Fuller of Paducah, Kentucky; H. G. Manning of Little Rock; John McClellan of Malvern and Chairman Dwight H. Blackwood and Justin Matthews of the Arkansas Highway Commission.

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OKLAHOMA BRAGS ON US

Mr. E. B. Guthrie of Muskogee, Okla., editor of the Nation's Highways, was in Yellville one day last week, enroute home from an inspection trip over highway No. 12, which the Arkoma Highway Association is endeavoring to get the National Highway Commission to take over as a federal number. Mr. Guthrie said that No. 12 through Marion County was the best section over which he traveled from Oklahoma to the Mississippi River, and that Marion County is to be complimented. Mr. Guthrie is a great good roads enthusiast and is doing a great work for the Ozarks section.—*Yellville Mountain Echo.*

CHICAGO TO BUILD HIGHWAYS OVER RAILROAD TRACKS

Plans are being made in the city of Chicago to aid in the solution of the traffic problem in the down town section by the construction of motor highways over the tracks of three railroads coming into the heart of the city.

The problem is being worked out, although it is not as simple as it may appear, legislation being necessary to provide for the lease of "air rights" above the tracks.

BATESVILLE PLANS STREET PAVING

An important street paving project under way is that involving the surfacing of Central Avenue in Batesville.

The board of commissioners of which Dr. J. H. Smith is chairman has selected Hugh R. Carter of Little Rock, former State Highway Engineer, as engineer for the job. Mr. Carter has completed plans for the district which will involve approximately 12,000 square yards of pavement.

HIGHWAY MARKERS IN NORTHWEST ARKANSAS

While the State Highway Commission is attempting to provide as rapidly as possible for the adequate marking of all State highways, State forces are especially active at this time in Northwest Arkansas, out of consideration for the large amount of tourist traffic coming to the Ozark resort section.

Commissioner Blackwood is especially anxious that none of the tourists who come to the State this year leave with a bad taste in their mouths due to inability to find their way about over poorly marked State highways.

JONESBORO REPAIRING EXTENSIVE STREET MILEAGE

Jonesboro, which has just completed the construction of three miles of new pavement, is now engaged in one of the most extensive street repair projects in the history of the State. All of the streets in the Jonesboro District No. 16, which were paved twelve years ago, are being repaired and recoated with asphalt. More than \$30,000 is to be spent on the work. When it is completed virtually all the streets of the city will be paved and in ideal condition.

The Hogan Construction Company of Little Rock is doing the work, under the direction of Guy W. Cobb, engineer.

RAPID PROGRESS ON DARDANELLE HIGHWAY

Grady Garms, Little Rock contractor recently awarded the contract for construction of a concrete pavement on State Highway No. 22 from Dardanelle to the Logan County line, has been taking advantage of the recent dry, hot weather in pushing the project very rapidly. More than three miles of the job already has been completed.

CONSTRUCTION COMPANY'S WAREHOUSE BURNS

A warehouse belonging to the Brown-Abbott Construction Company near Camden was destroyed by fire of unknown origin August 14th.

The Brown-Abbott Company recently was awarded the contract for a bridge project across the Ouachita river bottoms on Highway No. 167 and the warehouse contained a large assortment of tools and equipment which was to have been used in the work. There will be some delay in the resumption of operations by the Company, due to the necessity of replacing the equipment which was destroyed.

HIGHWAY FROM VAN BUREN TO BE GRAVELED

Work of graveling the State Highway running north from Van Buren through Evansville, Summers and Cincinnati to Siloam Springs has been started. The work is to be done by the W. H. Heard Construction Company, and will be completed by the fall.

ARKANSAS BUILDING PROGRAM INCREASES

Figures compiled by the F. W. Dodge Corporation of Little Rock show that building contracts, awarded in Arkansas during the month of June totaled \$5,761,500. This was one of the largest months in general construction ever recorded in the State and a great increase over the June of previous years.

A Wee Bit O' Scotch

A Scotchman was discovered wandering around Detroit with a pair of rumpled trousers over his arm. "Can I help you in any way?" asked a kindly man of the Scot, who was evidently a newcomer. "No," he replied, "I'm looking for the Detroit Free Press."—*Hardware Dealers' Magazine.*

COMPLIMENTS OF

A. J. RAYNER

*Quality
Service*

COMMISSIONER BLACKWOOD ISSUES PRIMER ON MOTOR VEHICLE CODE OF STATE

Under the direction of Dwight H. Blackwood, Chairman of the Arkansas Highway Commission, there has recently been prepared and made ready for general distribution a primer on the Motor Vehicle Code of Arkansas, for the guidance of those who use the public highways in the State.

The little booklet contains only forty pages, and is of a size easily to fit the vest or coat pocket, but it contains the most complete digest of the laws and regulations governing the operation of motor vehicles in Arkansas yet prepared. Most of these regulations are prescribed under Act No. 223 of 1927, the general Motor Vehicle Law, or have been laid down by the Highway Commission itself under the authority vested in it by Act No. 65 of 1929.

The value of the primer is increased greatly by the general index which it carries assisting the motorist or the officer to refer promptly to any particular regulation in which he may be interested.

Act No. 223 of 1927, which is largely identical with Motor Vehicle Laws enacted in more than forty States in the Union, is a very voluminous law which very few people, even the lawyers of the State have thoroughly digested.

The new primer prepared by Chairman Blackwood brings the provisions of the law within easy reach of any one who can read and should be of great value in spreading correct information relative to the regulations governing traffic on the State highways.

Copies of the primer will be carried by all State highway patrolmen operating under the new patrol law and will be given to motorists whom it may be necessary to warn in regard to traffic violations.

The back cover of the primer carries a copy of "The Driver's Pledge" which it would be well for all users of the State highways to know and observe. The pledge is as follows:

1. I will think ahead.
2. I will always be careful.
3. I will assume responsibility.
4. I will give pedestrians the right-of-way.
5. I will always slow down.
6. I will obey traffic regulations.
7. I will always have my car under control.
8. I will observe the Golden Rule.
9. I will especially watch for children and old people.
10. I will give the other fellow a chance.

NORTH LITTLE ROCK STREETS GRADED

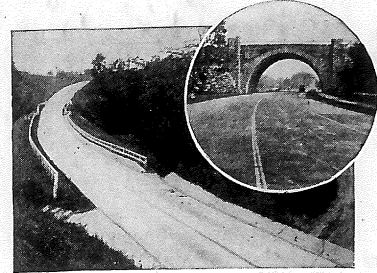
Under the direction of Mayor Ross L. Lawhon the city of North Little Rock this month has been engaged in a street grading campaign which has added considerable mileage to the streets available for automobile traffic.

More than fifty blocks of street grading has been done, on most of which a surface of cinders or chat has been provided. Several small concrete bridges have also been installed in connection with the work.

Keep Down Costs

of Road Making and Maintenance

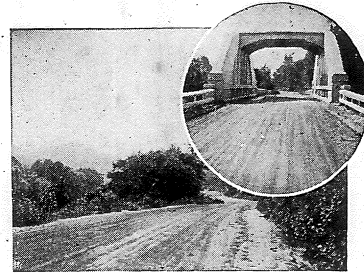
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TRACTOR HAS BROUGHT NEW ROMANCE INTO WORLD

It is not often that we read from cover to cover an advertising booklet, even those issued by our best advertisers.

However, we have found in a bulletin entitled "The Romance of Caterpillar Tractors," recently handed us by our friend John A. Riggs, active and genial Little Rock representative of the Caterpillar Tractor Company of San Leandro, California and Peoria, Illinois, a real challenge to our interest.

It quickened our heartbeat in a way to convince us that there is still romance in the world in spite of the fact that this is the age of machinery. The book is not long and it is a quickly-moving story told in a modest little thirty-two page booklet which can be secured from Mr. Riggs at the Arkansas Tractor & Equipment Company, 120 Commerce Street, Little Rock, or by writing the Caterpillar factory.

Quick decisions, agonies relieved as dying men are carried to safety, struggles against fire for the salvation of grain fields, countless instances of ways in which the tractor is relieving the bent and aching backs of the world's laboring millions—all these are to be found painted in graphic scenes with interest everywhere.

Many pictures of the way in which the tractor and elevating grader have replaced the toilsome shovel in road building, the relief of horses and mules from cruel tasks, and the saving of men, money and minutes the year around and the world over make it well worth the while of anyone interested in a much overlooked phase of modern business romance.

FLOOD CONTROL MAP PREPARED

The Harnischfeger Corporation, 3892 National Ave., Milwaukee, Wisconsin, manufacturers of the well known P. & H. steam shovels and excavators, have prepared for distribution a very valuable and interesting map of the Mississippi river flood control program which may be secured without cost by contractors and others genuinely interested in any of the various features of the government work.

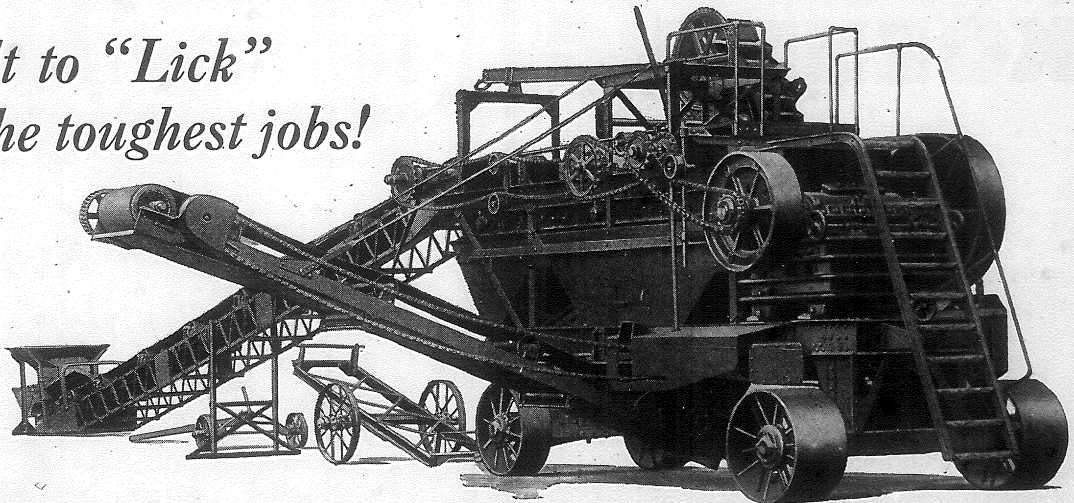
In addition to the general geography of the program the map shows the various individual projects and yardage of each project, its location, and the best ways of reaching it by road.

The map includes a section of Arkansas beginning at Eudora and running north to the Missouri-Arkansas line. It follows the Arkansas river as far west as Pine Bluff running north through DeValls Bluff, Forrest City, Wynne and Blytheville.

He Was Not Alone

A jeweler who had not been very good during his earthly life died and went below. As soon as he got to the nether regions he began to give orders for changing the position of the furnaces, and commenced bossing the imps around. One of them reported to Satan how the newcomer was acting. "Say," said Satan to him, "you act as though you owned the place." "Sure," said the jeweler. "My wife gave it to me while I was on earth."—*Hardware Dealers' Magazine.*

*Built to "Lick"
the toughest jobs!*



PIONEER SCREENING, CRUSHING AND LOADING PLANT No. 20

Crushes, screens and loads in one operation. Capacity, 250 to 350 cubic yards in 10 hours. One man runs entire plant. Powered by 35 H. P. gasoline engine. Designed to be used in places where there is no sand to reject, and only medium capacity of crushed gravel is required. Often two of these plants are purchased instead of one large one, and are put at either end of a County to save time in moving equipment long distances.

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J. A. RIGGS, *Secretary and Manager*

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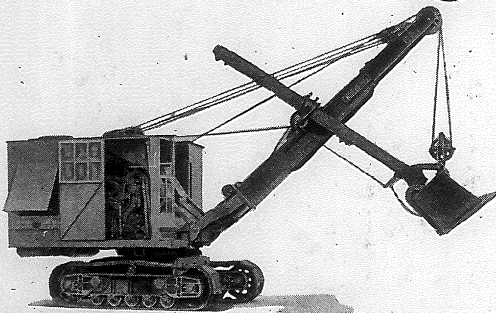
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Heavy Duty Construction, Finger Tip Control, easy steering, all operations of machine controlled from cab, fast operating speed, powerful heavy duty gasoline motor, reducing gears enclosed and running in oil—some of the profit-making features of the Koehring.

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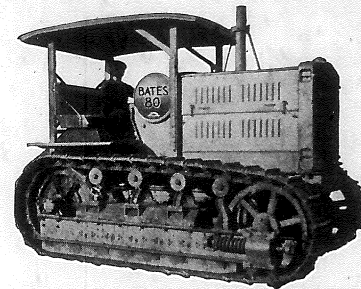


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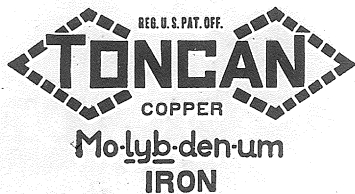
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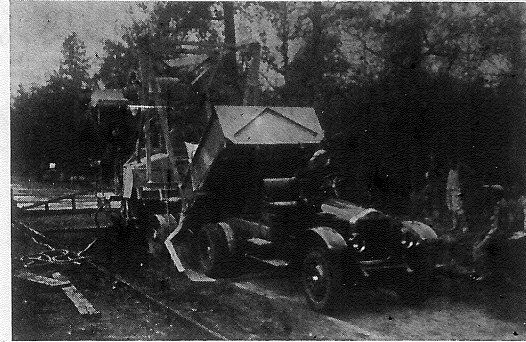


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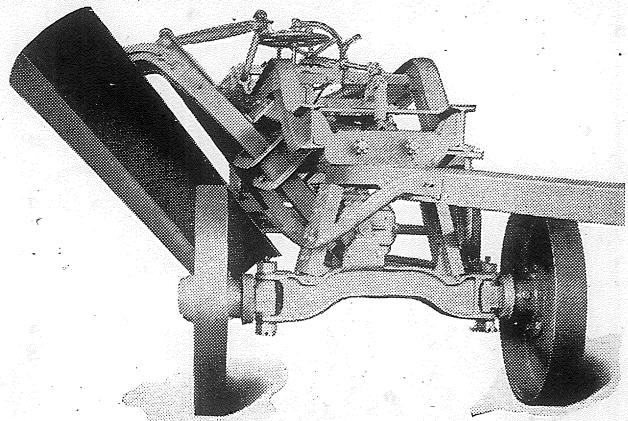
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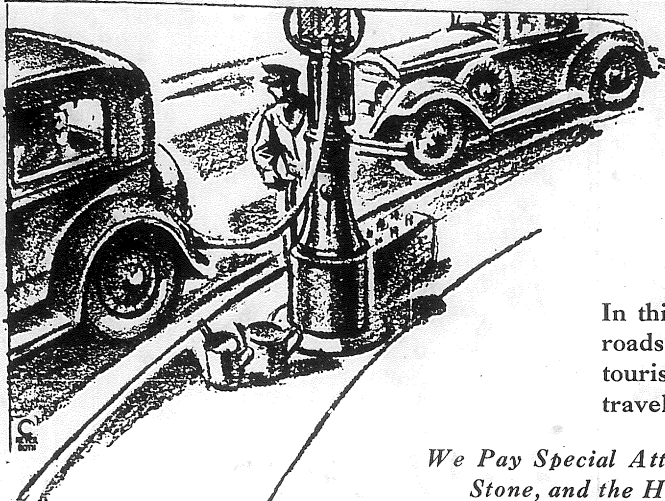
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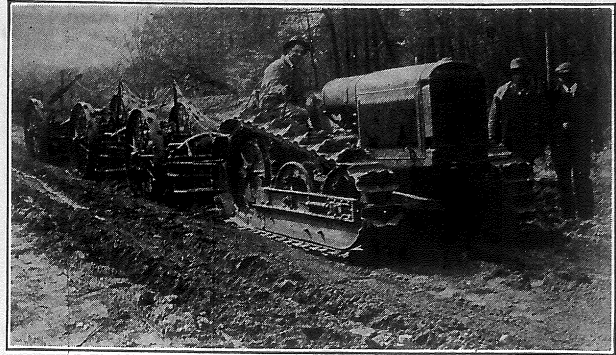
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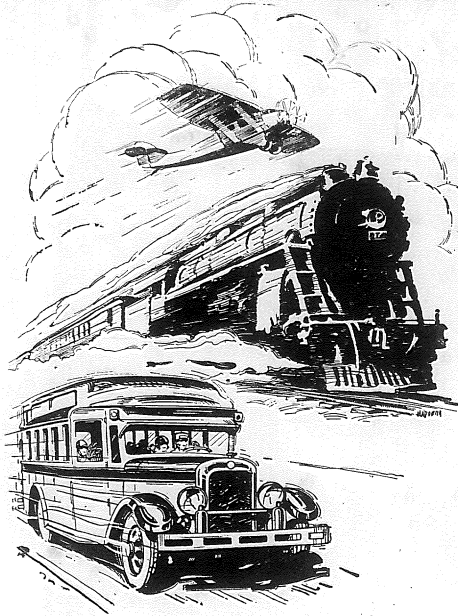
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TRANSPORTATION AND THE PART IT PLAYS IN THE MACHINE AGE



ANALYSIS of our so-called "Machine Age" civilization would require volumes but it can be summarized in a few words. The average citizen today enjoys, as a matter of course, ordinary daily necessities that were beyond the reach or even the dreams of Egyptian Pharaohs, the Greeks in their "palmiest" days, or Roman senators in the hey-dey of their ascendancy.

These things are made possible as a result of mass production by the use of machinery—power driven—and our system of communication and distribution which is, of itself, more marvelous than any development of our present-day, complex scheme of things. And that distribution has been made possible by and absolutely is dependent upon our railroads.

In any final analysis we come back to first principles. Without the railroads our frontiers could not have been extended, vast reaches of our country could not have been developed—our rural populations, at great distances from

the centers of industrial production could not have enjoyed the benefits of this mass production, and our great industrial population centers could not have been supplied with even the raw materials of manufacture, to say nothing of food from our farms and the basic commodities for clothing and shelter.

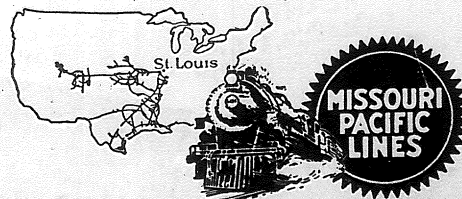
More than that, if specific examples are sought we need only to look at the spectacle of California products competing with Texas and Florida in New York, and Florida products successfully competing with those of other sections in the middle west and north, while those of Texas compete successfully at the very door-steps of both California and Florida. All this is possible wholly and solely because of our railroad transportation.

All of this progress and amazing development—our "Machine Age" civilization—is based primarily on widespread general prosperity and the prosperity of each region, community and group is vitally dependent on railroad transportation. General prosperity is dependent on purchasing power and that, in turn, again, is dependent on adequate and dependable transportation by rail.


The railroads are willingly and gladly carrying their full share of the burden and cheerfully contributing a full measure of their quota to the whole situation. They expect to continue to do this. And to this end—

I solicit your co-operation and support.

President



"A Service Institution"



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