

ARKANSAS HIGHWAYS



A TYPICAL MAINTENANCE PATROL ON THE JOB

JULY

VOL. I

1924

NO. 7



When
the
"Light Traffic"
Argument Fails

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"The traffic out this way is too light to justify a Concrete Road."

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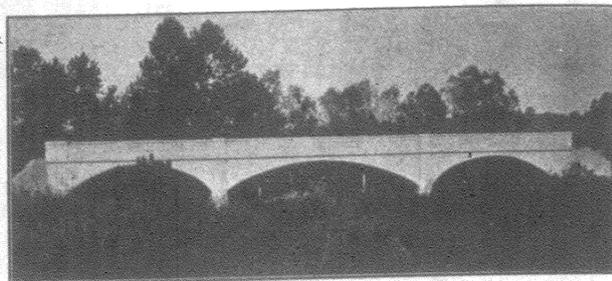
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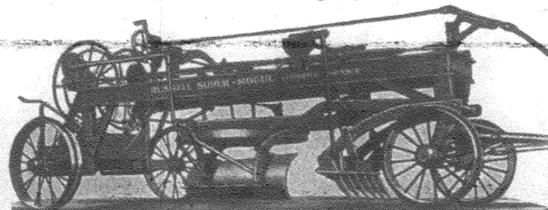
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ARKANSAS HIGHWAYS



Official Monthly Bulletin of the State Highway Commission
PAUL GRABIEL, Editor

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VOL. I.

JULY, 1924.

NO. 7

Country Roads Get Their Money from Mr. Wilson

July Payments Totaling Virtually Three-Quarter Million Sent Out.

Covering July payments toward the aid of county road work on roads not a part of the State system, a feature of the new State-wide highway law widely misunderstood and misrepresented, vouchers totaling \$713,543.25 have just been mailed out to the various county officials by Herbert R. Wilson, State highway commissioner.

May payments of a similar nature, sent out by Mr. Wilson on May first, totaled \$227,316.75.

This aid to the counties is provided under the new highway law, passed by the special session of 1923, and the amounts that counties receive for this purpose is determined on a population basis, and according to their classification under the law. In some counties the entire amount allotted the county goes for the retirement of improvement district bonds, while in others the entire amount goes to the county highway fund. Other counties have divided their allotments, so that a portion of the money goes to bond retirement, and a portion to the highway fund.

The vouchers just sent out include only that portion of the funds allotted to counties for road work, Mr. Wilson said, and are not to be confused with either bond payments, provided under the law, or with the money spent by the State itself on highways forming a part of the State system. The State is expending approximately \$200 per mile annually in the construction, reconstruction and maintenance of the State system, he said.

Vouchers totaling \$1,059,140, covering July bond relief payments, have also been sent out, to be applied on this year's bond payments in the various local road districts.

A list of the vouchers drawn by Mr. Wilson, with the amounts, is given below. The counties omitted are those in which the entire proceeds of the new State highway law are devoted to bond relief.

Counties—Ashley, \$5,010; Baxter, \$7,287.50; Benton, \$7,758.75; Boone, \$10,327.50; Bradley, \$13,665; Calhoun,

\$10,095; Carroll, \$7,612.50; Clark, \$5,486.25; Clay, \$23,355; Cleburne, \$10,875; Cleveland, \$7,875; Columbia, \$17,763.75; Craighead, \$9,639; Crawford, \$22,035; Cross, \$7,950; Desha, \$4,342.50; Drew, \$14,006.25; Faulkner, \$11,850; Franklin, \$12,431.25; Garland, \$16,560; Greene, \$22,350; Hempstead, \$20,283.75; Hot Spring, \$15,225; Howard, \$7,950; Independence, \$15,390; Izard, \$2,970; Jackson, \$10,890; Jefferson, \$12,911.25; Johnson, \$5,409; Lafayette, \$15,505; Lawrence, \$1,891.50; Lee, \$24,705; Logan, \$22,140; Lonoke, \$2,895; Madison, \$3,829.50; Marion, \$8,700; Miller, \$10,282.50; Mississippi, \$20,250; Monroe, \$5,548.50; Montgomery, \$7,132.50; Nevada, \$18,780; Newton, \$20,620; Polk, \$4,216.50; Pope, \$6,975; Pulaski, \$9,370.50; Ouachita, \$17,655; Perry, \$6,356.25; Pike, \$10,180; Randolph, \$11,373.75; Saline, \$7,185; Scott, \$11,325; Searcy, \$3,748.50; Sebastian, \$48,570; Sharp, \$762; Stone, \$3,757.50; Union, \$25,410; Washington, \$15,180; White, \$14,812.50; Yell, \$16,470; Fulton, \$7,177.50. Total, \$713,543.25.

Amounts sent out in May were as follows: Counties—Ashley, \$1,670; Baxter, \$1,475.50; Benton, \$2,586.25; Boone, \$3,442.50; Bradley, \$4,555; Calhoun, \$3,365; Carroll, \$2,537.50; Clark, \$1,828.75; Clay, \$7,785; Cleburne, \$3,625; Cleveland, \$2,625; Columbia, \$5,921.25; Craighead, \$3,213; Crawford, \$7,345; Cross, \$2,650; Desha, \$1,447.50; Drew, \$4,668.76; Faulkner, \$3,950; Franklin, \$4,143.75; Fulton, \$2,392.50; Garland, \$5,520; Greene, \$7,450; Hempstead, \$6,761.25; Hot Spring, \$5,075; Howard, \$2,650; Independence, \$5,130; Izard, \$990; Jackson, \$3,630; Jefferson, \$4,303.75; Johnson, \$601; Lafayette, \$2,215; Lawrence, \$630.50; Lee, \$8,235; Logan, \$7,380; Lonoke, \$953; Madison, \$425.50; Marion, \$2,900; Miller, \$3,427.50; Mississippi, \$6,750; Monroe, \$616.50; Montgomery, \$2,377.50; Nevada, \$6,260; Newton, \$1,597.50;

(Concluded on Page Fourteen.)

Where Shall We Locate the Trunk Highways?

A General Discussion of Highway Location, by A. R. Losh, Federal District Engineer.

EDITOR'S NOTE—This article concludes a series begun by Mr. Losh in the May number, covering many factors which are considered by government engineers in the location of Federally-aided highways.

In some localities weather conditions have an important bearing on location. Where snow is a serious factor an exposed location may be free from drifts and also open to the action of sun and wind. Certain exposures on mountain roads are advantageous for these reasons. Road location near a shore is questionable in a locality subject to high wind velocities. Where there is an excessive rainfall a ridge location may have decided advantages over a valley location.

Deciding location questions where natural conditions alone are involved usually cause less trouble to the engineer than do those where features of development are involved. When and how much shall a line depart from its general course to pass through a small city or town or to give service to an agricultural or industrial community is a problem which cannot be settled by any determined rule nor is it ever settled to the satisfaction of all parties concerned. The engineer can decide in the beginning that someone is going to be disappointed. Traffic studies and traffic estimates will prove helpful in presenting the advantages of several alternate lines. Sometimes, the problem may be solved by carrying the main line on its general course and providing a spur loop into the section needing local service. The merits of these cases should be carefully considered as it is often possible to combine the local and through traffic as one line without increasing substantially the distance. This is frequently the case where the actual control points are twenty miles or more apart.

Where steam or electric railway lines provide local service, through a region it is, as a rule, advantageous to locate the highway some distance from these other utilities and thus provide transportation service to communities which are not already served. This is usually profitable to both the highway and the railway as it leaves each a local service and also extends the transportation field. The advantages of leaving space between the railroad and highway for suburban development has already been referred to. This should be not less than 350 feet between right-of-way limits. For rural development in an agricultural section a location at least five miles removed from the railroad is desirable. The highway located so as to serve as a direct feeder to other transportation lines is a distinct service in itself.

Many small industries also new lines of agricultural activities may be developed as a result of road improvement. These existing and possible developments should receive consideration in location. Small sawmills, mines, quarries and oil wells where the output would not justify railroad connections can operate, market their products and receive their necessary supplies by highway transport. This application to various lines of agriculture is evident as is also the possibility of enhancing farm land values by road improvement. These are location influences which can be considered on sections of highways where actual control points such as cities are twenty miles or more apart and where it is pos-

sible to develop several routes with little increase in distance.

The necessity of eliminating the intersection of railway and highway lines at grade is having a decided effect upon highway location. Considering that a grade crossing elimination by grade separation costs from \$15,000 to \$60,000 it is evident that a considerable expenditure can be justified in locations which will obviate the necessity of intersections at all. Engineers should face the question of railroad grade crossings squarely and adopt every possible means to eliminate them. This can usually be effected cheaper by location than by any other means. One way of eliminating crossing the railroad to serve a small town is to construct a spur or loop from the highway across the railway to the point desired. Local traffic to the town uses a grade crossing but then traffic is saved from two crossings. Careful study of the conditions along the entire route should be made and the number of necessary crossings be determined. Usually the exact point of crossing is not final but at definite locations the highway should be on opposite sides of a railroad line. The engineer should locate the most favorable crossing places and use these as control points of location. If available funds or other complications prevent immediate construction of grade separations, the location should be made so as to provide for this in the future. It is impracticable to do this on crossings which must be made in cities. This is one reason for making the crossing outside the city wherever possible. Not all grade crossings on the State Highway can be eliminated immediately, and where it is necessary to accept them, special safety means should be adopted. Where grade crossings are used the location should be placed to provide all practicable means to safety for the crossing. It is desirable to have:

- (a) Railway and highway crossing at angle of 90 degrees.
- (b) Highway on tangent for 100 feet or more each side of railroad.
- (c) Zero grades for fifty feet each side of railroad and approach grades to these of not more than 3 per cent.
- (d) A field of vision which at a distance of 500 feet from the crossing will give a clear view of the railway for a distance of 500 feet each side of the highway.

These conditions cannot always be fully met, but these are what should be obtained for reasonable protection to the traveling public.

There is a substantial mileage of existing highways built years before the motor vehicles were developed. ~~The standards of location were not what we consider desirable~~ under modern conditions. The investment in these improvements is too great to be disregarded and the stability of the old roadbeds is a great advantage for reconstruction. We should utilize these improvements if practicable to do so, at least until a large percentage of the roads have been constructed. Under the reconstruction period we can abandon parts of these old lines with better grace than at present,
(Concluded on Page Fourteen.)

A History of the National Military Roads in Arkansas

Written Especially for *Arkansas Highways* by Dallas T. Herndon.

EDITOR'S NOTE—This is the third installment of Mr. Herndon's story of the early road building that had so much to do with the development of Arkansas. In the preceding installments, he has told of the thrilling experiences of military couriers who made the overland trip from Memphis to Little Rock and return over the present route of the State highway, picturing conditions which made it impracticable for the ordinary traveler to attempt a land journey. He has also told of the building of 64 miles of road from Memphis to the house of William Strong on the St. Francis river, through appropriations made by the National Congress. The story is here continued.

In September, 1827, Lieutenant Thomas, sent out now in Griffith's room as superintendent, inspected the road and route from Strong's, as previously surveyed, having passed over the whole of it from Memphis to Little Rock on horseback. Thereafter Thomas spent several weeks exploring the country along the route with a view to making alterations in the course. The route which he settled on presently, though adding some sixteen miles in length to the survey as run by the president's commissioners, seemed more than fully compensated. It was thought that thereby would be saved enough "to erect bridges over all the larger water courses, where ferries could not be maintained." Contracts were let without delay; work proceeded with precision and promptness. By December, 1827, ten miles of road, now building, from Little Rock, were done, wanting only finishing touches. The rest of the road to the sixty-fourth mile tree was promised for completion on the 15th of March.

Traffic, meantime, had stood not at all on the formality of an official opening of the road to travel. Lieutenant Thomas had said, upon his arrival at Little Rock in September, that he counted twenty horsemen on the road in his journey from Memphis to Strong's. Hundreds were said to have entered the country by the route in the fall and winter months while the Little Rock end of the road was yet only in process of construction. Almost immediately the route had been opened in all its course, the mail was set going over it between Memphis and Little Rock for twice-a-week deliveries. In the latter half of 1828 the volume of traffic grew amazingly. By the end of that year, the road at times literally swarmed with horsemen. Now and again a carriage or a wagon or even several in a group were encountered. Indeed, it was over this road, except in a few rare instances, that the first horse-drawn vehicles were introduced in the Territory. A Memphis paper estimated that "fifteen hundred immigrants, mostly Tennesseans," had crossed the river there during the summer months of 1830. "So great at times is the throng at the ferry," said the same witness, "that not infrequently are movers detained a day or two, waiting their turn with the ferryman."

But once the road had been opened, nothing worth the name was done to keep it in repair. The government at Washington looked to the pioneers themselves, or in all conscience it might have looked to them, to undertake measures for the upkeep of the road, since they, the pioneers, had been at no expense in its making. But rarely if ever anywhere was it more truly said that, "what's everybody's business is nobody's business." A sultry, lazy climate, the



easily productive soil, inherent and exaggerated individualism on the part of the pioneer, the vicious influences of slavery, each to a degree no doubt, helped to foster a spirit of indifference toward whatever partook of or called for initiative in public enterprise. The sense of individual responsibility for matters relating to the common welfare was a virtue conspicuous chiefly for its absence. The pioneers of the well-to-do class were for the most part a quite indulgent sort. Contact with slavery, now rapidly taking firmer root in the community, tended here, as everywhere, to make certain vices really seem virtues. Arrogance, overbearing tyranny, and slothfulness were, of these evil tendencies, perhaps the more marked. Though, it is only of the prevalence of easy-going slothfulness that one is here concerned. By 1830, the slave-holding planters, scattered along the rivers, were the dominant element in affairs. Economy, thrift and providence were matters but lightly esteemed. Little was done except as necessity demanded.

Of the pioneer's improvidence as regards affairs of moment to the community in general, perhaps the fact that the Memphis road, of which the government had made him an unqualified gift, was left to fall to pieces is an example than which hardly a better may be found. As pointed out on another page, the road was scarcely more than well begun when scores and hundreds fell at once to using it; once it was open to travel all the way to Little Rock, thence several thousand settlers year in and year out pressed forward eagerly over it into nearly every quarter of the Territory. How fared it with the road in such circumstance—with never a spade or an ax employed to effect its repair—the reader's imagination will doubtless paint the true picture. The rains of five successive winters; the unprecedented freshet, by those then living not soon to be forgotten, of June, 1833, finished what the wear and tear of heavy traffic had done already, to reduce the road to a state of utter wretchedness. The mail route to Memphis, which in 1828 had started out with flying colors, was at length abandoned altogether.

Such conditions were allowed to come to pass notwithstanding the urgent advice of Governor John Pope in his message to the legislature in October, 1829, that measures

(Continued on Page Twelve.)

Highways Opening Arkansas Resorts

By Jno. R. Fordyce.

Do Arkansans themselves realize what a wonderful summer resort state they have, and how its beautiful mountains, valleys, springs and streams can now be reached by autos within a few hours travel from the larger towns and cities? Of course, we have always had these beauty spots of nature, but we could not reach them except by long tiresome journeys over miserable roads. Most of us who wanted a vacation took a night train out and woke up next morning in some other state, without even having seen the beautiful country of our own State.

All of this has changed now, and our new highway law has made this change possible. The short disconnected stretches of paved and unpaved road, in most cases unfinished, and which led nowhere were the sole visible evidence of our district plan of road building which so nearly bankrupted the State and left a feeling of hate in the hearts of our people toward all roads and road builders.

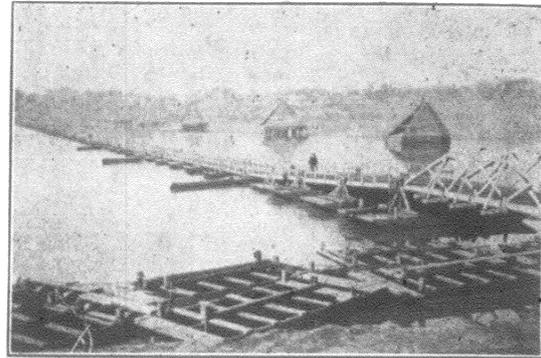
The State Highway Department under the new highway law, now has assembled one of the most efficient organizations of highway builders in the United States, and they are doing a marvelous work. They are repairing and maintaining the already badly worn roads which have been turned over to them; they are building new roads to connect the unfinished projects, and they are locating and building new roads which are necessary links in the State projects. If this program is not interrupted by adverse legislation or the election of less progressive State officials, Arkansas will soon have the best system of roads in the country. And the fact which is most pleasing to all is that these roads are not costing one-tenth as much as was spent on the roads built under the district plan. Our own people are doing the work. The money is paid out in wages right along the road and we are not sending tax money out of the State to bondholders and best of all, the cost is being largely borne by the people who use the road and not entirely by those whose land happened to be near the road.

After a road inspection trip of over 800 miles, I am firmly convinced that our present system of building roads is modern, efficient, economical and fair to all concerned, and within another year will begin to bring enormous returns to all the people of Arkansas for the money expended. New England, Colorado, California have found that their good roads have brought them in millions of dollars from summer tourists, and Arkansas is now just beginning to find out the same thing.

Leaving Hot Springs at 9 o'clock one morning, we headed west over the Albert Pike highway, which is planned to go through to Colorado Springs. Our own Rector Heights, 1,300 feet in the air, was on our right as we crossed the Bull bayou bridge at a point which soon will be an arm of our new Ouachita river lake. Crossing the main river we continued in the beautiful open valley country with the fields of cotton and corn to Crystal Springs, where a collection of large springs boil out of the hillside and make quite a large creek. These springs are surrounded by a shady grove of trees in which is a fine camp ground. Shortly after we entered the Arkansas National Forest Reserve, and wound in and out of its valley and hills over a splendid road.

Here the pines are standing in their primeval growth

THE PONTOON BRIDGE.



Said to be the longest pontoon bridge of its kind in the world, the above interesting structure is encountered by the automobile tourist at Dardanelle, on State Highway "B-14," between Russellville and Ola.

along the road like columns in some ancient temple; their shadows fall across our path; long vistas open up back into the forest to some hillside brought suddenly to view by the spotlight of the sun. We come to the valley leading up into the Crystal mountain, a part of the road which used to be called the Devil's Race Track because it was almost impassable, but now is a modern road. The country opens up into valley farms with old houses and log barns showing the early date of the settlements in this part of the country.

Mount Ida, the county seat of Montgomery county, is next on our way. Its modern bungalow residences and stores around the courthouse square give you the idea of prosperity. It has no railway, but the Gurdon branch of Missouri Pacific is not so far away and no doubt will soon be building this way. Away to the south are the high Ouachita mountains beyond the Caddo branch of the Ouachita river. The peaks have been given the names which their appearance suggested to the old settlers "Fodder Stack," "State House," etc.

From Mt. Ida we headed north and forded the Ouachita river just above the mouth of Fiddler's creek. What a picture comes to your mind in this name; a country dance in some mountain cabin; the country fiddlers calling out the old dances—"Forward Ladies, Balance All, Gents With the Whiskey Breath Balance to the Wall." A ferry is used in crossing in high water, and a new steel bridge is soon to be built.

We come to the cross roads, and avoiding the Oden road, which leads to Mena, we take the right hand, climb the northwestern rim of the Ouachita river valley watershed and get into the headwater of Mill creek, a tributary of the Fourche la Pave. We are in the Arkansas Forest Reserve again, and the splendid roads and bridges make you feel proud of the service. Along here is one of the gaps in the road, but soon we came to engineers' stakes, then a chopping gang cutting out the trees, then a blasting gang, then a grading outfit, then a camp of the roadbuilders, and soon

(Continued on Page Thirteen.)

Contractors', Road Builders' Equipment

Advance-Rumeley Tractors	Clyde Steam, Gas and Electric Hoisting Engines
Schramm Compressors	Clyde Steel and Timber Derricks
Trenchers and Back Fillers	Steel Bridges
Fuller & Johnson Engines	Concrete Carts and Wheelbarrows
Sand and Gravel Pumps	G. M. C. Trucks
Rex Mixers and Pavers	Conveyers

The Blaw-Knox Lines

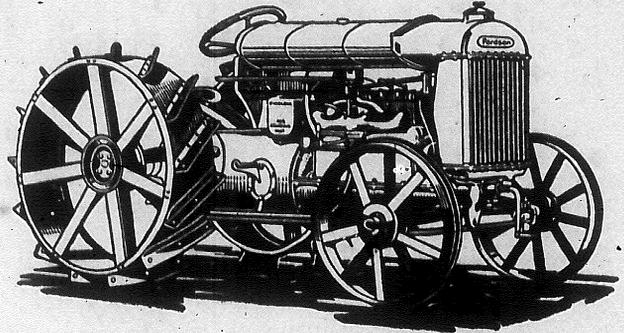
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The New Highway Law

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GOOD ROADS



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Leaves From the Editor's Notebook

CONSTRUCTIVE VS. DESTRUCTIVE.

These are days in Arkansas when all about us emphasis is being laid, whether we will or no, upon the value of the constructive life, and the heavy cost of the destructive.

Ordinarily this is not the case. Ordinarily it is the critic, the tearer down, the destroyer, who gains first place in public attention. This is true for a number of reasons. One of them is that the destroyer is always noisier than the builder. The man who tears down with the aid of dynamite usually attracts more attention than the man who, quietly laying stone upon stone, brick upon brick, erects some beautiful and serviceable building.

We use the word "usually." We do that because it is not always so. And for the reason that it is a law of nature that sensations oft repeated lose their power of impressing the senses. Noises often heard become common to our ears, and at last make no impression. The truth of this assertion will doubtless be borne out in the minds of all of our readers.

The critic, the dynamiter, the destroyer has occupied the center of the stage in Arkansas for many years. He is still at work, beating the drum, setting off the fuse, making lots of noise with his big red fire-crackers, trying to gain popular attention. But our senses have grown a little dull over the performance, and we have turned elsewhere for our interest. And we have found it, all over Arkansas, in the quiet, constructive leaders who are going about the job of making this State what she ought to be, and what she might have been years ago, if many of us hadn't been so interested in watching the men with drums, and dynamite caps and fire-crackers amuse themselves.

It is hard to measure the real debt Arkansas owes her constructive leadership of the present day for the strides she has taken. Remove from her what that leadership already has given, and leave her only with that which the noisy destructionists have accomplished, and how poor, how poor, indeed, would she be!

COMMISSIONER MAXFIELD REACHES EIGHTIETH MILESTONE

Theodore Maxfield, appointed by Governor McRae last year as a member of the new State Highway Commission from the Batesville district, has just celebrated his eightieth birthday. This is hard for those who have seen his pep, enthusiasm and vigor in the consideration of the new highway policies of the State to realize. Yet it is the truth. Mr. Maxfield has already gone ten years beyond the Scriptural compass of human life, and with his powers apparently unabated.

In congratulating him on the anniversary, his home town paper, the *Batesville Guard*, has this to say:

"No other man in Batesville has such a claim on the town and community as he, for no other man, so far as we are informed, has the distinction of having been born and lived for the period of four decades in the city of Batesville. Mr. Maxfield has not only lived in Batesville for these many years, but he has lived well. Not a duty as a citizen has been left unperformed, the first and greatest of these has been his example of personal effort, and next loyalty to his family responsibility and last to the public, and this wisely planned life has led him all the way to where he stands today, an honored citizen, beloved by his family, and with the promise of still many more years of useful activity."

ROAD MARKERS NEXT.

Now that Arkansas is getting her "roads that go somewhere" under the able administration of Commissioner Herbert R. Wilson, roads of which she is proud to boast, the next important question is that of signs, for the easy direction of the tourist.

An up-to-date system of road signs has been worked out by Mr. Wilson, and will be installed as quickly as possible. When the installation is complete, it will be impossible for the automobile traveler to get lost in Arkansas, however unfamiliar he may be with her roads. Every cross-roads will be clearly marked, and at frequent intervals on every highway there will be signs giving the number of the road, the section on which the tourist may be, and the name of the local patrol foreman responsible for its condition.

STATEMENT.

Appropriations biennial period July 1st, 1923, to June 30th, 1924, and expenditures of the Department of State Lands, Highways and Improvements, July 1st, 1923, to June 28th, 1924.
Land Division—Salaries as provided by law:

REGULAR APPROPRIATIONS.

DESIGNATED APPROPRIATION	AMOUNT	EXPENDED	BALANCE
1 Commissioner	\$ 2,500.00	\$ 2,291.63	\$ 208.37
1 Deputy Commissioner	2,400.00	2,200.00	200.00
3 Clerks	5,400.00	4,405.00	995.00
Clerks and Stenographer	1,500.00	1,325.00	175.00
Land Division—Maintenance	2,500.00	2,271.97	228.03
Automobile Division—Salaries as provided by law:			
1 Deputy Commissioner	2,400.00	2,200.00	200.00
2 Clerks	3,600.00	3,250.00	350.00
Extra Clerks for rush period	2,400.00	2,337.77	62.23
Automobile Division—Maintenance	50,000.00	49,896.54	103.46
Highway Department—Salaries as provided by law:			
1 Chairman	750.00	687.50	62.50
1 State Highway Engineer	5,000.00	4,583.26	416.74
2 Assistant Engineers	6,000.00	5,149.90	850.10
1 Secretary	2,700.00	2,475.00	225.00
1 Accountant	2,700.00	2,475.00	225.00
2 Stenographers	3,000.00	2,575.00	425.00
1 Chief Clerk	1,800.00	1,425.00	375.00
3 Draftsmen	5,400.00	5,015.00	385.00
Highway Department—Maintenance	40,000.00	39,806.37	193.63
State Highways—Maintenance, Construction and Reconstruction	1,357,550.00	1,313,704.98	43,845.02
Aid—Construction of State Highways	1,000,000.00		1,000,000.00
Federal Aid Fund	3,000,000.00		3,000,000.00
Distribution to Counties and Road Improvement Districts	3,000,000.00	227,316.75	2,772,683.25
Salaries—Assistant Attorney General and Stenographer	2,700.00	2,100.00	600.00
Salary—Extra Clerk, State Treasurer's Office	1,350.00		1,350.00
Examination of Gasoline and Oil Records	5,000.00	1,951.60	3,048.40
TOTALS	\$8,506,650.00	\$1,679,443.27	\$6,827,206.73

Total Vouchers issued May 28th to June 28th, 1924—\$307,541.06.

RECEIPTS AND DISBURSEMENTS HIGHWAY IMPROVEMENT FUND AT CLOSE OF BUSINESS JUNE 28, 1924.

Balance in State Treasury May 28, 1924..... \$1,841,792.86

Receipts April 25th to May 28th:

Auto License Tax	\$161,047.01
Gas and Oil Tax (Regular)	230,367.29
Recovered under 1 cent law from Pierce Oil Company	79.24
From Chauffeurs, Transfers, Losses, Duplicate Registration	
Cards and Land Office Fees	9,824.80
Refund on Warrants	26.74
Interest and Depositories	6,236.45

TOTAL Receipts for month..... \$407,581.53 407,581.53

\$2,249,374.39

Expenditures May 28th to June 28th

326,644.11

Balance in State Treasury..... \$1,922,730.28

VOUCHERS Accrued and Approved for Payment June, but not included in above statement:

Road Maintenance, Construction and Re-construction..... \$ 68,929.56

All other appropriations..... 5,021.31

73,950.87

Balance on hand District Engineer's Lump Sum for April:

OVERDRAWN

BALANCE

District No. 1..... \$ 11,386.61

District No. 2..... \$ 4,381.29

District No. 3..... 10,845.99

District No. 4..... 2,658.44

District No. 5..... Report Not In

District No. 6..... 7,343.20

(Concluded on Next Page.)

MAY 31, 1924.

TOTAL EXPENDITURES

R. M. Vouchers.....		\$1,305,288.19
Equipment—Major.....	\$ 235,260.83	
Materials M Sections.....	21,944.76	
Equipment M Sections.....	32,214.25	
Miscl. Items M Sections.....	4,124.30	
Salaries and Expense Addi- tional Engineers.....	56,214.74	
Wages and Salaries—Shop.....	32,835.42	
State Aid.....	65,193.89	
Lump Sum.....	857,500.00	

\$1,305,288.19

ANALYSIS OF EXPENDITURES—MAJOR EQUIPMENT.

New Equipment—Graders.....	\$ 88,215.68
New Equipment—Miscl. Equipment.....	691.00
New Equipment—Passenger Cars.....	4,892.90
New Equipment—Tractors.....	15,684.74
New Equipment—Trucks.....	13,171.04
Shop Construction, Exp. & Imp.....	7,151.24
Shop Freight and Express.....	8,105.86
Shop Gasoline and Oils.....	3,706.84
Shop Miscl. Material for Trucks, Tractors and Passenger Cars.....	21,715.99
Shop Overhead.....	2,724.32
Shop Shipping Department.....	123.54
Shop Tools and Equipment.....	5,797.38
Tractor Repair Parts.....	46,889.82
Truck Repair Parts.....	14,137.02
Truck Bodies.....	2,793.63

TOTAL..... \$ 235,801.00
Less Exp. by D. Eng. for Major Equip..... 540.17

NET TOTAL..... \$ 235,260.83

SOLON PRAISES MAGAZINE.

"You are putting out a magazine, full of up-to-the-minute road information, that is of great value to the State," writes Senator W. U. McCabe of Mountain Home, to the editor of *Arkansas Highways*.

"It's establishment is one of the many notable achievements of the splendid administration of Herbert R. Wilson as highway commissioner, and it is to be hoped it will be continued through all succeeding administrations, just as it has been begun. It is giving our people a new and true view of the work of the department, and creating a constructive sentiment that will forestall the recurrence of any such nearly disastrous drives as were staged in 1923 by the anti-good-roads gang.

"I am running this fall for re-election to the State Senate, and I am proud to base my campaign upon my support of the new highway law and the highway department in the legislature."

Senator McCabe's district includes Baxter, Fulton and Izard counties.

PRESS COMMENTS

No new man, however competent, however honest and willing, can step into the shoes of Herbert Wilson and carry on the work on our roads as he has done and will continue to do, if left alone to perfect the plans he has made and is now so successfully carrying out.—*Batesville Guard*.

Voss-Hutton Co.

Little Rock, Arkansas

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Klaxon Horns	South Bend Lathes
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Raybestos	Black & Decker Drills
Pedrich Rings	Timken
Weaver Equipment	Hyatt
Welding Equipment	New Departure Bearings

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- her constructive statesmanship
- her progressive spirit

WE ARE PROUD TO BE KNOWN AS

"The Arkansas House"

and to have our part in the favorable advertising of the State.

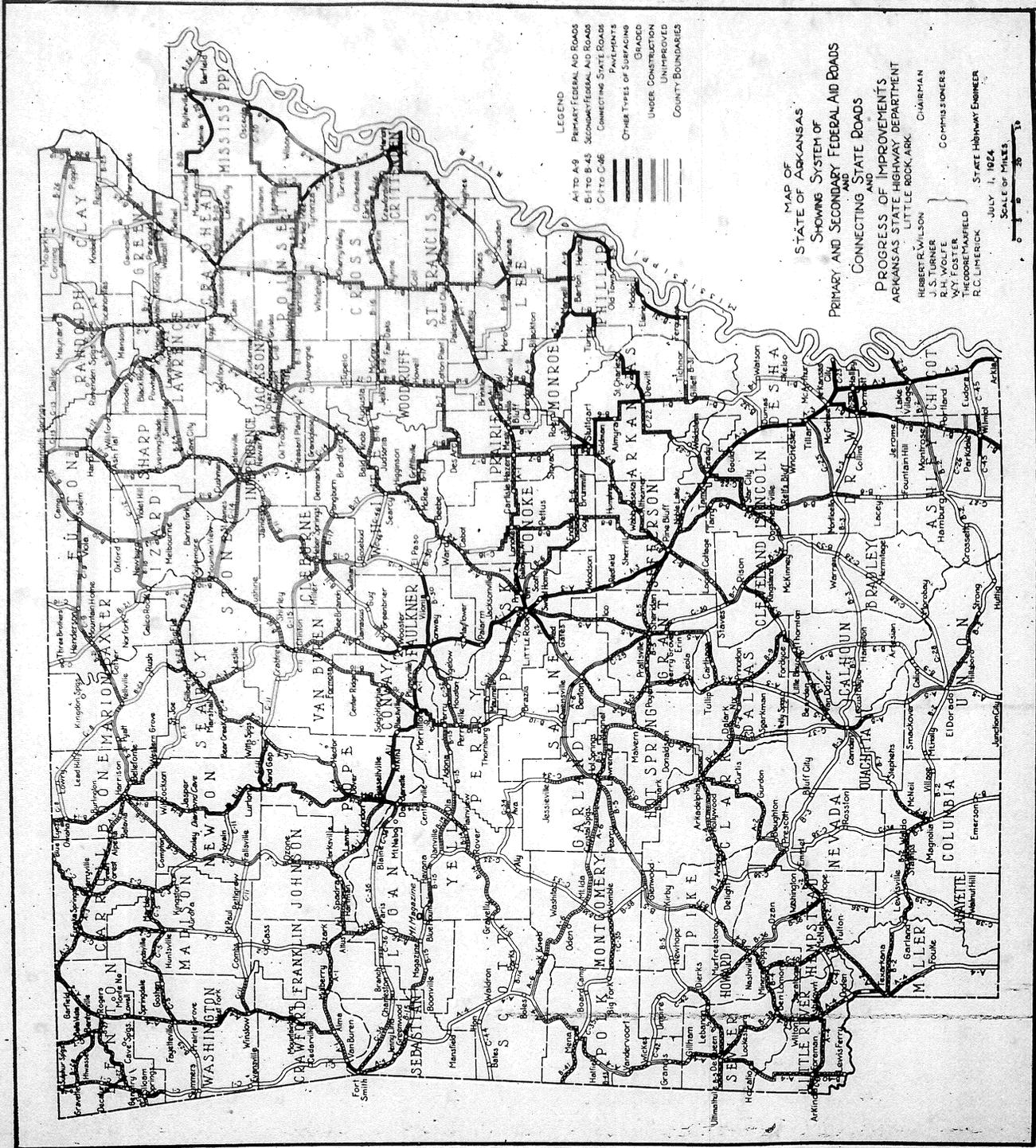
Come in and Look Us Over in our Wonderful New Home—

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Second and Scott Sts. Little Rock, Ark.

Before You, Citizens of the "Wonder State," Are Your "Arkansas Highways!"



A HISTORY OF NATIONAL MILITARY ROADS.

(Continued from Page Five.)

of prevention be speedily undertaken. Returning from Kentucky with his family but a short time before, he had, as he said, "determined to travel this military road in order to obtain more correct information, that I might be enabled to give an opinion regarding it with greater satisfaction to myself. Nor do I regret the undertaking," he added, "although my family encountered some truly unpleasant hardships on the route." Touching conditions as he found them, he thought, he said, the road might, without much additional expense, be rendered a practical route "at all seasons of the year." From Little Rock to the river St. Francis, "the road," he continued, "is the best over which I have ever yet traveled; however, its condition for a space between this and Grey's (White River)," he said very frankly, "is a reproach to Little Rock and Pulaski county." He was fully imbued with a sense of the great utility of the road "from a conviction that, if and when made good throughout, it will greatly accelerate the settlement of this most valuable and desirable country." In great part the work of construction had been originally, he found, "well executed;" for correcting defects in other parts, he thought, there would be no stinting of the national government's further "liability." But, also, and of greater importance even, he urged that steps be taken "to preserve the road and keep it in order." In other words, conditions the like of which he affirmed a disgrace to Little Rock and Pulaski county ought at all events to be corrected. To that end he thought it best the road be given over "either to a company or an agent with power to collect Tolls" ample for its upkeep.

Levying claim on the "liberality" of Congress was in Arkansas in that day, as in other territories, one of the legislature's chief aims of being. The governor, but lately come amongst them, needed to proffer no advice under the head of the admonition "ask and ye shall receive." Thus from time to time, as gradually the road grew worse, Congress was repeatedly importuned for additional funds with which to put it in a state of repair. The legislature thrust resolutions and memorial one after another into the hands of Ambrose Sevier, the territorial delegate to Congress, following the death of Henry W. Conway; whom Robert Crittenden killed in a duel in November, 1827. Public meetings were held and long petitions drawn up to effect the same end. Sevier said in Congress, speaking from the floor of the House of Representatives:

"This road is the only direct communication we have with the states. We in Arkansas are yet few in numbers and have no means to make it ourselves. The Indian policy of the government places us in a most critical situation. You have located, against our consent, nearly all your savages upon our frontier. They go to their new home nurturing unfriendly feeling for us. The government has supplied them with arms, or the means for procuring them. The tribes are numerous enough to massacre or drive east of the Mississippi river every white person in Arkansas Territory, unless in case of attack, we can get succor, and that right speedily, from the states. Open this road and we shall have nothing to fear. When in danger, we can ask and promptly get ample help from this side. It would now be out of the range of your power to give such assistance in time to prevent disaster."

Sevier was asking now for an appropriation of twenty thousand dollars with which to repair and otherwise improve the road from Memphis to the river St. Francis. In July, 1832, the full amount of what he asked was allowed—twenty thousand dollars—for expenditure as the governor, John Pope, might deem expedient. Sevier had been in office since 1827, long enough, it seems, to master the finesse of politics in Washington to that degree which enabled him presently, as one is now accustomed to hear, to "put over" such matters with the skill of a veteran. But besides his own unquestioned ability, no doubt the support of Governor Pope, who himself before now had sat in the Senate from Kentucky, was not without its weight in forwarding the interests of the Territory with the federal government. Furthermore, since 1830, the stride of immigration had moved with such head that the Territory seemed now all but ripe for admittance to the Union. Southern politicians were anxious to speed by all means possible the day of such a consummation. The improvement of the Memphis road, owing to its proven effect in increasing the movement of immigration from Tennessee and other Southern states, seemed certain to make good at an early date the admittance of Arkansas as a slave state.

The twenty thousand dollars, sought with a view to putting the road in repair, was intended only to be but the beginning of greater things to follow. A bill even then was pending in the House of Representatives, whereby, in event of its passage, the pioneers hoped to see the full measure of their plans as regards this road realized. Briefly, the bill in question aimed at creating a private, or semi-private, corporation endowed in part by the government. Congress was asked to incorporate a company for two hundred and fifty thousand dollars capital stock, toward which the government should subscribe one hundred thousand dollars, with the rest of the stock held for sale to private investors. With the capital so acquired the company would construct and operate a toll turnpike from Memphis through the marsh country and beyond. But, in view of President Jackson's well known opposition, as aired very freely in his veto of a similar act in favor of the Maysville Turnpike Company, of Kentucky, the ambitious enterprise of a toll turnpike was abandoned, perhaps for another less objectionable way of doing the thing, then so much desired, the government, of course, paying the bills.

But getting at once to the heart of the matter, Congress, in 1833, made an out-and-out gift of one hundred thousand dollars toward the Memphis road. Again, two years later, with another equal amount, the government's generous support of this project henceforth proved at an end. Thus the darling enterprise of the Arkansas of that day, a thing in behalf of which now long since the pioneers had rarely missed an opportunity to urge upon Congress the consummation of as a matter manifestly of dire necessity to public weal, enjoyed first and last government patronage to the amount of nearly a quarter of a million dollars; which sum was paid directly out of the federal treasury.

(To Be Concluded Next Month.)

KEEP AN EYE ON SIGNS

The safest and sanest idea when driving on roads not familiar to you is to observe the signs that tell you about hills, curves, etc. It may extend your lease of life indefinitely.—*Fairmont (Minn.) Sentinel.*

HIGHWAYS OPENING ARKANSAS RESORTS

(Continued from Page Six.)

we will be able to rush along at 25 miles an hour across the valleys and hills that separate the Fourche le Fave tributary streams from the Poteau river, that stream which rises in the country between the Petit Jean and Fourche le Fave, and flows west into Oklahoma, and then into the Arkansas at Fort Smith.

We climb a long hill, and as we reach the top and look ahead a broad valley opens out before us dotted with farms, and just at the base of the hill the thriving town of Waldron. We have reached the railroad again.

The usual Saturday afternoon crowd is gathered around, very much interested to know that we had come all the way from Hot Springs. Crossing the main line of the Rock Island railway at Abbot we climbed to a ridge road which ran to the west to Mansfield and then to Huntington. We should have gone to Greenwood, but followed a short cut and got to the Fort Smith-Greenwood pike, which is being surfaced with burned shale from the coal mines. This is also being done under the supervision of the State Highway Department. When we rolled into Fort Smith our meter registered 138 miles from Hot Springs, and we had made the trip in nine hours' running time.

Getting out at 9:30 Sunday morning via Van Buren and Rudy up the Frog bayou to Stewart, struck the Alma-Fayetteville pike. This pike has just been opened up and connected with the Fayetteville-Winslow pike. Four years ago I had come down this same road from Fayetteville; it had taken about 10 hours and I had to put the car in a repair shop.

That part of the road from Winslow to Mountainsburg had been the worst road I had ever seen, with steep grades, sharp curves and vertical steps of 12 to 18 inches high as it dropped from one sandstone ledge to the other. We had to fill the ruts with stone in order to get the car down. We couldn't enjoy the wonderful views and were worried almost sick because of the hardships of travel.

Contrast this picture with running in high 25 miles per hour up gentle grades, long wide curves leading around shoulders of the mountain from which we could get a panorama view of the hills as they stood range after range until their color faded in a light blue, which blended into the sky; wayside springs offered inviting spots for lunch, and picnic parties from Fort Smith were up here taking Sunday dinner. At places around a little country church numbers of cars stood, and the congregation was just spreading dinner in the grove.

Are Many Tourists.

Coming in to Winslow stood an old house with beautiful trees in the yard, a rustic well-house and a sign "Park your car here." We were hungry, and we parked. Our hearts sank when they said that the unheard-of number of auto tourists had literally swarmed up there and eaten them out of almost everything. They got us something to eat, nevertheless, and a good meal it was. This house is now called the Summit house. It had been an old stage stand in early days. We were soon rolling again and this time were on the pike which had been one of the Washington county district roads. It is a fine road and is gravelled but it cost over \$40,000 per mile. Contrast this cost with the newly built road over the mountain which had been located, drained and graded for \$4,000 per mile.

(To Be Continued Next Month.)

ARKANSAS HIGHWAYS CAN NOW SECURE EFFICIENT AND ECONOMICAL CONSTRUCTION SERVICE THROUGH THE RECENT COMBINATION OF GREGORY & WILSON

who own and operate more road building machinery than any other firm in Arkansas, with the Southern Sand Company operating the largest sand producing plant in the State.

There is no longer any question regarding the value of good roads when economically and properly built to meet required conditions. Combining the material production with the construction end of the business tends toward economy.

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Little Rock, Ark.

WRITING MY NAME.

I wrote my name upon the sand,
I trusted it would stand for aye,
But cruel waves swept o'er the land,
And washed my feeble lines away.

I carved my name upon a rock,
I thought that would stand the test.
But lightning came, and with a shock,
It crumbled, perished, like the rest.

I dreamed that in marble hall,
My name was chiseled in pure white,
An earthquake came, so great the fall;
It toppled, disappeared, within a night.

I awoke to know that if I would live
Beyond this world again,
My service I should my brother give,
And thus write my name upon the HEARTS of men.
JOHN J. DULANEY, *Ashdown, Ark.*

WHERE SHALL WE LOCATE TRUNK HIGHWAYS?*(Continued from Page Four.)*

but the new construction should be on lines for the desired future location.

Financial arrangements are the final controls on the entire highway program and in location this fact must be kept in mind. Unfortunately in many states a large portion of the cost of state highways is paid from local sources and as a result county, township and precinct boundary lines have an influence in the location of important state highways. In order to secure continuity of construction it is necessary at times to avoid crossing a corner of the county or precinct for the reason that funds are not available for a short section and political unit in question is not interested in the improvement. This condition is rapidly decreasing and State Departments are receiving both authority and funds for these important roads. Occasionally we find the desirable location to exceed in cost a less desirable one. This difference in cost is more pronounced on low type roads than on highly improved roads. Where funds are limited it is far better to lower the type of surfacing than reduce the standards of the location. The right-of-way, grades, alignment, the earthwork, bridges and drainage works are the lasting features of the road improvement. These should be looked upon from a different financial viewpoint than the investment for surfacing. If these more substantial and lasting features of a location cause a high cost estimate, it should be considered that their cost can be distributed over a long period of time and these location advantages, which are available for all future time, should be regarded as an investment for the future.

In conclusion there are offered these brief general suggestions to the engineer:

1. Liberal allowances should be made for future developments in traffic and industry.
2. The individual project should be considered a part of a large transportation plan.
3. The confidence of the public must be secured and retained, as it is the public pocketbook being touched for both road cost and road use.

THE END.**PITTSBURG TESTING LABORATORY**

Inspecting Engineers and Chemists

INSPECTION OF—

Bituminous Pavements

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INDEPENDENT CHAT*for***MAINTENANCE and CARPET TREATMENT**

Our Special SCREENED CHAT is best for this work.
Producers Crushed Limestone and Flint.

INDEPENDENT GRAVEL CO.

Joplin, Mo.

COUNTRY ROADS GET MONEY.*(Continued from Page Three.)*

Ouachita, \$5,885; Perry, \$2,118.75; Pike, \$3,540; Polk, \$468.50; Pope, \$775; Pulaski, \$3,123.50; Randolph, \$3,791.25; Saline, \$2,395; Scott, \$3,775; Searcy, \$416.50; Sebastian, \$16,190; Sharp, \$2,540; Stone, \$1,252.50; Union, \$8,470; Washington, \$5,060; White, \$4,937.50; Yell, \$5,490. Total, \$227,316.75.

There are some things that are bigger than personalities, or partisanship, or selfish interest. And one of them is the honest road-building program which Arkansas has embarked upon under Herbert R. Wilson.—*North Little Rock News.*

The God of the Men Who Do Things

By GERARDUS POST HERRICK

The cause is all, and the triumph naught
To the God of the men who do things,
He scorns the "don't" and leaves the "ought,"
This God of the men who do things,
He has one motive and only one,
He loves doing and loves things done,
As all his battles are fought and won,
The God of the men who do things.

He knows high purpose, He works things out
The God of the men who do things,
Though the lazy die and the righteous scout,
He cares not a whit for the common mold,
He burns the dross to refine the gold,
He cannot be bought, He cannot be sold,
The God of the men who do things.

He hates things weak, He loves things strong,
This God of the men who do things,
In soul or in body, in right or wrong,
This God of the men who do things,
He sees them fail and He seems them die,
But they win with Him in the Bye and Bye,
The God of the men who do things.

CLOSE AT HOME



This 36-inch 14-gauge ARMCO Culvert was installed in Pulaski county, near Scott, Arkansas, in 1908. It was inspected and photographed in June, 1923, and found to be in perfect condition in spite of its slight protection from heavy traffic and the water which stands in it at least nine months out of each year.

After sixteen years of service this ARMCO (Pure Iron) Culvert has not only proven its rust-resisting qualities but it has proven its strength and ability to give years and years of service under adverse conditions.

There are thousands of other installations under varying conditions which prove that ARMCO Culverts are just as permanent as any roadway that can be built.

MADE IN ARKANSAS
BY ARKANSAS PEOPLE

**THE DIXIE CULVERT
MANUFACTURING COMPANY**

LITTLE ROCK, ARKANSAS



The King of the Black-Tops

says

45th Among 48

Arkansas, you want automobiles—you have the wealth to buy them, but you need roads—splendid roads.

Warrenite - Bitulithic Pavement

is your solution. It is adaptable to every local condition. It defies weather and traffic punishment. It is smooth, durable and safe. It costs practically nothing for upkeep—and it lasts and lasts and lasts!

May we send you our free
booklets full of road facts?

WARREN BROTHERS COMPANY

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