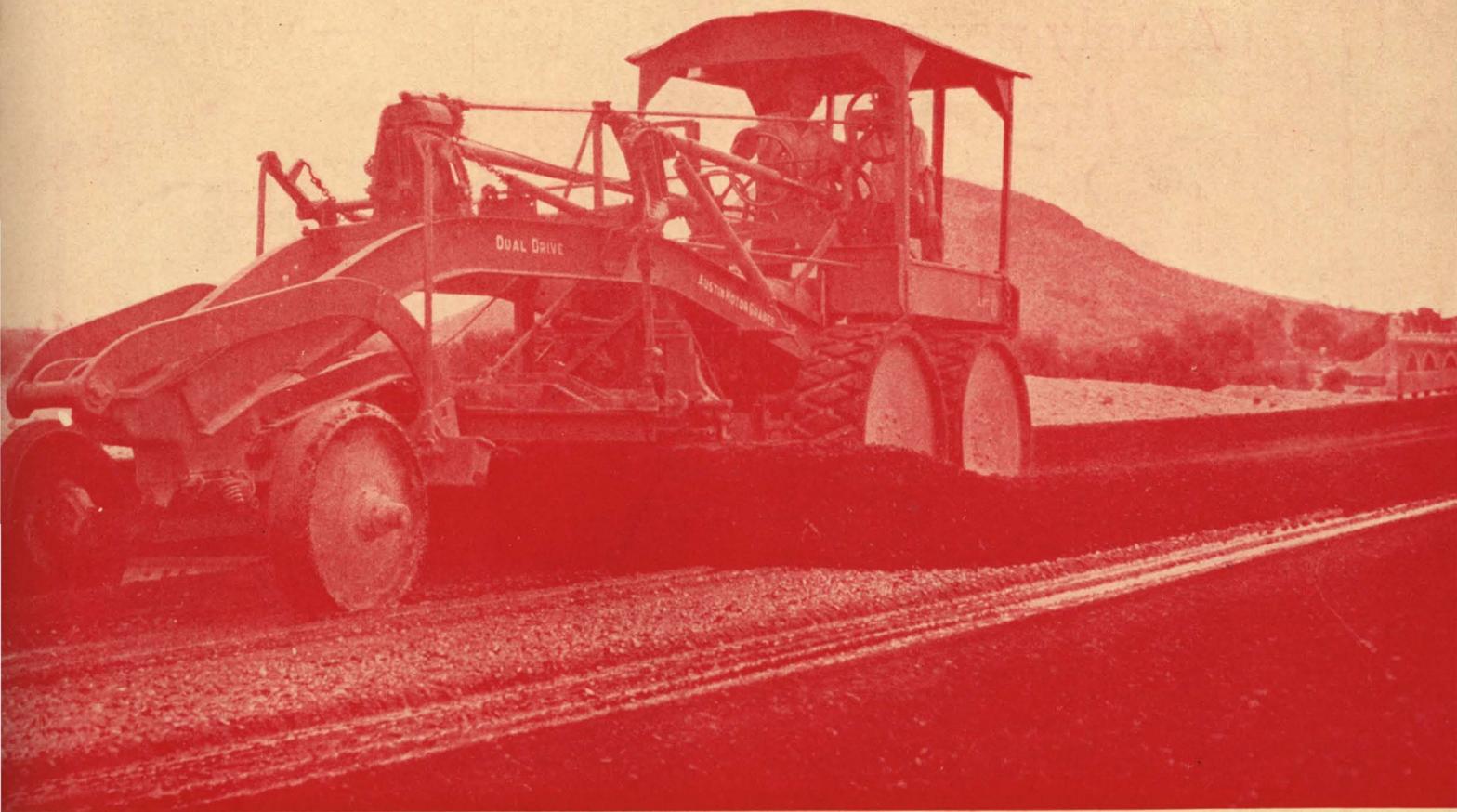


Arizona Highways



Blading Oil Surfacing Material

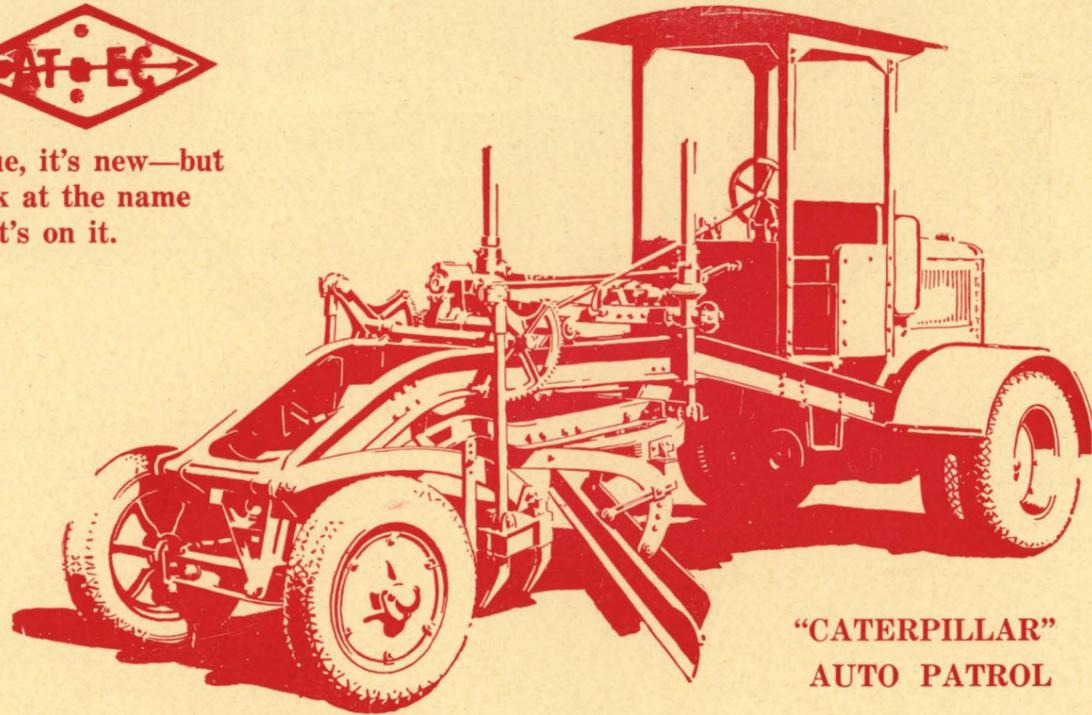
Volume 7
Number 10

October

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Asphalt**



UNION OIL COMPANY

Arizona Highways

October, 1931

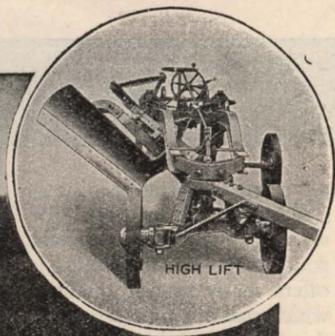
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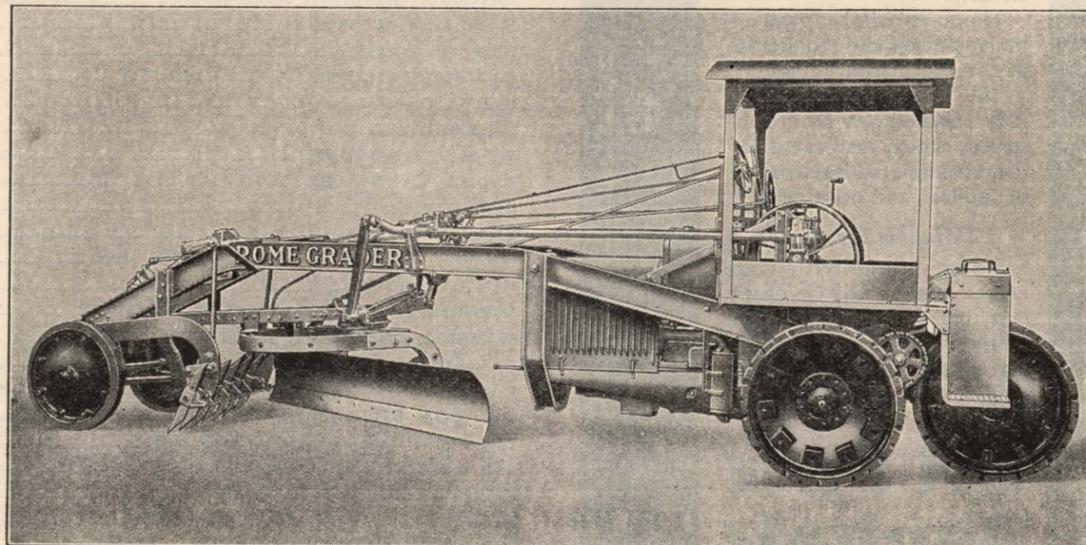
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Volume VII.

OCTOBER, 1931

No. 10

First Link In Grand Canyon Highway Nears Completion

By STANLEY A. DAY

Following the dim trails of the early Mormon settlers from Utah, as they came southward to the fertile plains of Arizona, men and machines are building a splendid modern highway that will in the days to come become one of the most interesting and widely used North and South highways in the entire United States. Skirting the great sandstone, vermillion cliffs of the first bench of the Grand Canyon this highway will soon be completed for half the distance from Cameron to the Great Grand Canyon bridge that spans the gorge in Marble canyon.

Traffic now is using the first 22 miles of this highway north of Cameron. Its long, straight stretches and wide sweeping curves are as superior to the old, time worn road, with its hundreds of dips through washes and creeks, as the automobile is over the ox cart. The first twelve miles of this stretch has been graveled surfaced and further surfacing now is being contemplated.

The contract for the entire 40 miles was one of the largest single piece of road construction ever let by the Arizona highway department. Its completion date called for January 1, 1932, but the contractors, Veater and Davis, expect to be off the job during the month of November.

It has been a difficult piece of construction. Isolated at the far end nearly 100 miles from any railroad it has meant that all supplies and equipment must be hauled great distances. The beginning of the construction at Cameron is 55 miles from Flagstaff, the nearest city and the nearest railroad. Besides its isolation, cutting as it does across the upper bench of the Grand Canyon, drainage problems from the plateau above presents a big factor. This is to be seen in the number of structures on the project. There are 43 bridges of over 20 foot span, 27 bridges under 20 feet in length and a total of 215 corrugated metal pipe culverts in the 40 miles.



One of the 43 bridges of over 20-foot span on the 40 miles under construction north of Cameron. When these streams race to join the Colorado River at the bottom of the Grand Canyon they need plenty of clearance.

Since the first Spanish explorer plodded his way Westward across Arizona the mighty Grand Canyon has balked man's efforts to reach beyond, without great detours across desert wastes or the perils of the almost untraversable depths of the Grand Canyon. The Mormons found a circuitous route from the North side to a crossing of the Colorado River at Lee's Ferry. Then against the very face of towering cliffs of the upper canyon they scratched a trail up to the bench where the present highway runs. This route for over half a century was the only means of traveling from Utah, south into Arizona. None but the most venturesome travelers dared to make the trip.

Utah has built a splendid highway south from Salt Lake City through Zion Park to the Arizona border. Arizona and the Park Service are at work on the different links that will connect with this

highway which, when it is completed, will give the people of the entire Northwest an opportunity to come south over one of the most picturesque and interesting routes in the country, with the greatest natural wonders in the world along the route.

In the Kaibab forest on the North rim of the canyon is the greatest herd of deer in America if not in the entire world. It is impossible to travel this section of the trip without seeing scores of them alongside the roadway and often herds of them in the parks, or clearings in the forest. Buffalo range in Rock House valley. Across the Grand Canyon bridge and on the section now building deer and antelope are frequently seen. Skirting, as it does, the Western edge of the Painted Desert and unending panorama of beautifully colored landscapes follows this highway all the way to Cameron, wild, beautiful, almost un-

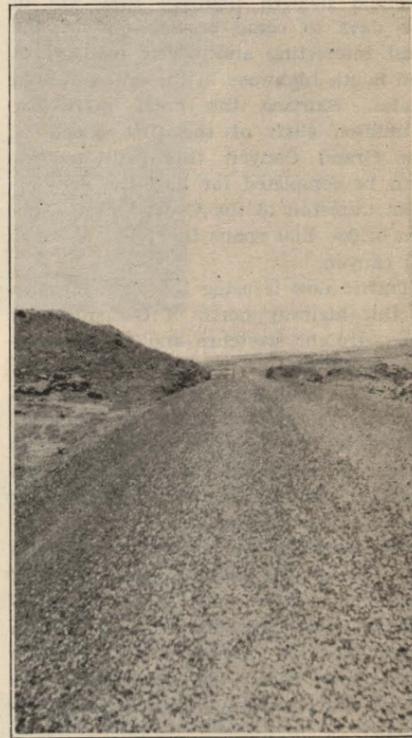
describably desolate except when, here and there, some Navajo Indian hogan is seen or an Indian family is found herding their flock of goats to some spring or water hole.

Numerous side trips are possible now for the venturesome and scores will certainly be developed after the highway is completed. From Cameron a side trip of 12 miles leads to Dinosaurs Canyon where these great prehistoric reptiles roamed before Eve tempted Adam under the old apple tree in the Garden of Eden. And to prove they did, they left their footprints, not in the sands of time but in sands of this canyon, where they hardened into stone and have come down to us through the thousands upon thousands of years to start arguments as to how and when they got there.

From the Gap Trading Post, 29 miles North of Cameron, an unique trip may be made over dim Indian Trails to the junction of the Little and Big Colorado rivers. Here is a vantage point of the chasm that few have viewed this might spectacle from, but in the years to come will undoubtedly be one of the most inspiring portions of this region.



One of the masonry bridges on the Grand Canyon Bridge highway. With an abundance of stone it was cheaper to build masonry than to haul cement nearly 100 miles.



View of gravel surface on completed portion of Grand Canyon Bridge highway.

of section and bin location of material is of proven worth in the warehouse and stockroom work.

U. S. Highway 66 is an all-year route from Los Angeles to Chicago and the distance between these two cities is 2,441 miles. Almost half the distance is hard surfaced and the remainder is improved with gravel, crushed stone, and oiled gravel, according to an announcement by the bureau of public roads.

Phoenix Warehouse Is Center For All Supplies

By W. M. MURRAY,
Warehouse Superintendent

The general warehouse of the Arizona highway department, located in Phoenix is the general disbursing agency of supplies of the entire department. Whether it be a truck or an eraser it passes through this department's hands and a record of its receipt and its disbursement to the office or project using it is kept in this department together with its cost.

The warehouse has grown since January 1, 1923, into an orderly and up-to-date storehouse. New shelvings and bins, neatly numbered, have been built in as the department grew.

A large amount of supplies and spare parts are on hand in this department at all times and must be available immediately on demand. In order to do this they must be placed in sections and bins. The card index record, which is kept in this office, shows the quantity and location, as well as price, of each article. This card is made up as soon as the supplies and parts are received in the warehouse, and placed in their proper section or bin.

Thus, when requisitions are received, the price clerk consults the card index system, places the location and price opposite each item on the requisition, and gives the requisition to the disbursement clerk, who then can go directly to each article called for and deliver same immediately. In this way no time is lost in looking for any parts, as the card index and the section and bins show the same number for the different parts.

The number of each article or part in stock in the warehouse is always shown on the card index. This is done by entering the disbursements on the same card index on which the supplies and parts received were entered. The disbursements are entered from the department invoice, which is made up when the requisition is filled. In this way, entering the amount of supplies and parts received, from our receiving report, and subtracting the amount disbursed, as shown on our department invoice after charging the project from which the requisition is received, leaves the value of each article and part on hand always kept up-to-date.

Thus it will be seen that this system

Phoenix Shop Builds Oil Repair Equipment

By C. E. SCHNURE,
Shop Foreman

Rapid development of oil roads in Arizona called for new methods of maintenance. An oil road needs maintenance from the day it is laid, and the vigilance of the patrol foremen in detecting weak spots and the correction of them is proving one of the greatest reasons why this type of road is proving so highly successful in this state.

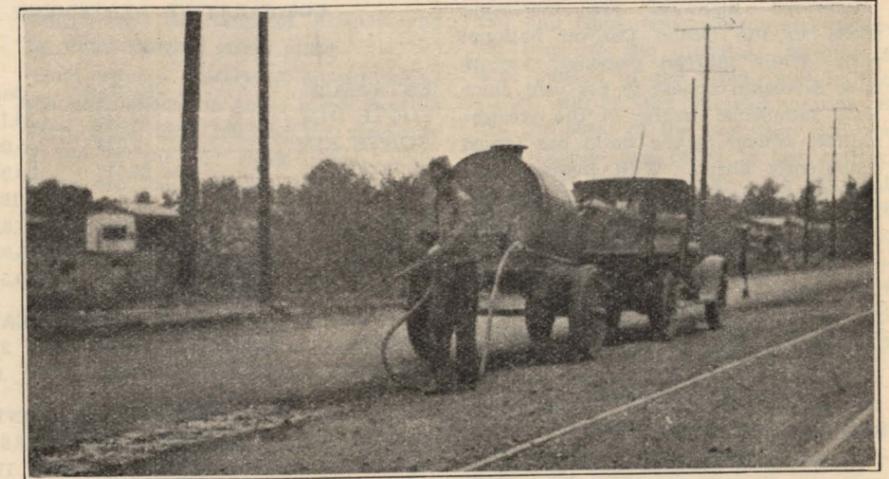
One of the needs of the maintenance men, developed quickly and no machine was at hand to fill the need. It was found necessary in repairing holes, fraying, ravelling and numerous other failures to spray in some manner, the repaired parts with road oil as a seal coat to heal and bind the repairs with the other parts of the surfaces. A spreader was too cumbersome, slow and expensive for this work. To do it by hand was entirely unsatisfactory. The department decided to make its own equipment.

A small portable spreader was needed. One that could be hooked on the back of a light truck and be transported along with the maintenance men and be operated by the two men who usually formed this kind of a repair force. It was decided such a machine could be built on a two wheel trailer, that was capable of carrying a 300 gallon oil tank and a small gasoline engine to operate a pressure pump. Even then such a machine was going to be an expensive piece of equipment, as trailers of this size would cost in the neighborhood of \$800 each.

Old Trailers Converted

On taking inventory of the four yards in the state it was found that many of the old army type of four wheel trailers were stored in the yards. These trailers had originally been used to carry dump bodies in building of our gravel surfaced roads. These trailers were all sent in to the Phoenix shops where they were cut in two with acetylene torches, each half providing the necessary frame, springs and axel for the sized trailer needed.

A heavy platform was built on these frames. On this was mounted a 300 gallon steel tank and the necessary pumps and an eight horsepower stover gasoline engine. The disc wheels of the original trailers were equipped with solid tires and by cutting down these wheels they were equipped with balloon tires which permits their use at high speed without hurting the oil surfaced highways.



One of the road oil repair outfits in operation. The crew has just repaired a shoulder and the new material is being sealed with a spray of road oil.

To operate the spraying the gasoline engine drives a Roper one and one-quarter inch rotary pump supplied with oil from the 300 gallon tank, which is about the right size for one day's operation of such a repair crew. A pressure relief valve is provided to maintain an even pressure on the oil. The oil is discharged through a three-quarter inch hose 10 feet long, this hose is equipped with a special spray nozzle and a spring trigger valve so the operator can control the spread of oil at a pressure of from five to 100 pounds or instantly stop the flow. The net weight of the entire equipment is 2600 pounds.

Each maintenance section that has oiled roads is being supplied with these spreaders as rapidly as the Phoenix shop can turn them out. The sections on which they have been operating for several months find that two men can easily operate them and that all necessary oil repair can be done much faster and much more economically.

In operation the men prepare the patches or other work over a considerable stretch, then with one man driving the truck that pulls the spreader the other operator can walk behind operating the spray and the repaired parts are thus quickly and properly oiled. Even large spots in the road that need seal coating can be easily done with this equipment.

Now that the girls are going without stockings we often wonder how so many of them "bark" their shins.

High Speed Has Changed Modern Road Requirements

Many roads have just grown up with the country and as these roads built for travel at low speed evolved into paved roads little change was made in the location. "Modern high speed traffic demands revision of such low speed roads," states R. G. Browning, chairman of the road location committee of the American Road Builders' Association.

"A car traveling 60 miles an hour passing a car at 45 miles an hour will encroach on the left lane of traffic for a distance of 468 feet. A road safe for passing cars on its entire length must be straight enough and have the tops of hills rounded so that a driver can see at least 500 feet ahead. Many old locations fail to meet this condition," concluded Mr. Browning.

INTEREST SHOWN IN ROADS

The state of Michigan has 600 special representatives of the governor appointed to attend the annual meeting of the American Road Builder's Association in Detroit, January 11-15, 1932. Tennessee has selected 200 to represent the governor. It is expected that several thousand personal representatives of state executives will be present.

MUCH SURFACING IS NEEDED

Although 660,000 miles of roads have been improved, only 260,000 of the 3,000,000 miles of public roads in the United States have been hard surfaced.

Auto Travel Increases to Grand Canyon

Improved highways are increasing travel to the Grand Canyon national park. While railroad passenger visitors have decreased almost 50 per cent since 1927, automobile traffic to the greatest natural wonder in the world has forged consistently ahead. With highway improvements being made on the North rim, the building of the North-South highway from Utah, through Arizona via the Grand Canyon bridge and the completion of the oil surfacing of the South approach road from Williams to the Grand Canyon the coming year should bring a greater number of tourists to the brink of both the North and South rims than ever before.

According to statistics just released by M. R. Tillotson, Superintendent of Grand Canyon National Park for the travel year ended September 30, 1931, travel to the park suffered a loss of 15,799, or 9.14 per cent over the preceding year. All of the loss is in rail travel, there being a slight increase in number of visitors by private automobile.

As an example of the extent to which the automobile is replacing the railroad as a means of passenger transportation, it is significant to note that during the 1931 year there were less than one-third as many visitors by rail as there were by automobile. Rail travel has dropped from the high total of 72,509 in 1927 to 36,577 in 1931. During the same period automobile travel has increased from 89,681 to 119,786.

"Travel to National Parks," Mr. Tillotson states, "may be considered as a fairly accurate index of business conditions. The greatest total in travel to the park was in 1929 when there were 184,093 visitors. As compared with this figure, the total of 156,964 for the 1931 year represents a loss of approximately 15 per cent. However, next year's figures may not represent true conditions as I confidently expect that Grand Canyon will have one of its biggest years in 1932 in point of number of visitors on account of the Olympics to be held at Los Angeles." He added that the 1931 year saw the completion or letting of contracts for the completion by surfacing of all modern road construction which has been to date undertaken in the park.

THE HIGHEST ROAD

The highest motor road in the United States is on Pike's Peak, in Colorado, 14,109 feet above sea level.

COMPARATIVE STATEMENT OF TRAVEL—SEASON 1930-31

	By Rail	By Automobile		Misc. Travel	Stage	Visitors Total For Season
		Cars	Passengers			
ENTRANCE						
SOUTH RIM	34,549	34,147	102,109	6	595	137,259
NORTH RIM	2,028	5,697	17,677			19,705
TOTALS	36,577	39,844	119,786	6	595	156,964
1930						
SOUTH RIM	49,890	33,618	100,179	28	583	150,680
NORTH RIM	3,331	5,954	18,739	13		22,083
TOTALS	53,221	39,572	118,918	41	583	172,763

INCREASE—1931

NUMBER	-16,644	272	868	-35	12	-15,799
PER CENT	-31.27	.69	.73	-85.37	2.06	-9.14

TRAVEL BY MONTHS—SEASON—1931

JULY	5,047	5,851	18,856	763	1,488	4,867	7,339	29,533
AUGUST	4,124	5,566	17,917	555	1,459	4,678	7,025	27,274

Month	South Rim			North Rim			Total Cars	Total Visitors
	Rail	Cars	Pass	Rail	Cars	Pass		
OCTOBER	3,015	2,360	6,278		111	280	2,471	9,573
NOVEMBER	1,298	912	2,436		40	103	952	3,837
DECEMBER	1,498	487	1,350				487	2,848
JANUARY	1,708	555	1,493				555	3,201
FEBRUARY	1,977	620	1,630				620	3,607
MARCH	2,414	1,693	4,708				1,693	7,122
APRIL	2,440	2,397	6,539		2	7	2,399	8,986
MAY	2,686	3,801	10,681		401	1,134	4,202	14,501
JUNE	5,228	6,452	20,153	433	1,347	4,142	7,779	29,956
JULY	5,047	5,851	18,856	763	1,488	4,867	7,339	29,533
AUGUST	4,124	5,566	17,917	555	1,459	4,678	7,025	27,274
SEPTEMBER	3-114	3,453	10,068	277	849	2,466	4,302	15,925
TOTALS	34,549	34,147	102,109	2,028	5,697	17,677	39,844	156,363
Total Miscellaneous Travel for Year								601

GRAND TOTAL—ALL TRAVEL.....156,964

AUTO TRAVEL BY STATES—SEASON OF 1930 AND 1931

State	1931		1930	
	Cars	Pass	Cars	Pass
ALABAMA	69	222	58	186
ARIZONA	6,370	20,798	5,836	18,913
ARKANSAS	125	434	129	441
CALIFORNIA	12,173	34,676	12,060	34,125
COLORADO	1,809	5,320	1,830	5,374
CONNECTICUT	143	402	122	339
DELEWARE	17	53	14	36
FLORIDA	191	548	195	565
GEORGIA	113	449	87	330
IDAHO	143	445	155	437
ILLINOIS	1,594	4,685	1,652	4,708
INDIANA	672	2,024	627	1,889
IOWA	653	2,003	638	1,921
KANSAS	865	2,709	983	3,137
KENTUCKY	137	473	118	364
LOUISIANA	116	359	127	412
MAINE	43	146	45	130
MARYLAND	95	268	121	374
MASSACHUSETTS	382	1,072	296	832
MICHIGAN	932	2,653	960	2,699

Dude Ranches of Arizona Attract Visitors

By Mrs. Lamar Cobb

The influences which have turned the tide of eastern pleasure seekers and vacationists westward appear to be varied. Possibly a decade or more of western anecdote and film has played its part in the influx of visitors from all points east to the score or more "Dude Ranches" of Arizona. It is a far cry from the effete luxuries of the Riviera or Florida to the sun drenched desert and hill of this state, but yearly the toll of former European tourists seeking the novelties of the cattle ranch in-

creases, and the fame of Arizona and her guest ranches grows apace.

And what a variety of entertainment and accommodation these guest ranches offer. Some have retained the simplicity of life of the old cattle ranch, while others are the last word in luxury, affording a variety of entertainment. A memory lingers with the writer of a visit to one of the largest cattle ranches in the state, a ranch of a hundred thousand acres running thousands of cattle and a location of surpassing beauty; where in summer it was always

cool and there were picnics and camping trips on the mountain forming a large portion of the ranch, and in the winter, during the hunting season, it was the boast of the host that not one of his guests had failed to bag a deer. You could ride each day to a different beauty spot and then home at night where, in front of a gigantic fireplace, the adventures of the day were recounted after an excellent meal; and then to bed, where even the confirmed neurosthenic found it impossible to keep awake.

Healthful Sports

A closer acquaintanceship with that animal so dear to the heart of the westerner, the horse, is another attraction to the eastern visitor. There he may learn the joy of a swift gallop over a treeless plain, the smell of mesquite and greasewood in his nostrils and a good horse between his knees, in the purpling shadows of the evening or the rosy hue of dawn. He may even, if he is a good sport, join in the spring and fall roundup, where he will learn what a real appetite is; what delicious viands are steak broiled over the coals or bacon fried in a pan, with a dutch oven full of hot biscuits, and he will wonder why he has never before discovered how delectable such simple fare can be. And around the camp fire at night he may hearken to the purely mythical but seriously told yarns of that inveterate joker, the cowboy. He will hear the story of the chapparal bird or road-runner, building the cholla cactus corral around Mr. Rattlesnake while he sleeps, so that when the snake awakens he is unable to leave his thorny prison and the road-runner picks his eyes out and kills him at his leisure. Quite as authentic and equally strange is the Side Hill Goofus, which has a hind and fore leg on one side several inches shorter than the other, caused by its incessant traveling on hill-sides.

A host on one of the largest guest ranches has a story to tell of an architect from New York who looked at the hair tassels hanging from the cinches under the horse's belly for three days before getting up nerve to ask what they were. When told they were purely ornamental he replied that he thought the horse had been clipped so as to leave a bunch of hair hanging. He failed to state for what possible purpose.

An astonishing thing to this same rancher was to meet the city child who

MINNESOTA	415	1,230	418	1,218
MISSISSIPPI	58	198	80	271
MISSOURI	927	2,872	839	2,576
MONTANA	100	290	152	424
NEBRASKA	432	1,343	510	1,613
NEVADA	161	443	161	495
NEW HAMPSHIRE	35	93	28	87
NEW JERSEY	446	1,205	404	1,166
NEW MEXICO	695	2,200	664	2,057
NEW YORK	1,244	3,360	1,121	2,832
NORTH CAROLINA	77	278	97	393
NORTH DAKOTA	90	290	112	338
OHIO	1,303	3,805	1,189	3,444
OKLAHOMA	827	2,800	984	3,224
OREGON	199	525	201	574
PENNSYLVANIA	816	2,377	782	2,312
RHODE ISLAND	45	133	41	117
SOUTH CAROLINA	53	150	31	105
SOUTH DAKOTA	123	360	166	479
TENNESSEE	172	574	133	394
TEXAS	1,809	5,625	2,056	6,394
UTAH	1,554	5,683	1,865	6,898
VERMONT	34	102	39	120
VIRGINIA	87	301	76	249
WASHINGTON	343	957	374	1,062
WEST VIRGINIA	70	206	88	274
WISCONSIN	554	1,041	382	1,073
WYOMING	156	437	186	538
DISTRICT COLUMBIA	178	514	115	306
ALASKA	7	16	8	21
CANADA	120	350	136	409
CANAL ZONE	9	32	12	38
CUBA	1	2	2	9
ENGLAND			2	6
FRANCE	1	2	2	8
GERMANY			2	4
HAWAII	32	114	34	96
MEXICO	8	22	17	58
NEW ZEALAND	1	2	1	2
NOVA SCOTIA	1	2		
PANAMA			3	5
PORTO RICO	18	61	2	4
PHILIPPINES	1	2	2	6
PORTUGAL			1	5
WEST INDIES			1	2
TOTALS	39,844	119,786	39,572	118,918

(Continued on Page 21)

Accounting Division Feels the Department Pulse

By M. C. HANKINS
Chief Accountant

Every hour worked by every employee of the highway department, whether he worked in the "Strip" north of the Grand Canyon, where it might take three days to find him, or in our own accounting room, must be accounted for and checked by his foreman, his department head, by the personnel clerk and finally be audited in the accounting division of the department in Phoenix, before the worker can be paid for it. Likewise claim, whether it be for a nail or a steam shovel must have a purchase order from the purchasing agent, the number of his order being the key to all settlements with vendors, a receiving report from the department or foreman in the field advising receipt of the merchandise before it is paid.

When it is considered that the highway department is spending nearly \$8,000,000 per year the magnitude of the work in the accounting division of the department can be somewhat visualized.

In the first three months of the present fiscal year, that is the months of July, August and September the department handled 6,539 invoices. This number was an increase of 1,074 invoices over the same period in 1930. During the same three months this year 3,499 claims passed through the accounting division against 2,517 in the same period in 1930. This big increase, of course, was occasioned by the extra work done by the department this spring and summer in aiding the unemployed.

These invoices and claims had to be checked for correctness and distributed against the many departments and projects which used the material, all of these accounts being centered in the accounting division. The following records are kept in the accounting department in Phoenix:

Project Liability Register	150,486.32	115,773.94	121,013.74
Accounts Payable Control			
Claim Register	8,691.48	14,912.42	23,051.61
Claim Recapitulation			
Warrant Register	846,944.35	680,841.33	661,557.37
Journal Entries			
Imprest Fund Record	47,648.05	18,277.22	18,003.73
Equipment Costs			
Record of Certificates of Title	1,053,770.20	829,804.91	823,626.45
Gas Tax Refunds and Reconciliation			
Common Carrier Taxes			
Chauffeurs' License			

The month of July was over a "million dollar" month in expenditures by the department. Few people realize the great amount of work carried on by a state highway department because very few of

SOUTHERN PACIFIC COMPANY

Tucson, Arizona

October 8, 1931

State Highway Dept.,
Phoenix, Arizona.

Gentlemen:

It has come to my attention that on the night of October 7th, a small slide occurred from embankment of our track where your forces are driving sheet piling, about five miles north of Nogales. A Mr. R. L. York, employed by your Department witnessed this slide when it occurred and stopped our train No. 481 before it ran into it, thus no doubt preventing a possible derailment with resultant injury or death to employes and damage to equipment.

The action taken on the part of Mr. York is highly appreciated by myself as well as the Management of this Company and through you I wish to express our appreciation of his interest and thoughtfulness in taking the action which he did.

Yours truly,

WILLIAM WILSON.

them get to see more than a small portion of the activities of a state highway department. The total expenditures for the highway department during the months of July, August and September were \$2,707,201.56, or \$1,014,603.12 more than was spent in the same months of 1930. The highest number of projects under construction this summer was 48, these have now dropped, due to the completion of the emergency program to 14 projects, which is slightly under the average amount of construction work carried on by the department.

The distribution of these expenditures during the first three months of the present fiscal year was:

Main-tenance	150,486.32	115,773.94	121,013.74
Better-ment	8,691.48	14,912.42	23,051.61
Construc-tion	846,944.35	680,841.33	661,557.37
General Op-eration	47,648.05	18,277.22	18,003.73

The total revenue of the department during these months amounted to \$2,858,762.55. These funds were received as follows:

Federal Aid	1,677,145.97
Gasoline Tax	631,997.02
Tax Levy	14,135.78
Motor Vehicle Revenue	46,839.13

Sundry Receipts	4,384.63
Balance carried over from previous fiscal year	484,260.02

At the peak of the construction period this summer over 3,000 men were at work building, repairing and maintaining the highways of the state. The result of their efforts are seen in the splendid highways that have been built and the excellent condition of the state system in general. But, what few people ever stop to think about is that for every pick that was driven into the ground in the making of those roads some record and charge eventually had to pass through the hands and books of the accounting division.

COAST TRAFFIC DEATHS INCREASE

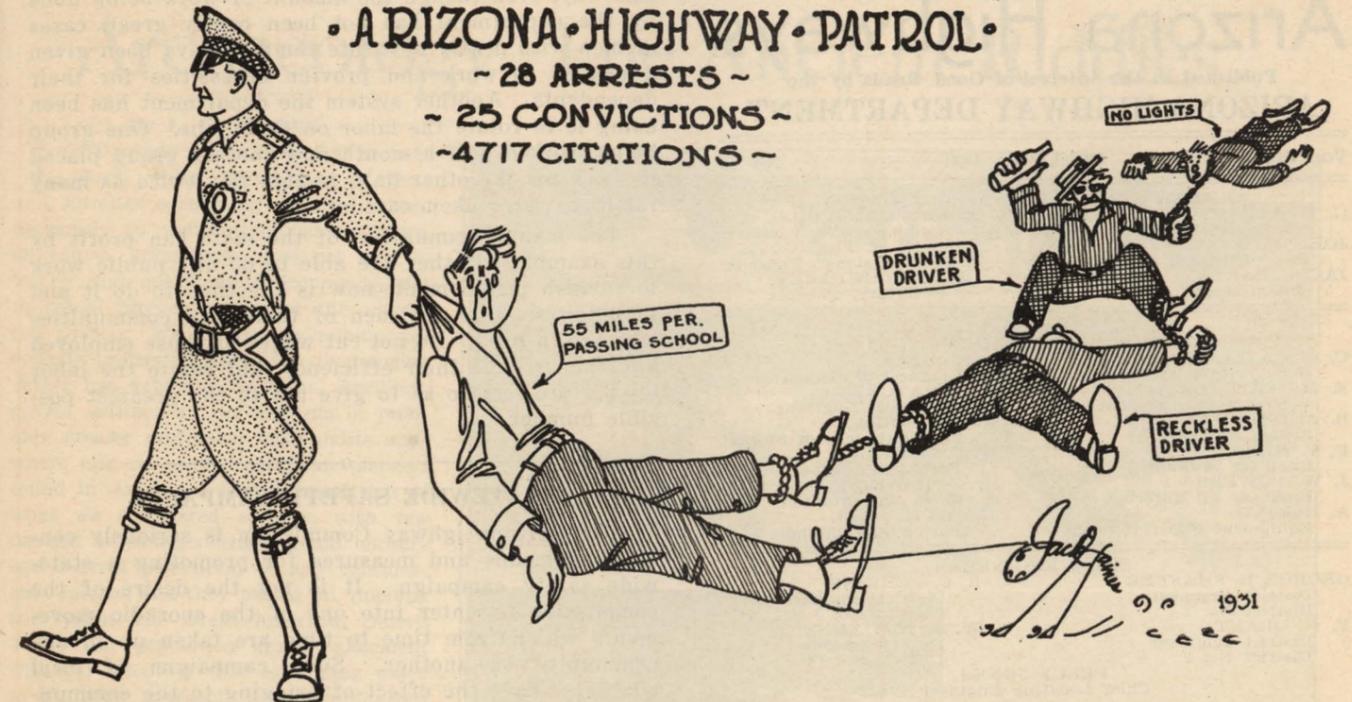
Although the increase in cars was only a fraction over two per cent, deaths from automobiles in Los Angeles county during the first six months of this year gained 13 per cent over the similar period last year. The first half of the year shows 388 fatalities in traffic as against 343 for the same period last year.

THE VALUE OF YOUR CAR

Regardless of the cash value of your car, when it is loaded with the wife and children—to say nothing of yourself—it is just about the most valuable cargo in all the world. So be careful.

ARIZONA HIGHWAY PATROL

- 28 ARRESTS -
- 25 CONVICTIONS -
- 4717 CITATIONS -



Arizona Highway Patrolmen during month of September patrolled 31,421 miles of highways. This is equal to the first month's operation in August, and operations, in general, have kept up the fast pace set in the first month's work.

A total of 581 foreign vehicles during September registered in Arizona and are now displaying this state's license. This is an increase of 161 cars over the number of foreign vehicles taking out Arizona registrations in the month of August.

Improvements are noted in traveling on our highways. The increased number of licensed vehicles, properly displaying two plates that are plainly visible is noticeable whereas, a few weeks ago a great number of cars were displaying only one plate and that hardly visible.

It is gratifying to note the number of vehicles now operating with two perfectly good headlights, also tail lights, as our law requires. A short while ago a number of vehicles could be noted within a short distance with only one headlight and no tail light. At the present time, there are thirty-two official headlight adjusting stations scattered throughout our State and others being installed daily leaving no excuse open to operators for not having lighting equipment on their vehicles conform with our laws.

A total of twenty-eight arrests have been made by our forces since operations started, resulting in twenty-five convictions, these arrests being for various violations.

During the month of September, 1578

citation cards were issued for a total revenue of \$9,918.50. This revenue can be directly credited to the same items as listed below:

- Pleasure vehicles
- Commercial
- Trailer and semi trailer
- Reissued lost plates
- Operators fees
- Chauffeurs
- Penalties and seizures
- Certificates of Title
- Duplicate
- New Motor and Block fees
- Corrections
- Trailer and semi trailer registration.

WHEN CAR IS ADAPTED FOR COMMERCIAL USE IT THEN BECOMES TRUCK

An article in the September issue of this publication under the caption "Highway Patrol Gets Down to Business" has given rise to a question in the minds of some as to what is meant by that portion of the article which states in part as follows " * * * Many cars were registered before the taking effect of the new law and their registrations are good for the remainder of the year. * * *

Under legislation existent prior to the passage of amended legislation effective June 13, 1931, a vehicle equipped with a box or other receptacle for the carrying of personal property, other than a truck, could not be seized for the non payment of unladen weight fees until judicial determination had been had. To this end

and upon representation of the applicant for registration that the vehicle would not be used commercially, Assessors granted registration of vehicle for the fee of \$3.50.

New legislation defined a truck which was not done in the section before amendment. This definition provides " * * * truck" shall mean any motor vehicle designed or used primarily for the carriage of property other than the effects of the driver or passengers, and includes a motor vehicle to which has been added a box, platform or other equipment for such carriage.

It is true the amendment is not retroactive nor has it been so construed by the Patrol. The reason that changed classification has been made on certain vehicles is that these vehicle were found to be in commercial operation by the Patrol, which operation was prohibited under original legislation, when carrying private owner plates.

CAUSES OF FATALITIES

Curious causes for fatalities in traffic are recorded in the analysis of motor vehicle accidents in California prepared by the Department of Motor Vehicles. Reports show that one pedestrian was killed while walking in his sleep; there were 54 accidents caused by drivers falling asleep at the wheel; four met death because of obstructed view; four ended their lives through their own carelessness; and seven contributed to their own end by being intoxicated.

Arizona Highways

Published in the Interest of Good Roads by the
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TAKING CARE OF THE UNEMPLOYED

Every community, in these times of depression, is confronted with its own problem of unemployment. If it is Four Corners, the fact that one man with a large family is destitute, presents a problem to that center, if it is a large city, the hundreds who are not able to find employment is its problem.

As the highway department is a state-wide institution, it has been confronted with the huge task of meeting, as far as funds have been available, the unemployment situations of the entire state. Over 18,000 applications for employment have been filed with this department since the first of this year.

It has been impossible to find even temporary employment for this great number, because the road building fund has not been ample enough to carry on a road construction program large enough to employ such a vast number. At the peak of construction this summer, employment was furnished for 3,100 on the state highways, but with the completion of the work under the emergency appropriations, this number has been reduced by half.

However, we believe, the highway department has done more than any one agency in the state in relieving distress amongst the unemployed in every locality in the state. The department has adopted the policy of working as many men as possible in the locality in which the work is being done. Preference has been given to married men with dependents. In

this way, even though the amount of work being done by the department has not been overly great, cases of men with nearly destitute families have been given a chance to work and provide necessities for their dependents. Another system the department has been using is to rotate the labor on their jobs. One group being worked half a month and another group placed to work for the other half, in this way twice as many families were taken care of.

The many communities of the state can profit by this example. If they are able to do any public work to furnish employment, now is the time to do it and in doing so, hire the men of their own communities who are in need. Do not cut wages of those employed and thus reduce their efficiency, but rotate the labor on the projects so as to give aid to the greatest possible number.

STATEWIDE SAFETY CAMPAIGN

The Arizona ighway Commission is seriously considering means and measures for promoting a statewide safety campaign. It is not the desire of the commission to enter into one of the sporadic movements which from time to time are taken up in one community or another. Such campaigns of local character have the effect of bringing to the community, in which they are carried out, a monetary recognition of the motor vehicle laws. This notice is often attended with a revenue producing series of fines by the police authorities. The big trouble with such local movements is that the results do not last, and so soon as the activities behind the safety drive relax, the local motorists lapse back into a state of coma as far as traffic regulations are concerned.

The desire of the highway commission is to formulate a plan of campaign that will promote year round observance of the traffic laws of the state. Something that will appeal to the common sense of the auto drivers in January as well as in July. A plan that can be made applicable to the state highways and the city streets.

Traffic laws are made primarily to promote public safety. They are meant to make the driving of vehicles on the highways safe, to prevent accidents, the loss of life and limb, the destruction of property.

If the traffic laws of the state were strictly observed by all drivers there would be few accidents. It is when someone gets careless than accidents occur.

Many individuals and corporations have come forward and offered to co-operate with the highway department in such a safety movement. Everyone is interested in making the highways safer, even the careless drivers who cause the accidents will sign a pledge to promote safety when they are not behind a steering wheel, it is the thing that will make them keep that pledge when they are on the road that the highway commission is looking for.

The judges are thought severe in handing down sentences of three months in jail for driving while drunk. That is one of the mandatory parts of the law. The other mandate is to revoke their driving licenses for one year.

Archaeology, The Ancient Riddles

By L. C. BOLLES

LOST people are interested in archaeology, which is to say, in facts and surmises concerning races who lived previously to well-authenticated history. Of course, archaeology does not deal in legend and questionable documents, but in actual physical traces of the forgotten peoples. We in Arizona remain peculiarly interested, since the unchanging desert has kept for us ruins, dwellings, graves, artifacts of the ancients in probably greater profusion than exists anywhere else on earth. American pioneers found in Arizona a sparse population of what we considered savages, with few natural advantages which would encourage a great population or any considerable culture, and they passed on, dubbing the region The Great American Desert. Today our population grows, coincident with our discovery that by adding water to the most agreeable and advantageous climate in the United States we can build as much as we will, and we wonder more and more about the forgotten race or races who did the same thing back in the mists of antiquity.

The western hemisphere holds its riddle, probably unsolvable. As far as we can say for the moment, traces of civilization here do not go back as far as on the other half of the globe. Though, to be sure, the inscription of the great Mayan ruins have not been satisfactorily deciphered and we can not be positive as to the relative age of these. And over Mexico and Central America they are finding ruins buried and lost beneath other ruins that antedate history. So it is possible that American ruins are as old as Egyptian or Assyrian or Cretan.

There is a great school of thought that paints the thing with a broad gesture by saying that the genus homo came to America from elsewhere, and the cradle of civilization must be on some other continents. They state that no traces of intelligent man exist in America more than say 25,000 years old, comparatively recently by their standards. This allegation, since it is next to impossible to prove, forms the basis for endless arguments which are the breath of life to your professional archaeologist.

It often occurs to me, as an amateur, that the interest of the average busy citizen in archaeology is gained from different angles than those of exact age of ruins. Curiosity is the predominant human emotion, since our intelligence is confronted with questions that are in-



A collection of pottery and implements dug from the ancient mounds found in many parts of Arizona. These relics of a high type of civilization show a race of ndians, well advanced in the arts, lived in Arizona centuries before the white man stumbled onto America.

finite end endless. From our advent on earth from an unknown source to our departure in death to an unknown bourne, there is no fact, no form of knowledge we can prove. While this sort of statement was once considered academic, it is now the recognized grammar of science, that in any process of reasoning we must start by assuming or supposing something to be true, to be proven. So that now we know, that solid though the old earth be under our feet, we are here but for a few hours and that life, the past and eternity are still impenetrable mysteries.

One vista of imagination having the soundest of bases, is that we know that forces of Nature have played grave tricks with the force of our earth, and that while life has persisted for inconceivable eras of time, the solid continent of Atlantis was no fable, and new lands have risen.

There is sound evidence that the lost continent of Atlantic was no fable, and that one or several continents have sunk beneath the expanse where the Pacific now rolls. And this gives us broad grounds for speculation and long vistas to the imagination indeed. It is not at all inconceivable that at some forgotten time man had risen to greater heights

We Can See Results
So it occurs to any one that while he cannot guess what the reel of the future may hold, the past has been unwound and is real and actual, and if we could know what has happened since the beginning we could know nearly all. Our

imaginations, constituting our greatest intellectual gift and our chiefest solace, would indicate that the past may hold stupendous and incredible things.

There is sound evidence that the lost continent of Atlantic was no fable, and that one or several continents have sunk beneath the expanse where the Pacific now rolls. And this gives us broad grounds for speculation and long vistas to the imagination indeed. It is not at all inconceivable that at some forgotten time man had risen to greater heights

(Continued on Page 23)

The Voice That Laughed In The Wilderness

By G. WALTER REED in "Pickwick Papers"
Sketches by "Put" Putman

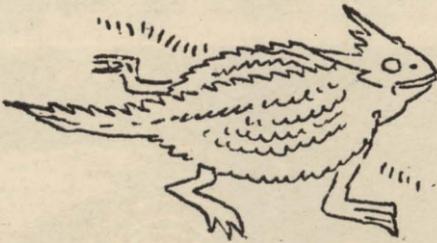
The reproductions of drawings and photos used in this story are priceless possessions of the family and friends of Dick Wick Hall, and are used through the generosity of Mrs. Hall and Mr. Sam Haydis. Extracts from Mr. Hall's writings are reproduced by permission of THE SATURDAY EVENING POST.

OUT on the Northern route between Los Angeles and Phoenix, about 80 miles east of the Colorado River, is Salome, Arizona, desert town of some thirty souls. Twenty-three years ago there was no such place on the map, or anywhere else, save in the mind of Dick Wick Hall, soldier of fortune, miner, humorist and gasoline station agent.

If you haven't heard of the THE SALOME SUN, the one-sheet newspaper made famous by this desert sage and philosopher, and of the Salome Frog, you have missed two of the richest and oddest creations of real cactus and rattle-snake humor. Although Dick Wick Hall got out his SALOME SUN on a small hand mimeograph, it was widely read and sought, and almost every week for a long period the SATURDAY EVENING POST used his "stuff" and reproduced from his SUN the gist of his desert humor. In later years before he passed to his eternal rest three years ago, Hall's articles on Arizona and Salome were featured in the POST and other publications.

Dick Wick Hall was born in Creston, Iowa, on what he called in the POST "the coldest day in the history of the world." The mercury registered 35 below, which caused him to remark that he received a cold reception into this world. **Discovered Happy Valley**

Eventually Hall came West, settled in Arizona and really discovered



Happy Valley. At that time that part of the state was an uncharted desert wilderness with waterholes from 50 to 75 miles apart and only trails for roads. The little valley, however, appealed to the newcomer as a wonderful place to "quit."

"Here at last," he wrote, "I thought is one place where I can do as I please and no one to bother me; where I can get acquainted with myself, and maybe find the something which every man in his own soul is consciously or unconsciously searching for—himself."

And there Dick Wick Hall started Salome "in the middle of the desert without the dime or the broken leg; without water and in fact, without anything excepting a blind faith that some day it would lead to something."

The pioneer saw water developed, saw the highway built, saw the railroad come, and to every motorist and tourist who took "laughing gas" at his station, he handed free a copy of his SALOME SUN, published in Salome, "where she danced." These mimeographed sheets were passed on to others and the demand for them came by mail; they were distributed along highways and even on the trains running through to Phoenix, 108 miles east. Soon they were causing the millions of SATURDAY EVENING POST readers to convulse with laughter, so in the end Dick Wick Hall found himself, and while doing so the world found a noble, spot-

less character who made life happy for many.

Frog Became Famous

Sharing honors with the SALOME SUN was the editor's famous frog—that never learned to swim because there was no water to learn in. The frog always was pictured as shedding dusty crocodile tears over the fact that it was so dry.

Illustrating Hall's literary ability, the following is reproduced from an early edition of his SUN:

"BE A GETTER—times are better for the man that packs a smile; take your licking else quit kicking—dig right in and make your pile. The war is over and there is clover in the pastures all around; it's not waiting or debating, but making hay out of the ground."

Under the heading, "Wild Nights in the Wilderness," Hall devoted one issue of his SUN to Omar Khayam, using the theme of the "Loaf of Bread, Jug of Wine," etc. This is what the Salome editor wrote:

"These warm nights I have been reading the melodies of Sweet Mama by a Red Hot Papa called Omar Kayam, who used to live out here in the desert before I come here. I know how he felt, because it is so different now, so I am going to sympathize a few lines with him. You don't have to read it unless



you want to; but if you are young enough, you can sing it on the back seat to the tune of almost any good six-cylinder headed out in the desert on an Arizona moonlight night. Crank her up, Bill, step on the gas and listen to her sing:

"When Omar Khayam said he could dine On a loaf of bread and a jug of wine, With her beside him and be satisfied— Out in the wilderness with his bride— Omar wasn't worrying about high rents, Or of honeymooning at small expense; He meant that he liked the greasewood smell,

And the long, hot days that feel like hell, The red sunsets and the cool moonlight And the soft, sweet air of the desert night, And the dim, faint trail that leads out to The Queen of the Desert and his Rendezvous.

"Old Omar Khayam was the head of his klan, And he lived his life on some loving plan With his girls and wine and big silk tent;

My, Oh My—What a life he spent! For Omar was a loving and luxurious brute, And a connoisseur when it comes to fruit. And he could tell in the dark by the shape Just how much juice there was in a grape; And he sipped his honey like a wise old bee, On the summer nights 'neath a mesquite tree.

"Old Omar was a go-getting humdinger man The bell-ringing chief of the Khayam Klan; And out in the desert with his turtle dove, He learned all there was of living and love; With a sweet little Arab by his side, He loved and loved and was satisfied.

"The desert is here like it always was, But you can't Khayam any more, because In these dry days when wine is taboo, What in the devil can a poor man do? We can only long for those good old days When the game of life was played three ways— When living was easy, and love run loose, And doves were looking for a good excuse."

One big event in the lives of the hand-

GAS STATION EDITION - SALOME SUN Season of 1934
FREE COPIES CAN BE GOT AT THE LAUGHING GAS STATION and BLUE ROCK INNE

THE GREASEWOOD GOLF LYNX

Located At and Around SALOME, ARIZONA - "Where She Danced" - and the Folks who See it All Say Nobody Never Saw Nothing Like it Nowhere. The Course is Just a little over Twenty Three (23) Miles Around and All Hazards & Bunkers are Natural - No Artificial Ones Needed. Some Eastern Folks Spend the Season Here a Purpose Just to Play Around it Once - and Some Others who Have been Here Several Seasons aint ever Got Around it Yet. Players are Warned to Use Maps and NOT to get off the Far A Ways between the Holes. Coyote and Rabbit Holes DON'T COUNT Good Guides Who Know the Course can be Obtained at the BLUE ROCK INNE and Caddys and Horses and Canteens, also Tents and Camping Outfits, can be Leased by the Week, Month or Season, Provided a Deposit is Put Up and ALL CADDYS AND HORSES LOST ON THE COURSE MUST BE PAID FOR.

This Far A Way Follows Top of Table Mountain - 538 Rods
SHAKE GULCH TABLE MOUNTAIN Bear Canyon
DEAD MAN'S TANKS DEAD HORSE HOLE 490 Rods
SKULL VALLEY Carry Water Here 490 Rods GOLD GULCH 7
Apache Peak 10 338 Rods FUNERAL MOUNTAIN WILDCAT PASS 7
DEATH VALLEY 9 Lost Squaw Mine LAXY L RANCH 11
This is the BAD LANDS. Look out for BANONITS Here & ALWAYS GO ARMED. DO NOT Camp here Alone at Night. Either Go On to the LAXY L RANCH or Go Back to SHEEP SPRINGS CABIN for the Night
577 Rods 413 Rods 384 Rods 246 Rods 17 16 14 DRY LAKES 416 Rods ALKALI FLATS 416 Rods SHEEP SPRINGS CABIN 235 Rods COYOTE CANYON 8 711 Rods 290 RODS BAR RANCH 2 CACTUS PLAINS Lunch Here 3 385 Rods BUZZARDS 4
18 THANK GOD START BLUE ROCK INNE ROOST
The BLUE ROCK INNE, the 19th HOLE, is Little, but itwill Look Like the Big Biltmore Hotel by the Time You Get Back to it. Reservations Now Being Made for the Season of 1937-38 - CASH IN ADVANCE. You Can Write, WIRE or COME AND SEE

ful of Salomeites was on National election night, when the humorist and gas service station owner had a telegraph wire run to his filling station and all listened to the returns as the bulletins were flashed.

Dick's Ice Cream Venture

A truthful story is that of Dick Wick's venture into the ice cream business at Salome, which experience made material for one of his best SATURDAY EVENING POST articles. Feeling the need of the cold delicacy, the "head man" of the town contracted with a Phoenix

dispenser for a shipment of ice cream daily.

It so happened that the railroad has two tariffs on ice cream—one being for the ingredients, at a lower rate per 100 pounds, while the ice cream proper, held a higher express charge. At any rate, Hall was given, by mistake, the lesser rate, and it was away in autumn when he was informed by the agent at Phoenix that he would have to dig up about \$150 due the railroad for the undercharge.

Dick Wick was thunderstruck; the season was over and instead of making a

neat profit on every cone and dish of the frozen delicacy, he in fact had lost.

He was a good sport, however, and informed the railroad agent that he would write the story for THE POST and if they paid him, he in turn would pay the express company. The story was used, and the joke was shared with the world. After Hall had cashed a fat check from Editor George Horace Lorimer, he paid off the ice cream debt. By special permission the humorist's account of the ice cream episode, as he wrote it for THE POST, is herewith given in part:

"When Saw Tooth Jerry Withers went to Phoenix last Spring, he started a lot of trouble for me without knowing it. Jerry always liked his licker pretty well in the old days, not so much as so regular, and after Volstead was elected and Mike Cassidy went to work for him out here, this little corner of Hell was as dry as a dust storm. Jones Store finally run out of lemon extract and vanilla, H. H. H. Horse Liniment, Witch Hazel and Hair Tonic. So Jerry went to Phoenix to get his hoops tightened and soaked up a little before he all dried out and the head fell in.

"Jerry came back along about the first of May, fat as a hog and sassy as a young rooster—better'n I ever see him look before.

"Say," he says to me over at the Laughing Gas Station the next morning, "Did you ever taste ice cream?"

"Ice Cream?" growled the Reptyle Kid, before I could figure out what Jerry was driving at, or what to say, "Where would we be tasting ice cream?"

"Jerry looked kind of foolish for a minute, and then he laughs. 'Boys, you heathens don't know what you've been missing all these years. It's better than booze.'

"This was sure some strong statement coming from Saw Tooth Jerry Withers, and started some argument, the final result of which was no one hurt and \$25 of Jerry's money in my pocket as a guarantee that he would stand the loss if I would order some ice cream from Phoenix and the boys would eat it and didn't say it was good.

Trouble Starts

"That's how come the Laughing Gas Station started in the handling of ice cream along with gas and oil and accessories. I was kinder dubious at first because a lot of folks in thsi country never saw ice cream before, but I had \$25 of Jerry's money in my pocket so I went down to Phoenix and told Dominec Donofrio to send me up 10 dozen ice creams with dishes and spoons by express, packed in lots of ice and maybe if folks up here eat it I might buy



One of the highway trucks loaded with a compressor. To complete the load, a supply of grader blades were put on behind for one of the highway shops.

some more some day.

"Next night when the train came in Jerry had everybody in town lined up at the bar—I mean the counter and I went over to the depot, and the engineer and fireman was helping the express man lift it off in a great big green barrel, with a gunnysack over the top, and they helped me load it on the jitney, and the express man says what in the devil are you going to do with ice cream up here where there ain't no school kids, and I says that Saw Tooth Jerry was going to show Dirty Face O'Reiley, and Mickey Mulligan and Cousin Jack O'Brien and Black Jack Sullivan and the Reptyle Kid how to eat ice cream or else pay me \$25 and eat it all by himself.

"Let's go over and see it," says the engineer. "I'll bet \$10 if a dish of ice cream ever hits the lining of Black Jack Sullivan's stomach, it'll blow the crown sheet off or bust the boilers."

"So the engineer and the fireman and the expressman left the conductor stay with the train to take a nap while they all followed the ice cream wagon over to the Laughing Gas Station to see Saw Tooth Jerry and the rest of the Salomanders eat ice cream, and maybe bust. It was all right about leaving the train at the depot, because there ain't no other train to run into it except itself coming back from Bouse and Parker the next day, and nobody much ever gets off there anyway, so there wasn't no hurry to get there and they could wait and the ice cream couldn't in this climate.

"I took off the gunnysack and opened up the big ice cream barrel, and in-

side it was a lot of ice, so cold you could hardly touch it, and under the ice was a big tin tank with a lid on and under the lid was a brown looking mess of muddy looking stuff that looked just like what you have left in a bucket when you let a pail of Colorado River water stand over night to settle and drink.

"It's spoiled," says Micky Mulligan, after looking at it, 'none of that for me.' 'You can give mine to Jerry,' Dirty Face O'Reiley says and laughs, 'make him eat it but don't shovel none of that mush into my gizzard, not while I'm sober, anyway.'

"While we were talking and looking at it, it commenced to melt and get wet on top, and Jerry gets a knife and carved into it saying, 'You boys is just ignorant,' he says. 'This is chocolate frosting on top of it. Get you a plate and dig into it. You can't drink this stuff, but it's powerful good eating.'

"Everybody gets a dish and starts in, including the train crew. Some of them makes some awful faces about it, holding their noses and jaws, and I'll bet some of their stomachs was surprised and bucked a little at first like a broncho the first time he feels something strange on his back, but in 10 minutes they were all working good and laughing and having a good time, and were standing up at the Laughing Gas counter and saying 'Come on, boys, have one with me,' or 'Have another, Jack,' just like old times. By the time the whole 10 gallons was gone everybody was sitting around holding their belts and grinning at each other."

The cactus humorist then tells how he ordered it to arrive on every night's train, and the boys got the habit of dropping in regularly for their ice cream. He had figured they had included the express charges in his bill, so he re-tailed it in Salome at 10 cents a dish, while it was costing him 9 cents, therefore making it possible to take a helping himself occasionally for nothing.

Then the "big gun," as he writes, dropped in from headquarters and broke the sad news that he had been paying \$1.27 each time instead of \$3.49, there being an undercharge of \$2.22 daily for the summer, and aggregating \$133.20.

It is a fact that Hall paid this bill through the sale of the story.

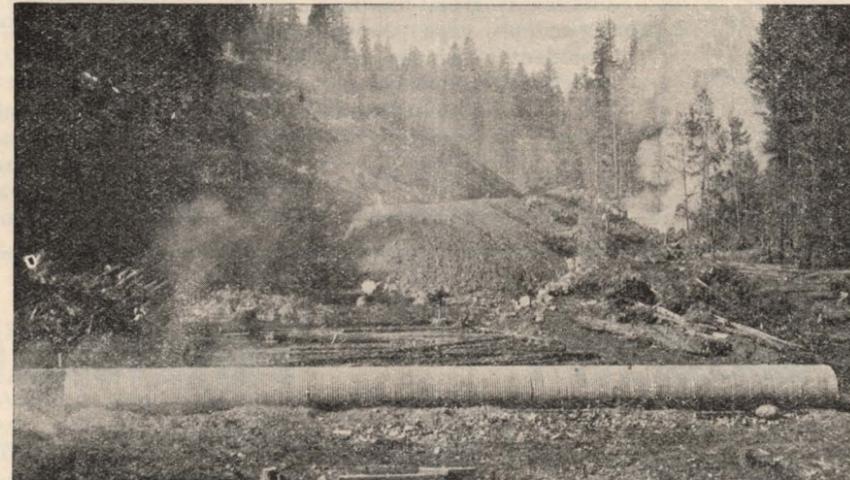
Greasewood Golf Course

Hall made considerable capital out of his "Greasewood Golf Lynx," which he advertised as something "nobody never saw nothing like before, nowhere."

"Coyote and rabbit holes don't count," he wrote; caddies, horses and canteens could be procured at the Blue Rock

(Continued on Page 21)

Long Life
Strength
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Laws Needed to Protect Motor Fuel Taxes

By E. M. WHITWORTH,
Vehicle Superintendent

Regulations for collection of the Motor Vehicle Fuel Tax is privileged to most serious consideration on the part of legislators in future legislation. This, by reason of the fact that this tax is received with more favor and considered more equitable than any other class of tax now assessed against our citizenry, most of whom represent the car owning public.

A comity arrangement has been effected between our state and California in respect to gas tax returns. The exchange of information develops the fact that numerous persons have violated our law in respect to monthly returns to the Division of all motor vehicle fuels imported into this State. All importers under this comity agreement will be made a matter of knowledge to the Division, and upon advise of their dereliction formal demand will be made, and upon failure to make proper return immediate legal action is taken to protect the state's interest.

The person obligated to the state for accountability for the Motor Vehicle Fuel tax is defined by statute. The

Every Good Surveyor Knows---

That the objective lens is always
Screwed on tight.

That a corresponding mark
should be made on the tele-
scope and objective ring be-
fore unscrewing the lens for
cleaning, so that it may be
screwed back to the same po-
sition; otherwise it puts the
instrument out of adjustment.

That a level rod won't warp if
stood in a vertical position
when not in use.

That the lead from a soft pencil
put on the top and threads
of a tripod will keep an in-
strument from binding.

That the boss says "Nowadays a
resident engineer has more
work for a bookkeeper than
he has for his transitman."

comity agreement with California, that
has been accomplished, has given infor-

mation that will make possible the collection of much money that would have been lost to the state had not this arrangement been effected. Other sister states are furnishing information, as are we to their benefit, that is making possible intelligent check upon imports and disposition that our law does not require.

What is the fault of our law? Every other agency that is delegated with the duty of collecting taxes is required to be bonded. The distributor as defined by statute, is in effect a tax collector, and all must admit, a trustee in respect to accountability for the gas tax collection on motor vehicle fuel sales made by him.

If we concede, as we must, he is a tax collector, why make it mandatory upon the vehicle Superintendent to issue distributor's license to any and all upon request with no showing of responsibility, which permits the right to be collector with no accountability for forty-five days?

The answer and solution:

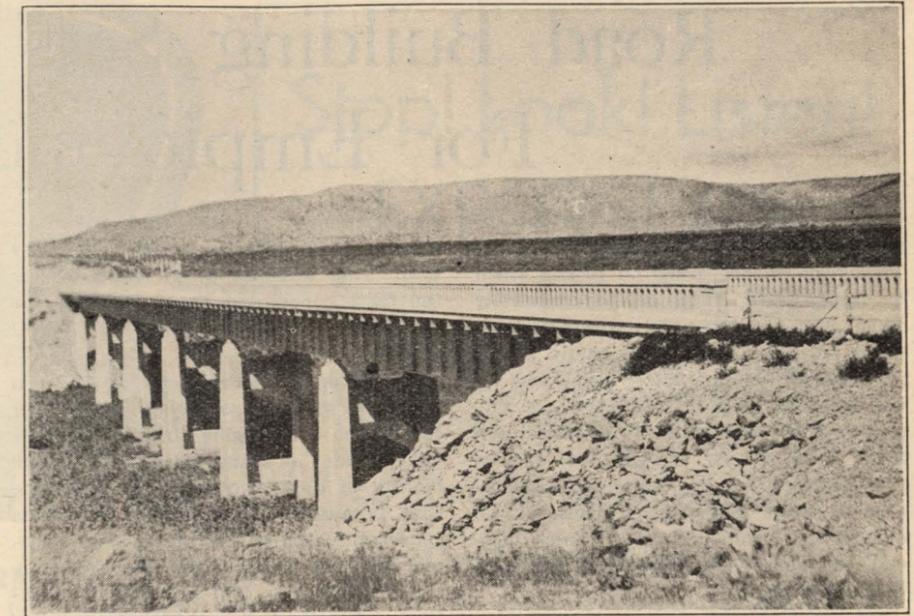
The writer had the privilege to contact fuel administrators of the nation in a conference held in Denver in the past month. Their problem was ours in past years, but in almost all instances has

been corrected by legislation, requiring all distributors to bond themselves to the state insuring payment of the tax.

The gas war, which makes possible the purchase of "distressed gasoline" at a ridiculous figure at the refinery, attracts the crook to the field of distributors, inasmuch as he can qualify by the mere filing of an application. Should he undersell the market in his territory and develop a huge gallonage on the basis of no return to the Division on tax, he is privileged to operate forty-five days with no accountability. He has no assets, in that his equipment is brought under conditional sales contract, and upon delinquency and resultant court action the state is awarded judgment but is unable to recover.

Several criminal and civil actions have been instituted against delinquent distributors. Judgment I feel sure will be had in favor of the state in all actions, but, Mr. Taxpayer, where is your relief? It is only to be had through legislation that will insure by proper bond the payment of the tax required of the distributor to collect at time of sale.

Is this not a matter that should receive your sincere cooperation to the end that proper legislation be made paramount importance and passed early in the session of the coming Legislature



One of the new aqueducts on U. S. Highway 66 between
Seligman and Peach Springs.

that monies properly due for the purposes for which the levy is made is collected and returned to the state for credit to the fund for which it was intended?

A bill sponsored by distributors of

Motor Vehicle Fuels, was introduced in the last Legislature providing for the bonding of distributors. This indicates that the industry itself is for the proper protection of the state in respect to collection of sales on motor vehicle fuels.

Good Roads—

P the expansion of all business and social life.
E
R the city worker to live away from the hub-bub of business activities.
M
I and induce greater commercial and social intercourse between distant cities.
T

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BRODERICK & BASCOM Yellow Strand Wire Rope
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Road Building Sets Record For Employment

"We have always been taught to measure road improvements by the yard. This year we are asked to reckon them by heart beats. It seems but yesterday when State Highway Departments feared to let it be known how many people got their bread and butter from jobs on the State highways. Now they are importuned on every hand to hire more men," said W. C. MARKHAM, Executive Secretary of the American Association of State Highway Officials, as he opened his annual report to these officials in session at Salt Lake City on September 29.

"The Federal Government is capitalizing the information as to how many people have a livelihood because of increased Federal appropriations for highways and the States have—many of them for the first time—found that not only the State departments but the contractors have a great army of workers on the roads whose pay envelopes were a vital matter to many a household.

Aid for Unemployed

"On the first day of July there was one person employed on State Highway work for every 369 people in the nation. The largest number employed in any State at that time was one out of every 70 persons in the State of Maine. This has no reckoning of persons employed in road work by townships, counties, or cities, neither does it have anything to do with persons who are employed exclusively in preparing materials to be used in road construction. Likewise this has no reference to people employed by the Federal Government in road work; whether Departmental, in Forests, Indian Reservations, Public Domain or National Parks.

"In addition to all this, the fact should not be overlooked there are many industries scattered throughout the country which would have been closed down if it had not been for the demands made upon them to furnish materials for this road building program.

States Increase Building

"There have been a number of newspaper stories emanating from several sources as to the highway contracts let by the State Highway Departments during 1930 and making estimates as to the contracts for 1931. In making this comparison instead of using the actual ac-

complishments of 1930 they used estimates previously made for the year 1930. This was not at all necessary as the facts concerning the road work for 1930 have been available for several months.

"In making a comparison between these two years, in order to see whether the States are lagging in their work, I have made a study of the first six months of these two years. This is done first because we have all of the facts concerning this period of time and second because due to the Federal loan, the contracts for 1931 are without question centralized in this six months' period. A comparison of the contracts let during these two periods shows that almost \$115,000,000 more contracts were let in the first six months of this year than last year;—and all of this despite the fact that it came at a time when 42 Legislatures were in session and many efforts were made, and some definite changes accomplished, in taking from the State Highway funds motor and gas receipts for local roads and cities.

"Nevertheless, while we all rejoice in the policy adopted by the Federal Government in making an advanced loan to the States of \$80,000,000 which could be used as State funds to match the regular Federal funds, it will be a matter of great surprise to those who have been peddling the story that the States have been slow, when they are made to realize that 23 states increased the contracts during this period to an amount of over \$64,250,000 above their allotment of the special emergency loan from the Federal Government.

Roads Outside State Systems

"Much is being said these days about the need of road improvements outside the State Systems, some say too much money is spent on the State roads and that the fellow outside is being allowed to flounder in the mud; also, that one reason why the counties and township roads are not comparable to the State roads, is inefficiency and lack of road knowledge. And then the cities complain because they contribute enormous sums through license fees and gasoline taxes and are not given some of the funds to use on their city streets as they may desire."

"All of this has led us to prepare a

series of maps showing the present co-operation or assistance given roads in the several States outside the State Systems."

"There are 7 States which control in whole or part the county road systems. There are 36 States which aid the counties with or without supervision of expenditures. There are 14 States which aid the townships with or without supervision of expenditures. There are 21 States which aid the cities of certain population or on certain streets. There are 7 States in which counties may or do control road work in the townships or "towns" and there are 26 States in which the counties are the smallest unit for road responsibility."

"A good road is needed over which to transport a load of wheat or cotton or cattle. The price the merchandise brings is not a measure of the need for the highway. The past years experience shows that an increased road program not only takes the depression out of the highway but it is the base course for many a hearthstone. Every part of our governmental structure has its share of responsibility in meeting the issue. The State Highway Departments are equipped for an increased task. Those responsible for legislation must either furnish funds for food or work."

Englishman Shows Great Enthusiasm For Highways

In a pamphlet announcing the formation of an Institute of Highway Engineers, in England, the following tribute to good roads is given:

"Roads rule the world—not kings, nor courts, nor constables; not ships, nor soldiers. The road is the only royal line in a democracy, the only legislature that never changes, the only court that never sleeps, the only army that never quits, the first aid to the redemption of any nation, the exodus from stagnation in any society, the call from savagery in any tribe, the high priest of prosperity after the order of Melchisedec, without beginning of days or end of life. The road is umpire in every war and when the map is made it simply pushes on its great campaign of help, hope, brotherhood, efficiency and peace."



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At present constructing Arizona F. A. P. 604-95B, which consists of grading and drainage of forty miles of U. S. Highway 89. Beginning at the suspension bridge across the Little Colorado River at Cameron and extending northward toward the Lee's Ferry Bridge on the Flagstaff-Fredonia Highway.

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ARIZONA

State Projects Under Construction

DISTRICT NO. 1

Geo. B. Shaffer, District Engineer

Schmidt & Hitchcock have completed the oil surfacing of 17.8 miles beginning at the Coconino-Yavapai County line and extending west, F.A.P. 57, 80-C, 89-B and 4.3 miles Ash Fork south, F.A.P. 62-A, F. J. Beeghly, resident engineer.

Martter & Bock have the grading, draining and sub-grade stabilizer on nine miles, beginning at Crookton and extending west to Seligman, F.A.P. 80-B, 63 per cent complete. Floyd J. Beeghly, resident engineer.

Canon & Francis have completed the grading, draining and placing of sub-grade stabilizer of 5.7 miles of the Wickenburg-Blythe road, F.A.P. 98-B, which begins at 1 1-4 miles east of Aguilla and extends toward Wickenburg. Geo. E. Lang, resident engineer.

V. R. Dennis Construction Co. have construction on grading, draining and placing of sub-grade stabilizer, mineral aggregate and oil surfacing 14 1-2 miles, which begins 1 1-2 miles east of Quartzsite and extends east towards Salome, F.L.H.P. 1-A, 18 per cent complete, Percy Jones, resident engineer.

Lee Moor Construction Co. has the construction of 7.2 miles, grading, draining, surfacing and oil processing, F. L. H. P. 1-C, beginning near Gonzales Well and extending towards Quartzsite, 18 per cent complete. Percy Jones, resident engineer.

Ralph Pleasant has construction of Sections E and F. of F.A. 98, 24 miles grading and draining, beginning 16 miles east of Quartzsite and extending east, 55 per cent complete, Barney Hodgkin, resident engineer.

Geo. H. Oswald has completed the construction of F. A. 59-1 Reo., which consists of grading, draining and placing

of subgrade stabilizer and oil processing of 10.3 miles—Wickenburg to Castle Hot Springs Jct. Geo. Lang, resident engineer.

Packard & Tanner have been awarded a contract for the construction of 1.1 miles located approximately 11 miles N. E. of Congress Junction. Geo. Lang, resident engineer.

DISTRICT NO. 2

F. N. Grant, Resident Engineer

O. F. Fisher has the grading, draining and surfacing of 7.8 miles, beginning 1 mile east of Williams and extending east to Pitman Valley, F. A. 89-D, 72 per cent complete. W. T. Halloran, resident engineer.

Packard, Tanner and Morse have the grading, draining and surfacing of nine miles, beginning at Pitman and extending toward Flagstaff, F. A. 89-E, 60 per cent complete. R. C. Pond, resident engineer.

Veater & Davis have the construction of F. A. 95-B. (Cameron to Ridge, 40 miles on U. S. Route 89) 93 per cent complete. H. D. Alexander, resident engineer.

W. E. Callahan Construction Co. has the oil surfacing of 11 miles, beginning at Winslow and extending east F. A. 40-B and C., M. Kisselburg, resident engineer.

Lewis Brothers have completed the construction of grading and oiling of 1,450 feet of Winslow streets, M. Kisselburg, resident engineer.

DISTRICT NO. 3

R. C. Perkins, District Engineer

Western Gunite Co. has completed the surfacing and oiling of 30 miles from Florence to Superior, F. A. 23 A. and B. and 23 C., D. and F., A. W. Newhall, resident engineer.

Robert McKee has the grading and

draining of 13.7 miles, F. A. 87-E, Geronimo East, 99 per cent complete, L. C. Bolles, resident engineer.

Chas. Willis & Sons have the construction of 10.8 miles of the Globe-Showlow highway, beginning 1-2 mile east of Globe and extending northeast, F.A.P. 99-B, 43 per cent complete. Carl Brannen, resident engineer.

Lee Moor Construction Co. has the grading, draining and sub-surfacing of 11 1-2 miles of the Globe-Showlow highway, beginning at the Salt River and extending south, F.A.P. 99-A, 14 per cent complete. Gus Rath, resident engineer.

Dudley Stone Products Co. has been awarded a contract for the sub-surfacing of approximately eight miles, which begins approximately six miles east of Geronimo and extends east. L. C. Bolles, resident engineer.

DISTRICT NO. 4

W. R. Hutchins, District Engineer

Stanley Jaicks has completed the construction of F. A. Projects 25-B and 86-D, 9.2 miles extending south from the Pima, Santa Cruz county line, 83 per cent complete, Sid Smith, resident engineer.

Ralph Pleasant has the construction on the oil processing of F.A.P. 94-E, which begins at the Pima-Pinal County line and extends south 8.3 miles, 99 per cent complete. J. R. Van Horn, resident engineer.

R. H. Martin has completed the construction on F. A. Projects 18-A, which begins approximately 22 miles S. E. of Tucson and extends east 2 3-4 miles, grading, draining, surfacing and oil processing. C. S. Benson, resident engineer.

Skeels & Graham have the grading, draining and placing of sub-surfacing of 13 miles, F.A.P. 97-B, beginning at the south end of the Sacaton Bridge

and extending south, 59 per cent complete. Joe de Arozena, resident engineer.

Skeels & Graham have the surfacing and oiling of five miles, beginning at the north end of the Sacaton Bridge and extending northwest, 95 per cent complete. Joe de Arozena, resident engineer.

Skeels & Graham have the surfacing and oiling of two miles beginning at Coolidge and extending north, F. A. 94-B, 53 per cent complete. Joe de Arozena, resident engineer.

William Peper has the construction of 2 1-2 miles, beginning approximately five miles north of Bisbee and extending north, F.A.P. 79-G, 52 per cent complete, C. S. Benson, resident engineer.

N. G. Hill Co. has the surfacing and oiling of approximately 17 miles from Casa Grande to Picacho, 18 per cent complete, J. R. Van Horn, resident engineer.

Dude Ranches Of Arizona

(Continued From Page 7)

had never seen a cow and who refused to take milk unless served from a dairy bottle.

The Old Days Are Passing

The day of the cattle ranch of vast area and the type of cowboy, famed in song and story, who rode the ranges of such unfenced ranches, is passing; in fact, almost gone. The cowboy of keen judgment and dry humor is gradually becoming extinct.

An amusing and perfectly true story is told of a city young lady on one of the guest ranches who, the round-up being within a few miles of the ranch-house, insisted upon visiting the camp at "chuck" time. On her appearance a natural pause resulted and the young lady insisted, "Keep right on, we just came down to see you eat." At which the meal was resumed in solemn silence. The next evening, while the guests were at dinner in the dining room of the ranch house there was a jingle of spurs on the front porch and six or eight

The Voice That Laughs

(Continued From Page 14)

Inne. A deposit was required and "all caddys and horses lost on the course must be paid for."

Some of the paragraphs of his SALOME SUN taken at random read:

"Put the frog out, Bill, I think it is going to rain."

"Some of the old timers are still waiting for someone else to do something."

"Pour a little more cactus juice in the radiator, Bill, and let's go."

"When Salome gets the new division station we are going to imitate Los Angeles and annex some of the little water holes, whistling stations and mining camps."

Dick Wick Hall was loved by all who knew him, and his memory is honored by thousands who make the pilgrimage to his tomb at No. 1 Main Street, Salome—"Where she danced," as he would like to have said.

Hall was not a "lunger" as the desert inhabitant, or rather those seeking the desert, are called; he had lived in New York, Pittsburgh and other large cities,

cow hands filed solemnly in. Again a natural pause ensued, and the leader admonished, "Keep right on, we just come in to see you eat."

Arizona has been selling her sunshine for several years now,—a campaign conducted through magazine and word-of-mouth advertising and the growth of the guest ranch industry is one of the results. The guest on these ranches is invariably looking for climate,—a cool summer climate or freedom from frost and snow in the winter, and Arizona has all brands to offer. Climate and freedom from convention, a good horse, good food, good hunting and a good bed. Is it any wonder that the new industry is amazingly profitable and returns a hundredfold in enjoyment to the guest? and before finally settling down and set-

ting up Salome—"Where she danced," Dick Wick Hall was editor of the Wickenburg Miner.

He was a great character and had a noble heart and was liked by all. Perhaps that satisfied him in knowing that he at last had found HIMSELF.

WHERE TOURIST DOLLAR GOES

The distribution of the tourist dollar is given by the U. S. Department of Commerce as follows: retailer, 25 per cent; restaurant, 20 per cent; hotel or camp, 17 per cent; garage and filling station, 12 per cent; transportation, 10 per cent; theatre and amusements, 10 per cent; confectionery, 6 per cent. This analysis shows the importance to the whole community of tourist travel.



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ICE CREAM you desire these hot days, we have nine flavors to choose from.

LUNCH you want, don't fail to try our noon plate lunch.

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Bureau of Public Roads Projects

UNDER CONSTRUCTION

C. G. Willis & Sons have the grading of Forest Highway-Oak Creek Hill Section 7-C. The project begins at the top of the Oak Creek Canyon, 13 miles south of Flagstaff and extends to the bottom of the hill, a length of 2.8 miles. Estimated cost of construction is \$187,000 and project is now 95 per cent complete. E. J. McCracken, resident engineer.

Jasper Stacy Company completed in September, the contract for grading the 8.4 miles of Section B, Houserock Canyon National Forest Highway, Kaibab National Forest, Coconino County, Arizona, at a cost of \$162,000. W. J. Nelson, resident engineer.

Lord & Bishop have the contract for oil surfacing 26 miles of the Grand Canyon, Route 3, from Bright Angel point to Cape Royal, at an estimated cost of \$285,000. This project is located on the North Rim of the Grand Canyon National Park and in Coconino County. W. J. Nelson, resident engineer.

O. A. Lindberg completed in September, the contract for grading the 13 miles of the Three Lakes Section of the Fredonia-Grand Canyon Highway, on the north side of the Colorado River at a cost of \$51,000. W. J. Nelson, resident engineer.

Portions of Sections "A" and "C" of the Payson-Holbrook Forest Highway, Route 11, are under Betterment and Improvement work by day labor. Portions to be so improved total ten miles in length and will cost approximately \$12,000. D. L. Williams, resident engineer.

Harry Hagen has the contract for the grading of 5.6 miles of Section 2-D, Swift Trail Major Forest Development Road, in Crook National Forest, Graham County. The total estimated cost is \$68,000 and L. G. Watters is the resident en-

gineer. Contract time started April 20th, and project is now 90 per cent completed.

Jack Casson has the contract for the surfacing by the plant mix method of 35 miles, Section "A," "B" and "C" of the Grand Canyon-South Approach Road in Coconino County. Total estimated cost of construction is \$227,000. V. G. Watson, resident engineer. Project is now 70 per cent completed.

Everly and Allison of Des Moines, New Mexico, have the grading and draining of 16 miles through the Petrified Forest National Monument in Apache and Navajo Counties. Estimated cost of construction is \$115,000 and work is now 50 per cent complete. E. F. Strickler, resident engineer.

The W. E. Callahan Construction Company has the contract for the construction of the Rio Puerco and Dry Creek Bridges within the Petrified Forest National Monument at an estimated cost of \$155,000. Work is now 25 per cent complete. E. F. Strickler, resident engineer.

Hodgman & MacVicar were awarded the contract for the grading and drainage of 20 miles of the Pine-Winslow Forest Highway Route 10, beginning approximately seven miles north of Clint's Well and extending to the North Forest Boundary 30 miles southwest of Winslow. Contract time began June 27th and work is now 50 per cent complete. Estimated cost of project \$112,000. C. R. Dalton, resident engineer.

R. S. Black has the contract for the construction of 6.3 miles of the Pine-Winslow Forest Highway in Coconino County. The project begins at Clint's Well and extends northeast to a connection with the south end of the 20 mile project under construction by Hodgman & MacVicar. Estimated cost of con-

struction is \$48,000 and contract is now 25 per cent complete. C. R. Dalton, resident engineer.

Bids were opened September 1 for placing a seal coat on 19 miles of the Grand Canyon-Desert View Route within the Grand Canyon National Park. Heitsch & Bitten were low bidders and award has been made to them. Plant installation has been completed and actual work should begin at once. Estimated cost is \$14,000. V. G. Watson, resident engineer.

Bids were opened August 20 for grading and draining two sections, Units 4

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Vic Hanny Co.

36-42 N. Central Twin Fronts Phoenix

and 5, of the Payson-Holbrook Forest Highway. Lengths of the units are 0.5 mile and 1 mile respectively. Rogers Bros. were low bidders on unit 4 and H. I. Turley was low bidder on Unit 5. Award has been made. Estimated cost of construction for the two Units is \$5,400.00 and work is now 60 per cent complete.

Glenn Shumway has the contract for four Station Contract Units south of Heber on Section B of the Payson-Holbrook Forest Highway. The estimated cost is \$8,000 and work is now 20 per cent complete. D. L. Williams, resident engineer.

Bids were opened at the Grand Canyon on September 24 for sub-grade reinforcing and oil surfacing by the plant mix method 17.199 miles of the Grand Canyon-South Approach Road. Geo. H. Oswald was the successful bidder and award has been made to him on the basis of his proposal. The total estimated cost is \$135,000 and preliminary installation of plant equipment is now in progress.

SURVEYS

Payson-Indian Garden-Colcord Survey, Forest Highway Route 11, beginning at Payson and extending eastward for an approximate distance of 40 miles, to a connection with the Young-Holbrook Highway near the Gila-Coconino County line. Survey began March 15th. J. H. Brannan, locating engineer.

Hermit Rest Survey and Hermit Rest to a connection with Bass Camp Survey. Located on the South Rim of the Grand Canyon in the Grand Canyon National Park. Approximately 12 miles in length. F. H. Horton, locating engineer.

BIDS TO BE OPENED

Bids will be opened in Safford, October 10, for two Station Contracts covering the grading of a portion of the Swift Trail 26 miles southwest of Safford. The length of the projects to be improved is 0.8 mile.

Bids will be opened in Holbrook, October 16, for dismantling, moving and re-erecting one 80 foot steel span bridge. Bridge is now located at Leroux Wash, one mile east of Holbrook, and will be moved to Buckskin Wash, 3-4 mile east of Heber.

Bids will be opened in Phoenix, October

27, for placing 2,300 cubic yards of sub-grade reinforcement on a portion of the Clifton-Springerville Forest Highway near Springerville.

Archaeology

(Continued From Page 11)

than today, and that a cataclysm that dropped his home beneath the inrushing waters had permitted but a few hopeless survivors to crawl to sanctuary on new and desolate shores, thus requiring that all the structure of another civilization be rebuilt, with nothing but dazed memories to work with. Thus any type of civilization might be well-nigh irredeemably lost.

Seek Key to Riddle

Confirmatory of such supposition, if you will, are man's endless legends, of gods and beings of what we would consider supernatural powers. Every race has them, but nowhere were they as fresh and realistic as along the Mediterranean, in the districts once having traffic with the lost Atlantics. So that the lost continent may have held mysteries indeed.

To the student more inclined to the psychological side, believing that the key to the riddles may lie within our minds, the point becomes clear that man owns aspirations, ideals, faiths in no wise justified by the material facts that confront him. Our hopes, our appreciation of beauty, our splendid faith that all is well, our ability to rise superior to self, all point to a definite if inchoate memory of lost glories.

The patient archaeologist, turning over the dust of the inscrutable desert, may find a priceless thing, mayhap a key to the gateway of the gods.

BILLBOARDS ARE TAXED

Assessors in Mille Lacs county have entered the fight against billboards along the highways. These men added the billboards to the personal property list and the county commissioners in their turn intend to see that the tax is collected. If the owners will not pay the tax, the sheriff has been instructed to take down the billboards and sell them for lumber.—Dassel Dispatch.

WE THINK OUR ROAD TAX IS HIGH

Car owners in England pay a tax on their cars of \$4.86 a horsepower. On a 29-horsepower car Germany collects about \$300. Belgium is about as bad. France on a 20-horsepower car levies \$87 plus a 12 per cent sales tax and a 1.5 per cent turnover tax on the sales price. Brazil collects a flat rate of \$50 on all cars. Argentina on a two-ton car gets \$265. Many other countries have equally unusual methods and taxes, and the net impression is that one way to build a big automotive industry is not to tax the customers too heavily. It also discloses the real reason for the so-called "European type car," which has to be made with a little engine and light load to avoid the heavy taxes. That's why this type in full form will never be required in America.—Motor.

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Road Conditions, Arizona State Highway System

These conditions were reported as of Oct. 4th. Changes will occur on roads under construction according to progress of the work.—(Editor's Note).

U. S. Route 80, Yuma to Rodeo, 518 miles: All paved, oil surfaced or gravelled—condition good. Two and a half miles under construction, Bisbee Hill, short detour, good condition.

U. S. Route 66, Topock to Lupton, 396 miles—gravel surface, oiled or paved. Condition good excepting nine miles under construction east from Seligman, three mile detour, good condition. Sixteen miles under construction east of Williams. Traffic using old road.

U. S. Route 180, Florence Jct. to state line, 183 miles—gravel or oil surfaced—condition good. Construction east of Geronimo nearing completion.

State Route 88, Apache Jct. to Globe, 83 miles—gravel surface. Condition good excepting between Fish Creek and Roosevelt under repair. Drive carefully.

State Route 73, Cutter to McNary, 104 miles—Gravel Surface Cutter to Rice and White River to McNary, other unimproved. Fair condition.

State Route 71, Clifton Jct. to Springerville, 157 miles—Gravel and partly surfaced. Condition good, Clifton Jct. to 40 miles north of Clifton. Cherry Lodge

to Hannigan good except when raining. Alpine to Nutrioso good. Nutrioso to Springerville good excepting caution by 7.3 miles under construction near Springerville.

U. S. Route 89, Nogales to Fredonia, 660 miles—Gravel, oil or paved surface to Flagstaff, graded and drained to Cameron. Unimproved Cameron to House Rock. 40 miles under construction north of Cameron, new road open about 20 miles, gravel House Rock to Fredonia. Condition good excepting nine miles under construction between Nogales and Tucson. Use precaution.

U. S. Route 70, Holbrook to State Line, 109 miles—Gravel surfaced, condition good to excellent.

State Route 79, Prescott to Flagstaff, 91 miles—Gravel or oil surfaced to Sedonia. Sedonia to Flagstaff graded and drained. Condition good excepting for construction in Oak Creek Canyon which at times is impassible. Sedonia to Flagstaff slow in wet weather.

State Route 74, Wickenburg to Ehrenberg, 134 miles. Surface mostly low type improved. Fifty-one miles under construction from Gonzales Wells east. Detour county road Quartzsite to Bouse to Vicksburg. Other detours slow when wet.

State Route 81, Douglas to Safford,

128 miles—Gravel surfaced. Condition good.

State Route 87, Chandler to Picacho, 51 miles—Gravel or oiled surfaced excepting 13 miles under construction Sacaton Dam to Coolidge. Detour rough.

State Route, 187, Sacaton Dam to Casa Grande, 13 Miles—Gravel surfaced. Condition good.

State Route 83, Vail Junction to Sonoita, 28 Miles—Gravel surfaced. Good.

State Route 82, Nogales to Tombstone Jct., 70 Miles—Gravel surfaced. Good.

State Route 84, Tucson to Gila Bend, 124 Miles—Oil surfaced Tucson to county line, gravel surface to Casa Grande. Part surface to Gila Bend. Road under construction Picacho to Casa Grande.

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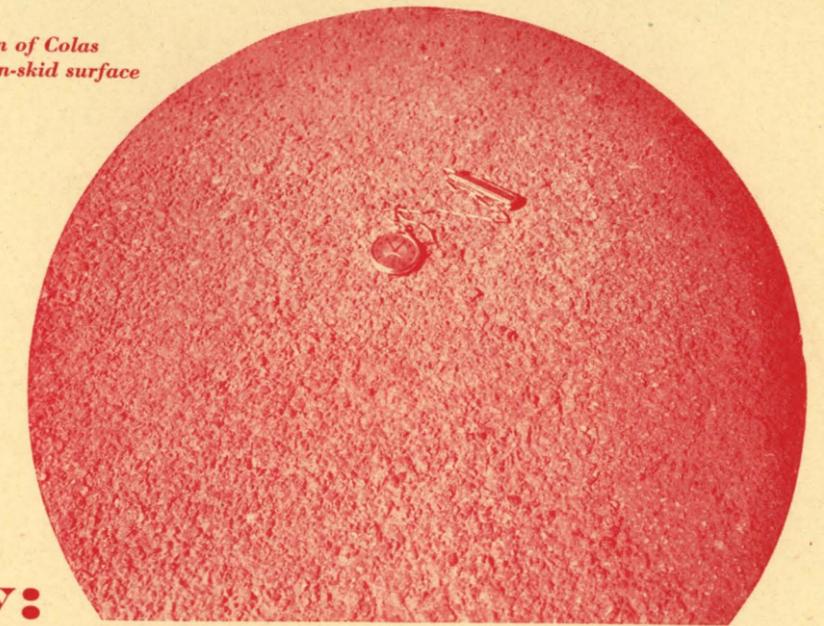
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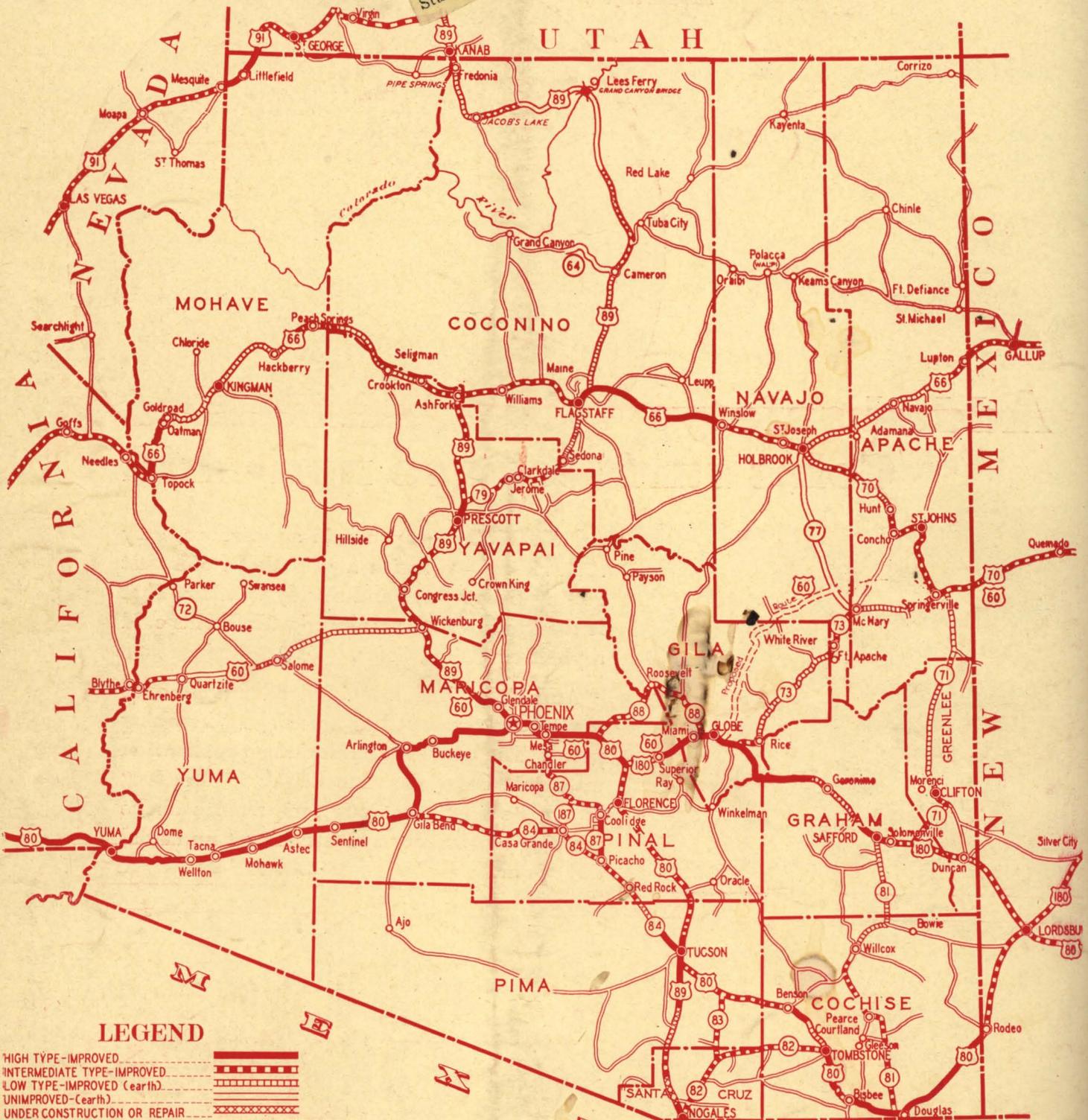
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LEGEND

- HIGH TYPE-IMPROVED
- INTERMEDIATE TYPE-IMPROVED
- LOW TYPE-IMPROVED (earth)
- UNIMPROVED (earth)
- UNDER CONSTRUCTION OR REPAIR
- DETOUR
- COUNTY ROADS (conditions not shown)
- U. S. ROUTE No.
- STATE ROUTE No.



STATE ROUTE MARKER

ARIZONA HIGHWAY DEPARTMENT
CONDITION MAP
OF
STATE HIGHWAY SYSTEM

Scale
10 20 30 40 50 Miles



FEDERAL ROUTE MARKER