

TIME NEARING TO CHECK UP LIGHTS

Longer and Warmer Days Permits Reducing Start- ing Current and Lights

Longer and warmer days, resulting in less of a drain on the automobile battery by reducing the amount of headlight usage and requiring less current for starting, are finding a number of motor car generators working overtime, says Geo. O. Brandenburg, secretary of the Oregon State Motor association, who points out that the reason is at hand when this winter adjustment gradually can be dispensed with.

"Numerous fits of the car's electrical system can be traced to the car owner's neglect to have the generator readjusted to a normal charging rate when the worst of winter is over," says Mr. Brandenburg. "This has been the experience of a majority of the 833 local clubs comprising the nationwide chain of the American Automobile association."

"This observation on the part of the club executives indicates that motorists are not paying the attention necessary to this form of car-care. It should be remembered that the less severe temperatures which preface the coming of spring also should forecast a change in car adjustments. The generator is the unit which should be among the first to be considered in this connection."

"The generator set for a higher charging rate is working under a great deal of pressure, and while it is built to withstand heavy strains it still requires the consideration of the car owner if it is to continue to function perfectly. The danger of over-charging the battery is not great, but that of overworking the generator is."

"The individual car owner would do well to keep the anti-freeze solution until cold weather is definitely past, but he can, with safety, stand for a reduction in the charge output in the generator. It is an item of car-care which really is important at this particular season."

"A car?" stormed an angry father. "Of course you can't have a car! Why, you would be absolutely helpless if you found yourself with a flat tire."

"Oh, no, I wouldn't, Daddy," the daughter retorted confidently. "I've given flat tires the air before this."

Second Hand Autos Invade China On Roads Built By Bandit Chiefs

By Morris J. Harris
(Associated Press Staff Writer)

PEKING, China (AP)—Road building, with a striking development in motor car traffic, despite civil wars which are paralyzing the country, is one of the most noteworthy developments taking place in China. During 1927 much highway construction was done and prospects for 1928 are that even more roads and more motor cars will take their place in the daily life of China.

Road building, although in miscellaneous areas and not co-ordinated, is taking place all the way from Peking to Canton and as far west as Chengtu, capital of the province of Szechuan. The undertakings are being carried out by military leaders, the roads being desired for military uses and also as a source of revenue.

A road will be built over a route varying from a few miles to several hundred in length, a fleet of second hand automobiles will be acquired from local garages and over-night complete transportation organization will come into being. Passenger carrying and freight transport by truck are flourishing in numerous areas by this means, and scores of military chieftains have discovered an excellent way to bolster up their sagging war-chests.

Since the arrival of the Fengtien faction of Chang Tso Lin in and about Peking in the province of Chihli, roads of the district have been improved greatly and motor traffic has increased. The roads of the capital itself, while not comparable with those of western capitals, are vastly better than a year ago and continual work is going on in the surrounding country to prepare highways for heavy traffic.

In addition to the increasing number of privately owned motor cars, a dozen motor buses run daily the 80 miles between Peking and Tientsin, while numbers of others ply frequently in all directions from the capital, visiting places of interest and trade within an area of 200 miles of Peking. The fares are moderate, the traffic is heavy and the buses are always crowded.

Authorities hope to bring about more settled conditions as a result of the opening up of the country by this method.

South of Peking in Shantung there is an excellent motor road from Tsinan-fu along the south side of the Yellow River to the north coast and then east almost to Chefoo. The course is a long

one, well populated with cars, and brings in a good revenue. In Honan, Hupeh and Hunan similar movements have been started. In Szechuan, far to the west, the militarists have acquired the "road craze" and at present several foreign engineers are engaged in laying out highways to important points.

To the south of Kueik, along the coast, several good roads have been built by local authority and still further south in Kwangsi and Kwangtung and even into Yunnan road construction is going on, mostly under supervision of foreign engineers.

Labor for building the roads costs little, being conscripted by the militarists in many places. Such roads are virtually private highways of the builders. A monopoly is created and the profits are large. Although the roads may be operated under such management at present, in the end they will form the nucleus for a highway system throughout China.

Second-hand automobiles of almost every description, bought in Shanghai, form the "flects" for the roads. The cars are driven "until the wheels drop off" and then more are procured, the old being cast to the roadside.

French Buy Motors But Not Bathtubs

PARIS (AP)—Bath tubs are less desired than automobiles in France. So the master plumbers have ascertained through their official organ which conducted an investigation of the use of sanitary facilities and published the results under the title of "A tour of France through the sewers."

While automobiles are increasing, the plumbers lament that there are entire departments which do not have and do not want running water, sewers and the sanitary facilities that go with them. The official reports cover 38,000 communities and indicate that the prospects of making the Saturday night cleanup a pleasure rather than a hardship are not encouraging.

"What is lacking in France," one of the plumbers' officials is quoted as saying, "is authority to improve hygienic conditions. The masses aren't educated, the towns won't make the necessary financial sacrifices and the taxpayers protest against the cost of any progress in sanitation."

ROAD EXPERTS TEST CONCRETE

Thousands of Experi- ments Are Being Made to Get Knowledge

WASHINGTON (AP)—Thousands of little concrete beams and cylinders are being made in the Arlington laboratory of the bureau of public roads, only to be cracked and crushed so that highway officials and engineers may have more exact knowledge of what to expect in the laying of future pavements.

The tests are similar to a series conducted recently in the Trenton laboratory of the New Jersey state highway commission, in co-operation with the bureau, to determine the relative quality and economy of various concrete paving mixtures in which different proportions of crushed stone or gravel were used with sand and cement as coarse aggregate.

Since the New Jersey investigation applied only to materials used in that state, the Arlington tests are being made with a view to reaching more general conclusions. Only two types of coarse aggregate were considered at Trenton, whereas 17 are being used here. The mixtures are being made and the beams and cylinders cured with the utmost care, so that when the time comes to test their resistance to strains and to weight, nearly exact ratios can be determined.

In the New Jersey study, as described by E. H. Jackson, engineer in tests of the federal bureau, it was found that pavements constructed of gravel concrete should be about one-half inch thicker than those in which crushed stone is used to provide equivalent strength of the slabs. Under conditions existing there, little or no difference in cost was found.

Illumination Of Highways Urged In Paper Article

Two per cent of a state highway investment if spent for adequate illumination would double the night use of roads and largely increase the usefulness of highway systems, according to an article in the Transactions of the Illuminating Engineering Society.

"Two knotty traffic problems which become more insistent every year are highway congestion by day and glare by night. Adequate highway lighting would be at once the practical and economical solution of both."

"Let us consider this from an economic standpoint. The automobile investment of the United States for 1926 is estimated at ten billion dollars. It costs twenty to fifty thousand dollars to build a mile of highway. To light it costs about seven hundred dollars a year."

"On a basis of thirty-five thousand dollars a mile cost for two per cent of the state highway investment, spent in adequate highway lighting, it is conservative to estimate that the night use of roads would be doubled. Night traffic is now eighteen per cent of the total, and doubling this would increase the present efficiency of the highway system by at least that percentage."

MORE AUTOS IN BERLIN

BERLIN — Official statistics show 63,500 motor vehicles in Berlin at the beginning of the new year. This is an increase of 12,500 over 1926, or more than 1,000 a month, and of a clear 100 per cent over 1925. Passenger autos show the greatest absolute increase, but there are two and a half times as many motorcycles as in 1925. Passenger traffic in the greater city showed a great increase. The street cars, subways, omnibuses and interurban railroads carried a daily average of 4,400,000 passengers.



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New Facts About Oil Recovery Increase Supply of Petroleum

Any real shortage in oil under present conditions would be a national calamity, according to W. R. Boyd Jr., assistant secretary and counsel of the American Petroleum Institute, in an address before the Ohio Petroleum Market's association at Columbus, Ohio.

There is every reason to believe, however, that no such scarcity is in sight and that the way is open for the expansion of the uses of various petroleum products in many and diverse fields.

Oil Sources and Recovery Methods

"So much has been learned in recent years as to oil sources and recovery methods through bitter experience, and brilliant technological application that, combined with the awakening consciousness favoring co-operative enterprise to effect stabilization of a naturally fickle raw material, it may well be considered that a large supply is available," he said.

"It is known that a certain but more or less indefinite number of billion barrels of crude oil are yet unrecovered from discovered pools. It is assumed that many other new pools containing many billion barrels of oil will be located and developed."

Supply from Shale and Coal

"The report of the federal oil conservation board, just issued, estimates a supply, additional to that mentioned, which can be recovered from domestic oil shale, if and when the price warrants its extraction, of 82,000,000,000 barrels, nearly ten times the total quantity of oil that has been produced in the United States from 1859 to date."

At our present rate of production from wells, this quantity would suffice for roughly one hundred years.

"The estimate is made that the two and one-half trillion tons of bituminous, sub-bituminous and semi-bituminous coal in the United

States, within 2000 feet of the surface, is capable of yielding about 52,000,000,000 barrels of motor fuel—more than three hundred times the motor fuel production in 1927. It is also estimated that another 12,900,000,000 barrels of motor fuel may be obtained from the 240,000,000,000 tons of lignite deposits in this country.

"This would make available an estimated total quantity of 104,000,000,000 barrels or 4,264,000,000,000 gallons of fuel for motors in addition to the numerous billion barrels of crude oil from wells and oil shales."

World Can Manage To Get Along

"If the estimates which the board has presented prove to be anywhere within shooting distance of the correct figures it would seem that petroleumly speaking, the world could somehow manage to get along quite comfortably for a few more generations and that getting the supply is not merely a physical problem but a mixed problem of recovery and economics."

"It is needless to point out that to obtain supplies from either oil shale or coal involves mining operations plus reclamation of refineries and new methods of extraction and processing manufactured petroleum products."

Act of Finding New Oil Pools

"Substantial progress has been made in the art of finding new oil pools. Producers know better now how to recover and handle the oil once it is located underground. It is but natural that we should be breaking all production records."

"The oil producer is discussing two important questions: How may we secure more orderly production and obtain greater ultimate recovery? How may we get a fair profit from our enterprise? The best, and the worst, and all the in-between minds in the business are wonder-

ing how to improve methods of capturing oil or conserving it in its native reservoirs. Suggestions are being offered and analyzed. All of them are earnestly pursued."

A National Problem

"The production problem is not local nor is it restricted to the man who produces crude oil. It is one for national and industrial concern. The merchandising division of the industry has been under a handicap, to expand normally its markets. The reason why is that the question of obtaining sufficient crude oil supply to meet tremendously increased demand, particularly for gasoline, has been uppermost."

"This prompted the federal trade commission, in a report issued last December, to point out that rising prices for crude oil and gasoline at the opening of each of the five years 1922 to 1926, inclusive, had as their genesis a general anticipation that crude oil supply would be insufficient. But invariably over-production followed. The establishment of a consistent sales policy is dependent in part upon some reasonable solution of the major production problem."

Motor Car Improvements

"The scientist and the inventor are constantly adding to our store of knowledge. They are not merely revising in the ordinary way; they are modernizing, systematizing and revolutionizing. Some of them are at work for us seeking more efficient and less costly ways to get more oil. Others are co-operating to check wasteful practices in utilization so that less oil will be consumed."

"Technological skill and genius, representative of the consumer of our products, are occupied in looking for ways and means to use less oil at less cost. They will succeed in some measure."

"Improvements in motor car construction are certain to increase the number of miles per gallon of gasoline. An increase of even 25 to 40 per cent is promised. Everybody is contributing to the edu-

Willys-Overland Canadian Plant Is Built Larger

Expansion of the plant of Willys-Overland, Ltd., at Toronto, Ont., has been completed giving the Canadian organization facilities for enlarged production to meet the record breaking demand for Willypets and Willy-Knight motor cars.

The half million dollar expansion of the Toronto plant provides for a daily production of 250 cars and steps are being taken to reach this peak production mark early in March, according to T. A. Russell, president. Peak capacity in the old plant was only 140 cars a day.

Commenting on 1928 prospects for Willys-Overland in Canada, Mr. Russell declared that the outlook is exceptionally bright from one end of the dominion to the other. He said that the bumper crop of last fall has enabled the farmer, especially in western Canada, to meet their banking obligations, placing them in the best financial position they enjoyed in years.

CAUSE AND EFFECT

SYDNEY, N. R.—William Murray, Jr., convinced the judge that the usual order of things was reversed when he was arrested after a motor crash for drunken driving. Instead of drunkenness causing the crash, depression after the accident led him to drink. The magistrate believed him and dismissed the case.

Education of the motorist to conserve motor fuel. If and when he really wants to save motor fuel, a way will be found to do it, and the consumption of gasoline will be reduced proportionately."

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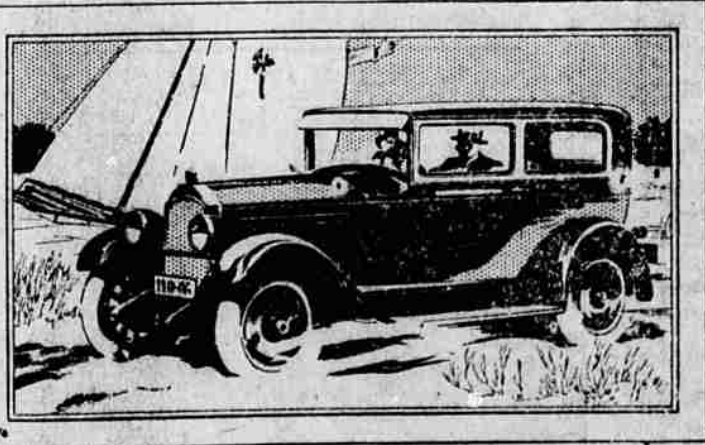
E.O.B. FACTORY

FROM its first presentation at the Great Automobile Shows, the thousands who have viewed the Willys-Knight Standard Six have been unanimous in their praise of this beautiful new car. Such enthusiastic acclaim proves how widespread has been the demand for a low-priced Six powered by the patented Willys-Knight engine.

It has long been our aim to produce just such a car. But due to the greater cost of building the superior sleeve-valve motor, it is only now that we have reached our goal. The new Standard Six is a car notable for all

of Willys-Knight's quality supremacy, at the lowest price in history!

Willys-Knight Sixes from \$1145 to \$2695, in the Standard Six, Special Six and Great Six divisions. Prices f.o.b. factory and specifications subject to change without notice. Willys-Overland, Inc., Toledo, Ohio.



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