

MISSIONARY USES CAR TO TRANSPORT GOSPEL TO PAGAN

Every Motor Car Sent to India for Mission Means Greater Efficiency, Writes Missionary.

Every day finds some new use for the motor car, from running a factory in place of the usual power plant to pulling an ice cutting machine. One of the best uses to which the car or the truck can be put is the transporting of doctors and clergymen.

Letters from a number of clergymen in the Central West point out the necessity of having cars for use in that country of great distances between churches or between patients. Some of the circuit riders are now riding their routes on motorcycles, and others employ light trucks. Numbers have cars, and numbers more need some motor vehicle.

But this state of affairs does not exist only in this country and in other lands equally along the course of civilization.

USE TRUCK IN INDIA

The pagan of the present day has his gospel brought to him by the most modern method. Maybe it comes by a missionary, whizzing into the village on a motorcycle, maybe a whole mission party arrives in a Ford car. One United Presbyterian mission station finds a motor truck a wonderful convenience in moving a group of mission workers, their baggage and supplies, long distances.

"Every motorcycle or Ford or truck that is sent out to us means increased efficiency in spreading our work," writes one missionary, "because it enables the worker to supervise work in every part of his district."

Through the hot season it is impossible to make long trips with a horse and cart, but the little old jitney jogs right along, heedless of the scorching mercury or the dust or the flies or any of the other discomforts that make travel in the hot season a misery to the horse.

NATIVES ALL EXCITED

When a tour of a large number of villages is planned the workers load all of their belongings into the truck or the Henry and set forth, camping for about a week at each place.

"The natives are as excited as when a circus comes to town," writes one of the missionary chauffeurs. "The excitement, everything about it from the tires to the smell, is a tremendous attraction, and we never lack for an audience when we are ready to begin our real work."



That cotton is one of the chief materials used in the manufacture of rubber tires?

That it is erroneous to think of tires solely in terms of rubber?

That the body of the tire is built of a number of plies of tricotized cotton fabric?

That it is the cotton that resists the air pressure from the tube, with the rubber merely acting as a buffer?

That nearly 4 per cent of the world's cotton output for the year 1920 will be used in the manufacture of pneumatic tires?

That this will amount to 400,000 bales?

That the 1920 production of tires will amount to approximately 40,000,000, to equip new cars to the number of 1,500,000 and take care of about 7,000,000 cars now in use?

That an average of four pounds of cotton goes into the manufacture of one pneumatic tire, though most of those used on automobiles contain three pounds and a fraction?

That much of the cotton used comes from Egypt or Peru?

That there are about 250 tire manufacturing companies in the country today?

That the only bar to the expansion of the pneumatic tire industry seems to be the limit to fabrication capacity of yarn and woolen mills?

That cotton is as much of a king as ever?

MISSIONARY'S HENRY IS REAL NOVELTY



Natives crowded around one of the faithful Ford cars used by the missionaries to get about in the lands of great distances, where natives are many and English speaking people are few. This picture was taken at Othman, India, when the missionary, who happened to be a United Presbyterian, was about to depart upon an Evangelistic tour.

HOTCHKISS DRIVE SIMPLY PRINCIPLE

It Permits "Driving Through the Springs," and Allows Elimination of Parts.

Probably no term used in automobile parlance is so much misunderstood as the common one "Hotchkiss drive."

The popular conception of the Hotchkiss drive is that it is some kind of worm gear or the very latest in rear axles.

Possibly the name gives people an idea that an actual piece of machinery is to be looked for. But the Hotchkiss drive is not a piece of mechanism, as is popularly supposed, but a principle, a principle which permits "driving through the springs." By its use a number of parts are eliminated completely from the chassis. It makes the springs perform double duty and in that way many parts are rendered superfluous. To be able to do this double work, the springs are made heavier and designed for the extra stress they will be called upon to bear.

Although discovered as early as 1902 by the American engineer for whom it was named, it was 1912 before the Hotchkiss drive was regarded with favor by American automotive engineers. In 1913 a great leap forward was made, the principle being used that year on more than half the passenger cars put out, and the engineers wondered why so logical and simple a method of transmitting propulsion had failed to meet the instant approval it had always merited.

The most remarkable thing about the Hotchkiss drive or principle is its appalling simplicity. It just transmits the propulsive power through the springs instead of through torsion rods and other minor parts, as used to be the custom. In addition to transmitting power the springs are called upon to absorb the strains of the torque or twist of the rear axle assembly.

The Hotchkiss drive transmits to the springs all the various forward and backward axle movements and the springs absorb the tendency of the axle to revolve. The springs in the Hotchkiss drive are the medium through which the car is propelled.

The big perfection rear springs of the Malbohm are 53 inches long and 2 1/2 inches wide and their quality is as notable as their size. Their elastic limit is 130,000 pounds to the square inch. They are no small factor in giving the veely riding for which the car is known.

From Waldport the trip can be continued on down the coast to Yachats, one of Lincoln county's famous trout streams, and from thence on to Heceta Head light station. Passing around Heceta's frowning point the tourists will have the thrills of their lives as they gaze from the narrow streak of roadway down the precipitous face of the headland to the rolling ocean billows nearly 800 feet beneath their car wheels.

From the Yachats there is another very interesting route up that stream via Five Rivers out to the valley with roads leading to Eugene and Corvallis.

At this early season it is hard to point out any bad stretches of roads, and will be for some time yet. Camping places along the routes mentioned are so numerous that the travelers can select what best suits their taste, by the babbling brook or the shady mountain spring. There are frequent places also where gasoline and oil supplies can be obtained. Possibly the longest distance to travel between sources of supplies would be between Waldport and Alesia in Benton county. James L. Blakely, Yachats to Five Rivers, also between Newport and Siletts bay.

The greatest market for the motor car is in this, its own country, where nearly everyone can afford one, and where there is a car for every 20 persons. England is a poor second with one motor for every 268 inhabitants, and then follow, in order: France, one for every 402 people; Germany, one for every 884; Italy, one for every 1000; Austria, one for every 2700, and Bolshevik Russia with one car for every 5300 persons. Only the fortunately rich can buy cars in other countries.

Trucks Saved Consumers The postal authorities have compiled some interesting data on the relative cheapness of motor truck transportation. In a report given out by James L. Blakely, fourth assistant postmaster general, an instance is given of a shipment of 88 crates of eggs—2580 dozen—from Warsaw, Va., to Washington, D. C., a distance of 135 miles. The consignment paid \$1625.40 for this produce, and the lowest retail price prevailing in the city on that day was \$2012.40. There was a net saving of \$387.

GOOD AUTO ROADS BRING EXPANSION

Transportation, Which is Aiding Numerous Enterprises, Hinges Upon Adequate Highways.

Every mile of good highway is selling talk for truck dealers, in the opinion of Edward Hines, president of the Detroit Automobile club.

Mr. Hines expressed this idea recently at the meeting of the National Association of Motor Truck Sales Managers in Detroit, when he asserted that the ship-by-truck and good roads movements are mutually helpful.

"The development of the truck, the newest means of transportation, hinges squarely up with the good roads movement," the speaker said. "Constantly increasing use of the truck in and around Detroit, he asserted, was largely the result of the excellent system of highways."

ROADS SOLVE PROBLEM

The same sentiment was voiced later by Alfred Reeves, general manager of the National Automobile Association of Commerce and by F. W. Fenn, secretary of the motor truck committee of the same organization.

Mr. Reeves, speaking on motor truck legislation, said "the real answer to motor transportation problems in the country is roads."

Mr. Fenn talked on "Selling the Farmers and Operators of Rural Express Lines." He said he considered good roads an important aid to the truck, but that the fact that farmers are buying trucks without any great salesmanship effort being expended

CARS WERE SHOWN TWENTY YEARS AGO

New York Saw Some Queer Sights in "Them Days"; Steam Was in Common Use.

Twenty years ago New York saw its first automobile show, then held at Madison Square Garden under the auspices of the Automobile Club of America. The exhibits at this show were displayed in the regulation booths and the various cars were demonstrated for the benefit of the visitors on a circular track erected in the arena, and one manufacturer, John Brisben Walker, of the Mobile Co. of America, then located at Kingsland Point, N. Y., in the plant now occupied by the Chevrolet company, demonstrated his car, the Motor, on an inclined roadway erected on the roof of the Garden building, says the Philadelphia Public Ledger.

Among the leading American cars exhibited at this show were the Locomobile, then a steam-propelled vehicle, made at Bridgeport, Conn., and Waltham, Mass., in two types, the runabout and the surrey; the Steamobile, also a steam car and made at Keene, N. H.; the Autocar, a gas-propelled car made at Ardmore, Pa., in runabout style, but now manufactured at the same place but in a much larger plant in commercial types only; the Gasmobile, a gas car manufactured at Harrison, N. J.,

with them is a pretty good evidence that the truck is able to take care of itself over most any kind of road. He was of the opinion that with a reasonable effort on the part of the manufacturers trucks could be put into use on a large percentage of the 4,000,000 farms in the United States.

The recent National Association of Motor Truck Sales Managers' Development tour was discussed and motion pictures were shown depicting demonstrations to the farmers of the many ways in which trucks may be profitably adapted to farm use.

H. S. Firestone, head of the Firestone Tire & Rubber company of Akron, Ohio, originator of the ship-by-truck movement, was one of the speakers at the meeting. He complimented the association on its success in the past, and predicted a greatly increased demand for trucks and prosperity for truck manufacturers and dealers in the future.

Manager Visiting City in Interest Of Wilson Trucks

Harry F. Heard, Western sales manager of the J. C. Wilson company, is making a visit to the city in the interest of Wilson motor trucks. Heard is looking over the territory and familiarizing himself with trucking conditions here and on the coast generally.

Heard will be remembered as formerly with the Standard Motor Truck company, manufacturers of Standard trucks, of Detroit. During the period he was with that company, he paid several visits to the local field and is known to the local row as a man who has been in close touch with the market of commercial vehicles throughout the country for some time.

Portland is a point in his tour of the coast country, and, according to information obtained from the Wilson representative, he probably will go to Seattle from this city.

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in a heavy and cumbersome runabout style, but long since discontinued.

One of the showiest cars at this exposition was the Spaulding, made in Buffalo, N. Y., in touring car type, but this, like many of its brethren, has passed by the wayside and no longer exists.

The gasoline cars at this show consisted of the ever famous Haynes-Apperson cars, which were then made in runabout and surrey types; the Winston, fresh from its trip from Cleveland to New York; the Pierce-Arrow runabout, with its central little gas tank in plain sight in the rear of the driver's seat; the Long Distance, a gasoline car manufactured by Lewis Nixon at Jersey City and now out of existence; the Ward-Leonard, then known as the American Renault on account of its similarity of construction to that famous French car, and made by the Ward-Leonard Electric company at Bronxville, N. Y., and the Groul, made by the Groul Bros. of Boston, Mass.

Big Private Railroad

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YAQUINA COUNTRY SEA AND MOUNTAIN VIEWS ATTRACTIVE

Several Routes Out of Newport Offer Enjoyable Jaunt Full of Wonder and Thrills for Autoists.

By William Matthews

Newport and the Yaquina Bay country offers one of the most attractive sections of the Northwest coast to the auto, tourist, notwithstanding that during the winter and early spring months the various roads are not passable. The nature of the soil is such that they dry rapidly after the wet season is over.

BUILDING NEW ROAD

The most important road now receiving attention is the new highway from the Willamette valley at Corvallis to Newport. This is in the process of construction and will be to the large extent, if not fully completed this season. The mild open winter has permitted a large amount of clearing and grading to be carried out. When finished this highway will be Macadam road open for travel throughout the year.

Passing from the level stretches of the Willamette valley and winding through the coast range for some 55 or 60 miles over easy grades, it will be a most delightful drive at any season of the year.

From Newport during the summer and fall months the autoist can have the choice of several different routes all fringed with beautiful and interesting seashore and mountain scenery, not excelled in scenic beauty in any country under the sun.

MANY SIDE TRIPS
The coast road to Siletts bay, some 25 miles up the coast, is one of the most interesting and pleasure thrilling side trips that can be taken from Newport. Should this road ever be continued on up the coast or merged into the "Roosevelt coast military highway" it will be one of superb grandeur every yard of the route.

Southward autoists can take their choice of two routes. Crossing the bay here, the ferrying, though not carried on schedule time, is convenient and the usual charge is \$2. A 16-mile run takes them to Alesia bay, where the ferryage is the same price. Crossing the bay they reach the town of Waldport and from that point they can either continue on down the Yachats, 10 miles further, or turn eastward again up the coast to the Alesia river and on out to the Willamette valley. This route is abundantly full of charm and thrills. The latter especially as they pass over the lofty Alesia mountain and gaze down its steep slopes into the depths of evergreen forests hundreds of feet below.

TRIP FULL OF THRILLS
From Waldport the trip can be continued on down the coast to Yachats, one of Lincoln county's famous trout streams, and from thence on to Heceta Head light station. Passing around Heceta's frowning point the tourists will have the thrills of their lives as they gaze from the narrow streak of roadway down the precipitous face of the headland to the rolling ocean billows nearly 800 feet beneath their car wheels.

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"SAVAGE" TIRES & TUBES

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SAVAGE POLICIES

The unlimited resources of the House of Spreckels are back of The Spreckels "Savage" Tire Company, in its purpose to make for the motoring public reliable and dependable goods of proven merit. Not subject to the whims of stockholders, The Spreckels "Savage" Tire Company is able to adhere to the chosen policy of manufacturing products that are made to a standard and not to a price. The result in the final analysis is that the consumer pays less per mile for the performance given by these products.

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A thorough study of the requirements of the present day motorist resulted in the making of a new departure in tire construction. That new departure is expressed in our D Type Tire. A big, sturdy, flexible, oversize, hand-built casing; made by improved methods, of the best grades of raw materials, and according to our own specifications as found necessary to meet the needs of the motorist of today; the "Savage" D Type Tire, because of its wonderful performance on the road, has been judged by many motorists the best fabric tire on the American market.

Regular "Savage" Tires are made to ordinary standards as far as size is concerned, though in quality they are second only to the "Savage" D Type "Savage" Plain and Grip Tread types are made in all ordinary and many odd and unusual sizes. "Savage" Ribbed Treads are made in small popular sizes and the oversize 3 1/2 inch (37.5). The same careful attention is given to details affecting the building of these tires that is given to the "D" Type. Each "Savage" in its class is Built to Excel. "Savage" Grey or Granite tubes make splendid road companions for any tire.

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