

### TRAIN OF TRUCK FOR HAULING OF FREIGHT?

Careful Study of Conditions by Engineering Authority.

### RAILROADS NOT DONE YET

Motor Truck Has Best Field for Operations Around Cities, Is Conclusion Reached.

In view of the present interest in the carrying of freight in motor trucks from city to city, the Engineering News-Record has made a special investigation of the comparative cost of freight transportation by railway and

established an agency with this firm for the Chalmers and Maxwell lines. J. H. Farley and F. W. Morgan, president and sales manager, respectively, issued invitations to a private exhibition of the new salesrooms, which have been established on the entire lower floor of the Moose building. A band added tone to the occasion. The Farley Auto Sales company has arranged a first-class service station, will carry a line of accessories and is exclusive agents for Lee tires.

**SIR C. B. GORDON ON BOARD**  
Canadian Consolidated Rubber Selects Distinguished Directors.

At a meeting in Montreal June 5, Sir Charles B. Gordon, K. B. E., and Lieutenant-Colonel Herbert Molson, M. C., were elected to the board of directors of the Canadian Consolidated Rubber company, limited, which is affiliated with the United States Rubber company, the largest rubber manufacturer in the world. Sir Charles is prominent in commercial and financial circles in Montreal and Canada. He is vice-president and director of the Bank of Montreal, director of the Royal Trust company, president of the Dominion Textile company and vice-president of the Montreal Cotton company and C. Meredeth company. He was deputy chairman of the Imperial munitions board,

### BAKER EXPECTS TO GET THE RECORD YET

Motorcycle Rider Is After Cross-Country Mark.

### JINX STOPS LAST EFFORT

But "Cannonball," Despite Painful Injuries, Says He'll Win It With His Indian.

Probably no endurance contest has been so hotly contested in the motorcycle world of America as the transcontinental record from the Atlantic to the Pacific coast. As far back as 1906, when motorcycles were becoming



Here's one of the cars in which the Portland delegation made so fine a showing at the big parade. The car was furnished through the courtesy of the Cole Motor Car company, whose factory is at Indianapolis, at the request of the Northwest Auto company of Portland.

by highway. The results of the investigation are published with exhaustive detail, including facts, figures and tables, in the July 10 issue of the Engineering News-Record. The investigation shows that the cost of hauling freight by rail, where there is sufficient business, is only a small fraction of the cost of hauling it by highway, even when the road is paved—at large expense—and a motor truck is used.

**Rehandling Obviated by Truck.**  
On the other hand, the advantage of hauling by motor truck is found in the ability of the truck to carry freight from origin to destination and to obviate the repeated rehandling which is necessary with railway transportation.

The motor truck, too, on short-distance hauling often saves more in the cost of packing and boxing than the entire freight charge. However, the most economical method of transport for a given location will depend on the local conditions, especially the amount and character of the freight to be handled, and the cost of building and maintaining various types of roadway at that location.

Charles Whiting Baker, consulting editor of the Engineering News-Record, who carried out the investigation, urges that the building of branch-line railways in country districts should be resumed, and that all such railways should be allowed to charge freight rates high enough to pay the cost of transport over them, so that they should not be a burden on the main line.

**Trailer Big Money Saver.**  
Railways to handle light traffic, however, should be built and operated quite differently from heavy-traffic railways.

The motor truck's greatest field of usefulness is about the larger city, where it can effect a great saving in handling less than carload freight shipments and express packages between the city and surrounding towns. Better knowledge of truck operating costs and better methods of conducting the business are greatly needed. A large percentage of the concerns operating motor trucks in intercity traffic have failed. For handling such business economically, the use of trailer wagons, hauled behind the trucks, appears to be one of the most promising methods of improvement.

### SOME CAUSES OF OVERHEATING

**Fred W. Houghton Tells Why Cars Get "Hot Up" in Summer.**

"With the approach of hot weather, heating of automobile engines becomes more manifest," says Fred W. Houghton, of the C. H. S. garage, Moon and Dixie distributor.

"After driving the car all winter a visit should be made to a competent repair man to have him make a thorough inspection and remedy any of the following causes of engine overheating:

"Cylinder jackets clogged—This is caused in many cases by water spaces around cylinders becoming obstructed with sediment and corrosion.  
"Valves not seating—The poor grade of fuel today is lower in gravity and higher in heat units than the fuel purchased a year or so ago. This fuel causes valves to pit, and as they get much hotter than formerly due to high bitumen in the gasoline they warp and scale.  
"If all valves are not seating properly it will cause engine to labor and lose power, necessitating low gear and heating of engine.  
"Radiator should be drained and flushed as the tubes and water passages in radiators are easily obstructed and the cooling efficiency impaired.  
"Lubricating oil from the crank case should be drained every 1000 miles. This is very important, due to the fact that few carburetors will mix and vaporize the present day low grade of gasoline and unvaporized gas will pass the pistons and get into the crank case, thereby causing dilution of crank case oil, which means loss of lubricating properties and heating of engine.

### NEW FIRM IN OREGON CITY

Farley Auto Sales Co. Handles Maxwell and Chalmers.

Opening of the Farley Auto Sales company, Eleventh and Main streets, Oregon City, on Thursday, was an event of social importance in that city, according to Ted Herlihy, Chalmers sales representative for the C. L. Boss Automobile company, who recently se-

and during 1918 was representative of the Imperial munitions board at Washington, D. C. For many years Sir Charles has been an active member of the Canadian Manufacturers' association and was vice-president of the Quebec branch in 1911. Lieutenant-Colonel Molson is a member of one of the oldest and most distinguished families in Montreal. He is a director of the Bank of Montreal and the Royal Trust company and is president of the Molson brewery. Lieutenant-Colonel Molson was among the first to offer for overseas service, and after a brilliant military career in France and Flanders, was awarded the military cross. He gained his rank while on service in France. The board of directors of the Canadian Consolidated Rubber company as now constituted comprises Sir Mortimer B. Davis, Sir Charles B. Gordon, K. B. E.; Lieutenant-Colonel Herbert Molson, M. C.; E. W. Nesbitt, M. P.; J. B. Wadell, Victor E. Mitchell, K. C. W. A. Edna, R. E. Jamieson, A. D. Thornton, H. Wallein, Colonel Samuel P. Colt, Charles B. Seger, Homer E. Sawyer, J. Newton Gunn and Elisha S. Williams.

### MOTORCYCLE COST LIGHT

CYCLE AND SIDE CAR IDEAL FOR DELIVERY.

No Garage Rent to Pay, 40 Miles Per Gallon of Gas, Only Three Small Tires to Wear.

Some interesting figures have been prepared by the Merrill-Strine Cycle company, agents here for Excelsior and Cleveland motorcycles, covering costs of motorcycle delivery. They show why the motorcycle with side or rear delivery car is replacing the horse and wagon.

Some of the economy facts set forth are: Forty miles to the gallon of gasoline. Only three small tires to wear out. Keep the cycle in the store nights for nothing and eliminate storage bills. Quick and convenient in traffic. Can deliver one or two packages as an accommodation without taking all the profit out of the order. Gives excellent service in winter, having no radiators to freeze or leak.

### WATCH THE BATTERY BRUSHES

And Grain of Dirt in Switch Contacts Will Make Trouble.

The starting motor takes the current from the storage battery through brushes. In some cases happens that these brushes, for various reasons, are not making proper contact, and this means more or less failure of the system. When trouble arises in this system these brushes should be carefully examined. Again, one of the cells of the storage battery runs down before the others, which are therefore called upon to do more work than they are able to handle. Also a grain of grit or foreign matter may be between the contact points of the switch and may make a world of trouble before it is discovered and dislodged.

Don't overinflate your tires.

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dependable enough to make a transcontinental trip anything but dangerous, it was the aim of endurance riders and motorcycle manufacturers. Prior to that, a so-called motorcycle record from San Francisco to New York had been established, taking nearly 50 days.

On August 16, 1914, L. J. Mueller, riding a 2 1/2-H. P. Indian motorcycle, left San Francisco to establish a new record. He reached New York September 11, covering 3568 miles in 31 days, 12 hours and 15 minutes, beating the existing record by some 17 days of so. This was considered a tremendous triumph and no further attempt was made until 1911, when Volney Davis, mounted on a 5 H. P. Indian took another chunk of 11 days out of the time, making the run of 3745 miles in 20 days, 9 hours, one minute.

### Sets New Record Once.

In the meantime, road conditions across the continent were gradually improving and the motorcycle manufacturers were making big jumps in improvements on their products, particularly in 1912 and 1913. And in 1914, E. G. "Cannonball" Baker, destined to become the most proficient and famous motorcycle rider in the world, stepped into the ring, declaring that he was going after the "big record."

He had in the meantime been making himself thoroughly familiar with route generally and made some changes from the accepted one, leaving the Pacific coast at San Diego. This cut his total mileage down to 3378 for the trip. He went after the whole thing more systematically, making arrangements to ship oil and gasoline to spots where experience had taught him it would be most needed, making a careful study of the weather bureau's reports and predictions, and the like.

He left San Diego May 2, 1914, mounted on an Indian. He moved eastward following one heavy rain storm and with another chasing him and the latter did not catch up to him until he hit Indiana, to such an extent did the government weather man make his journey easier. At any rate, Baker made the trip in 11 days, 12 hours, 10 minutes and at the time it was believed it would be many a year before this speed record would be beaten.

However, in 1917 there came another endurance rider, Alan T. Bedell, who was out for Baker's laurels and determined to get them. In June he left Los Angeles on a Henderson motorcycle, and succeeded—with the best of luck in weather and roads—in trimming three whole days plus some hours off Baker's record. Bedell, by close figuring, cut the mileage down to 3296 miles, making the distance in 7 days, 18 hours, 16 minutes.

The riders were fast getting the distance, cut down so that the figuring of hours and minutes looked necessary to decide the contest. That same fall, Baker set out to recover his laurels, this time reversing the usual procedure and starting on the long journey from the Atlantic coast. He made wonderful speed and remarkable progress, cut down so that the figuring of hours and minutes looked necessary to decide the contest. That same fall, Baker set out to recover his laurels, this time reversing the usual procedure and starting on the long journey from the Atlantic coast. He made wonderful speed and remarkable progress, cut down so that the figuring of hours and minutes looked necessary to decide the contest.

Baker has left the class "riders" and has become nothing less than a celebrity. He holds practically all the big world's records for endurance riding—and he made them all with an Indian and he also holds some automobile records. Here are some of them:

**Motorcycle Records.**  
World's 24 hour record, 1534 1/2 miles.  
World's 12 hour record, 821 miles.  
World's 1000-mile record, 16 hours, 14 minutes, 15 seconds.  
World's 500 mile record, 6 hours, 59 minutes, 15 seconds.  
All Australian records from 200 miles to 24 hours.

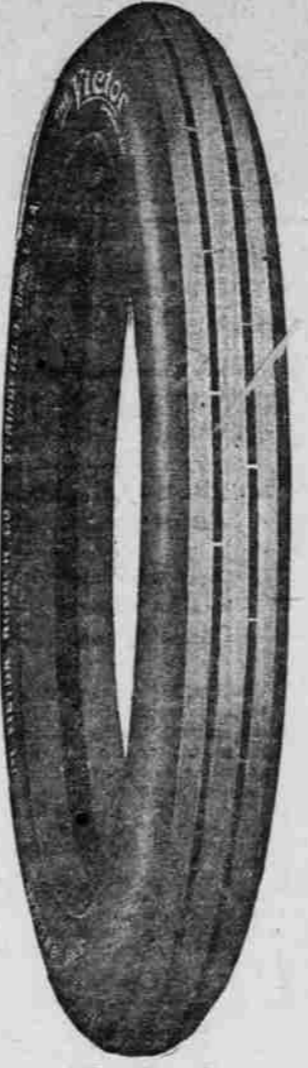
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"Victor Tires never know when they have had enough usage."



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Non-Skid Tread

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The more mileage, the less your expense.

(War tax included.)

	Ribbed	Non-Skid	Gray Tubes
30x3	\$15.60	\$16.45	\$3.30
30x3 1/2	19.85	20.90	3.80
31x4	31.15	32.55	5.15
32x3 1/2	23.10	24.55	4.25
32x4	31.65	33.25	5.25
33x4	33.50	34.80	5.40
34x4	34.20	35.70	5.55
35x4 1/2	47.30	49.45	7.20
36x4 1/2	48.65	50.40	7.40
37x5	60.55	61.15	8.75

These prices are considerably less than list. This stock is absolutely fresh. No SECONDS.

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company, Kenosha, Wis., that the reports are all bunk.

"The reports of a consolidation in the motor car industry, which includes the Nash Motors company, are not founded on facts," declares Mr. Nash. "There is no possibility of the Nash Motors company becoming a subsidiary of any other company in the motor car industry."

"Like all other great industries, the automobile business is narrowing down to survival of the fittest. Day after day mergers are reported. "I have no criticism of this tendency but I would like to have it definitely understood that nothing could induce the Nash Motors company to enter a merger. Should it become advisable or expedient, we would go into the field for other plants but in that event the resulting expansion would be under the control of the Nash Motors company."

"In this connection I might say there are three factors necessary to permanency in the motor car business—a good financing, a good factory and a

good organization. It follows that a good product would be the result.

"We feel that the Nash Motors company possesses all three of these essential factors, and that, therefore, our expansion depends simply on our own energy and is not in any way dependent on a combination with other well-established companies."

Because of Mr. Nash's 27 years' experience in manufacturing and the record he holds as one of the world's foremost manufacturers, there have been frequent rumors of consolidation.

### Testing Bearings.

The motorist is sometimes puzzled to know just what shape his bearings are in and does not know how to test them. Connecting rod bearings should be tested by tapping them very gently with a hammer and watching for play. For the crankshaft bearings, rock the shaft a little by hand with the petcocks open; if you can do this the bearings are all right.

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STORAGE BATTERY  
**SERVICE STATION**

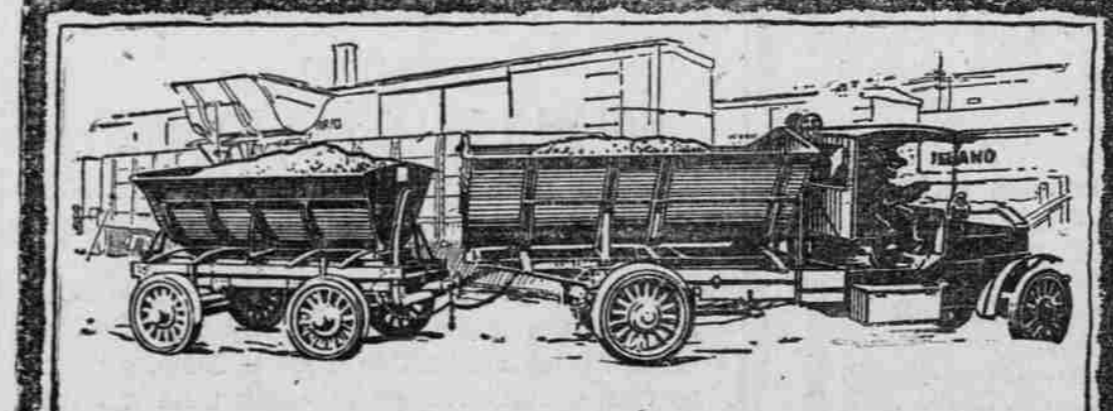
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Away from the congested district—and street cars—fifty by one hundred-foot service floor—large separate entrance and exit doors—courteous employes. We want every lady in Portland who drives a car to know and use

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### Steel Dumping Bodies can be installed

on Troy Trailers. These can be furnished in either side-dump, rear-dump or bottom-dump, as desired. The working efficiency of the truck is DOUBLED.

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