

MILLIONS TURN TO CANADA



This is the highway map of Ontario and part of Quebec, with the main roads of the United States leading to Ontario ports.

By NEA Service.

OTTAWA, Ont., May 18.—The rates of Canada have been opened wider than ever this year and, already thousands of tourists from the United States are rushing through them to enjoy the hospitality, as well as the captivating sports and the marvelous scenery for which the Dominion is noted.

Canadian authorities are preparing to receive more than four million tourists from the United States this year. Ontario province, it is believed, will entertain the greater part of these.

Ontario offers far more than resorts for parched Americans south of the border line. Its lakes, forests and streams are known the country over for their fish and game, their rugged atmosphere and entrancing scenery. Rolling country interspersed among these finish a picture so completely varied in attractiveness as few other districts can supply.

Into this picture will come tourists by the hundreds of thousands, most of them by auto. The roads, nearly 60,000 miles of them, are ready, a great portion wide and smooth, more than half composed of improved gravel pavement.

Good Roads Prevail
Every part of this province is traversed by good roads, from Sault Ste. Marie at the western portal eastward into the province of Quebec, and especially through the great peninsula that extends between Lakes Erie and Huron to Windsor, across the river from Detroit.

The main trans-continental trunk highway system that stretches across Canada runs eastward from Sault Ste. Marie, skirts the shore of North Channel, Lake Huron, and passes on eastward through Sudbury, along the north shore of Lake Nipissing to Mattawa. From here the road follows the beautiful Ottawa river to Point Fort, 601 miles from the Sault, and from here proceeds to Montreal.

At North Bay, the tourist can hardly restrain his sporting desire to turn southward from this route and traverse the famous Muskoka lake district, where summer resorts, canoe routes and fishing grounds abound. If he does so, he may continue westward to Lake Simcoe and on to Toronto, 235 miles from North Bay.

Windsor is perhaps the second most important gateway to Ontario from the United States. It is opposite Detroit, by ferry. From this border city, after leaving Malden, the tourist has the choice of two main highways eastward.

Skirting Lake Erie

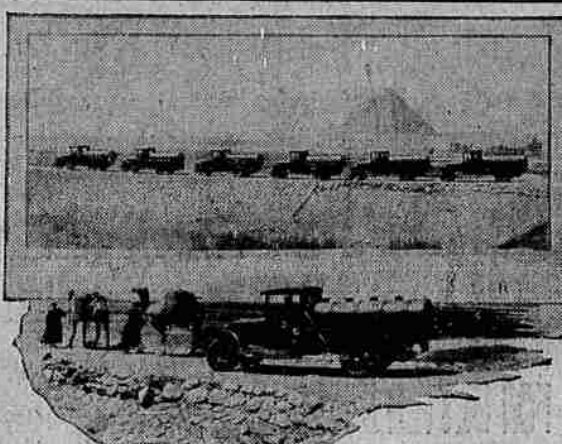
One passes close along the north shore of Lake Erie to Niagara Falls, for 257 miles, giving access to all lake ports and summer resorts. The other route takes the tourist through London, Woodstock and other cities to Hamilton,

whence two other routes may take him to Toronto.

All of this is wonderful driving on fully improved roads, through picturesque country.

East Toronto to the east, the route leads along the shore of Lake Ontario to the city of Toronto. (Continued on page 3.)

One Graham Brothers Truck Does Work of 40 Camels



The desert section of Egypt, where the very landscape shifts as hot winds pile and re-pile billows of sand, leads the world in the permanence of its work of man. The pyramids, built more than 3,000 years ago, stand practically unchanged by the ravages of time.

This ideal of building for long life, originated centuries ago, still endures in Egypt. So, when the Asiatic Petroleum Company (Egypt), Ltd., sought to build up a transportation system of utmost reliability and permanence for distributing motor fuel, Graham Brothers trucks were selected. The long life and superior ability of these trucks to meet desert conditions has been demonstrated by practical use over a period of many months.

The Graham Brothers trucks in many instances have taken the place of camels formerly used to carry gasoline. In making the change, remarkable figures on the long life of Graham Brothers trucks as compared with camels came to light.

Comparing mileage covered and load carried, Graham Brothers trucks actually have longer lives from the standpoint of work done than average camels.

This is true despite the fact that the camel, next to the elephant, is known as one of the longest lived beasts of burden—the average camel being useful 30 to 40 years. But a single Graham Brothers truck can carry eight camel loads and at a speed of more than five times that of a camel. Thus the working capacity of one of these trucks for a given period of time corresponds to that of a caravan of more than 40 camels.

In covering 100,000 miles one of the Asiatic Petroleum Company's trucks will have done approximately three "camel lives' work."

Many Graham Brothers trucks have exceeded this mileage with still more miles of useful service to give. The maximum life of these trucks has yet to be determined.

NEW STATE TRAFFIC LAW WHICH BECOMES EFFECTIVE JUNE 1 MAKES CHANGE IN PARKING

Strict Regulations Cover Parking of Vehicles on Highways of Public Roads of State—Warning and Signalling Devices Required and Undue Noise or Alarm Devices Prohibited.

RULES AND REGULATIONS FROM NEW STATE TRAFFIC CODE EFFECTIVE JUNE 1

Front wheels of car parked on highway must be cramped to curb or outside of highway.
Parking on highway prohibited when other parking place is available.
Fifteen feet passage width must be left on main portion of highway when vehicle is parked.
Unobstructed view for distance of 200 feet in each direction must be afforded.
Officer given power to move improperly parked vehicle.
Disabled and emergency vehicles excepted from parking provisions.
Horns and other signalling and warning devices regulated.
Windshield stickers prohibited.
Report required on accidents.
Driver must give aid following accidents.

Emergency calls shall be equipped with a bell, siren or exhaust whistle of a type approved by the secretary of state.

(1) It shall be unlawful for any person to drive any vehicle upon a highway with any sign, poster or other nontransparent material upon the front windshield, side wings, side or rear windows of such motor vehicle other than a certificate or other paper required to be displayed by law.

(2) The driver of a vehicle upon a highway shall yield the right of way to police, traffic and fire department vehicles and ambulances when the latter are operated upon official business and the driver thereof sound audible signal by bell, siren or exhaust whistle. This provision shall not operate to relieve the driver of a police, traffic or fire department vehicle or ambulance from the duty to drive with due regard for the safety of all persons using the highway nor shall it protect the driver of any such vehicle from the consequences of an arbitrary exercise of such right of way.

(3) In all localities where an authorized officer, marshal, constable or policeman, displaying his star or badge and then discharging the duty of regulating and directing traffic in his locality, shall signal any vehicle to take any direction or to stop or otherwise proceed for the safety of the public, it shall be the duty of the driver of such vehicle to obey said direction and to comply with the orders of said officer.

(4) The driver of any vehicle involved in an accident resulting in injury or death to any person or in damage to property shall immediately stop such vehicle at the scene of such accident and shall give his name, address and the registration number of his vehicle and exhibit his operator's or chauffeur's license and the name and address of any other occupant or occupants of his vehicle to the persons of any police officer or other person who may be called upon to render aid to any person injured in such accident such reasonable assistance, including the carrying of such person to a physician or surgeon for medical or surgical treatment if it is apparent that such treatment is necessary or is requested by the injured person, and it shall likewise be the duty of any witness to the accident to furnish to the driver or occupant of said vehicle or vehicles his or her true name and address.

(5) The driver of any vehicle involved in an accident resulting in injuries or death to any person or property damage shall within twenty-four hours forward a report of such accident to the sheriff of the county in which the accident occurs, except that when such accident occurs within an incorporated city or town such report shall be made within twenty-four hours to the police headquarters in such city or town. Every police department or the sheriff's office shall forward a copy of every such report as filed with it to the secretary of state upon forms furnished by him.

The secretary of state may require drivers, involved in accidents, to file supplemental reports of accidents upon forms furnished by him whenever the original report is insufficient in the opinion of the secretary of state. Such reports shall be without prejudice and shall be for the information of the secretary of state and shall not be open to any writ of inspection. The fact that such reports have been so made shall be admissible in evidence solely to prove compliance with this section, but no such report or any part thereof or statement contained therein shall be admissible in evidence for any other purpose in any trial, civil or criminal, arising out of such accidents.

(6) Every police, traffic and fire department and fire patrol vehicle and every ambulance used for emergency calls shall be equipped with a bell, siren or exhaust whistle of a type approved by the secretary of state.

(7) No person shall park or leave standing any vehicle, whether attended or unattended, upon a highway, outside of a business or residence district, when it is practicable to park or leave such vehicle standing off the paved or improved or main-traveled portion of such highway; provided, in no event shall any person park or leave standing any vehicle, whether attended or unattended, upon any highway unless a clear and unobstructed width of not less than fifteen feet upon the main-traveled portion of said highway opposite such standing vehicle shall be left free for free passage of other vehicles thereon, unless a clear view of such vehicle may be obtained from a distance of 200 feet in each direction upon such highway.

Autos Put Through Exhaustive Tests at Proving Grounds



This is the last of a series of articles on "How the Automobile is Made."

BY ISRAEL KLEIN,
Science Editor, NEA Service.
Engineers aren't through with an automobile after it is produced.
In fact, they've just begun tinkering with it, finding its faults and its promises, in an effort to improve the next product.
For this purpose some of the large companies have what are called "proving grounds."

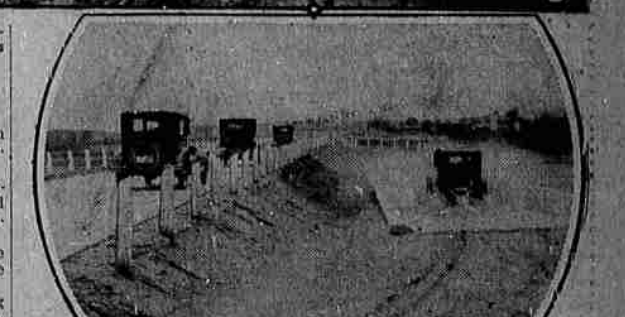
The General Motors "proving ground," at Milford, Mich., for instance, has about 20 miles of private highway laid out so as to represent every road condition that the average driver meets. There are hills ranging from 7 per cent grades to as high as 24 per cent. There are concrete and gravel roads.

There is a level concrete stretch without a kink or a twist in it, a mile in length, and there is a speed track with embankments at the turns making a 45 degree angle with the level road.

There is a north and south road, and an east and west road, no intersection between them, each to test little idiosyncrasies of driving, the resistance of a north wind or the difference in speed or gasoline usage when driving in opposite or cross directions.

No Law Applies
These are samples of the tiny details that are being examined in the actual driving of automobiles. Everything conceivable can be done here, from trailing along at 2 miles an hour to speeding at the fastest an engine can pull a car.

There are no state laws, no constraints to stop the drivers.



Forty-five degree embankments at curves permit drivers to keep their cars going at highest speed, to test their stamina, while the straightaway and "bath-tub" shown in lower view, afford other important tests. These are views of the General Motors Proving Ground at Milford, Mich.

No imaginable factor about a car is taken for granted, no beliefs or theories permitted. Everything, even though known for a certainty, is tested to learn the actual facts. Even the instruments placed in the car aren't trusted. Instead of these, special gasoline gauges, special speedometers and other apparatus devised in the research laboratories are fitted to the car on test and the readings are taken from these.

For speed, for instance, a bicycle wheel, a small electric generator and a highly sensitive voltmeter divided into miles form the combination attached to a car for more accurate readings. This is called a fifth wheel speedometer, and it can be relied on for all speeds.

Gasoline consumption, also, is tested by combination of burettes,

or long tubes, showing the driver how the fuel is being burned. Other tests include acceleration, deceleration, rolling friction, riding qualities, fuel economy at fixed speeds, minimum and maximum speeds, endurance, hill-climbing, braking, driver's vision range, reflection from cars behind, headlighting, steering effort, vibration, noise, brake and clutch pedal pressures, crankcase dilution, ventilation, size and appearance.

There's a concrete mile straightaway to test pickup, speed and braking. There's a sunken stretch, called a "bath-tub," to learn the effect of water on a car's parts. Special cameras are used to photograph cars from all angles for appearance and vision.

All these and many other tests and measurements are made and tabulated by figures and graphs. Many facts are being gathered apparently with no purpose in view, except that they'll be on record whenever an engineer happens to want them. Then they might form the basis for an improvement long desired in the auto world.

How these facts are used and compared is suggested by S. O. T. Kressner, engineer in charge of the General Motors proving ground.

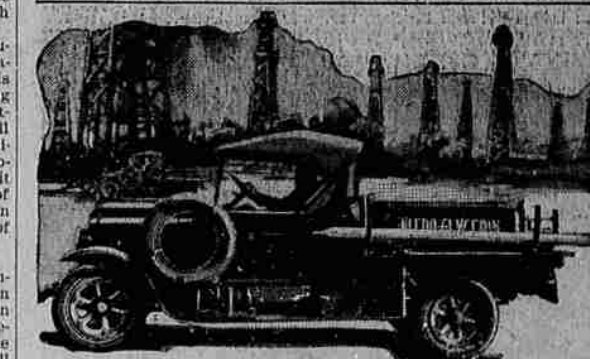
"Here are two cars providing the same amount of leg-room and seating comfort," he points out. "One car can steer in a circle of ten per cent less diameter than the other. Assuming everything else being equal, it can be deduced that the car steering within the shorter radius has the advantage from the customer's point of view."

"Here again are two cars, in one of which the driver has a vision through the windshield and past the corner posts that is 20 per cent greater than the other's. Again the one with the greater vision area has the advantage, if everything else is equal."

"Unfortunately, out of necessity the automobile must be a compromise involving a great many factors, any one of which may be of major importance to a particular customer."

Every part is taken from a machine that had been run through the mill for measurements and further individual tests to determine everything possible about it.

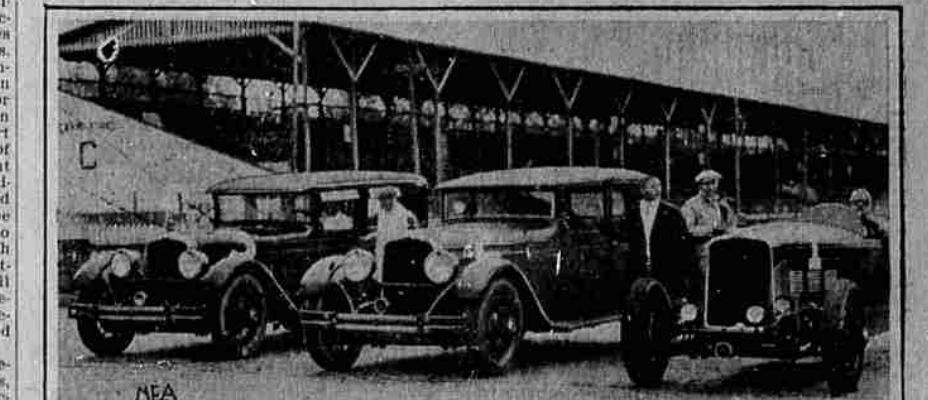
They Must Be Dependable



Graham Brothers trucks are receiving the highest of tributes in the oil fields. Because of their dependability and rugged construction they have been selected by three of the largest nitrogen glycerine companies for the hazardous task of transporting that most dangerous of all explosives into the oil-fields. These nitrogen glycerine trucks have to operate over the unimproved side roads

as laws prohibit their use of the main highways or an approach to within two miles of a town. The nitrogen glycerine is carried in ten quart cans snugly fitted into felt-lined compartments in the special bodies. It is used in the shooting of oil wells to start the flow. The explosive is lowered into the bore in long cylindrical tubes or "shells," one of which is shown on the side of the truck.

Stock Cars Set 24-Hour Speed Mark



The two Stutz stock cars and chassis lined up for their 24-hour speed run.

By NEA Service.

INDIANAPOLIS, Ind., May 11.—For the first time in the history of automotive speed, two stock sedans of the same make have set down a record above 60 miles an hour for a continuous stretch of 24 hours.

For this pioneers feat, the Stutz Motor Car company, builders of these cars, wins the trophy set down by Sam Stevens, a veteran racer, for such event.

There's nothing unusual in driving cars beyond 60 miles an hour, for stretches of a few miles. But this continuous grind of 24 hours, along the most exacting course ever laid down and for a stretch of more than 1600 miles, makes such speed a historic record.

The Stutz cars used in the long run had nothing on them that doesn't go with the car bought from the dealer. Yet they made the 24-hour run at an average of 68.44 miles an hour in the case of one, and 67.176 miles an hour for

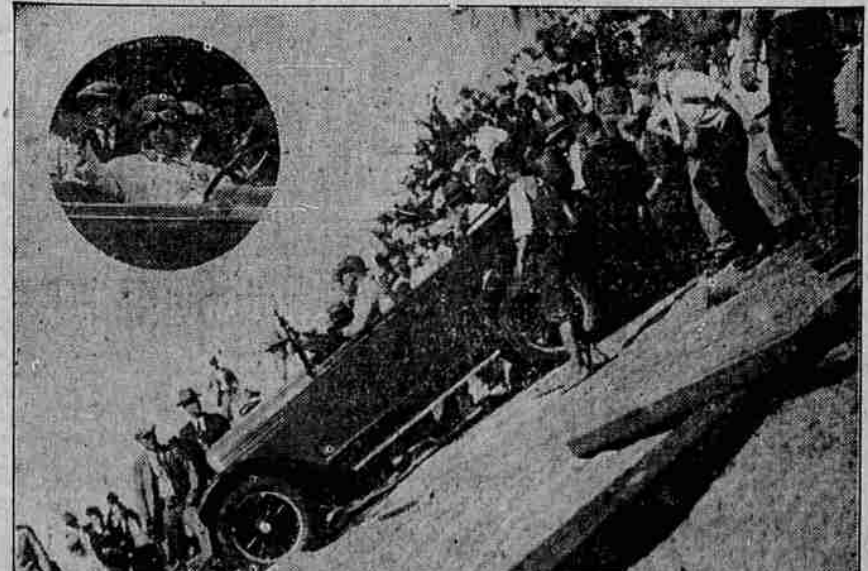
the other. A striped chassis, in addition, made the run at an average of 71.352 miles an hour.

Both stock cars were five-passenger sedans, one having a standard steel body, the other a Yeymann fabric body. They used regular gas for fuel.

The test was made through a stinging and blinding rain storm during the night, so that they had to be slowed down considerably.

The entire run included many stops for fuel and only one stop each for the tightening of a bolt.

WHIPPET CONQUERS MOUNTAIN



After climbing the perilous slopes of Stone Mountain, near Atlanta, Ga., breaking the record by 7 minutes, 44 seconds, Chick Murray in a Whippet stock touring car turned around on the summit of the steep mountain and drove the car down to the base under its own power. This picture shows Murray on the descent after the successful climb. The Whippet is the third car ever to have reached the summit of Stone Mountain and returned to the starting point under its own power. Nearly 10,000 persons witnessed the climb. The inset shows Murray at the wheel of the Whippet.