

In the Automobile World

NEW DEVICE MAY BE FINAL SOURCE OF MOTOR POWER

A discovery just made by a Japanese scientist may be the final stage in the perfection of the automobile. That final stage, many engineers agree, will be electric, yet without the bother, little power and short life afforded by the storage battery type of electric automobiles to-day.

The discovery is a way of producing permanent electricity in what Professor Mototaro Eguchi of the Higher Naval College at Tokyo calls a "permanent electret." The permanent electret is to electricity what the permanent magnet is to mechanics.

Its possibilities haven't even been thought of, because it is still in its experimental stage. But it has the same prospects, if not greater, in the field of practical electricity as the permanent magnet had in the field of practical mechanics, when it was invented back in 1800.

The automobile is one of the "electret's" future fields. Underneath hoods of the future may be devices based on Eguchi's electret, replacing with much higher efficiency the gasoline and steam power plants of to-day.

The electret, as crudely shaped as it is to-day, has been shown to keep its electric charge, up to 20,000 volts to a centimeter of surface, since 1919, when it was first made, without a loss.

Thus, somewhat like the permanent magnet, the permanent electret may be the motive power of automobiles—among the many other

possibilities for the future. Until that stage arrives, there may still be a transition—perhaps from the gasoline to the steam car. That sounds surprising since the steam car once enjoyed greater popularity than it has to-day, and since there seems to be little discussion over the permanence of the gasoline car.

Synthetic Gasoline. Synthetic gasoline is being invented in nearly every civilized country in the world. The latest contribution is a new fuel invented by a Norwegian civil engineer. It is known as "Norak Kraft Olie." The process under which it is made has been patented.

Speeding Unnecessary. Tests conducted by motor clubs in various districts of the country show that speeding gains little time. A person who follows all rules will arrive at his destination almost as quickly as the motorist who breaks the rules.

Fake Motor Clubs. Motorists of the United States annually pay out more than \$30,000,000 to fake motoring organizations. It is difficult to convict promoters of these organizations as they always claim that they had good faith in the project.

Good Roads Increase. The mileage of surfaced roads in the United States is nearing the 500,000 mile mark. In addition to surfaced roads, a considerable mileage has been graded and drained according to engineering standards.

Dressing Contact Points

THE TUNGSTEN OR platinum points of the ignition make-and-break, the magneto and the reverse current cut-out of the generator become dirty and eventually wear so rough as to make uncertain contact.

Glass-Hard Tungsten Points

Except on magnetos and some battery cut-outs, these points are usually of tungsten, so hard that they cannot be filed as can the platinum points so generally used years ago.

Honing Tungsten Contacts

Tungsten points can, however, be smoothed by the use of a stone hone, special small thin forms of which are on the market. The contacts are opened widely enough to admit the hone, each side of which smooths off one of the contacts, when they are pressed together with light pressure and the hone draws back and forth between them. No more metal than necessary should be removed and the surfaces of the points should be left so that, when together, they touch flatly, thus making contact over their full surfaces.

Smoothing With Sandpaper

Contact points can also be cleaned and smoothed by means of a piece of fine sandpaper, doubled with the sanded surface out, which is drawn between them when they are lightly set together. A thin, fine jeweler's file is suitable for use on magneto points or any points of soft metal, but one should be careful not to waste any of the expensive metal.

RING LEAK OR VALVE LEAK



W. A. M. writes: On testing the compression in the cylinders of my six engine, I find that there is quite an escape of gas from Nos. 4 and 5 and I suppose either the valves or the piston-rings must be leaky, but cannot tell which. What test can I use to settle this point?

Answer: Remove the spark-plug and introduce into the cylinder about a fluid ounce of heavy engine oil (air cooled engine oil would be good), replace the plug and hand-crank the engine with all other plugs removed. The heavy oil will seal the piston and if compression is then found to be well retained it will indicate that the leak is past the rings. If no improvement is noted, the leakage is through the valves. A leak past a piston into the crank-case, can usually be heard as a hissing noise at the breather (oil-filter) opening. A rubber hose can be used to listen through. With the exhaust manifold off, an exhaust leak can usually be heard at the exhaust port and inlet valve leakage may be audible at the carburetor air-intake.

CARING FOR IDLE BATTERY



E. S. asks: How should a battery be cared for, when it has been taken out of the car? I have one that was removed about a month ago and is now run down and am wondering if the plates will be damaged.

Answer: It will damage the

Choosing A New Car

Demand Up-To-Date Features In The Vehicle Of Your Selection

THE MOTORIST who has not acquired a new car for a number of years and who is now intending to do so, naturally wishes to secure one embodying as many as possible of the improvements which have recently been made and the following partial resume of such advances in the art is offered to refresh the memories of such intending purchasers.

The Engine itself

Stiffer and better balanced crankshafts, supported in more numerous bearings. Vibration, dampening devices and supporting methods that check vibration. Piston-rings equipments, which better retain compression and control oil pumping. Interchangeable bearing bushings, which eliminate the need of bearing adjustment. Positive lubrication of all important bearings by direct pressure feed of oil. More convenient oil drains. Cylinder heads, that detach without disturbing water connections. The use of silent chain timing drives, that are readily adjustable. Placing the exhaust pipe where it does not overheat the car floor, gas rectifiers for distilling gasoline and water from engine oil and filters for removing solid impurities therefrom. Air cleaners to keep abrasive dust out of the engine. Gasoline filters to keep water and solids from clogging the carburetor. Better hot-spot manifolds, to improve fuel vaporization and reduce carbonization and oil dilution. Full automatic spark control. Carburetors of superior fuel economy and accelerative ability. Thermostats and shutters (manual and automatic) to control water temperature.

The Brakes And Steering Gear

Four wheel brakes—the great outstanding recent advance in motor cars—of the mechanical and hydraulic types, some of them embodying the self applying feature. Improved protection of braking surfaces from the weather and more accessible and convenient adjustments. Interchangeable brake-shoes, which facilitate relining service. Transmission brakes, which are weatherproof and easy to care for. Steering knuckles with anti-friction thrust bearings, steering devices with variable gear ratios and ratios adapted to balloon tires. Anti-shimmying provisions.

Chassis And Transmission Parts

Lower hung frames and bodies, longer lived clutches, operated with less effort and with automatically or more conveniently lubricated throw-outs. Universals that are automatically or more readily oiled and which better retain lubricant. Transmissions with shorter shifting movements and with gears which engage easier. Lubrication of spring bolts and steering joints by one operation of a magazine oiler. Built-in bumper fittings, which hold bumpers securely. Better general accessibility and demountability of units and fewer lubrication points. Improved devices for locking gears, ignition and steering gear. Tilting and otherwise less glaring as well as more effective headlights. Backing lights and traffic signal lights.

Three Big Advances

Ballon tires and lacquer finish are two of the epoch-making innovations and the coach type of enclosed body, which has placed winter driving comfort within reach of motorists of moderate means, is a development of incalculable significance.

OIL FOR LAY-UP ENGINE



J. E. B. asks: When a car is to be laid up for the winter, is it advisable to drain the engine of oil and leave it so?

Answer: No, it is considered better practice to draw off the used oil and refill with fresh. This insures the removal of any water which may have collected in the oil pan and which might freeze and leave the engine ready to be started at any time. To guard against rusting of the cylinder walls and possible sticking of the pistons it is usual to inject about a tablespoonful of fresh oil into each cylinder before leaving the

Questions of general interest to the motorist will be answered by Mr. Clough in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope.

Vast Expansion and Advanced Equipment make New Prices Possible

The history of Dodge Brothers and their subsidiaries' drastic price reductions is simple and brief.

A better and better product followed by greater and greater demand.

To meet that demand, an expansion of buildings and equipment involving an expenditure of more than \$10,000,000.

Output vastly increased, with subsequent reduction in the cost of materials and production.

Installation of advanced labor-saving and quality-increasing equipment. For instance, one giant steel-body press costing \$10,000 replaces ten former presses costing \$7,500 each, and does the work more efficiently.

Result: The finest line of vehicles in Dodge Brothers history at prices that seem incredible in view of Dodge Brothers traditional quality.

That seem more incredible still when considered in connection with improvements that include—

- Rich and attractive colors.
- Smart and stylish body lines.
- Four dependable cylinders.
- Absolute smoothness of engine operation.
- Greater power, snap and elasticity.

And advanced steel body and windshield construction that afford exceptional driving vision at a time when clear vision and safety are paramount in the mind of every motorist.

Touring Car	\$1095
Roadster	1095
Coupe	1170
Standard Sedan	1235
De Luxe Sedan	1485

f. o. b. Toronto (Taxes Extra)

M. OBERNDORFFER
124 CLARENCE STREET

DODGE BROTHERS MOTOR CARS

MADE IN CANADA

280 MILLIONS

Chrysler's record of the past two years looms as one of the most brilliant in the motor car industry.

Canada and the rest of the world have bought more than 280 million dollars' worth of cars of Chrysler manufacture since the Chrysler was introduced just two years ago.

In the quarter of a century that preceded the coming of the Chrysler, there is nothing in the industry remotely approaching this overwhelming Chrysler popularity.

Here is recorded a most significant tribute. Not only to those supreme superiorities with which the first Chrysler sounded a new note in motor car engineering and craftsmanship; but also to the later refinements in performance, beauty and comfort which—with the addition of the new Chrysler Imperial "80" to the Chrysler "70" and the Chrysler "58" now offered at electrifying new low prices—have immeasurably increased Chrysler's leadership.

CHRYSLER

CLARK BROS.
371 King Street. Telephone 2357f.

DUCO!

The old paint and varnish removed and your car clad with the newer glossy finish—DUCO. Any combination of colors. \$40.00 to \$50.00

According to size of car.

OHLKE & BRADY

Authorized Deere Distributors
King and Queen Streets
KINGSTON

House Wiring and Repairing

All Kinds of Electric Apparatus

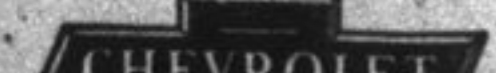
Satisfaction guaranteed. Best work at reasonable prices.

"THE DOWN TOWN ELECTRIC STORE"

HALLIDAY ELECTRIC CO.

Corner King and Princess Streets. Phone 64.

An Economical Transportation



Comfort in Any Weather

Full protection in any weather—comfort in winter—snuggles against snow, sleet, and rain—that's what you enjoy when you drive the Chevrolet touring car!

Fine quality curtains, carefully tailored and close fitting, keep the cold out and warmth in. Entrance and exit to both seats are unhampered and free because the curtains are supported by rigid rods and swing with the doors.

The Chevrolet touring is the lowest-priced car of equal quality and equipment on the market. It offers all the advantages of economical operation all the year around: an open car for the open road in summer and snug comfort for winter driving.

Come in! Satisfy yourself that here is a low-priced touring car that offers real all-weather protection.

DISTRI BUTORS

CENTRAL GARAGE, LIMITED

CORNER BROOK AND MONTREAL STREETS. PHONE 600.

T. J. ALEXANDER, Arden, Ont. 'Phone 9.

QUALITY AT LOW COST

New Records and New Prices!

Graham Brothers Truck sales for 1925 were the largest in their history.

The previous record breaking year was surpassed by 123 per cent.

Such healthy increases in demand require proportionate increases in production.

Graham Brothers four factories are now equipped for larger output than ever before.

They are therefore able to give truck buyers the benefit of still further savings—

Savings that are now passed along in the form of another substantial price reduction—the fourth such reduction in eight months!

NEW PRICES

1 Ton Chassis	\$1350
1 1/2 Ton Chassis	1725
MBM Low Chassis	1795

f. o. b. Toronto, taxes extra

M. OBERNDORFFER
124 CLARENCE STREET.

GRAHAM BROTHERS TRUCKS

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE