

In The Automobile World

NEWEST NOTES OF SCIENCE

Broken ivory can be joined with a cement made by melting alum in hot water.

Russia has 137 central electric stations, serving nearly 15,000,000 persons.

For the heaviest duty motor truck wheels carrying three tires have been designed.

An Australian ferry utilizes a floating reinforced concrete pontoon as a landing stage.

A woman is a patentee of a double brush with stiff bristles for cleaning clotheslines.

Tests in Europe have shown that peas made of tannin outwear those made of steel or gold.

A Kansan has invented a machine that attaches wallpaper directly to a wall from the roll.

New Zealand plans to spend about \$2,500,000 in the development of its water power resources.

Between the handles of a new baby carriage is suspended a seat on which a small child can ride.

Electric traction has been applied to one of Spain's most important mineral carrying railroads.

A new hand stamp resembles a rocking blotter and presses ink from a pad through a metal stencil.

British geologists have estimated that more than 24,000,000 tons of coal remain in the Welsh fields.

Tiny knobs are attached to the backs of the blades of a new knife so that they may be opened more easily.

A water power method for breaking down rock in masses instead of crumbling it has been invented in Europe.

The geological survey has estimated that there are about 1,000,000 (two ounces) of platinum in the United States.

When they treated a man with X-rays for an ulcer on his tongue Paris surgeons also cured his long standing deafness.

Driven by a 300-horsepower electric motor, a stone crusher in a Michigan limestone plant can crush 1,250 tons of rock an hour.

Litters for wounded used by the Dutch army are made of straw and are equipped with straw blankets so they can be used as beds.

A typewriter has been invented that writes addresses on boxes or packages or can be used for show cards or newspaper bulletins.

Travelling machine shops, carried on motor trucks, are being used in England to repair automobiles broken down on country roads.

An annular receptacle for holding growing plants surrounds the source of light in a recently patented indirect lighting fixture.

Apparatus has been invented by an English scientist photographically to measure and record vibrations of machinery or buildings.

The wide brim of a new hat for women can be removed and leave only a narrow one, giving a woman the appearance of owing two hats.

A scientist has prohibited the importation of any preparation supposed to be a cure for drunkenness or the tobacco or any drug habit.

Despite the increase in the use of electricity, the United States has 25 factories that are kept busy making incandescent gas mantles.

A scientist in Europe has invented a method for sterilizing the ground in which posts are to be set against insect, germ and fungus life.

A Californian has patented a hammer to which nails are fed from paper strips, enabling a man to nail lathes at many times his usual speed.

Switzerland has built its highest aerial tramway, 1 1/2 miles long and ascending to an altitude of nearly a mile solely for tourists.

A ring large enough to encircle two fingers and carrying a blade has been invented by an Ohio man for cutting twine as parcels are being tied.

For sprinkling floors of buildings, lawns or streets, a one-man wheeled tank has been invented from which the water is forced by compressed air.

In about 30 years England has lost 6,650 acres of land through sea erosion and has reclaimed 48,000 acres mainly from material brought down by rivers.

A metal track or clothes tree, recently patented, is so shaped that it can be used as a fire-escape by reversing it and bringing it from a window sill.

Spin glass as an insulating covering for steam pipes is being tried out in Europe being acid proof and lighter than all other insulating preparations.

Valves for automobile motors, made of pure carbon by two Boston inventors, are claimed to be self-lubricating and to be proof against the usual valve troubles.

Shoes with quickly detachable soles and heels have been invented by a Frenchman for railroad men to enable them to escape should their feet be caught in tracks.

A three-handed watch of French invention tells both twelve-hour and 24-hour time one hour hand being used for each kind on separate dials, while a single minute hand does for both.

Tongs kept open by a spring have been invented to enable an angler to hold open a fish's mouth to recover a swallowed hook scaling and cutting knives being mounted on one arm of the device.

STITCHES IN TIME.

Not infrequently, motorists allow their storage batteries to become almost totally discharged and, in some cases, nearly dry.

Too many motorists are apt to treat the storage battery as they would treat a dry-cell—they have the impression that there is nothing to do but use the battery until it is exhausted. Consequently, they pay no attention to it as long as it does its work, with the result that by the time it becomes inoperative the battery is very seriously harmed.

It should be remembered that dry-cells are not intended to be recharged or used again, while storage batteries, by virtue of their electrochemical nature, may be used continuously throughout their life, by recharging from a source of electric supply.

Do not neglect to take a few spark plug cores with you on your trip. The metal parts of a spark plug will last almost indefinitely, but the cores must break in time, and that usually means buying a new spark plug. As the cores can be bought for a fraction of the cost of a new spark plug, it means economy to carry a few with you. Also carry a few extra gaskets.

A direct cause of rapid tire wear, particularly the rear tires, is in the misuse of the brakes. The brakes on a car should be very seldom locked. They should not be locked in wet weather any more than in dry.

When the brake is locked, those parts of the rear tires which are in contact with the ground are planed off as rapidly as though the tires were held against a piece of cutting machinery. It does not take long for a tire to blow out after it has been subjected to this treatment for any length of time.

It should be a rule with everyone who drives to use the brakes sparingly and never to drive his car rapidly enough so that he will be compelled to make a sudden stop.

If you use an enamel cover for your tires, be sure to put it on right side up. Sometimes one finds one put on upside down, which will cause it to hold the rain instead of shedding it.

Keep watch on the spokes of the wheels, especially if the car is an old one. If spokes can be shaken, tighten the bolts on the flanges of the hub. If they are still loose consult a wheelwright, as your life may be endangered by the breaking of a wheel.

Occasionally the interrupter becomes loose, and it is important that the beginner should learn to set it. This trouble is shown by the fact that the engine will not start when cranked, but gives only one or two explosions. Where an engine has been running properly and the above trouble develops, inspect the interrupter immediately.

In turning up a six-cylinder motor, one should be very careful to note that there is good compression in each cylinder. In a four cylinder motor the sound of the exhaust will reveal a weak cylinder. From the exhaust of a six-cylinder motor, however, the condition of a particular cylinder is hard to detect on account of the stroke lapping. Very often a weak cylinder is not detected and the carburetor adjustment is changed to eliminate the supposed thump

in the motor. In reality the cause lies in a weak cylinder.

In resetting the magnets the coupling often may be placed so as to cause the magneto shaft to be out of alignment. The best method is to note the condition of the coupling before being removed, which is done by slipping the thumb and forefinger around it. The periphery should be perfectly smooth and one side should not be higher than the other. In resetting the coupling clean it well and see that the outer surfaces of the parts are in line.

Eddie Rickenbacher, who retired from racing late in May, has been appointed a sergeant in the first class of the signal corps, and may be addressed care of Gen. Pershing.

Frank Willard, brother of Jesse Willard, won the 100-mile race, which was given for the benefit of the Red Cross at Dallas. Accounts state that he drove a Silver.

Under a recent edict of the New York State Legislature the horse and the mule as a motive power on the Erie Canal will give way to motor driven tugs. For 80 years the motive power has been in the hands of mules and horses. With the country at war, and a desire to move freight more rapidly, and relieve the railroads it was decided to make the change.

Gray-Dort Climbs Steep Hill.

Some motor cars climb hills and others simply "eat 'em up." In the words of the local distributor of the Gray-Dort line of motor cars, the Gray-Dort is distinctly in this latter class. This dealer tells of some recent tests of this hill-climbing ability of the Gray-Dort that were made on hills.

In filling the gasoline tank just previous to these tests the filler cap was mislaid and the cap from another car of large size was laid over the opening. One of the grades taken was so steep that just before the top of the hill was reached the angle of the car was such that a quantity of gasoline ran out of the tank onto the floor of the car, yet the sturdy little car did not falter or miss a single explosion, but kept on over the top of the hill without the driver being obliged to shift from high to second speed.

This is particularly remarkable because the Gray-Dort tank, which is located in the dash, has a projecting spout of several inches, and under ordinary conditions it would be necessary to place the car almost perpendicularly to spill even a drop of gas from the tank.

Mr. Dort vouches for the truth of this story, which was related to Robert Gray, general manager of the Gray-Dort Motor Company, and was attested to by several observers who were in the car at the time.



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