

NEWEST NOTES OF SCIENCE

Leather waste is an important paper.

Japan is discovering that it possesses many mineral springs rich in radium emanations.

Shoes with aluminum soles have been invented for persons working in water or damp places.

France makes elementary instruction obligatory for all children between the ages of six and sixteen.

More than 1,500,000 electric storage batteries are used in automobiles in the United States.

British scientists are studying a mineral found in Wales that emits a faint light in its natural state.

A library table that unfolds and forms a full-sized double bed is a furniture novelty of recent invention.

Brazil has the largest known deposit of 70 per cent. iron ore, practically free from phosphorus, in the world.

An inventor has patented a small celluloid disk to be attached to a phonograph needle to intensify the sound.

Fiber useful in textiles and cordage has been extracted from the water hyacinth of Indo-China by a Frenchman.

To pump water out of places into which it leaks there has been invented an electric pump controlled by a float.

Extensive deposits of lignite have been discovered in Sicily and mining of fuel of excellent quality has been begun.

A new spring snap for harness and other purposes is made from a single piece of steel wire twisted and suitably shaped.

Bombay will erect huge mirrors at dangerous street intersections to warn traffic of vehicles approaching from around corners.

A Philadelphia market gardener is the inventor of a machine to wrap rhubarb in heavy paper to save the cost of shipping boxes.

Experts have estimated that Spain contains 700,000,000 tons of uranium mined from ore, capable of yielding about 50 per cent. of metal.

In a new form of electric fan vertical blades draw in the air from beneath and distribute it equally in all horizontal directions.

Spain is studying its large deposits of peat with a view to utilizing the material for the production of both gas and electricity.

For overpowering refractory prisoners an inventor has patented a policeman's club that emits a noxious gas when a button is pressed.

Sweden is having its alum shale deposits investigated by experts in the hope of obtaining illuminating oil, sulphur and other products.

Around the handle of a new umbrella is a soft rubber ring that holds the ends of the ribs firmly and neatly when the umbrella is closed.

Radium emanations, according to a Paris surgeon, are useful after operations to destroy diseased cells that the knife may have missed.

An Oregon power development plant has the world's largest chain drive, eight chains, each 21 inches wide, transmitting 5,000 horsepower.

One set of copper mines in Cuba has been operated almost continuously on an extensive scale ever since the ore was discovered in 1520.

A device to be attached to a plug of tobacco to bite off pieces and thereby save its user's teeth has been patented by an Oklahoma inventor.

A waterproof electric motor has been invented by an Australian to drive brushes against the hulls of vessels to clean them without dry docking.

Patents have been granted a Saint Louis inventor of an electric alarm that sounds when rain begins to fall in windows left open for ventilation.

Two bridges in a city in India are supported upon large metal tanks, which float upon the water and accommodate themselves to its rise and fall.

Inside a new hand bag for women is a mirror and a tiny, dry battery fed electric lamp, which is automatically switched on when the bag is opened.

The Italian city of Milan has changed from gas street lighting to electricity, generating its current by Alpine waterfalls, nearly 100 miles away.

A California inventor has patented

a front wheel brake for automobiles that can be used without interfering with the operation of a car in any way.

An increase in parasitical diseases among poultry and game birds in England is attributed to the distribution of dust through the air by automobiles.

Investigators have found that electricity applied to soil that has been dampened with salt water will destroy insects without injury to growing crops.

From a mixture of sugar cane refuse and bamboo fiber a Trinidad planter has succeeded in making a paper equal in quality to the best wood-pulp product.

A reel to be attached to an automobile wheel has been invented to enable a lineman to pick up or pay out wire much more rapidly than can be done by hand.

According to two French scientists a raw-food diet increases the white blood corpuscles, which play an important part in the fight against disease germs.

The inventor of a new auger bit has made it thick at the edges and thin in the centre and claims it will force the chips toward the centre and thus avoid clogging.

To prevent the absorption of dampness from the ground by stone buildings a new European practice is to cut slots in their walls and insert asphalt coated lead plates.

A Wisconsin boy is the inventor of portable equipment to enable a person to connect with any telephone or telegraph line and either talk over it or use telegraph instruments.

Europe's largest dam, a reinforced concrete structure 330 feet high and 700 feet long, recently was completed in Spain by American engineers for power and irrigation purposes.

A Connecticut inventor's match box consists of two cylinders, one within the other, and with slots cut in their sides through which a match drops when the slots coincide.

For surgeons and dentists an Obillon has invented an electric lamp mounted on an adjustable bracket which concentrates its rays through a system of lenses contained in tube.

To protect the bases of telegraph poles against decay a new French practice is to surround them with earthenware pipes and fill the pipes with melted resin, which solidifies and becomes waterproof.

Almost a whole gymnasium is contained in a new chair in which a seated person, by pulling straps over his shoulders, manipulates lever and weights and exercises most of his muscles.

An Arizona scientist will try to fix the time of the cliff dwellers' era by comparing the age rings in the tree trunks still standing in their homes with the rings in the oldest trees now living.

Coal deposits that have been discovered in Iceland are being developed satisfactorily and scientists are investigating deposits found on the Bear Islands, between Spitzbergen and Norway.

According to a Paris mathematician the adoption of Green which time as the standard for France has increased the lighting expenses of every French household about one per cent.

Sanitary advantages are claimed for a Detroit inventor's shaving mug in which the pressure of a plunger forces a portion of liquid soap out of a dust proof chamber into a main cup.

The British board of trade has given its approval to a new single davit, which launches a boat from a vessel with a sling and releases it automatically as soon as it touches the water.

A new aeroplane motor is provided with a starting crank that can be operated from an aviator's seat and with a muffler to deaden the sound with a loss of only four or five per cent of power.

The inventor of a steel railroad tie that also serves as a cattle guard claims it can be laid in half the time required for a wooden tie and will prevent wrecks caused by rails spreading.

Introduced into Bohemia twelve years ago, the American muskrat has spread over a wide area and now is regarded as a serious pest, the government advocating the destruction of the animals wherever found.

A new European record for the most heavily loaded train recently was established by a Russian railroad on which an American locomotive hauled a train 2,800 feet long with a load of 4,424 tons.

To increase the traction of an automobile wheel and prevent skidding a Washington inventor has patented a broad fabric belt to be passed over a tire and a small pulley to be mounted under a running board.

A bumper to stop railroad cars has been invented that consists of a series of curved elevations in the track which gradually reduce the speed of a car, the last one being high enough to halt the car.

The Turkish Government has taken up a project for the irrigation of nearly half a million acres of the Adana plain, the Cilicia of antiquity, at a cost of \$17,500,000 and eight or ten years of work.

The United States bureau of fisheries is planning to transport 8,000,000 humpback salmon eggs from Alaska to rivers in Maine and a carload of lobsters from the latter state to Washington coast waters.


Tests by a Swiss city of the relative efficiency lamps for street lighting were decided in favor of the latter, chiefly because more agreeable to the eyes.

A ferryboat that transports automobiles across a river in Washington is operated by jacking up the rear wheels of a car and connecting them by belts to machinery that drives the boat's paddle wheels and propeller.


The available water power of European Russia, including Finland, the Urals and the Caucasus, has been estimated by Government experts at 30,000,000 horsepower, of which scarcely 250,000 horsepower has been utilized.

For the most rapid photography a camera has been invented in which the film is automatically shifted by the shutter closing and which is fitted with a pistol grip to aid in aiming it, at the same time keeping it level.


Flowers are more fragrant when the sun is not shining on them, ac-



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RUBBER SYSTEM  
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THE MAPLE LEAF RUBBER CO. LIMITED  
Jacques Cartier



THE MERCHANTS RUBBER CO. LIMITED

## Shoe Dealers are Entitled to Higher Prices for Some Brands of Rubbers

On a great many of our lines of Rubber Footwear there have, of necessity, been small advances in prices, for these reasons:—

Since the war the price of crude rubber has fluctuated, registering as much as 40% advance and then sagging back almost to 1914 figures. But ocean and freight rates on it have doubled—marine insurance is away up—and then there is the War Tax. Moreover, cottons used in rubber footwear are up 25% to 100%, chemicals 25% to 300%, dyes a good deal more than that, and labor is scarce and higher paid. All these items must be included in our costs.


Our policy has been, and will continue to be:—

To maintain fully the quality of each and every brand of our rubber footwear, regardless of expense.


To maintain, as long as we can, stability of prices to dealers, advancing just as little as possible considering the higher manufacturing cost.

If your shoe dealer asks you a little more for our rubbers, he is quite entitled to it. To his increased cost he must also get added profit to make up for his increased expense of doing business.


The public will find any increases we make on our brands of Rubber Footwear insignificant compared with the saving that the consistent use of Rubber Footwear accomplishes. The additional cost of our brands of Rubbers is, however, fully justified, because they are backed by the same reliable quality that has won popularity for these well-known marks:—




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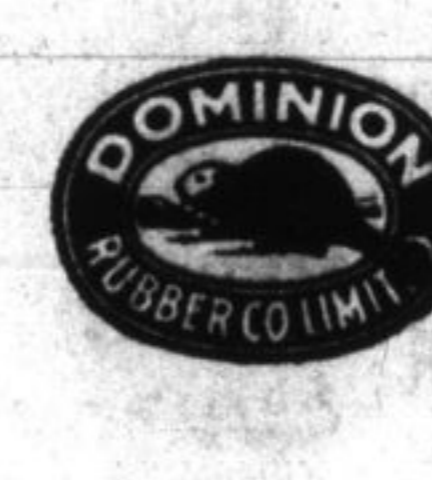
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Gin Pills banish backache, no matter how severe. The effect, understand, is not to numb the pain, but Gin Pills go right to the source of the trouble, the kidneys, restoring the natural functions of these organs, and with the blood purified, and inflammation allayed, the pains disappear permanently.

## Gin Pills

FOR THE KIDNEYS

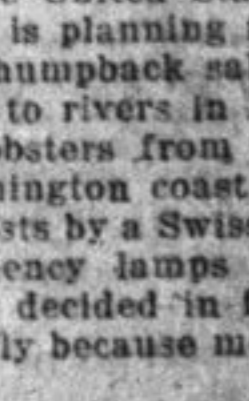
Other indications that the kidneys are not purifying the blood stream properly are frequent headaches, deposits in the urine, touches of rheumatism—to name but a few symptoms—and every case calls for Gin Pills.

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Trial Free by Mail



"My trouble commenced with itching and a creeping feeling under the skin, and in a few days pimples would appear always with more or less itching. There was always a burning heat in the skin. The pimples made me have a nasty looking face, and I was ashamed to go out."

"The trouble had been on my face for three months before I tried Cuticura Soap and Ointment. After the first application I noticed a change, and by the end of three weeks it was all gone." (Signed) John Clark, Box 13, Bright, Ontario, Dec. 11, 1915.

Sample Each Free by Mail With 23c Skin Book. Address postcard: "Cuticura, Dept. J, Boston, U.S.A." Sold throughout the world.

According to a French scientist, because the oils that produce the perfume are forced out by the water pressure in the plant cells and this is diminished by sunlight.

An auxiliary set of wire net blades in a new electric fan is driven by the air moved by the regular blades and passes through a tank of water, vaporizing it so that it cools and purifies the air of a room in which the fan is used.

### INTERNATIONAL LIVESTOCK EXPOSITION

Chicago, Ill.  
Dec. 2nd to 9th, 1916.

Round trip tickets will be issued good going on December 3rd, 4th, and 5th, 1916, valid to return until December 13th, 1916, fare \$26.25.

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Nov. 23	Nov. 23

Lv. London

Lv. St. John

Nov. 23

Nov. 23

Lv. Glasgow

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Nov. 23

Nov. 23

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