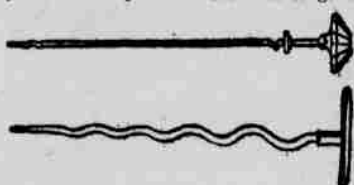


Late Inventions and Appliances

HAT PINS THAT STAY.

THESE odd-looking hatpins are recent inventions. It is claiming that they will not come loose either from the hair or the hat. One of them is twisted like a cork-screw just below its head, and when the pin is pushed into position the wearer gives



it a twist which holds it. A reverse twist withdraws it. The other pin is entirely spiral. It is not necessary that its point should pass through the opposite side of the hat.

Unusual Lawn Ornament.

On the sloping lawn of a country house near Los Angeles stands a most unusual ornament, a large globe of crystal, supported upon a concrete pedestal. This shining sphere of glass acts as a mirror from any position the observer may take, reflecting the landscape with singular clarity. The concrete pillar upon which it is poised is hexagonal, some four feet in height. As the Summer sun glistens from the polished surface of the globe, it is visible from long distances, and is a landmark in that section.

Old Tire Protects New One.

By an arrangement of lugs fitted with rings which may be bolted into an old tire casing, English motorists save wear and tear on their new tires.

The device, which has only recently been brought out, is designed to prevent the cover of the good tires from coming in contact with the road surface. Kept in place of the new tire by a chain of a particular design, old covers protect the new tires to such an extent that it is practically impossible for a puncture to occur. There is no creep, no wear, nor friction between the outer cover and the tire, and it is almost impossible to discover from the appearance that a discarded cover is being used on the wheel.

GIVES NAIL A START.

THE difficulty of trying to drive a nail at a point higher than you can reach, lies in starting the nail. One way to overcome this is to take a thin sliver of wood, a foot or two long, and drive the nail through the end of it. Then use this as a handle until you have given the nail a blow or two. But if a person has much of this work to do he should try putting an attachment on his hammer such as is shown in the accompanying cut. A piece of springy sheet metal is all that is needed.



Stamping Auto Bodies.

Most modern motor-car bodies are made from pressed steel, stamped to the desired shape. A stamping press built in America and now on exhibition in England is so large that the body of a touring car can be fashioned complete in two impressions. More than 50 men can find standing-room in and upon this big machine, which, by means of a double-action toggle device, is able to exert a pressure of 1500 tons.

To Travel Through Sand.

A device to aid automobiles in traversing sandy roads without trouble has been invented by a California man. It consists of an endless belt on adjustable rollers, and so arranged that the rear wheels run on the belt instead of on the ground. The rollers are attached to the side of the tonneau above the rear wheels, and to the bottom of the frame in front of the wheels. The forward rollers are held in contact with the ground by springs, which compress and allow the rollers to rise in case an obstruction is encountered in the wheel track. Supplementary to the device, the inventor attaches broad strips of belt fabric to the front tires, and thus equipped declares his car can make 20 miles an hour over sandy wastes where an ordinary car would soon stall. The device is readily removed, only 15 minutes being necessary to put it on or to take it off. He has applied for a patent on his invention.

Notes on Health and Sanitation

CROQUET FOR MENTAL REST.

PERIODS of mental relaxation are absolutely essential to brain structures. And the more complete this relaxation, the greater the renewed energy with which the mind will return to its task. Each great thinker has his own peculiar way of securing this relaxation; but a very common method is that of reverting to childish frivolities, particularly during periods of great mental stress.

Louis L. Stedman, who was with General Oyama's army during the Russo-Japanese War, gives a striking illustration of this, which he witnessed during one of the strenuous campaigns in Asia, following a great council of war in which the generals had just participated.

"On leaving the council chamber, one of the strangest sights ever witnessed at the headquarters of an army presented itself. Directly in front of Marshal Oyama's personal office was a croquet ground, and there at play, like happy children, were Generals Kodama and Fukushima and two other members of the general staff, Generals Matsukawa and Ochi. Kodama and Matsukawa were matched against Fukushima and Ochi, and the combat was vigorous. They had named one of the posts Harbin and the other Kirinaud, and fought for positions as eagerly as though on a battlefield. Every true shot at long range was greeted with shouts of applause, while if a general went wide of his mark he was called a Russian. When a ball rolled too far its owner would dance before it, making crosses on the ground with his mallet and beseeching it to stop, while the others screamed with laughter."

Everyone familiar with the working of mental machinery will understand that this croquet-ground played a part in winning battles almost as important as that of the council chamber.

CARE OF THE FEET.

THE most important elements in a soldier's equipment are his rifle and his feet. Both require constant care and attention, and since the fate of an army may depend upon the condition of its feet and its weapons, it is an unpardonable offense for a soldier to have either one or the other out of repair.

Since feet are also very useful, as well as troublesome appendages to civilians, the rules for preventing sore feet as recommended by the Red Cross Association may not come amiss for anyone. The gist of these rules is as follows:

After washing with soap and water the feet should be dried very gently—not rubbed. They should be dabbed lightly with alcohol on cotton, except where the skin is broken. When dry, they should be dusted with a powder composed of equal parts of starch and borie powder. Reddened skin or recent blisters should be protected by strips of adhesive plaster and corns should be protected in the same manner. Toenails should be cut short. Socks should be washed often, and thoroughly dried before use.

One of the hardest tasks for the soldier (and for many, many civilians) is breaking in new shoes. Soaking with crude castor oil seems to be the most effective method, special attention to the softening being paid to the parts just above the heel, over the instep and about the great toe.

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The BULL TRACTOR

The "Bull" is a 3-wheeled machine—two in a hard, smooth furrow, one on the stubble. One of the furrow wheels guides the machine when plowing, relieving the driver of that responsibility. It has a leveling device by which the operator can readily level tractor when on side hills. Has but 5 working gears (think of it—only five). Has but one drive wheel, thus needs no equalizing gears. Has but one main drive gear, which will last during life of the tractor. Motor is two-cylinder, four cycle, water-cooled type—no better motor on the market today anywhere!

The Bull Tractor delivers 12 horsepower at the belt, 5 horsepower at the drawbar and is built to do the daily work of 5 ordinary horses. It travels faster than horses—and keeps right on going. Never gets tired. Costs nothing for harness. Costs one-half as much for gasoline as for horsefeed. Never eats when not working. Never gets sick. Gets your work done better, cheaper and on time. It's the best paying investment you could possibly put out on your place, whether you have 80 or 800 acres. The "Bull" is not only a tractor—it's an expert at everything! Here's what it does:—

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Euclid, Minn., May 11th, 1914. I have the "Bull" hard at work and it is pulling three bottoms in the stable, and I believe it will haul four. I have had from fifty to one hundred visitors every day, and it proves to be one of the best tractors ever built.

JOHN BIEVER, Bird Island, Minn., April 24, 1914.

The "Bull" is working fine. I pulled a six-horse road grader at an average speed of four miles an hour yesterday, and six horses can't average over three miles per hour at their best.

HEANEY & PALMUND, Birmingham, Mont., June 10th, 1914.

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