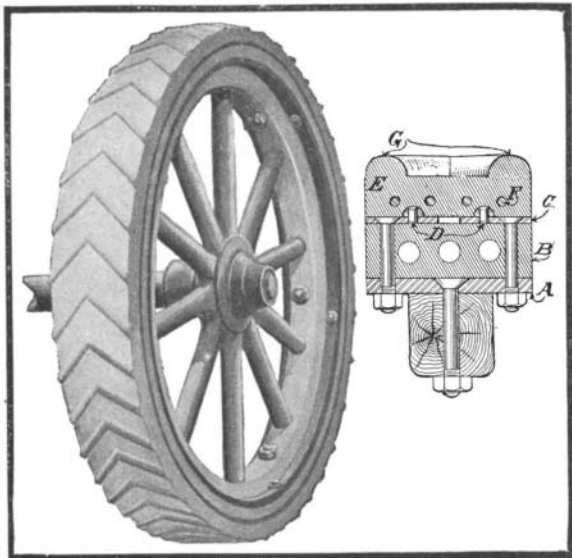


TIRE FOR AUTOMOBILE WHEELS.

The accompanying engraving illustrates a novel double-cushioned tire construction, adapted to take the place of pneumatic tires now commonly employed. One of the special advantages of this construction is that it prevents the wheel from skidding. In addition to this, the tire is strong and elastic and not liable to

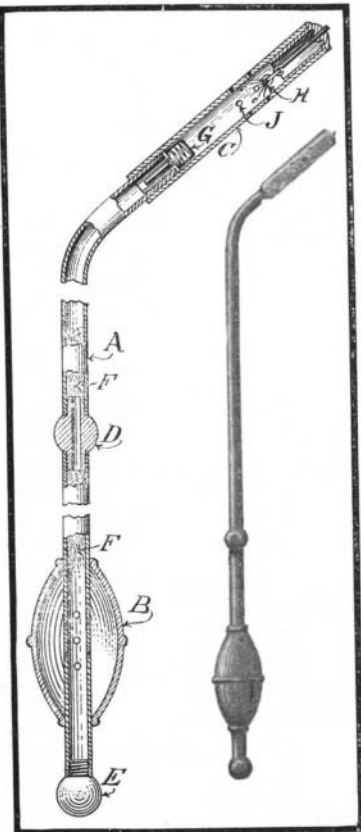


TIRE FOR AUTOMOBILE WHEELS.

injury. The cross-sectional view illustrates the details of the invention. At *A* is a steel band about $\frac{1}{4}$ inch thick and 3 inches wide, which is bolted to the wooden felly of the wheel. Mounted on this band is a rubber cushion *B*, an inch thick, which runs around the wheel. Over this cushion is a pair of bands *C*, which are separated from each other by a space of about $\frac{3}{8}$ of an inch. The rubber cushion is clamped between the upper and lower bands by means of bolts, as indicated in the drawing. These bolts are free to slide through the lower band when the cushion is compressed. To increase the cushioning effect, the rubber is formed with holes which extend throughout its length. The upper bands are provided with half-round shoes riveted thereto, as indicated at *D*. Fitted over these bands is the outer cushion *E*, of rubber, which is firmly held in place by means of wires *F*. The outer cushion of rubber is provided with a series of ridges *G*, which are preferably of V shape. These serve the purpose of cleats to afford a greater tractive effect. The advantage of forming these ridges of a V shape; instead of running them diagonally across the face of the tire, is that the two branches of the V counteract each other, and prevent any tendency toward a lateral movement. With tires of this type chains are unnecessary, as the V's prevent skidding of the wheel. The inventor informs us that owing to the fact that air can circulate between the ridges, the wheel does not produce as much dust as the ordinary automobile wheel. For this reason he believes that the tire would be of value for use in parks or parkways, where there is considerable agitation against the dust raised by rapidly-moving vehicles. The inventor of this automobile wheel is Mr. Irving Snell, Little Falls, N. Y.

AN AUTOMATIC GAS LIGHTER.

Pictured in the accompanying engraving is a gas lighter of portable type, in which a flame is created at will by directing alcoholic vapors to a catalytic igniter. This is done in such a manner as to effectually prevent the possibility of an explosion or ignition of the vapor in the reservoir of the lighter. One of the figures shows a sectional view of the device. It consists of a tube *A*, provided at its lower end with an air bulb *B*, while at the upper end is a cap *C*, in which the catalytic igniter is suspended. The tube *A* consists of two members, which are connected by a coupling *D*. The lower end of the tube is closed by a plug *E*. At each side of the coupling *D* the tube is stored with

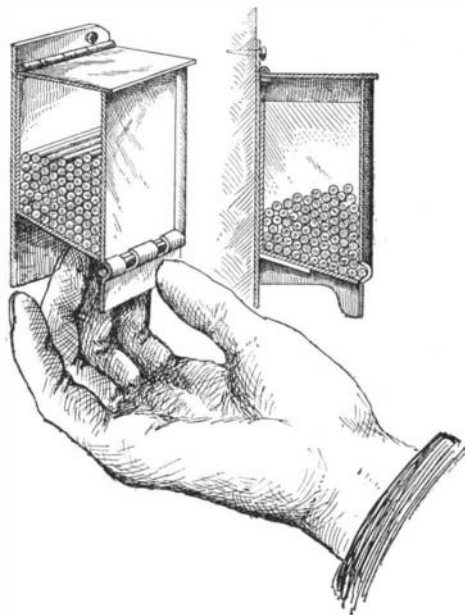


AN AUTOMATIC GAS LIGHTER.

absorbent material, saturated with alcohol. The bulb *B* when compressed forces air into the tube and through the absorbent material, and the air becomes saturated with alcoholic vapor. The upper end of the tube *A* is closed by a valve *G*, which opens against the tension of a spring when the alcoholic vapor is forced upward by operating the bulb. The vapor, passing through the valve *D*, comes into contact with a bunch of fine platinum wire, which possesses the property of becoming highly heated when exposed to gas. Thus, the gas is ignited and issues from the openings *J* in the form of a flame. The valve *G* closes as soon as the air and gas are forced past it, so that when the bulb *B* expands, it is impossible to draw the flame down into the reservoir of alcohol, and thus an explosion or ignition in the reservoir is avoided. The inventor of this lighter is Lewis B. Prahar, 124 Pearl Street, Brooklyn, N. Y.

ODDITIES IN INVENTION.

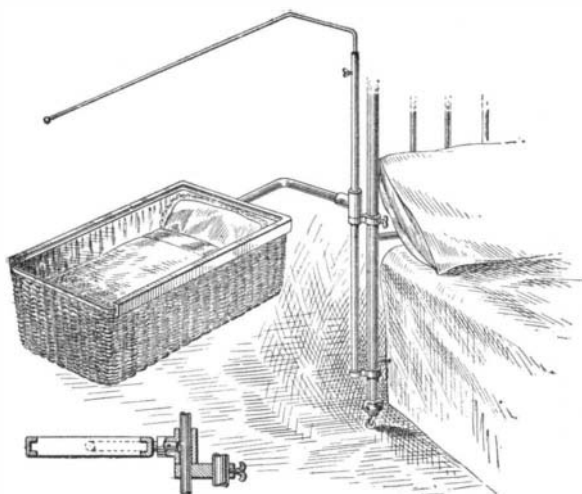
A CONVENIENT MATCH SAFE.—The match safe illustrated herewith is designed to deliver or discharge one match at a time into the hand of the operator. It consists of a box which may be opened at the top to permit of introducing matches into an interior receptacle. The bottom of the box is open, but is formed with cleats on which the receptacle rests. The latter is closed on each side and at the rear, and also has a slanting bottom wall. The front wall of the outer casing of the box proper is formed with a groove or recess of such size as to contain but one match. In operation the receptacle is moved upward, leaving one match, which rests in the recess, and the latter, as soon as it clears the bottom wall of the receptacle, falls into the operator's hand. On releasing the receptacle the latter falls to its normal position,



A CONVENIENT MATCH SAFE.

and permits another match to enter the recess, whence it is discharged when the receptacle is next operated.

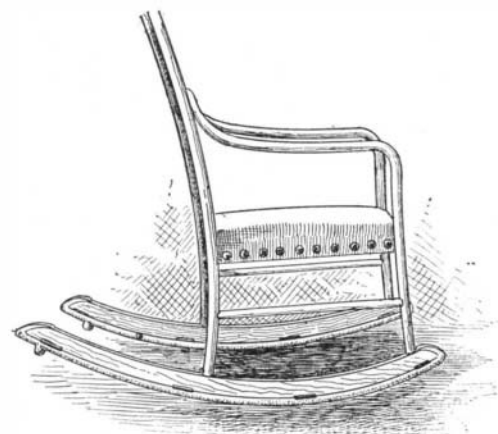
BRACKET ATTACHMENT FOR BEDS.—A resident of Allegheny, Pa., has invented an attachment for supporting a crib or tray in close proximity to a bed. A vertical standard which is preferably hollow, is rotatably secured to the bed in a sleeve and a socket piece clamped to one of the head posts. An arm mounted on the standard carries a U-shaped frame, the side-arms of which are grooved. In these grooves a tray or slide may be fitted or a crib or bassinet may be supported



BRACKET ATTACHMENT FOR BEDS.

in the manner illustrated. Fitted into the hollow standard is a rod which may be secured thereto by a set-screw and which projects over the crib. This may serve to support a curtain. The advantage of this arrangement is that the crib may be drawn close to the bed whenever the baby requires attention without requiring the occupant of the bed to arise.

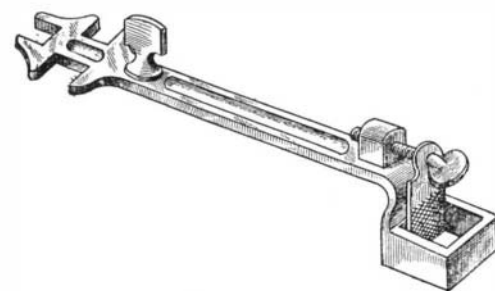
RUBBER-TIRED ROCKING CHAIR.—A Western inventor has devised a pneumatic shoe or tread, which may be applied to the rockers of a chair, so as to render the motion of the chair easy and noiseless, and prevent creeping and damage to the floor and walls of the apartment, or to the furniture with which the rocker may come in contact. The shoes may be applied to the rockers irrespective of their width or form, and each shoe is formed with a bumper at the rear end, which during excessive backward movement of the chair will engage the floor, and thus prevent over-



A RUBBER-TIRED ROCKING CHAIR.

turning. Would that all apartment houses were supplied with quiet rockers!

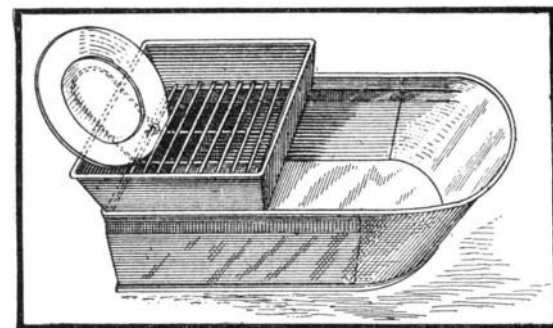
A HANDY WRENCH.—The wrench illustrated herewith is particularly adapted for removing nuts from axles, and is fitted with means for holding the nut to the wrench, so that it will not fall to the ground when unscrewed. The socket, which is adapted to receive the nut, is formed with a plate of resilient metal, which may be pressed against the nut to clamp it in the socket. The upper end of the plate is connected to a thumb screw that is screwed into a lug on the handle of the wrench. By turning this screw the plate is moved to the clamping position.



A HANDY WRENCH.

To facilitate operating the wrench, the opposite end thereof is provided with a knob, swiveled to the handle of the wrench, and after the nut has been clamped in the socket, the wrench may be turned by grasping the knob in the fingers and revolving the wrench so as to unscrew the nut. The entire operation of removing the nut or applying it to the axle may thus be done without soiling the fingers, as it is unnecessary to touch the nut.

COMBINED DISH-PAN AND DRAINER.—A useful household article has recently been invented which will facilitate the washing and draining of dishes. It consists of a dish-pan of greater length than its width and preferably formed with a rounded inclined wall at one end. Set into this pan, at the opposite end, is a dish-drainer formed with sheet metal walls and having a skeleton bottom. The drainer is arranged to fit snugly into the dish-pan so that it will be held therein by frictional engagement. The bottom of the drainer consists of a series of rods and cross-bars terminating



COMBINED DISH-PAN AND DRAINER.

at one end in a dish-support or bail. The dishes as they are washed in the forward end of the dish-pan are supported on edge on the rods, the first dish being leaned against the bail. Being supported in upright position the dishes will drain readily and while in the drainer boiling water may be poured upon them to rinse them. Since the drainer and dish-pan are combined in a single article the dish washer will be saved many unnecessary steps.