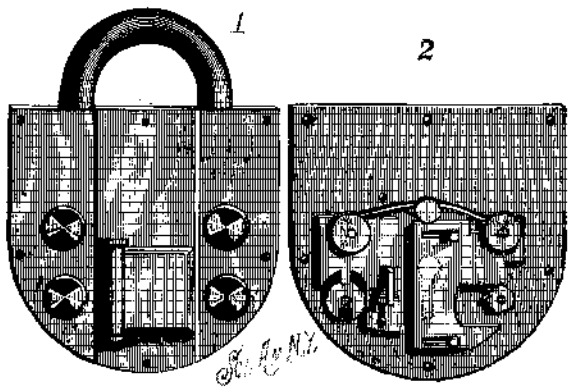
AN IMPROVED KEYHOLE GUARD.

An ingeniously contrived keyhole guard, recently patented by Mr. Joseph Krejci, of Armstrong, Neb., affords a double protection against interference with the lock. In the engraving, Fig. 1 shows the outside of a padlock to which the device has been applied, and Fig. 2 the interior mechanism which operates the guards. A metal door over the keyhole, and two buttons on each side of the door, are the only parts visible on the outside. After turning the key in the lock, and removing it from the keyhole, the outside door is closed, and a hook on its inner side near the free end passes through a slot in the front face of the padlock. The upper right hand button is raised to bring an inner plate under this hook, and the lower right hand button is then turned to the right to bring the shallow



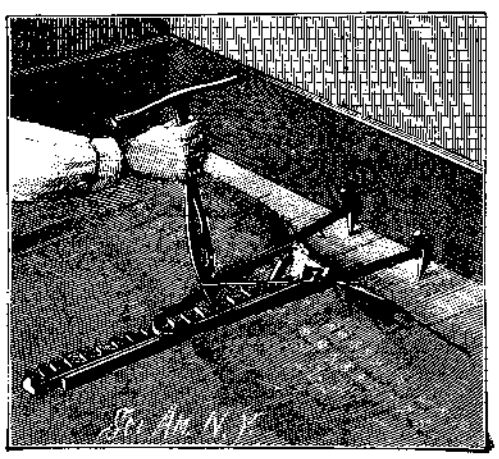
KREJCI'S IMPROVED KEYHOLE GUARD.

notch on its inner disk under a downwardly projecting lug on the locking plate. When notch and lug are opposite each other, the plate is forced down by a spring above it, and is locked in place by the engagement of the lug and notch.

The second guard is a horizontally movable plate, which may be brought over the inside of the keyhole. For this purpose, the upper left hand button is raised to disengage its inwardly projecting pin from the central notch in the top of the plate, and the lower left hand button is then turned to the right, to cause its toothed disk to engage the teeth formed in the lower edge of a recess in the guard plate, as shown in the second figure. When the plate has been moved far enough to cover the keyhole, a spring forces the pin on the upper button into a second notch in the top of the guard plate, and thus locks it in place. When it is desired to unfasten the padlock, the upper buttons are raised, as before, and the lower buttons are turned about a half revolution, but in a reverse direction. The outer door can then be opened, and as the inner guard plate has already been moved to one side, the key can readily be inserted. Although this invention is shown applied to padlocks, it is evident that it is equally applicable to other locks.

AN IMPROVED CARPET STRETCHER.

The illustration herewith plainly shows the operation of a simple and effective device for lessening the labor of laying carpets. A grooved bar is placed on the floor, and in the groove is a sliding rack, pivoted at its front end in the grooved bar. A U-shaped frame, having heads at each end, with their lower ends pointed, is held above the sliding rack by a V-shaped wire or fulcrum rod held between the open and closed ends of the frame, and this fulcrum rod is connected with the upright handle or lever. The grooved bar has at its



TAYLOR'S CARPET STRETCHER.

front end a flattened part, over which the edge of the carpet is lapped, where it is clamped by the pulling back of the lever; moving back the lever further stretches the carpet toward the wall, and the stretcher is locked in place by pressing the frame down to engage its crosspiece with the teeth of the rack, the outer ends being held by the points of the heads driven into the floor, at the baseboards. The handle, shown upright, is a hammer as well as a lever, being made in suitable tack hammer form.

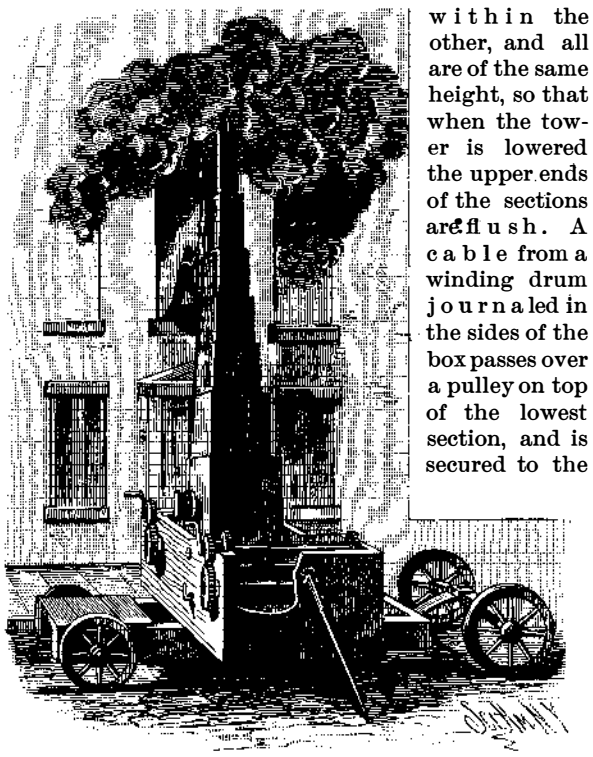
This invention has been patented by Mr. John J. Taylor, 2d, and the stretchers are manufactured by Messrs. Pickett & Rogers, of Warren, Pa.

Drying Tomatoes.

In Italy an extensive business is carried on in drying tomatoes to use during those portions of the year when fresh fruit cannot be obtained. According to the *Rural Record*, tomatoes are grown, for the most part, between rows of grape vines. Sometimes the tomatoes are trained on the lower bars of the trellis to which the vines are attached. The tomatoes are allowed to remain on the branches until they are quite ripe; they are then picked and pressed in bags made of coarse cloth, which allows the pulp to pass through, but which retains the seeds and skins. The pulp is then thinly spread out on cloth, boards, or in shallow dishes, and exposed to the sun to dry. When it has become quite dry, it is broken up fine, or ground, and put into boxes or bags and sent to market. A large part of it is used for making soups, but a considerable portion is employed as we do tomatoes when preserved in tin or other cans. It is soaked for a few hours in warm water, and then cooked in the ordinary manner. There is a great prejudice against canned tomatoes. many being unwholesome. The acid juice which they contain unites with the solder of the tin cans, and forms a disagreeable compound.—*The Garden.*

FIRE ESCAPE.

The object of the invention herewith illustrated is to provide a fire escape which can easily be transported to the fire, elevated to reach to the tops of the highest buildings, and inclined toward or from the buildings as required. Arranged to turn on the wagon platform is a box, and on one edge of the top of the base the lower edge of the bottom section of the telescopic tower is hinged. The tower consists of several sections; one section slides within the other, and all are of the same height, so that when the tower is lowered the upper ends of the sections are flush. A cable from a winding drum journaled in the sides of the box passes over a pulley on top of the lowest section, and is secured to the



SANDBERG & AKESON'S FIRE ESCAPE.

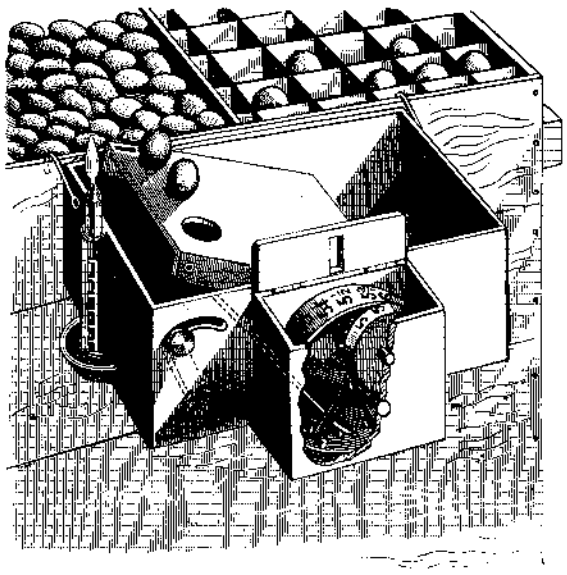
lower part of the second section. On the opposite side of the tower a cable is secured to the upper part of the second section, and passed over a pulley on the top of the third section, and fastened to the lower part of the third section. Cables are similarly arranged on the remaining sections. In the forked end of the upper section is journaled a pulley having spikes on its rim. On one side of this section is a pulley over which passes a rope, from one end of which is suspended a strong wire basket having one side flattened, so that it can slide up the side of a building. The other end of the rope is wound upon a drum on the side of the bottom section. The hoisting rope is placed at the hinged side of the tower; on the other side a cable is secured to the bottom section at the top and bottom, and is passed a number of times around two winding drums.

The apparatus is simple to operate; the truck is placed in front of and parallel with the building, when the box carrying the tower is turned until the side pieces are at right angles to the building. The tower is then raised by winding the hoisting cable upon the drum; the cable pulls upward the second section, which in turn pulls up the third and so on, all the sections being raised at the same time. If desired, the tower can be swung over until the spiked pulley rests against the building; to incline the tower, the drums are so revolved as to wind that part of the rope connected with the bottom of the lower section and to unwind that part connected with the top. Before raising the tower the lower part is securely braced. The entire apparatus can be made of wood or metal.

This invention has been patented by Messrs. J. E. Sandberg and Magnus Akeson, of Butte City, Montana Ter.

EGG REGISTER AND TESTER.

The object of this invention is to provide a device by means of which the dealer may, at a glance, separate the bad from the good eggs; the device also automatically registers the number tested. In the engraving it is shown attached to an ordinary egg case. To use the tester, three eggs—that is, a quarter dozen—are placed in the holes in the pivoted top, which swings down to a horizontal position, thereby causing an arm



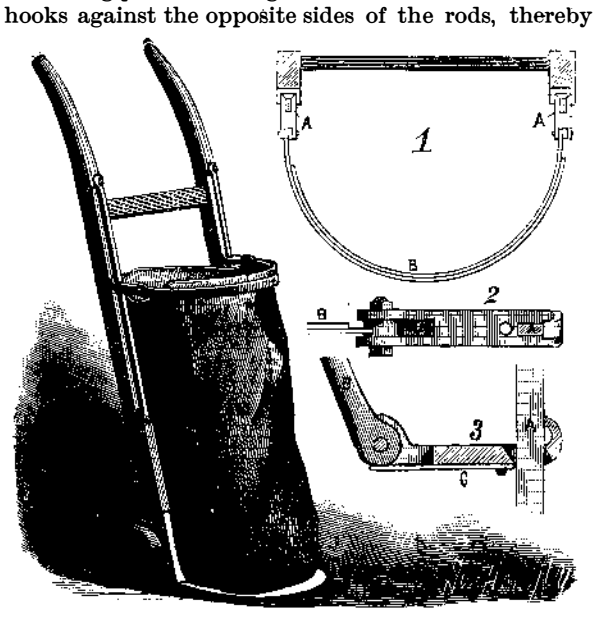
MARTI'S EGG REGISTER AND TESTER.

to move the large numbered wheel a distance of one tooth. The candle illuminates the eggs, the figures of which are reflected in an inclined mirror in the opposite end of the tester, and can be seen distinctly. The good and bad eggs can be readily distinguished. When the large wheel has made one revolution, the smaller one is moved one tooth. By means of the knob on the side, the register may be thrown out of gear.

This invention has been patented by Mr. Casper Marti, of 511 Washington Av. South, Minneapolis, Minn.

BAG HOLDER FOR TRUCKS

This bag-holding attachment for trucks serves to hold the bag while it is being filled and transported. The side bars of the truck have recesses on their front edges, over which are secured rods, A. On each rod is a sliding clip, Fig. 2, formed with one forked and one hooked end. At the hook the clip has a slot, the ends of which are beveled, as shown in Fig. 3, and between the jaws of the forked end is pivoted a semicircular steel bow, B. When the holder is not in use, the clips are moved to the upper ends of the rod, and the bows folded up between the handles. When the holder is to be used, the clips are moved down, according to the length of the bag, and the bows are swung down to project from the front of the truck. The mouth of the bag is then clamped between the bows by raising one of them, passing a portion of the upper edge of the bag around the lower one, and then lowering the raised bow, when the bag will be firmly clamped. The weight of the bag presses the edges of the beveled slot and the hooks against the opposite sides of the rods, thereby



YOTHERS' BAG HOLDER FOR TRUCKS.

holding the clips and bows in place. Springs, C, bearing against the eyes formed in the ends of the bows hold them in any position; and shoulders formed on the ends of the bows, by striking the ends of the springs, prevent the bows from swinging down too far.

This invention has been patented by Messrs. Walter S. and Joseph W. Yothers, of Karthaus, Pa.; further particulars can be obtained from the former.

A COURSE in sanitary engineering has been created in the School of Mines, Columbia College. The course will occupy four years, and the graduating students will receive the degree of Sanitary Engineer.