

**SOME RECENT INVENTIONS.**

The accompanying engraving shows several inventions for which patents were recently issued from the United States Patent Office.

Figs. 1 and 2 represent a bolt holder, invented by Mr. Martin Ketchum, of Avon, N. Y. Its design, as the engraving indicates, is to prevent a bolt from turning while the nut is turned. It consists in a frame containing a sliding bar, having formed on one of its sides a rack which is engaged by a sector lever. The sliding bar is shown in detail in Fig. 2.

A brush for cleaning boiler flues, invented by Mr. C. C. Miller, of Hamilton, Ohio, is shown in perspective in Fig. 3. A spiral wire, shown in detail in Fig. 4, is placed between two disks for receiving the wire, whalebone, cane, or other material used in filling the brush. When the brush requires refilling it may readily be done by loosening the bolts that bind the two disks together, pulling out the old filling, inserting the new, and tightening the bolts. The device seen suspended from the brush handle is designed to guide the brush centrally through the flue; it also permits of thrusting the brush entirely through the flue and drawing it back again without catching.

Figures 5 and 6 represent an improved horseshoer's rasp, patented by Mr. C. H. Perkins, of Providence, R. I. This rasp enables the blacksmith to make the hoof even and level on both sides at a single operation.

Fig. 7 shows a novel form of combined candlestick and match safe, patented by Mr. G. E. Heinig, of Louisville, Ky. Its construction will be readily understood from the engraving.

A self-lighting lamp, recently patented by Mr. H. W. Covert, of New York city, is represented in Fig. 8. In this invention a lamp having a small continuously burning wick is employed. A spring-acted mechanism, which is released by the clock at a given time, is employed to turn up the larger wick, which is lit by the smaller one.

In Fig. 9 is represented a liquid tank, having a measure attached under the bottom, and a two-way cock for letting the liquid from the tank into the measure and for letting it out of the measure. A small pipe extends from the measure to the top of the can to allow air to enter and escape. This measure is the invention of Mr. J. J. Roberts, of Geddes, N. Y.

A novel medicine spoon, patented by Mr. E. K. Walker, of Exeter, N. H., is shown in Fig. 10. The handle has a longitudinal groove on its upper side, and is notched and numbered. A small rubber ring is placed around the handle in the notches corresponding to the number of drops to be given. The spoon has a peculiar lip which facilitates dropping.

In Fig. 11 is represented a combined fan and caster, the invention of Mr. Joseph S. Letord, of Nevada, Mo. The fans are drawn down by the foot, a cord extending from each arm to a single cord running downward through the table and attached to a pedal for this purpose. The fans are raised by

elastic cords connected with a spindle at the top of the caster.

**A NEW PACKING BOX.**

In these days of competition, manufacturers and dealers vie with each other in details of trade which were unthought of a few years ago. This is nowhere more noticeable than in the packages or cases used for containing goods. For many purposes some novelty in the form of the package seems to be the great desideratum, while in other cases the form is of little account compared with other considerations.

In the accompanying engraving is shown a box recently patented by Mr. G. W. Bradley, of Sunderland, Vt., which seems admirably adapted to certain purposes, while it seems to fulfill the requirements for general uses.



**BRADLEY'S PACKING BOX.**

The construction of this box will be readily understood by reference to the accompanying engraving. It consists of a hoop of tough wood fastened together by stitching. The heads, which are both loose, are held in place by the fasteners, which are simply wires having a spiral spring formed at the middle and hooks at each end. These wires are hooked over the heads, forming a simple, cheap, and secure fastening. In some cases the inventor uses a thin veneer lining inside of each head.

Although these boxes are made in various sizes, the one pound box seems to be best adapted to general use. If it is required to place more than a single pound in a package, it may be done by fastening several of the boxes together with long fastenings. The inventor has a novel method of packing a number of the boxes in a single case, which insures safe transportation and prevents the spoiling of the contents of the boxes. After arranging the boxes in the case, the interspaces are filled as far as possible with square blocks of wood and the remaining space is filled with fine salt. The inventor states that this method has proved more satisfactory than the use of refrigerants. In addition to the

improved method of packing, Mr. Bradley has devised improved machinery for manufacturing the boxes rapidly and cheaply; he has also invented a machine for filling the boxes by foot power.

**ENGINEERING INVENTIONS.**

An improved packing for stuffing boxes, consisting of a metallic box divided longitudinally into two sections and having flaring ends, into which are fitted beveled packing rings having diagonal laps or joints, has been patented by Mr. G. C. Phillips, of Gold Hill, Nevada.

A car coupling, recently patented by Mr. R. B. Potter, of Kansas City, Mo., has a gravity arm that swings in the draw head and carries the coupling pin, which it drops into the link when the latter, in entering the draw head, strikes the lower end of the swinging arm.

Another car coupling, patented by Mr. John Worrall, of Viola, Iowa, is to be used in connection with the ordinary coupling link and pin, and is designed to be operated from the top of the car.

Mr. George R. Hamilton, of Waynesville, Ohio, has invented a simple and easily operated car coupling, which acts automatically, and will uncouple itself in case of accident.

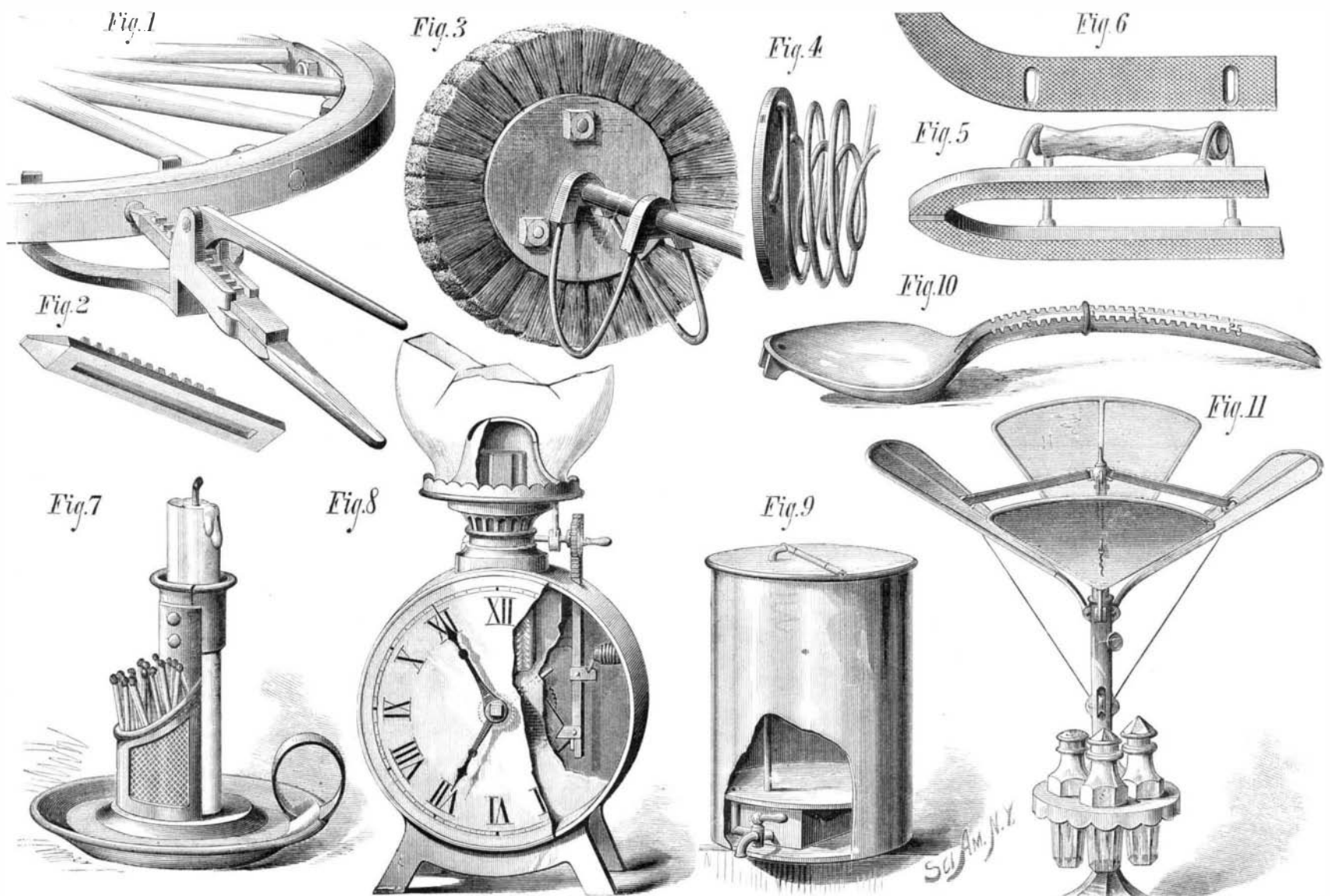
A novel fire escape ladder, which is so contrived that it may be easily and quickly extended to any desired height and secured, and may be contracted into very compact form for transportation or storage, has been patented by Messrs. La Fayette Twitchell and John A. Clark, of Elizabethtown, Illinois.

An improved machine for steaming and drying feathers, for the purpose of purifying and renovating them, has been patented by Mr. T. E. Livesey, of Ashley, Ill. This improvement, although very simple, is said to be effective.

**Court Plaster.**

Soak isinglass in a little warm water for seventy-four hours, then evaporate nearly all the water by gentle heat, dissolve the residue in a little proof spirits of wine, and strain the whole through a piece of open linen. The strained mass should be a stiff jelly when cool. Now stretch a piece of silk or sarsenet on a wooden frame, and fix it tight with tacks or packthread. Melt the jelly, and apply it to the silk thinly and evenly, with a badger hair brush. A second coating must be applied when the first has dried. When both are dry, apply over the whole surface two or three coatings of balsam of Peru. Plaster thus made is said to be very pliable and never breaks.

**CEMENT FOR CAST IRON.**—Five parts of sulphur, two parts of graphite, and two parts of fine iron filings, are melted together, taking care that the sulphur does not catch fire. The parts, previously warmed, are covered with the cement, reduced to a pasty consistence on a fire, and firmly pressed together. This cement, it is said, is very well adapted to fill out leaks in cast iron vessels.



**A FEW PATENTED NOVELTIES.**