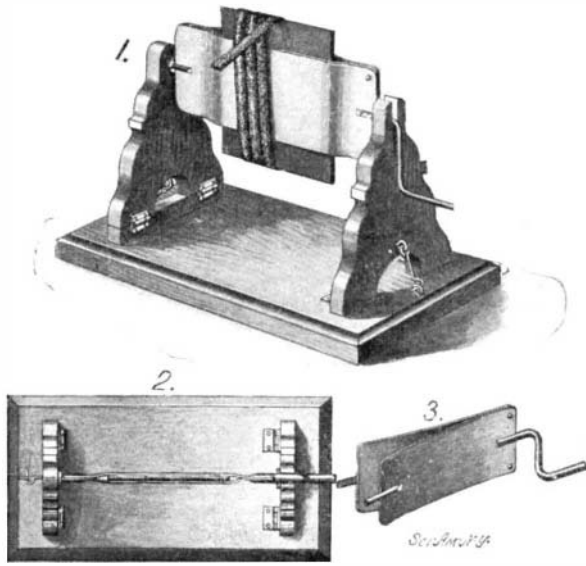




APPARATUS FOR WINDING BRAID, LACE, ETC., ON CARDS.

The winding apparatus illustrated in the accompanying engraving should prove useful in retail dry-goods stores and like places, for winding up braids, laces, veilings, and similar goods onto stiff cards or boards. It comprises a pair of standards hinged to a

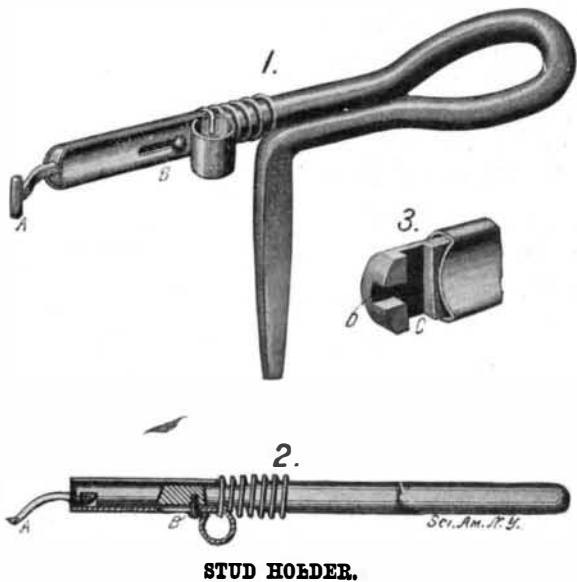


APPARATUS FOR WINDING BRAID, ETC., ON CARDS.

suitable base, and forming supports for the winding reel. The reel consists of two thin metallic clamping plates, riveted together at one end. This end carries a trunnion, terminating in a crank arm, and adapted to drop into a slot in the top of one of the standards. The trunnion, at the other end, is made in two parts fastened to the free ends of the spring plates, and the two parts together engage a closed bearing in the other standard. In use the card or board on which the material is to be wound is inserted between the plates, which are thereupon sprung together and mounted in their bearings, thus firmly clamping the card in place. The winding can then be conveniently and speedily done by turning the crank handle. When the winding operation is completed, it is only necessary to lift the reel out of its bearings, and then the card with the material wound on it can be drawn off the spring plates. As these plates are very thin, they do not interfere to any extent with the tight winding of the material on the card. When not in use the device can be conveniently folded, and stored away in a comparatively small space. Mr. E. C. Naylor, of Gloversville, N. Y., has recently been granted a patent on this winding apparatus.

IMPROVED BELT-STUD TOOL.

A patent has just been granted to Mr. John Stocker, of Muscatine, Iowa, on an improved tool for applying belt-studs, especially those of the Blake variety. Heretofore tools had been designed for a similar purpose, but they have usually been in the form of nippers, and have always been so arranged that it is necessary to grip the handle, or some other part, in order to retain the stud in the tool, and when the tool was laid down for any purpose, the stud would drop out. It was also necessary to use a separate awl for spreading the belt holes in order to apply the stud. In Mr. Stocker's tool the stud is retained without any attention on the part of the user, and at a convenient point on the implement an awl is formed. The holding de-

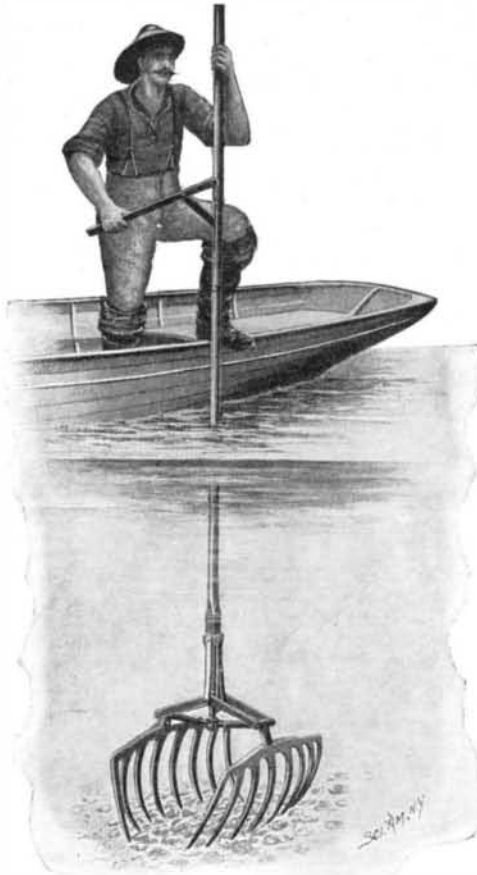


STUD HOLDER.

vice, as shown best in Fig. 3, consists of a T-slot, *CD*, cut in the end of the rod, which forms the body of the tool. In this slot a stud, *A*, is laid, and a sleeve on the rod is then moved over it to prevent it from slipping out. This sleeve is normally held in this position by a compression spring, and a handle is formed at one end of the sleeve, whereby it may be drawn back to remove the stud or insert a new one. A screw, *B*, threaded into the handle, and passing through a slot in the sleeve, serves to retain the latter. The handle of the implement is formed by bending the rod in a loop, and an extension which turns at right angles to the rest of the tool is flattened to serve as an awl. It will be observed that the stud is securely held in position, ready to be inserted at any time, and that if the tool is laid aside or used for the purpose of enlarging the belt holes, there will be no danger of the stud dropping out.

IMPROVED SHELL-DIGGER.

A new type of shell-digger has just been patented, which can be much more conveniently operated than the common, double-handled type now in use. The implement is adapted for digging shell-fish of all kinds, but particularly pearl-bearing clams or mussels. As shown in the accompanying engraving, the improved shell-digger has but one handle bar, and the scoops or rakes are opened and closed by operating a lever at the upper end of the bar. The operating lever is connected by a link to a rod that passes down through the center bore of the handle bar, and engages a tubular shank, which is fitted to slide in the



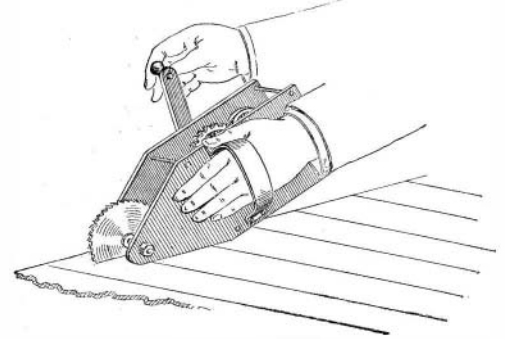
OYSTER DREDGE.

lower end of the bar. This shank carries a yoke plate, to which the inner ends of a pair of angle levers are connected. At their outer ends the levers carry the scoops, which are of the usual type. These angle levers are fulcrumed to pairs of link bars, depending from the bottom of the handle bar to which they are attached. In use the operating lever is first lowered, depressing the inner ends of the angle levers, and causing the rakes to spread open. Then the lever is pumped up and down a few times, to drive the prongs of the rakes into the sand or mud. When the prongs are properly embedded in the bottom of the water-course, the operating lever is raised, closing the rakes. A spring catch at the bottom of the handle bar then slips over the yoke plate, locking the rakes in closed position, which permits the device to be raised from the water without disturbing its contents. The implement is so designed that it may be readily taken apart for repairs when necessary. The inventor of this shell-digger is Mr. William McCoy, of New Harmony, Ind. (care of Mr. William Du Hamel).

The United States Patent Office will issue a list of classified inventions on July 1. Such volumes are issued at intervals of three or four years, and the last one was in 1901. The task of getting together the data for such a list is now a monumental one, on account of the vastly-increased work of this department. During the month of December last, the Commissioner of Patents announced his intention to have this work done, and the examiners were given from January 3 to February 6 in which to prepare the reports of their respective divisions.

ODDITIES IN INVENTIONS.

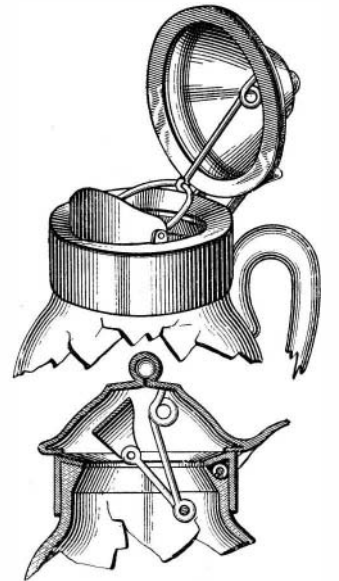
SHINGLE CUTTER.—A very neat little machine has been invented by Mr. Mathias Knapp, of Enid, Oklahoma Ty., for trimming or cutting the course of shingles on the comb of a roof. The device consists of a circular saw, which is manually-driven through step-up gearing. The gearing is held between two side plates, the forward ends of which are tapered to such an angle that when they are rested on the roof, the



SHINGLE CUTTER.

saw will be held in the right position to cut the shingles. For convenience in handling the machine, a strap is attached to one side, through which the left hand is passed, while the right hand operates the crank handle. It is claimed that the device will do its work very rapidly and efficiently. One important advantage of the construction is that the saw is fed forward, enabling the operator to better guide it along a given line.

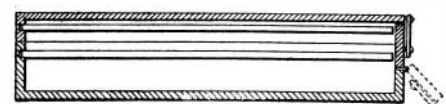
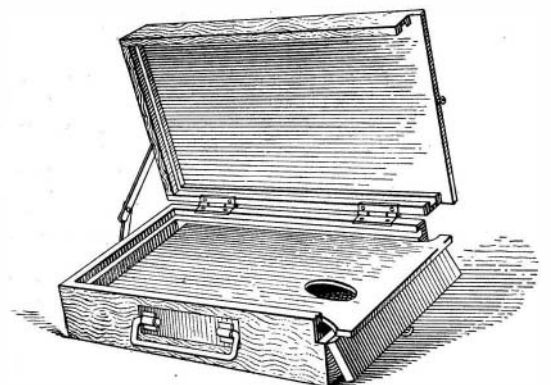
SYRUP PITCHER.—A Texan inventor has devised a rather novel syrup pitcher, designed to release the overflow of the syrup, and permit it to flow back into the pitcher. Most syrup pitchers are provided with an inner lip, at the base of which there is a channel to catch the overflow or drip. No provision, however, is made for returning this drip to the pitcher. In the present instance the lip is hinged to the pitcher, and connected by links to the lid in such manner that when it is closed the lip is swung up out of its



SYRUP PITCHER.

seat, as shown in the section view, and the drip is then free to flow back into the pitcher.

ARTIST'S SKETCH BOX.—Pictured in the accompanying engraving is a very convenient sketch box, recently patented by a New York inventor. The box is arranged to safely hold the stretched canvas and the palette, also pastels, or such other materials as an artist may desire to carry with him. At one end the cover of the box and the upper part of the body portion are open, and grooves are cut in the former to receive the stretched canvas, while the palette is supported in grooves in the body of the box. Thus they are spaced apart, and there is no danger of injuring the painting while the box is being carried. Below the palette there are several compartments for different materials, and these should preferably be covered with a cloth, to keep them from contact with the palette. A hinged section covers the ends of the grooves when the box is closed, and by means of a hook thereon, the cover and body portion are locked together.



ARTIST'S SKETCH BOX.