Aug. 19, 1930. H. A. SELAH 1,773,410

COVER PLATE AND METHOD OF MAKING SAME

Filed June 30, 1925

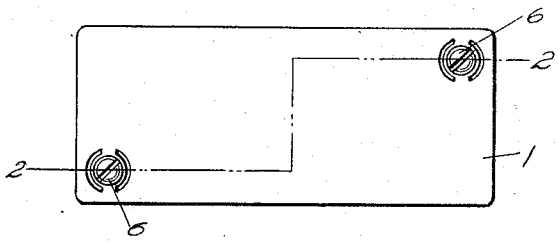

FIG. 1.

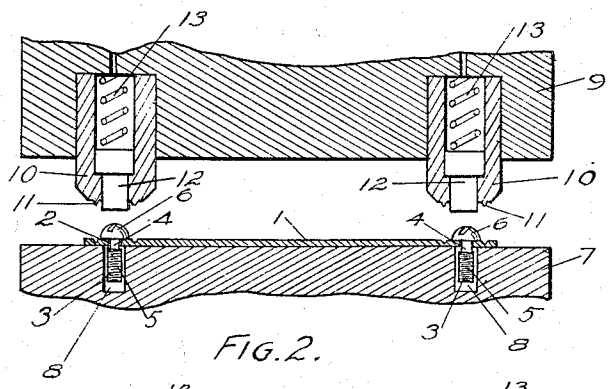

FIG. 2.

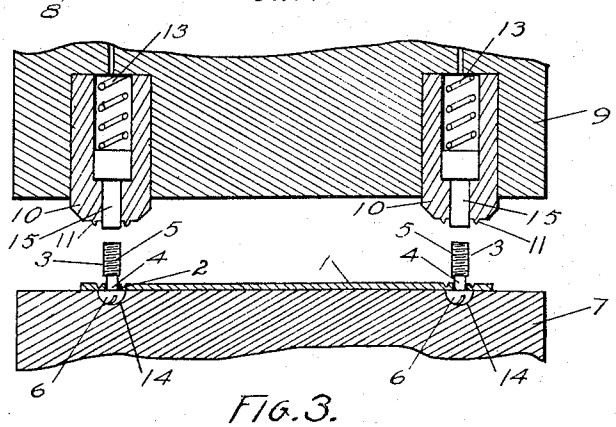

FIG. 3.

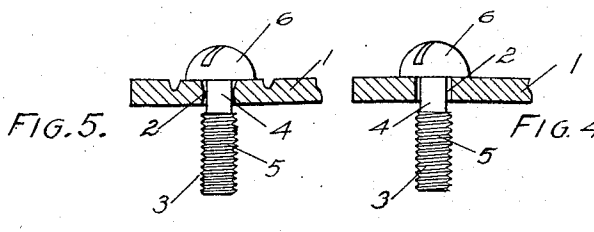

FIG. 5. FIG. 4.

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UNITED STATES PATENT OFFICE

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COVER PLATE AND METHOD OF MAKING SAME

Application filed June 30, 1925. Serial No. 40,539.

It is desirable that the securing screws for cover plates be so attached to the cover that they will be retained in place in the cover prior to the placing of the cover on a receptacle. The present invention is designed to accomplish this purpose with a metal cover.

The drawings illustrating the cover and the apparatus used in the method of utilizing the same are as follows:—

Fig. 1 shows a plan view of the cover.

Fig. 2 a sectional view of a press for securing the screws to the cover, the section being on the line 2—2 in Fig. 1.

Fig. 3 an alternative arrangement of press.

Fig. 4 an enlarged view of the screw and cover prior to the operation of the press on the cover.

Fig. 5 an enlarged sectional view of the cover and one of the screws on the line 2—2 in Fig. 1.

1 marks the cover. This is provided with perforations 2, usually two of these being provided at diagonally opposite corners. A screw 3 has a reduced neck 4, a screw-threaded portion 5 and a head 6. Such a reduced neck is ordinarily formed where the threads are rolled on the screw.

In placing the screws in the plate, the screws are inserted in the perforations and the metal at the perforations swaged so as to reduce the size of the perforation. In order that this may be done with rapidity it may be done in a press as indicated in Fig. 2 in which there is a base or platen 7 having slots 8 into which the screws may extend. The plates with the screws in place may be moved along the base to bring them into proper position for operation.

The press plunger 9 has dies 10 with swaging projections 11. Spring pressed plungers 12 are arranged in the dies 10 and contact the heads of the screws 3 so as to hold the screws in place as the die descends. Springs 13 are arranged over the plungers 12 for exerting the spring pressure.

In the operation of the device, the plates with the screws are fed along the base to a position under the dies 10. The press then is operated depressing the dies 10 and forcing the swaging projections 11 into the metal at the sides of the perforation and outside of the heads of the screws. This indentation causes a flow of metal toward the perforation, thus reducing its size so as to lock the screw in the perforation.

The same operation takes place in regard to the method of operation shown in Fig. 3 except that the screws extend upwardly, the heads operating in a groove 14 in the base and the plunger 15 is of sufficient length to allow for the length of screw, the indentation being affected in both instances by an operation in line with the axis of the screw.

What I claim as new is:—

1. In a cover plate, the combination of a screw having a head and a neck of reduced diameter; and a plate having a perforation through which the screw extends contracted by indentation outside of the head and spaced from but adjacent to the perforation into the neck of the screw.

2. The method of securing a screw having a head and a neck of reduced diameter in a perforation of a plate which consists in inserting the screw in the perforation, reducing the diameter of the perforation into locking relation with the screw neck by swaging indentations in the plate by a swaging blow delivered in an axial direction relatively to the screw outside the head and in spaced relation but adjacent to the perforation and causing the flow of metal at the perforation reducing its diameter.

In testimony whereof I have hereunto set my hand.

HOWARD A. SELAH.