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R. E. GOOLEY

2,336,681

FILE FASTENER

Filed April 19, 1943

Fig. 1,

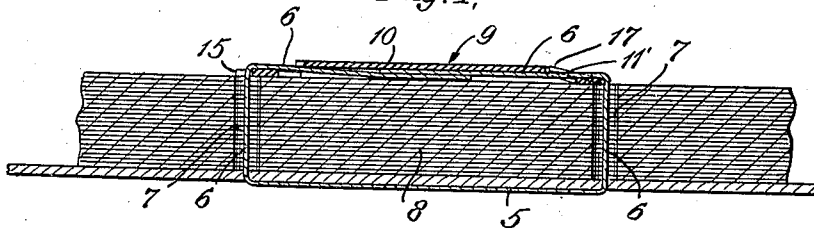


Fig. 2,

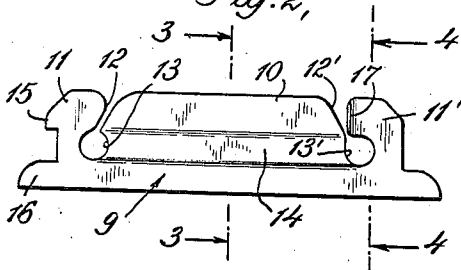


Fig. 3,



Fig. 4,

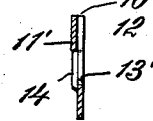


Fig. 5,

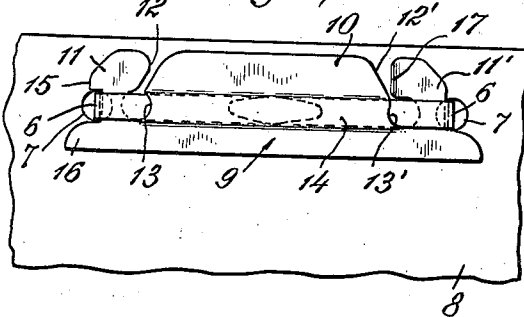


Fig. 6,

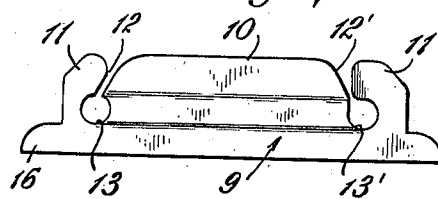


Fig. 8,

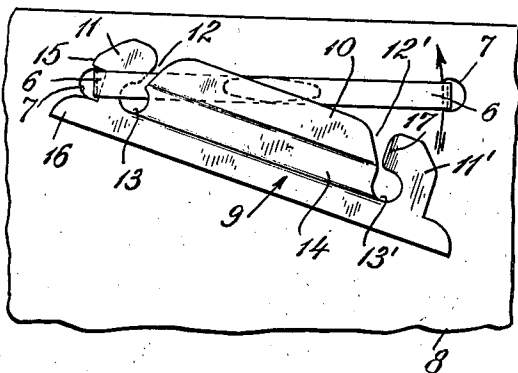
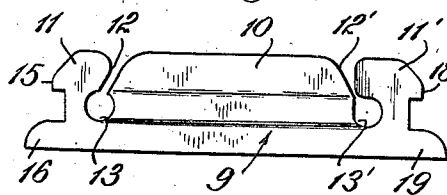


Fig. 7,



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FILE FASTENER

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Application April 19, 1943, Serial No. 483,567

5 Claims. (Cl. 24—153)

This invention relates to fasteners adapted for use in binding files and particularly to a fastener having an improved keeper to lock and cover the prongs of the fastener.

File fasteners of the type to which the present invention relates include a base with prongs at the ends thereof which may be inserted through holes punched in the sheets to be bound. To hold the file securely various forms of keepers have been devised. These usually have openings through which the prongs pass and holding devices adapted to engage and lock the ends of the prongs. The keepers are often relatively expensive. Sometimes considerable manipulative skill is required to operate them effectively. Many of the proposed forms of keepers are ineffective and practically useless.

It is the object of the present invention to provide a simple, effective and inexpensive device which can be applied with the minimum of skill and effort to lock and cover the prongs of a fastener, affording a comparatively smooth surface on the face of the file and avoiding the possibility of loosening of the fastener in the file and the tearing of sheets by contact with free ends of the prongs.

Other objects and advantages of the invention will be apparent as it is better understood by reference to the following specification and accompanying drawing, in which

Fig. 1 is a sectional view through a file illustrating the application of the invention;

Fig. 2 is a plan view of a keeper embodying the invention;

Fig. 3 is a section on the line 3—3 of Fig. 2;

Fig. 4 is a section on the line 4—4 of Fig. 2;

Fig. 5 is a plan view showing the application of a keeper to the prongs;

Fig. 6 is a plan view showing a slightly modified form of the keeper;

Fig. 7 is a plan view showing another modified view of the keeper; and

Fig. 8 is a plan view indicating the method of applying the keeper.

The fastener comprises a base 5 and prongs 6 which project through holes 7 in the file 8 consisting of the sheets to be bound. The prongs 6 are bent toward each other above the file 8 to hold the sheets together. The fastener may be made of any suitable material. It is preferably formed of metal such as a low carbon steel which may be bent readily and has only slight elasticity. Other materials may, however, be used.

The keeper 9 may also be made of steel, but preferably it is formed from non-metallic mate-

rial such as a relatively stiff, tough product known as fiber board. "Celluloid" and various plastics may be used instead. Any sheet material which is sufficiently resistant to abrasion and wear and is stiff and resilient is suitable for the purpose of the present invention.

Referring to Figs. 2 to 5 and 8 of the drawing, the keeper 9 comprises a base portion extending longitudinally along one side, a central flap 10 adapted to overlie the portions of the prongs 6 which are bent upon the top of the file 8, and end lugs 11 and 11' extending at right angles to the base portion and adapted to slip under the prongs 6. Between the central flap 10 and the lugs 11 and 11' are slots 12 and 12' extending to enlarged openings 13 and 13' which embrace the prongs 6 when the keeper is in locking position. Preferably, though not essentially, the keeper 9 may have an embossed portion 14 affording a channel in which the ends of the prongs 6 can be disposed. Such a channel will assist in holding the keeper in place by engagement with the prongs.

To further ensure retention of the keeper, the lugs 11 may have a shoulder 15 forming, with an extension 16, a recess to receive the prong 6. The lug 11' may have its lip 17 bent slightly upward from the plane of the keeper so that when the lug is inserted beneath the prong 6 it will spring upwardly, engage the edge of the prong, and thus hold the keeper until the lip is depressed to release the keeper.

The procedure in applying the keeper will be apparent upon reference to Fig. 8. The ends of the prongs 6 being bent above the top sheet of the file 8, one of the lugs 11 is inserted beneath the prong at the left so that the prong rests between the shoulder 15 and extension 16. The end of the prong enters the slot 12 and the flap 10 overlies the ends of the prongs. The keeper is moved in the direction indicated by the arrow until the other prong enters the slot 12'. The lug 11' will pass beneath the prong 6 and the lip 17 will spring upwardly to hold the keeper in place.

As indicated in Fig. 6, the shoulder 15 (Fig. 2) may be omitted though it is a desirable adjunct of the device. The parts and operation are otherwise as hereinbefore described, the same reference numerals being applied thereto.

In Fig. 7, the device as illustrated in Fig. 2 is modified by the addition of a shoulder 18 cooperating with an extension 19 to afford a recess for the prong 6. Otherwise the device is identical with the keeper as shown in Fig. 2 and the same reference numerals are used. However, in using

this form of the device it is necessary to flex it slightly at the middle portion to engage and disengage the shoulder 18 from the lug. In this form, the bending of the lip 17 may be avoided if desired, as the shoulders 15 and 18 will effectively prevent premature release of the keeper.

The various forms of keepers as described are inexpensive and particularly effective both as locking means for the prongs and in affording a cover and protection against inadvertent contact with the prongs. The device may be used without skill and it can be applied and removed with slight effort and quickly.

Various changes may be made in the form and construction of the device without departing from the invention or sacrificing the advantages thereof.

I claim:

1. A keeper for file fasteners having a central flap and end lugs separated from the flap by slots terminating in enlarged openings, one of the lugs having a shoulder and an extension forming a recess at the end of the keeper.

2. A keeper for file fasteners having a central flap and end lugs separated from the flap by slots terminating in enlarged openings, the flap being embossed between the enlarged openings to afford a channel, one of the lugs having a shoulder and an extension forming a recess at the end of the keeper.

3. A keeper for file fasteners having a central flap and end lugs separated from the flap by slots terminating in enlarged openings, both lugs having shoulders and extensions forming recesses at the ends of the keeper.

4. In binding means for papers or the like of the type comprising a base member having prongs projecting substantially normally therefrom and adapted to extend through sheets of

paper and to be bent towards one another over the papers and a keeper for the bent-over prongs; the improvement which comprises a keeper including a base portion extending along one side thereof, a central flap, and a lug at each end, each end lug extending from the base portion at substantially right angles and being separated from the central flap by a slot extending inwardly from the side of the keeper opposite the base portion, the combined length of the central flap and the end lugs in a plane extending through the base and prongs being substantially equal to the distance between the portion of the prongs normal to the base, the end lugs being adapted to underlie, respectively, the bent-over portions of the prongs adjacent their lines of bend, and the central flap being adapted to overlie the ends of the prongs.

5. In binding means for papers or the like of the type comprising a base member having prongs projecting substantially normally therefrom and adapted to extend through sheets of paper and to be bent towards one another over the papers and a keeper for the bent-over prongs; the improvement which comprises a keeper having a central flap and a lug at each end separated from the central flap by a slot extending inwardly from a side of the keeper and terminating in an enlarged opening, the combined length of the central flap and the end flaps in a plane extending through the base and prongs being substantially equal to the distance between the portion of the prongs normal to the base, the end lugs being adapted to underlie, respectively, the bent-over portions of the prongs adjacent their lines of bend, and the central flap having an embossed portion adapted to overlie the ends of the prongs.

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