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R. G. BOURDON

2,025,495

PAPER FASTENER

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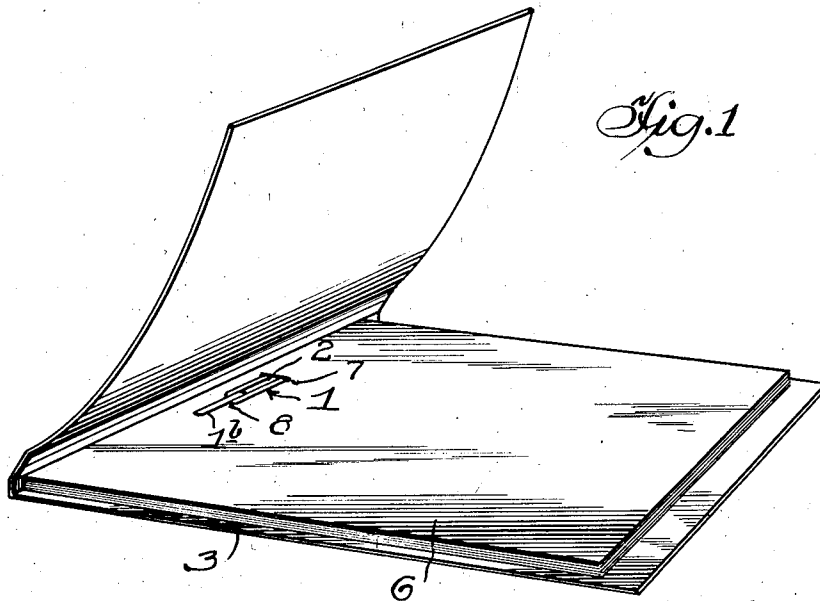


Fig. 1

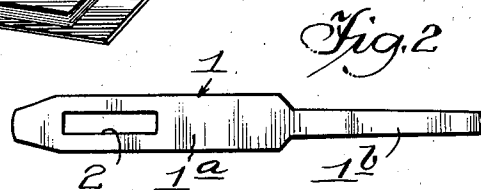


Fig. 2

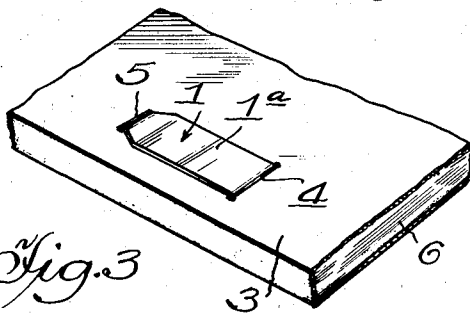


Fig. 3

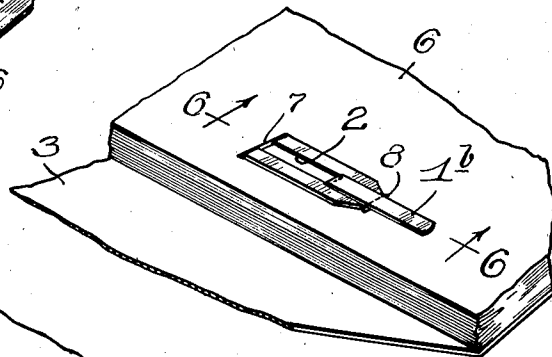


Fig. 5

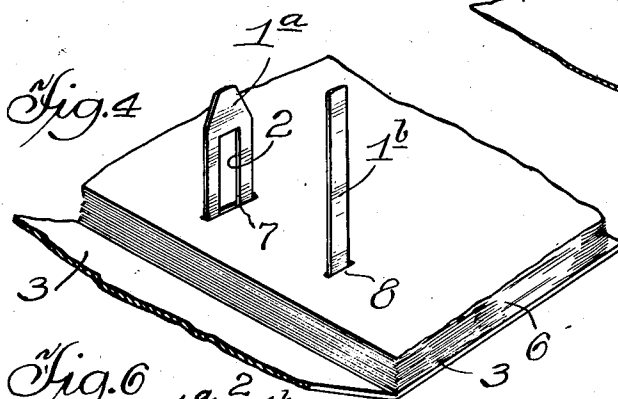


Fig. 4

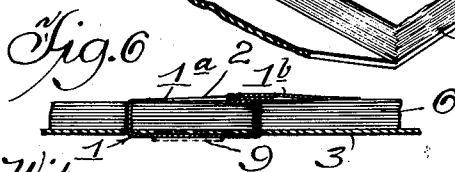


Fig. 6

Witness:
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UNITED STATES PATENT OFFICE

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PAPER FASTENER

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Application August 17, 1934, Serial No. 740,208

3 Claims. (Cl. 24—153)

This invention relates to improvements in paper fasteners, and more particularly to metal fasteners adapted to be incorporated in folders for securing papers and correspondence therein.

The object of the invention is to provide a novel form of fastener characterized more particularly by its unusual simplicity both in its construction and manner of attachment to a folder as well as method of receiving the contents in the folder, resembling somewhat a tying or locking of the ends of the fastener together after they have penetrated the sheets.

A preferred embodiment of the invention is disclosed in the accompanying drawing, in which

Figure 1 is a perspective view of a folder showing the manner in which the contents are secured by the fastener;

Figure 2 is a top plan view of the fastener in its initial form;

Figure 3 is a perspective view of the portion of the folder through which the fastener is inserted as it appears on the under side;

Figure 4 is an enlarged perspective view showing the prongs of the fastener in upright position for receiving the folder contents;

Figure 5 is a similar view of the folder showing the contents fastened therein; and

Figure 6 is a view in section as taken on line 6—6 of Figure 5.

The fastener *1* per se consists of a long narrow strip-like member stamped from thin metal sheets or strips such as brass or other suitable alloy, combining the qualities of flexibility and toughness to a degree calculated to undergo considerable bending and distortion without failure. In fact, the metal may be as thin as .005 of an inch and soft enough to permit the fastener to be readily bent and manipulated with the fingers.

In its flat or extended form, the fastener is about $3\frac{1}{2}$ inches in length and is divided lengthwise into a wide body portion *1^a* and a narrow tongue portion *1^b*, the latter being slightly shorter than the widened portion. The width of the wide portion is, say, $\frac{3}{8}$ of an inch, and the narrow portion tapering from $\frac{1}{8}$ of an inch at its base to $\frac{1}{16}$ of an inch at its tip, although the tapering is optional. Adjacent the outer end of the widened portion of the fastener is a longitudinal slot 2, say, $\frac{3}{4}$ of an inch in width extending from a point a short distance inwardly from its free end to a point substantially midway of its length and in longitudinal alignment with the narrow tongue *1^b*. The outer end of the body portion of the strip is tapered and rounded slightly to facilitate its insertion through sheets of paper, whereas its

inner end is more abruptly tapered to provide a base for the tongue *1^b*.

Preparatory to applying the fastener to a folder 3 two short parallel slits 4 and 5 are cut in the lower section of the folder at the point where the fastener is to be located, as for instance adjacent the fold line and midway of the side edges, as shown in Figure 3. These slits are spaced approximately one inch apart, this being equivalent to the distance from the inner end of the slot 2 in the fastener to the base of the tongue *1^b*. Moreover, one of the slits 4 is twice the length of the other, the longer slit being equal to the width of the body portion *1^a* of the fastener *1* and the shorter slit equal to the width of the tongue *1^b* thereof.

Having provided the slits in the folder, the flat fastener is merely threaded endwise through the slits, tongue end first, that is, the tongue passes through the longer slit 4 from the inside of the folder, and thence through the shorter slit until the base of the tongue shoulders against the same. Thus when the fastener is drawn through the slits into place the entire length of the tongue *1^b* and the slotted half of the body are exposed on the inside of the folder, and while the unslotted half of the body *1^a* is exposed on the outside of the folder between the slits, as clearly shown in Figure 3.

With the fastener thus inserted, the free ends on the inside of the folder are bent upwardly at right angles into parallel relation to receive the sheets 6 to be inserted (Figure 4). Owing to the flexibility of the fastener which makes it difficult for the ends of the fastener to pierce the paper, the sheets are preferably provided with slits 7 and 8 near their top edges corresponding in length and location to the slits 4 and 5 in the folder, an especially designed slitting tool being provided for this purpose, as well as for slitting the folder, particularly where the fasteners are applied to the folders by the user. It is then a simple matter to insert the upstanding portions of the fastener through the slits in the sheets and having pressed them down firmly, the ends of the fastener are bent inwardly toward each other at the same time passing the end of the tongue *1^b* through the upstanding looped or slotted end portion, and then by pulling the free end of the tongue laterally and away from the slot, that is, to the right as in Figure 5, the fastener is drawn down tightly against the sheets much in the same way that a slip-knot is tightened by drawing the free end of a cord or rope through a loop at the other end. And finally by bending the free end

or the tongue back upon itself and flatwise while still pulling on it laterally, the sheets are tied down to the folder; the tongue being sufficiently flexible to permit the loop to be pulled up tightly, yet stiff enough to hold securely when it is bent over. Obviously to remove sheets or to add other sheets, the fastener is manipulated in the reverse order. And finally, the capacity of the folder is only limited by the length of the slot 2 which determines the maximum thickness of the sheets that can be accommodated by the fastener. Hence the fastener is adjustable in a degree permitting ample expansion or contraction of the folder contents.

It is to be understood that the fastener may be made in various sizes and hence the dimensions hereinbefore given are merely for the purpose of indicating the proportions of the fastener and not for limiting it to any particular size. Moreover, the fastener can be used in other ways and for other purposes, as for example without being combined with a folder or as an envelope fastener. And finally, if desired, the fastener can be secured to the folder in the process of assembly, as for example, by driving a staple 9 through the folder and the central portion of the fastener in flatwise contact therewith after the fastener has been inserted in place, as shown in dotted lines in Figure 6. In such case the staple would extend longitudinally of the fastener and would prevent the fastener from being twisted or turned in such a way as to tear the folder beyond the ends of the slits. However, the securing of the fastener to the folder is not altogether essential, although it would undoubtedly prevent the fasteners from working out of the slits after they have been threaded into place and before they are bent into content-receiving position.

The advantage of this novel style of fastener is first, its extreme simplicity of form, being merely a flat strip of metal produced complete by a simple stamping operation; secondly, it requires no prongs or other means for anchoring it to a folder (the stapling above mentioned being entirely optional with the user); and lastly, no follower plate or equivalent means for exerting pressure on the sheets is required, inasmuch as the operation of drawing the tongue up tightly through the looped end of the fastener exerts the necessary pressure on the contents.

Having set forth a preferred embodiment of my invention, I claim:

1. A paper fastener consisting of a flexible strip of metal adapted to be bent in U-shape to provide a pair of initially upstanding sheet impaling prongs of substantially equal length, one being relatively wider than the other and having a longitudinal slot adapted to receive the free end portion of the narrower prong in the act of bending the same toward each other and downwardly into flatwise contact preparatory to the final fastening operation in the manner described.

2. A paper fastener consisting of a flat strip of flexible metal relatively wide throughout substantially one-half its length and reduced to a relatively narrow prong throughout the remainder of its length, said strip being adapted to be threaded endwise through spaced slits in a folder or the like, and thence bent in U-shape to provide upstanding prongs adapted to have a plurality of sheets impaled thereon, the wider prong having a longitudinal slot therein and registering with the narrow prong whereby in bending the exposed portions of the prongs toward each other the narrow prong passes through said slot, providing a free end which may be pulled to draw the interconnected prongs tightly against the sheets and thence fastened by bending the same back upon itself.

3. A paper fastener consisting of a flat strip of flexible metal relatively wide throughout substantially one-half its length and reduced to a relatively narrow prong throughout the remainder of its length, said strip being adapted to be threaded endwise through spaced slits in a folder or the like and thence bent in U-shape to provide upstanding prongs adapted to have a plurality of sheets impaled thereon and a transverse base consisting of the inner end portion of said wider portion of the strip, the upstanding portion of the latter having a longitudinal slot extending downwardly from its free end and having a width sufficient to receive said narrow prong, said prongs being adapted to have sheets of paper impaled thereon and thence fastened in said folder by bending the exposed portions of said prongs toward each other with the end of the narrow prong passing through the slot in the wider prong, whereupon in the act of pressing said prongs against the sheets and simultaneously bending the free end of the narrow prong back upon itself the sheets are securely bound in said folder.

RUSSELL G. BOURDON.