I. RITTENHOUSE.

PIN PAPER FASTENER.

APPLICATION FILED FEB. 27, 1909.

920,393. Patented May 4, 1909.

Fig. 1.

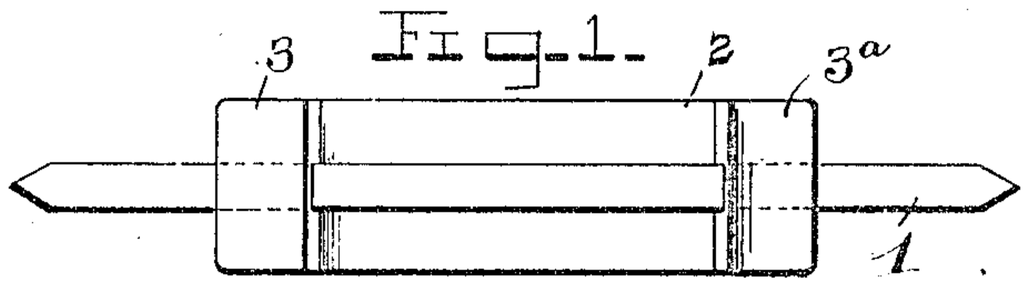
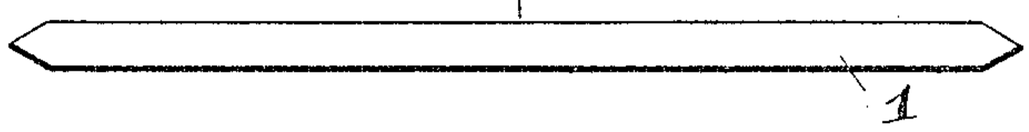


Fig. 2.



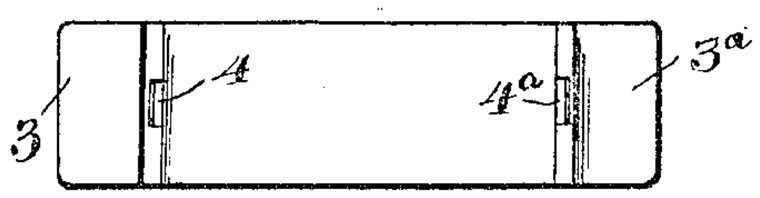


Fig. 3.

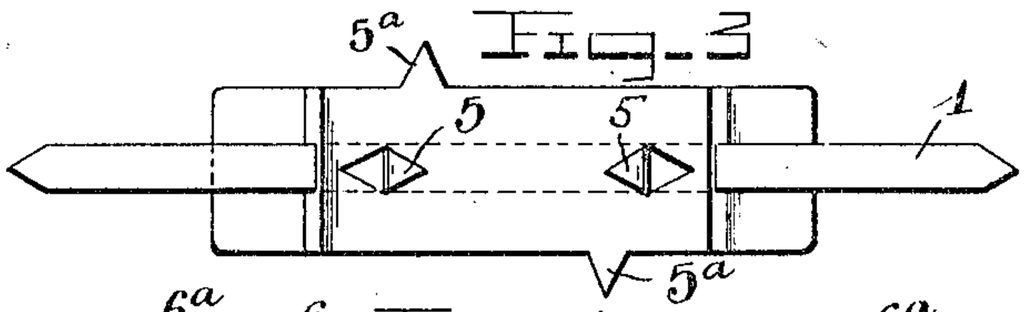


Fig. 4.

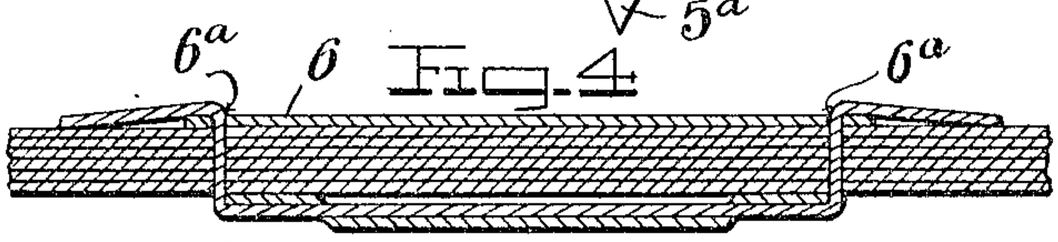


Fig. 5.

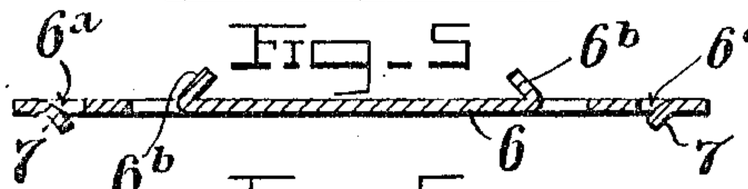


Fig. 6.

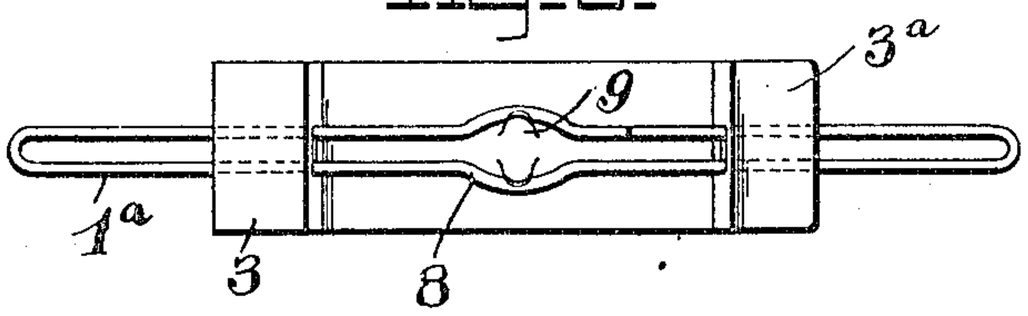
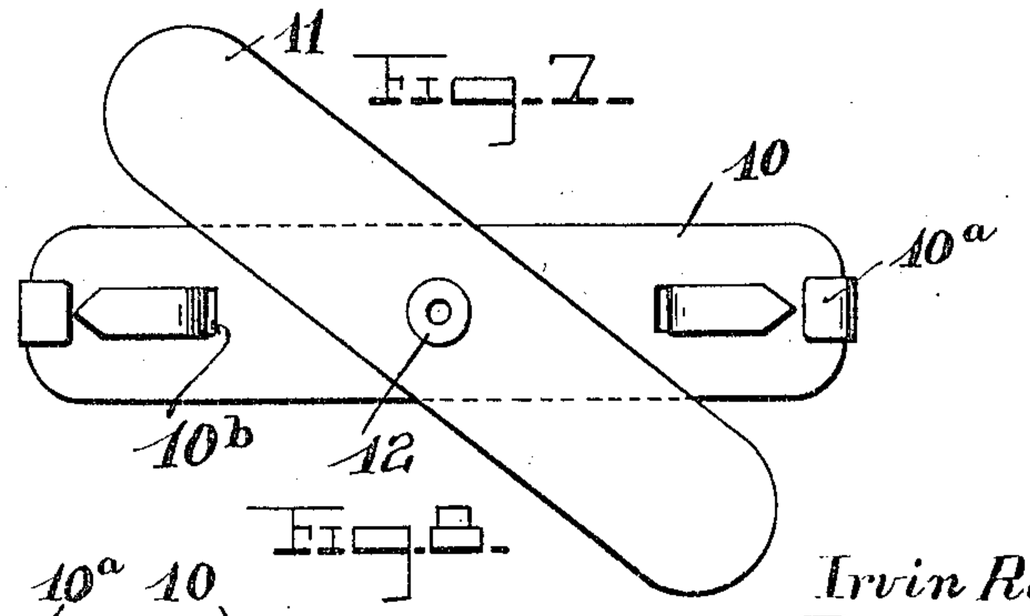


Fig. 7.



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UNITED STATES PATENT OFFICE.

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PIN PAPER-FASTENER.

No. 920,393. Specification of Letters Patent. Patented May 4, 1909.

Application filed February 27, 1909. Serial No. 480,467.

REISSUED

To all whom it may concern:

Be it known that I, IRVIN RITTENHOUSE, a citizen of the United States, residing at Glen Echo Heights, in the State of Maryland, have invented new and useful Improvements in Pin Paper-Fasteners, of which the following is a specification.

This invention relates to paper fasteners and more particularly to that type known as pin fasteners.

The object of this invention is to provide a fastening means by which a number of papers may be detachably secured together for the purpose of filing. To constitute a fastener of this description I provide a base portion having struck up parallel extensions and a detachable pin fastener which may be removably secured thereto, and which will pass under the end portions and over the main portion of the base. The pin fastener is then bent up over the ends of the base to receive the papers to be secured.

The advantages of a device of this description are many, the most important being that as the pin fasteners are usually made from a strip of metal they do not need to be bent in any particular form, as they are most readily attached to the base when perfectly flat, it only being necessary to insert a pin fastener through the apertures provided between the main portion of the base and the struck up extensions, and when they are in position they are bent up over the ends of the extensions, which will always insure the same relation between those portions of the pin fastener which are inserted through the papers to be held thereby. By this construction the outer side of the main portion of the base presents a flat surface to which a backing or index sheet may be secured by any well known means, and the pin fastener may be removed and a new fastener supplied without interfering with the backing or index sheet attached to the base portion.

The simplicity of construction and the adaptability of the base to the pin fasteners now in use are features of utmost advantage.

The preferred form is illustrated in the accompanying drawings, yet it is to be understood that minor detail changes may be made without departing from the scope of the invention.

Figure 1 is an upper plan view of the complete fastener in accordance with this invention. Fig. 2 is a view similar to Fig. 1, showing the base and pin fastener separate. Fig. 3 is a bottom plan view of Fig. 1. Fig. 4 is a transverse sectional view, showing a fastener securing a number of papers. Fig. 5 is a view in longitudinal section of a washer. Fig. 6 is a plan view of a modified form of clip. Fig. 7 is a plan view of a modified form of washer. Fig. 8 is a view in longitudinal section through the washer and protecting plate.

1 represents the pin fastener, which is preferably a long narrow strip of brass or other flexible metal.

2 indicates the base member preferably constructed of tin.

3 and 3^a are the end portions of the base struck up from the main body and extending parallel therewith.

4 and 4^a are apertures in the angular portion between the main body of the base and the struck up end portions. These apertures are of sufficient size to receive the pin fastener 1.

5, 5 are outwardly extending prongs struck up from the face of the main body of the base opposite the struck up end portions, and 5^a, 5^a are projections extending from the edges of the main portion of the base.

The operation of my fastener is as follows: The pin fastener and base are assembled by inserting the pin fastener through the apertures 4 and 4^a and the ends of the pin are then bent up over the ends of the extensions 3 and 3^a in a position at right angles to the base. The fastener is then ready to receive the papers to be secured thereby. The papers may be previously punched if desired, otherwise the pointed ends of the pin fasteners are sufficient to pierce them, and the papers are placed over the ends of the pin fastener in the order desired. To prevent the tearing of the outermost sheet a metallic washer 6 having apertures 6^a adapted to receive the ends of the pin fasteners may then be placed over the top sheet and the fasteners bent down to engage the paper. The projections 5 and 5^a on the back or edges of the base member are arranged to secure a backing for the papers or an index sheet.

In forming the apertures 6^a in the washers 6, the metal nearest the ends is struck up as at 7 to form a curved rest for a pin fastener as shown in Fig. 5. When the washer is placed over the ends of the pin fastener the projections 7 are on the underside, and also act as a guide for the pin fastener in finding the apertures 6^a.

6^b are struck up prongs on the upper side of the washer 6, and are adapted to secure a label or facing sheet.

A modified form of clip is shown in Fig. 6, in which a dou. e wire 1^a is substituted for a flat metal pin fastener 1. To the middle portion of the wires a slight curve 8 is imparted and the nibs 9 may be struck up from the base 1 to engage the curved portion 8 of the wire to secure in position the fastener 1^a.

A further modification is illustrated in Figs. 7 and 8. In this form the washer plate 10 extends a considerable distance on each side of the pin openings 10^b. 11 is a protecting plate corresponding in size and shape to washer 10 and centrally pivoted thereto at 12. Each end of washer 10 is provided with bent over portion 10^a arranged to engage the ends of plate 11. The pin openings 10^b are provided with downwardly projecting portions 7 to assist the pin openings in locating the receiving openings 10^b. The plate 11 is swung to the position shown in Fig. 7, the pin fasteners passed through the openings provided therefor in the washer, bent outwardly as shown, the plate 11 moved to cover washer 10 and then all the parts will be held secured by the bent over portions 10^a engaging plate 11.

What I claim is:—

1. A paper fastener comprising an elongated base member having a main body and struck up end portions extending parallel therewith, the angular portion between the main body and end portions provided with apertures, a removable pin fastener adapted to be inserted through said apertures and bent up over the ends of the struck up portions.

2. In a device of the character described, a base member, a washer having a pin receiving aperture at each end thereof, and a fastening pin adapted to pass both ends through the base and washer, the outer edge of each pin receiving aperture in the washer being provided with a depending flange.

3. In a device of the character described, a base member, a washer, and a fastening pin adapted to pass both ends through the base and washer, a protecting plate pivotally secured to the washer and means on the washer arranged to engage and secure the protecting plate.

4. In a device of the character described a base member having struck up end portions to extend parallel therewith, the bent portions provided with apertures, and a fastening pin comprised of a continuous piece of wire bent upon itself to form a fastener adapted to be inserted through said apertures and bent up over the ends of the struck up portions.

5. In a device of the character described a base member having struck up end portions to extend parallel therewith, the bent portions provided with apertures, and a fastening pin comprising a continuous piece of wire bent upon itself and having its ends fastened together, adapted to pass between said apertures and those parts of the wire between the apertures bent away from each other for a portion of their length, and nibs provided on the base to engage the bent portions of the wire.

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