W. H. PACK & J. S. VANHORN.

PAPER-FASTENER.

No. 170,294. Patented Nov. 23, 1875.

Fig. 1.

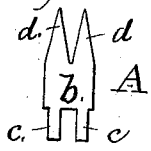
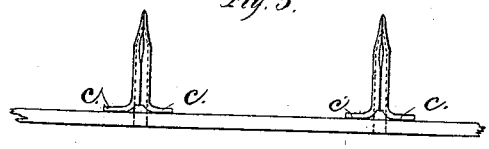


Fig. 2.

Fig. 3.



Witnesses:

Geo. T. Smallwood Jr.

John Kobey Jr.

Inventors.

William H. Pack & Joseph S. Vanhorn

By John J. Halstead

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. PACK AND JOSEPH S. VANHORN, OF JERSEY CITY, N. J.

IMPROVEMENT IN PAPER-FASTENERS.

Specification forming part of Letters Patent No. **170,294**, dated November 23, 1875; application filed October 23, 1875.

To all whom it may concern:

Be it known that we, WILLIAM H. PACK and JOSEPH S. VANHORN, both of Jersey City, in the State of New Jersey, have invented certain Improvements in Files and Binders for Papers, Letters, &c.; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practice it.

Our invention is intended for a ready paper or bill binder, adapted for use with any bill-file in which the papers are impaled upon or over pins; and it consists of a single piece of sheet metal cut into such a shape as that its central or body part may be bent into a short tube, while its other parts furnish two flat pieces at one end of the tube, to be bent to form the base of a binder, and two sharp tips at the opposite end of the tube, which, being brought together, form an impaling-point, on or over which the papers may be forced and held together, the tubular construction permitting the passing through it of a thread or cord, to tie and bind together any number of volumes so bound by the tube.

Figure 1 shows a blank adapted for forming a binder made in accordance with our invention; Fig. 2, a binder-tube made therefrom; and Fig. 3 shows its application to the impaling-pin of a file.

The blank A is cut substantially in the form shown in Fig. 1—that is, with a portion, *b*, capable of being bent into a tube, and with projections *c* of any desired shape at one end, adapted to be bent at right angles to the tube, and with pointed projections *d* at the opposite end. When bent to form a tube the projections *c*, being bent out from each other, and at right angles to the tube, afford a bed to arrest the papers filed, and the sharp tips *d*, being pinched together, become, in effect, an impaling-point, to puncture the papers pressed upon them, and to be filed on the tube. When filled with papers the tips *d* are bent outward from each other, and they then clamp the papers securely; the tubular part leaving a free and open passage through the binder, and through the filed and bound papers, whereby a series of such bound books or volumes may be united together by means of a cord or wire passed through their respective tubes and fastened.

When these tubular fastenings are employed with a paper-file having pointed pins or rods to perforate the papers as they are filed, they are slipped onto such pins with the projections *c* spread, and the lips *d*, if projecting beyond the pins, may serve to puncture the papers filed; or, if the pins are longer than the fastenings, then the tips *d*, as the fastener is forced down on the pins, will be forced apart by the pins, and lie close against the pins, the tips of the latter performing the duty of puncturing; but, in either case, the papers will be filed on the tube until it becomes full enough to be removed from the pin, and have its points *d* spread to clamp and bind the papers.

The blank may be struck out of sheet metal by a single cut, and with great rapidity.

We claim—

1. The blank for the manufacture of paper-fasteners, having the main body or web, as shown, provided with the two sharpened tips *d*, projecting from one end of such web, and two tips, *c c*, projecting from its other end, and in the opposite direction.

2. The described tubular binder, formed from a blank such as described, and having its main body or web bent longitudinally into the form of a tube, and its blunt tips adapted to be bent outward when applied to use, and its sharpened tips adapted to be bent inward toward each other to receive the papers, and to be bent outward to bind and retain them, all as set forth.

WM. H. PACK.
JOSEPH S. VANHORN.

Witnesses:
CHAS. WILSON,
JAMES CAHILL.