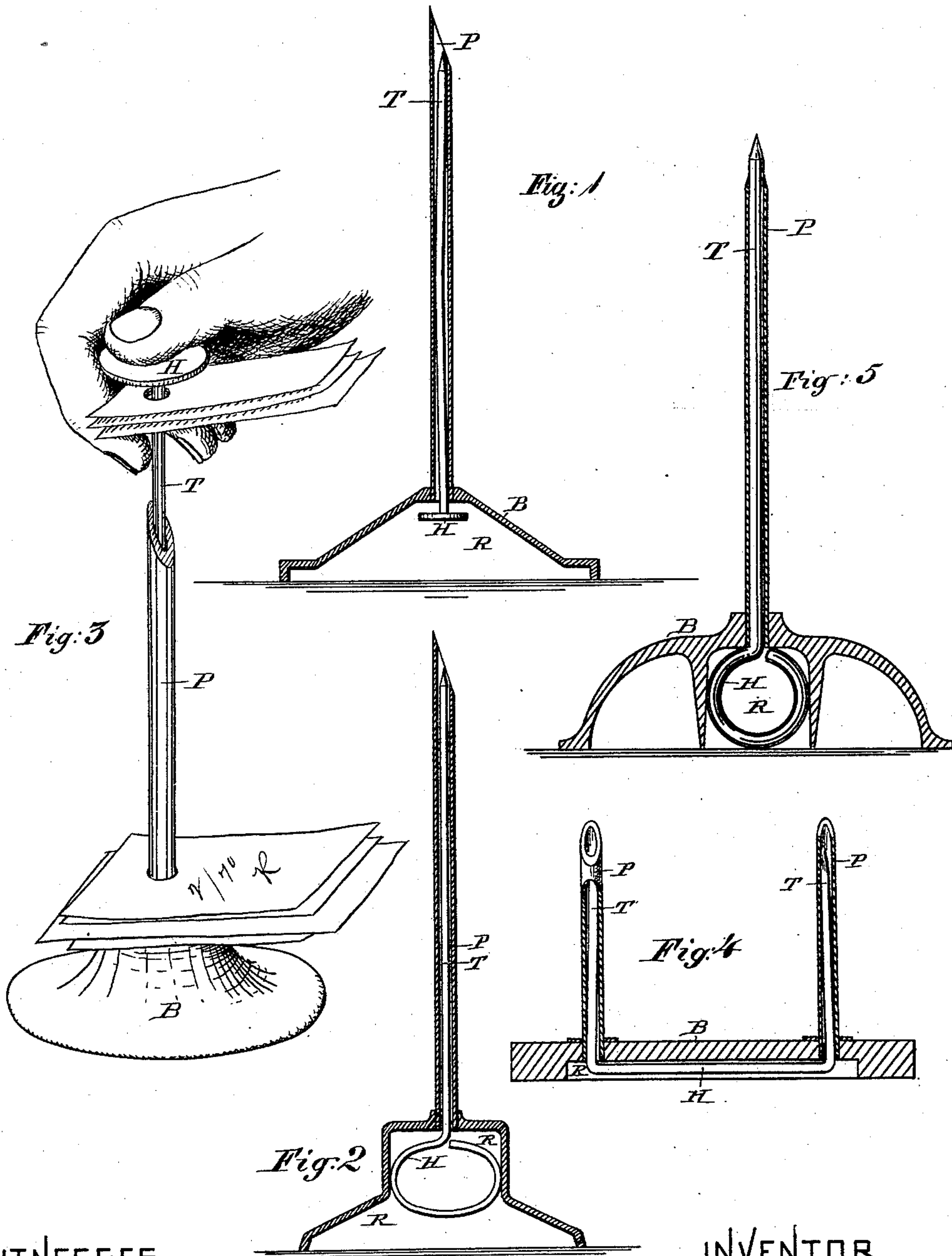


J. S. SHANNON.
Bill-File.

No. 223,546.

Patented Jan. 13, 1880.



WITNESSES
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JAMES S. SHANNON, OF DOWNER'S GROVE, ILLINOIS.

BILL-FILE.

SPECIFICATION forming part of Letters Patent No. 223,546, dated January 13, 1880.

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To all whom it may concern :

Be it known that I, JAMES S. SHANNON, of Downer's Grove, in the county of Du Page and State of Illinois, have invented certain new and useful Improvements in Bill-Files; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a paper-file having a tubular filing-wire affixed to a base and a solid wire adapted to enter the tube, for the purpose of facilitating the removal of an intermediate paper from the file, the latter being called a "transfer-wire."

It consists in forming the base with a recess in its under face communicating with the tube-passage, so that the transfer-wire may be inserted into the tube from beneath and room afforded within the recess for its necessary head.

Usually the tubes will be sharpened to puncture the papers filed, and the transfer-wire will be used for the exclusive purpose of transferring the papers; but the transfer-wire may, in this construction of the file, be provided with the actual puncturing-point, if desired, and in one figure of the drawings it is so shown.

Figure 1 is a vertical section of a tube and its base, revealing the transfer-wire removably held therein by being bent so as to bind within the tube. Fig. 2 is a similar view of the parts wherein the wire is held within the tube by expansive pressure of the head against the walls of the recess of the base. Fig. 3 illustrates the use of the file in removing an intermediate paper therefrom, all above the paper to be removed being transferred to the transfer-wire. Fig. 4 illustrates my invention applied to a double-tubed file, and Fig. 5 shows a construction of the file in which the transfer-wire is also the puncturing-wire.

B is the base, having the inferior recess R, and P is the tube affixed to the base and communicating with the recess R. H is the head, cross-bar, or handle, as the case may be, of the wire T, which in all the figures is the transfer-wire, and may be in every case the puncturing-wire also, as it is shown to be in Fig. 5 alone.

In the single-tubed files shown the base B will usually be of cast metal, and the tube will be secured thereto rigidly by screwing or swaging it in. In the double-tubed file shown in Fig. 4 the base is ordinarily made of board, either paper or wood, and the tubes are generally affixed thereto by means of an intermediate plate of metal, to which the tubes are immediately joined by solder or swaging. In the former cases the recess of the base is provided for in the form of the casting. In the latter it forms a transverse groove in the under face of the board, extending from one tube to the other, as shown.

In Fig. 1 the wire T is bent, as indicated, to bear at three points on the sides of the tubular passage, and is thereby held sufficiently to retain it in place when the file is moved about.

In Fig. 2 the same result is obtained by bending the wire to form the ring or handle H a little larger in diameter than the width of the recess R, the walls of which are made nearly vertical. When the transfer-wire is inserted into the tube from beneath, the ring H is compressed within the recess R and the wire sustained by friction, as before described of Fig. 1.

In Fig. 4 the tubes P P are parallel. The vertical portions of the transfer-wires T have their points at a suitable distance apart to enter the tubes readily; but near the head or cross-bar H they are a little farther apart, so that when thrust into the tubes, as shown, they will bind sufficiently to retain them in place. In the double file the same effect may be obtained by either of the devices shown in the preceding figures, 1 and 2—that is to say, either by bending the vertical wires or by a yielding form of the head, by which it may be clasped firmly in the recess R.

In Fig. 5 the transfer-wire is adapted to be made the puncturing-wire by giving it such length that it will protrude from the top of the tube P while resting in the plane of the base-bottom. In this case the wire T should rather closely fill the tube P, and it may be retained therein when the file is lifted either by a bend in the shank of the wire or by bearing of the head H in the recess R of the base. The wire meets the pressure of puncturing the papers by contact of the head H with the table on which

the file rests, and not by the friction that retains the wire in the tube when the file is lifted from the table.

Instead of the frictional devices above set forth, the file may be provided with positive means for sustaining the wire T—as, for example, a button pivoted to the base, that may be swung aside to release the wire, and inward to hold it. Such a device might also be made to meet the pressure of puncturing in the construction shown in Fig. 5; but I greatly prefer the friction means shown and described for retaining the wire in moving the file, and the extended head, resting on the table, in connection with the friction device, when it is desired to puncture by the transfer-wire, as being much less expensive and readily adjustable in ordinary hands.

I hereby disclaim having invented a tubular file-needle beveled from one side so as to present a solid cutting-point, and I also disclaim

having invented a paper-file base with a recess in its lower surface, as I am well aware that both these were invented by others before they were used by me.

Having thus described my invention, I claim and desire to secure by Letters Patent—

The base B, having the recess R in its under surface, and the tube P, open at its upper and lower ends, and fixed in said base so as to communicate with the recess above named, combined with the removable wire T, having a head or ring at one end, and housed in said tube by insertion from below, substantially as set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

JAMES S. SHANNON.

Witnesses:

M. E. DAYTON,

WILLIAM M. STANLEY.