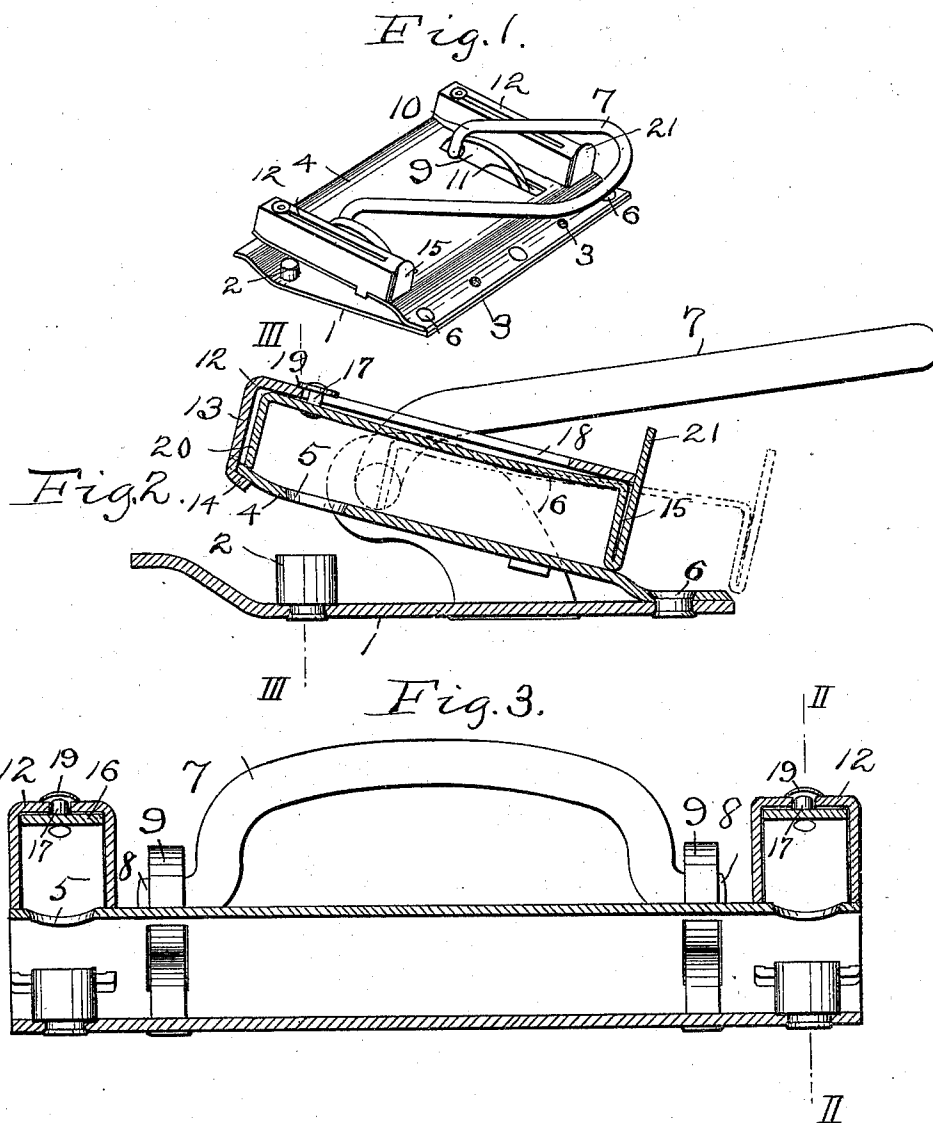


(No Model.)

W. O. GOTTWALS.
PERFORATOR.

No. 545,793.

Patented Sept. 3, 1895.



WITNESSES:

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WILLIAM O. GOTTWALS, OF OTTAWA, CANADA.

PERFORATOR.

SPECIFICATION forming part of Letters Patent No. 545,793, dated September 3, 1895.

Application filed March 14, 1895. Serial No. 541,687. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. GOTTWALS, a subject of the Queen of Great Britain, residing at Ottawa, county of Carleton, Dominion of Canada, have invented certain new and useful Improvements in Perforators, of which the following is a specification.

My invention relates to punches or perforators, and especially to that class of these devices ordinarily attached to the base-board of a letter or bill file, and adapted for the production of holes in a paper in order to facilitate the application of the latter to the paper-holding arches of the file.

One class of such perforators comprises a base-plate provided with punches and a superimposed spring-plate having corresponding matrices or holes for co-operation with the punches, and it is to this class that my present improvement more particularly relates. Where the matrix is formed in the bottom plate a receptacle for the punchings, may conveniently be provided below the plate, and such an arrangement has heretofore been employed. In the other class of perforators, however, first above described, there is no receptacle for the punchings and as they are forced through the matrix to the top of the spring-plate they fall to the floor or are otherwise scattered and are productive of untidiness and annoyance. The said spring-plate is provided with actuating means for depressing it, ordinarily situated at or near the middle of the plate, and any means provided for the reception of the punchings must be adapted to the movement of the spring-plate and must permit the free operation of the plate-operating device.

According to my invention I mount upon the spring-plate, so as to be movable therewith, a receptacle or receptacles into which the matrix-openings deliver, which receptacles are otherwise closed and adapted to retain the punchings until such time as they are intentionally opened for the purpose of emptying them into a waste-basket or other receptacle.

My invention further consists in the means for closing and emptying the said receptacles.

My invention further consists in the parts

and combinations thereof hereinafter set forth and claimed.

In order to make the invention more clearly understood, I have shown in the accompanying drawings means for carrying it into practical effect without limiting my improvements in their useful applications, to the particular construction which, for the sake of illustration, I have delineated.

In said drawings, Figure 1 is a perspective view of a perforator embodying my invention. Fig. 2 is a sectional view of the same on line II II, Fig. 3, the device being here shown on a larger scale. Fig. 3 is a sectional view, also enlarged, on line III III, Fig. 2.

Referring to the drawings, 1 indicates a base-plate provided with punches 2 and adapted to be secured, as by screws or rivets through the apertures 3, to a file-board. (Not shown.)

4 is a spring-plate formed with matrix-apertures 5 and secured at one edge, as by rivets 6, to the base-plate 1 or to other suitable fixed support, so that when it is forced toward the plate 1 the apertures 5 will accurately register with the punches.

The actuating means for the spring-plate 4 consists preferably of a lever 7, journaled by its ends 8 in bearing-brackets 9, fixed on the base-plate 1. This lever is formed just above the spring-plate with cam-bearings 10, which upon the oscillation of the lever to the left in Fig. 2 will bear upon the spring-plate 4 and depress it. The bearing-brackets pass to the upper side of the spring-plate through slots 11.

At 12 are indicated the receptacles for the punchings, each mounted upon the movable spring-plate 4 in such manner that the matrix 5 opens and will deliver the punchings into the receptacle. The main body of the receptacle consists preferably of a metallic box closed at one end, as indicated at 13, open at the other end and united with the spring-plate by lugs 14, which pass through apertures or notches in the plate and are clinched upon the bottom thereof.

15 indicates the door of the receptacle. It is preferably connected with a longitudinal sliding plate 16, situated beneath the top of the receptacle and connected with it by a pin

17, which passes through a slot 18 in the top of the box, and has a head or washer 19 engaging the top surface of the latter. A connection between the slide and the receptacle 5 is not, however, necessary, as the former may be held in place by friction.

20 is a downward extension formed at the inner end of the slide and engaging the plate 4. When the door 15 is moved outward, the 10 extension 20 serves to gather the punchings in the receptacle and draw them out to its open end, thus preventing any sticking or packing of the punchings in the receptacle or any difficulty in emptying the latter. Formed 15 with the door 15 is an upward extension 21, which serves as a thumb-piece, whereby the sliding door may be withdrawn.

The slide 16 is by preference of spring metal slightly bent, as indicated in Fig. 2, so 20 that it will press upward at its outer end against the top of the receptacle and thus tend to retain its position when closed, and also will throw the door 15 somewhat upward as the latter is withdrawn, so as to carry the 25 lower edge of the door clear of the fixed edge of the spring-plate. (See the dotted lines in Fig. 2.)

I claim—

1. In a perforator for bill files, the combination of a base plate provided with punches, 30 a spring plate secured to said base plate along one edge, and formed at each side with matrix openings adapted to register with said punches and situated above the latter, and a 35 pair of receptacles for punchings mounted upon the upper or outer side of the spring plate at each edge of the latter and over said openings and movable with the plate, and

having doors adapted to retain the punchings or to permit the clearing of the receptacle 40 substantially as set forth.

2. In a perforator the combination with a spring plate formed with a matrix opening, of a receptacle mounted upon said plate over the opening, a slide within the receptacle, a 45 downward extension 20 at the inner end of the slide, and a door carried at the outer end of the slide, substantially as set forth.

3. In a perforator the combination with the spring plate 4 having a matrix opening 5, of 50 a receptacle mounted upon and carried by the said spring plate at the outer side of the opening and formed with a slot 18, a slide within the receptacle provided with a door, and a pin connecting the slide with said slot, sub- 55 stantially as set forth.

4. In a perforator the combination with the spring plate 4 having a matrix opening, of a receptacle mounted on the outer side of the plate above the opening, a bent spring slide 60 16 within the receptacle, and a door carried by the slide, as set forth.

5. The combination with the spring plate of the perforator, of the receptacle provided with a slide the inner end of which is bent 65 downward to form the extension 20, and the outer end of which is bent downward to form a door and upward to form a means for withdrawing the slide, substantially as set forth.

In witness whereof I have hereunto signed 70 my name in the presence of two witnesses.

WILLIAM O. GOTTHWALS.

Witnesses:

E. S. TODD,
OSCAR R. ALTWEIN.