Feb. 23, 1926. 1,574,159

J. B. LARKIN

PUNCH

Filed March 17, 1925

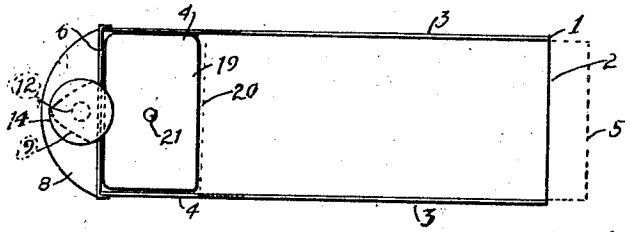


FIGURE 1

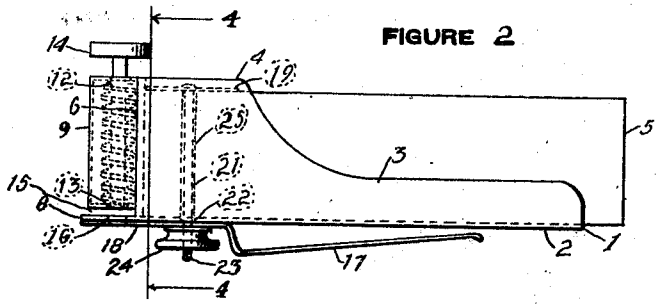
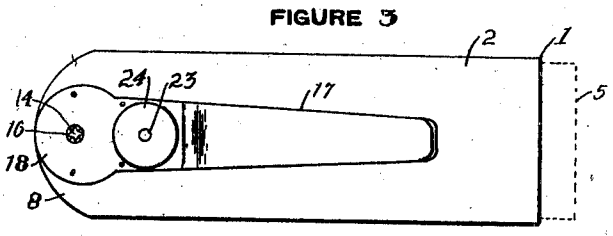


FIGURE 2

FIGURE 3



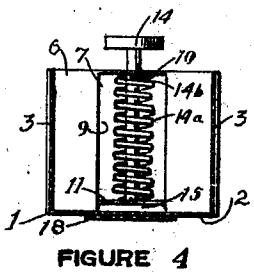


FIGURE 4

FIGURE 5

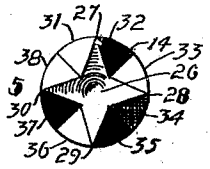
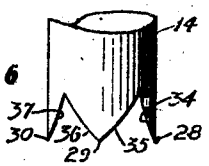


FIGURE 6



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UNITED STATES PATENT OFFICE.

JOSEPH B. LARKIN, OF PALO ALTO, CALIFORNIA.

PUNCH.

Application filed March 17, 1925. Serial No. 16,215.

To all whom it may concern:

Be it known that I, JOSEPH B. LARKIN, a citizen of the United States, and a resident of Palo Alto, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Punches, of which the following is a specification.

This invention relates to a device for holding a pad of sales checks and means for punching individual checks when removed from the pad.

It is one object of the invention to provide a device of the character indicated that is quickly and positively adjustable to secure a pad of checks in the holder, and in which the pad holding means is simple and positive in action and at all times binds the pad flat against the bottom of the holder.

It is another object to provide a device of the character indicated in which a simple, accurate, durable and positively acting punch is provided as an integral part of the device.

It is still another object of the invention to provide a device of the character indicated that is extremely simple in construction, economical to manufacture, and highly efficient in its practical application.

In the drawing:—

Figure 1 is a plan view of a device embodying my invention.

Figure 2 is a side elevation of the same.

Figure 3 is a bottom view of the same.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is an enlarged bottom end view of the punch plunger.

Figure 6 is a side elevation of the lower end of the punch plunger.

Referring now more particularly to the drawing, I show at 1 a sheet metal holder comprising an oblong bottom portion 2 carrying upstanding sides 3—3 of any suitable conformation, but having one end thereof as 4—4 slightly higher than the thickness of the pad 5 inserted therebetween. The ends 4—4 of sides 3—3 are connected by an end wall 6 formed integrally therewith and provided with a vertical oblong opening 7 in its center.

The forward end of the bottom 2 is provided with a curved portion 8 extending beyond end 6.

At 9 I show a hollow sheet metal guide triangular in transverse cross-section and provided with a top 10 and a bottom 11 having vertically aligned orifices 12 and 13 formed therein to receive punch plunger 14. This guide is open on one side and is mounted on end 6 of the holder with its open side registering with opening 7 in end 6 of the holder. The guide preferably extends from the top edge of end 6 to a point a little above the extension 8 on bottom 2 whereby to leave a space 15 for the insertion of the ticket to be punched. The extension 8 is also provided with an orifice as 16 in alignment with the orifices 12 and 13 to permit the passage of plunger 14 therethrough. A spring 14^a is mounted on plunger 14 and in guide 9, and engages a pin 14^b in the upper portion of said plunger.

At 17 I show a clasp comprising a strip of sheet metal formed substantially as shown and having a portion 18 lying flat against the bottom surface of bottom 2 and riveted thereto, this flat portion extending out to the end of extension 8 to reinforce the same, the orifice 16 passing therethrough.

At 19 I show a plate adapted to move freely between the ends 4—4 of sides 3—3 and having a width slightly less than the width of the stub end 20 of the pad 5 inserted therein. A pin 21 is carried by plate 19 and slidably engages an orifice 22 in bottom 2 of the holder and part 18 of clasp 17, and is threaded at its free end 23 to engage a thumb nut 24.

The pad to be used in this holder has a hole 25 formed through its stub end through which the pin 21 may be inserted.

When the device is to be used a prepared pad is placed in position and the pin 21 passed therethrough and through the bottom 2. By placing the nut 24 on the pin and tightening the same the plate 19 is drawn down tightly upon the upper surface of the stub end of the pad, thereby positively securing the same in position in the holder and permitting the removal of successive checks without loosening. The removal of the old stubs and insertion of a new pad is the work of but a moment.

The plunger 14 has a plurality of cutting edges on its lower end. These are secured by cutting a conical recess as 26 in the bottom end and then making two cuts crosswise of the end at right angles to each other thereby providing four sharp prongs 27—28—29—30, and eight shearing cutting edges 31—32—33—34—35—36—37—38.

When a check is placed in space 15 and the plunger 14 forced downwardly the movement of the plunger is absolutely true with respect to orifices 13 and 16, and the four points of the plunger enter the check simultaneously, and a part cut clearly therefrom by the eight shearing edges of the plunger. By means of this construction a very light paper may be used for the checks with obvious advantages such as, for instance, the ability to provide a larger number of checks in a pad of given thickness.

An important feature of this invention is that but few separable parts are used in its construction. The plunger 14 and spring 14^a, and the plate and pin, 19 and 21, and the nut 24, four parts in all, may be detached but all of the rest of the device is formed in one integral piece.

It is to be understood, of course, that while I have herein shown and described one specific embodiment of the invention, changes in form, construction and method of operation may be made within the scope of the appended claims.

I claim:—

1. A punch consisting of a bottom element having sides rising therefrom, a closure for one end of said holder, a plunger guide mounted on the outer surface of said closure and having open communication with the inner surface thereof, and a plunger operatively mounted in said guide, said bottom element extending beyond said end closure and provided with an orifice to receive said plunger.

2. A punch consisting of a bottom element having sides rising therefrom, a closure for one end of said holder, a plunger guide mounted on the outer surface of said closure and having open communication with the inner surface thereof, and a plunger operatively mounted in said guide, said bottom element extending beyond said end closure and provided with an orifice to receive said plunger, and a clasp mounted on said bottom element as an integral part thereof and extending beyond said end closure to reinforce said bottom extension.

3. In a punch, a plunger having a plurality of pointed prongs on its cutting end, one side of each prong lying in the normal plane of the plunger and providing a pair of cutting edges extending angularly in opposite directions from its point, the opposed cutting edges of adjacent prongs converging to form a continuous cutting edge.

JOSEPH B. LARKIN.