(No Model.)

R. J. SHIPLEY.

BLANK HOLDER FOR PUNCHING MACHINES.

No. 382,911. Patented May 15, 1888.

Fig. 1.

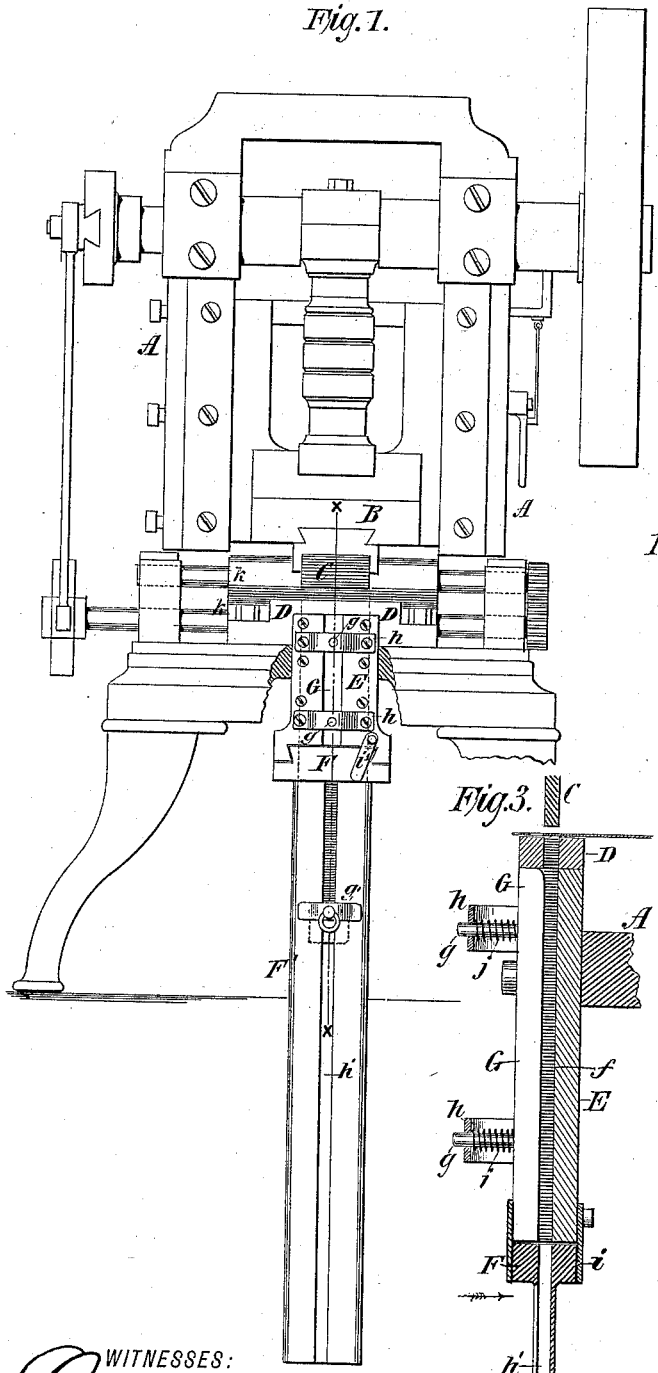


Fig. 2.

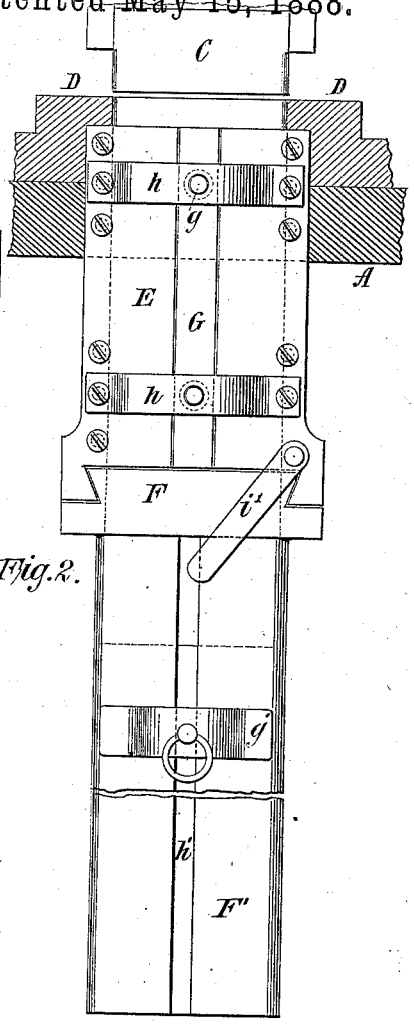


Fig. 3.

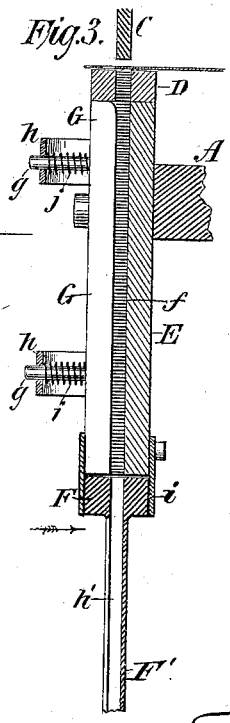
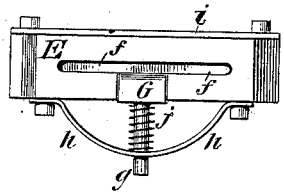


Fig. 4.



WITNESSES:

Gustave Deterich

Robert Everett

INVENTOR,

Ralph J. Shipley.

BY James L. Norris

ATTORNEY.

UNITED STATES PATENT OFFICE.

RALPH J. SHIPLEY, OF WATERBURY, CONNECTICUT, ASSIGNOR TO GEORGE W. McGILL, OF NEW YORK, N. Y.

BLANK-HOLDER FOR PUNCHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 382,911, dated May 15, 1888.

Application filed September 5, 1887. Serial No. 248,873. (No model.)

To all whom it may concern:

Be it known that I, RALPH J. SHIPLEY, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Holders for Sheet-Metal Blanks for Punching-Machines; and the following is declared to be a description of the same.

My invention relates to a two-part case or sheath attachment for a metal-punching machine to receive and hold the blanks as punched, one portion of said case being removable for transferring the blanks to a forming-machine, and an empty case is inserted in its place. These improvements are especially applicable to metallic blanks for making paper-fasteners. The blanks as punched out of the sheet metal are received into the stationary part of the case, the interior of which corresponds in shape to the blank, and there is a friction-plate which presses against the blanks sufficiently to keep them from falling. The removable sheath is connected to the stationary case, and to receive therefrom the blanks as they pass down the stationary case. This sheath, when full of blanks, is removed and conveyed to a forming-machine and an empty sheath inserted in its place.

In the drawings, Figure 1 represents a punching-machine with my improvement connected thereto. Fig. 2 is an elevation of the case and sheath. Fig. 3 is a vertical section at the line *x x* of Fig. 1, and Fig. 4 is a plan view of the case detached from the punching-machine. Figs. 2, 3, and 4 are in larger size.

Similar letters of reference in the various figures indicate corresponding parts.

A represents the frame-work of the punching-machine, which is of any desired character. B is the sliding head-block, C the male die, and D the female die. The sheet metal is fed to the dies by the rollers *k k*.

Directly below the female die D, and secured to the frame of the machine, is the receiving-case E, through which is a vertical recess or slot, *f*, of the size and shape of the sheet-metal blank cut out by the dies, and into this slot or opening *f* the blanks as made are received. The front of the case E is slotted to receive a vertical presser-bar, G, and said bar is held in place and caused to press against the blanks by the pins *g*, coiled springs *j*, and bowed bearing-bars *h*, secured upon the case.

F′ represents a hollow slotted sheath whose upper end is made as a dovetail block, F, and said block fits a corresponding dovetail recess in the base of the case E, and is held in place between the plate *i* and the swinging arm *i′*. The sheath F′ is slotted at *h′*, and there is a spring block or support, *g′*, movable lengthwise of said slot, upon which the blanks lie as they are fed down into the sheath, and this support is pressed down by the blanks as they accumulate.

The operation is as follows: The blanks as punched from the sheet of metal are forced down into the opening *f*, and they are kept in position by the slight pressure of the presser-bar G upon their edge; but they are not held firm enough to prevent the blanks descending as they accumulate in the slot *f*. After the case E is filled the blanks press automatically into the sheath F F′, and they are supported by the yielding holder *g′*, which descends as the sheath fills up with blanks. When the sheath F F′ is full of blanks, the arm *i′* is swung aside and the sheath removed and an empty one inserted into its place to be filled, and the full sheath is removed to a machine for bending or forming the fastening or other articles. By inverting the sheath in such forming-machine it can be held in place by its dovetail block F—for example, as illustrated in my application No. 248,874, filed of even date herewith.

I claim as my invention—

1. The combination, with a sheet-metal-punching machine, of a slotted case for receiving the blanks as cut out, and a presser-bar for applying friction to the edges of such blanks, and a removable sheath below the slotted case for receiving the blanks and in which they are conveyed away, substantially as set forth.

2. The combination, with a sheet-metal-punching machine, of the slotted case E, the friction-bar G, pins *g*, coiled springs *j*, bearing-bars *h*, the plate *i*, swinging arm *i′*, and a sheath, F′, having a dovetailed block to be removably connected to the case E, substantially as set forth.

3. In a sheet-metal-punching machine, the combination of the slotted case E, the lower

end of which has a dovetail groove, with the dovetailed block F and sheath F', adapted to be connected to said case E, the friction-bar G, and springs for pressing said bar against the descending blanks, and the holder *g'* in the case F', substantially as set forth.

4. The combination of a slotted case for receiving blanks from a punching-machine, with a sheath detachably connected with said slotted case for receiving the blanks therefrom, substantially as described.

5. The combination of a slotted case for receiving blanks from a punching-machine, with a longitudinally-slotted sheath detachably connected with said slotted case for receiving the blanks therefrom, substantially as described.

Signed by me this 31st day of August, A. D. 1887.

RALPH J. SHIPLEY.

Witnesses:
CLIFFORD J. HACKETT,
HERBERT H. WALKER.