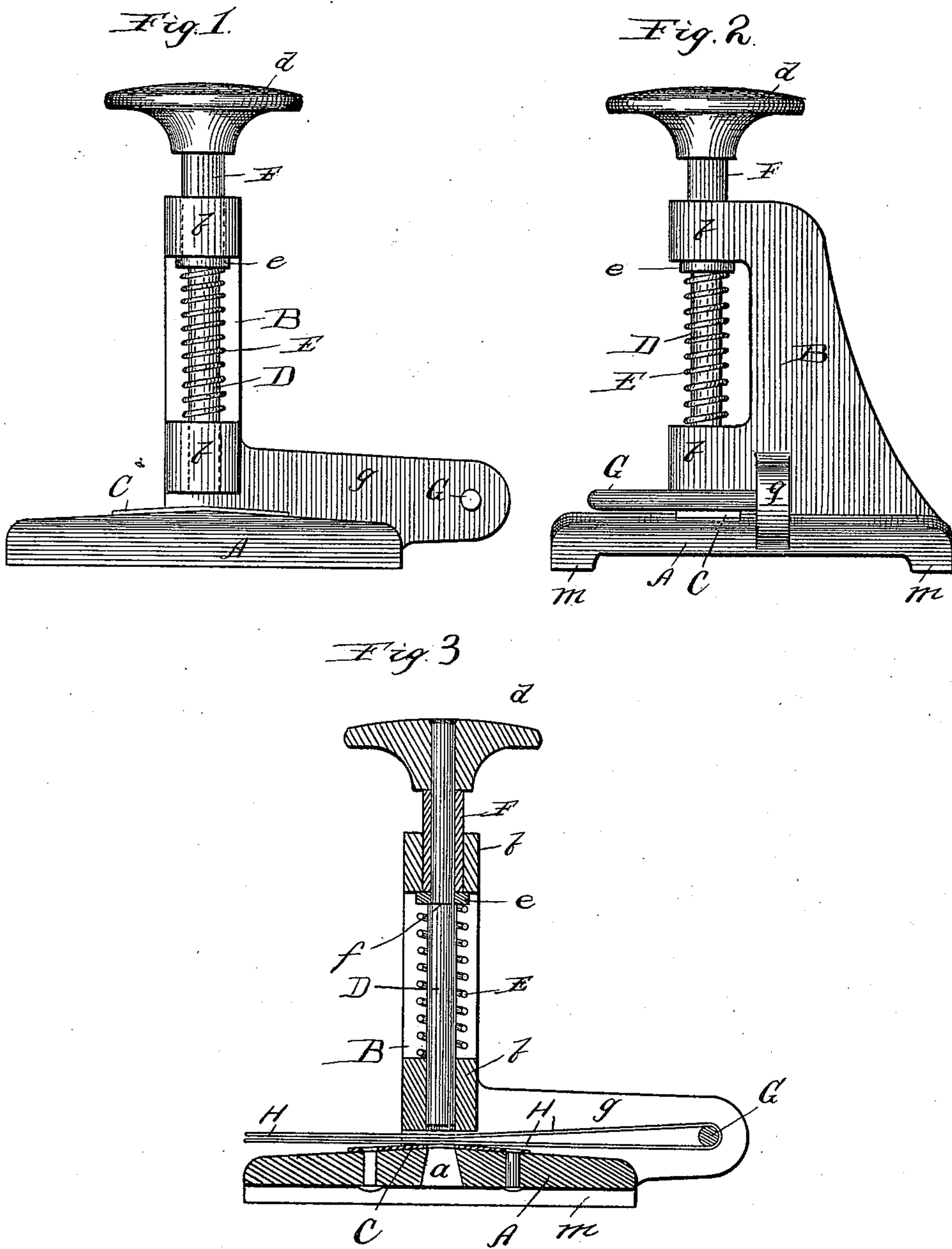


(No Model.)

J. F. BROWN.  
PAPER PUNCH.

No. 430,168.

Patented June 17, 1890.



Witnesses:  
Lew. C. Curtis.  
A. M. Munday.

Inventor:  
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# UNITED STATES PATENT OFFICE.

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## PAPER-PUNCH.

SPECIFICATION forming part of Letters Patent No. 430,168, dated June 17, 1890.

Application filed October 22, 1889. Serial No. 327,833. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. BROWN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Paper-Punches, of which the following is a specification.

This invention is designed to provide a very simple and inexpensive punching-machine, whereby perforations may be made in the tops of letters, bills, and other papers which are to be filed away in file cases or binders by threading them upon the wires or posts of such cases or binders.

A very generally used form of file consists of a back board or bottom having two of these retaining-posts secured near its top edge and a spring device which presses upon the flat side of the papers and holds them against the board. To conveniently thread the papers upon these posts they should be first provided with perforations at the proper points, and my invention is intended to be used in making these perforations.

My improved punch consists of the combination, with a paper-punching device, of a bar located laterally relative to the punching device and at such a distance therefrom as will insure the making of the perforations at the right distance apart when the papers are folded around said bar with both their edges lying under the punch in position for the perforation of both thicknesses of paper at the same operation.

The accompanying drawings, which form a part of the specification, and in which similar letters of reference indicate like parts, show at Figure 1 a front, and at Fig. 2 a side, elevation of my invention. Fig. 3 is a vertical cross-section upon a line running through the center of the plunger.

In the drawings, A represents a suitable bed-plate for the machine, and B an upright portion secured thereto. To the former is secured the die-plate C, and in the latter is mounted the movable plunger D, the latter forming the male die and the plate C the female die of the punch. Through the plate and bed is an opening *a*, registering with the plunger. Feet *m* may be applied to lift the

plate A to form an open space above the table or desk.

The plunger is provided with a head *d*, secured, preferably, by swaging the upper end of the plunger. Between the arms *b* of the part B, through which arms the plunger passes, is placed the retracting-spring E, and the plunger is provided with a collar formed by the ring *e*, which compresses this spring when a stroke is given the plunger. This collar I secure in place by turning the upper part of the plunger to a smaller diameter than the lower portion, so that a shoulder *f* will be formed thereon and confine the collar between such shoulder and a sleeve F, which is slipped over the smaller diameter of the plunger and secured tightly by the positioning and securing of the head *d*. The described construction of the plunger permits the easy and quick assembling and fastening in position of the various parts thereof.

G is the gage-bar, the use of which in connection with the punch forms the principal feature of my invention. It is located upon the end of a laterally-extending arm *g*, which may be integral with the bed A, and which arm may also serve as a gage to position the papers, so that the punching will be done at the right distance from the top edge thereof. The manner of using this gage-bar is illustrated in Fig. 3, where a sheet of paper H is shown as doubled upon itself with the bend drawn closely against the gage-bar, while the edges of the paper are placed under the punch. If the paper thus positioned is now subjected to the stroke of the punch, two perforations will be made therein, which, when the paper is removed and unfolded, will be found to be perfectly positioned both with reference to each other and with reference to the top edge of the paper, so that a uniform and symmetrical looking file will result when an assemblage of such papers is put into a binder.

The plunger, it will be noticed, is retracted by its spring sufficiently to carry its lower end entirely within the lower bearing-arm, so that it necessarily frees itself from the paper at each stroke, and prevents all liability of

tearing, such as would be present if the plunger were allowed to project at the conclusion of the punching operation below its support.

I claim—

- 5 The combination, with a paper-punch, of a horizontal forwardly-projecting gage-bar G, located laterally relative to the punch and

adapted to allow the paper to be folded around and drawn against it, substantially as specified.

JOHN F. BROWN.

Witnesses:

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