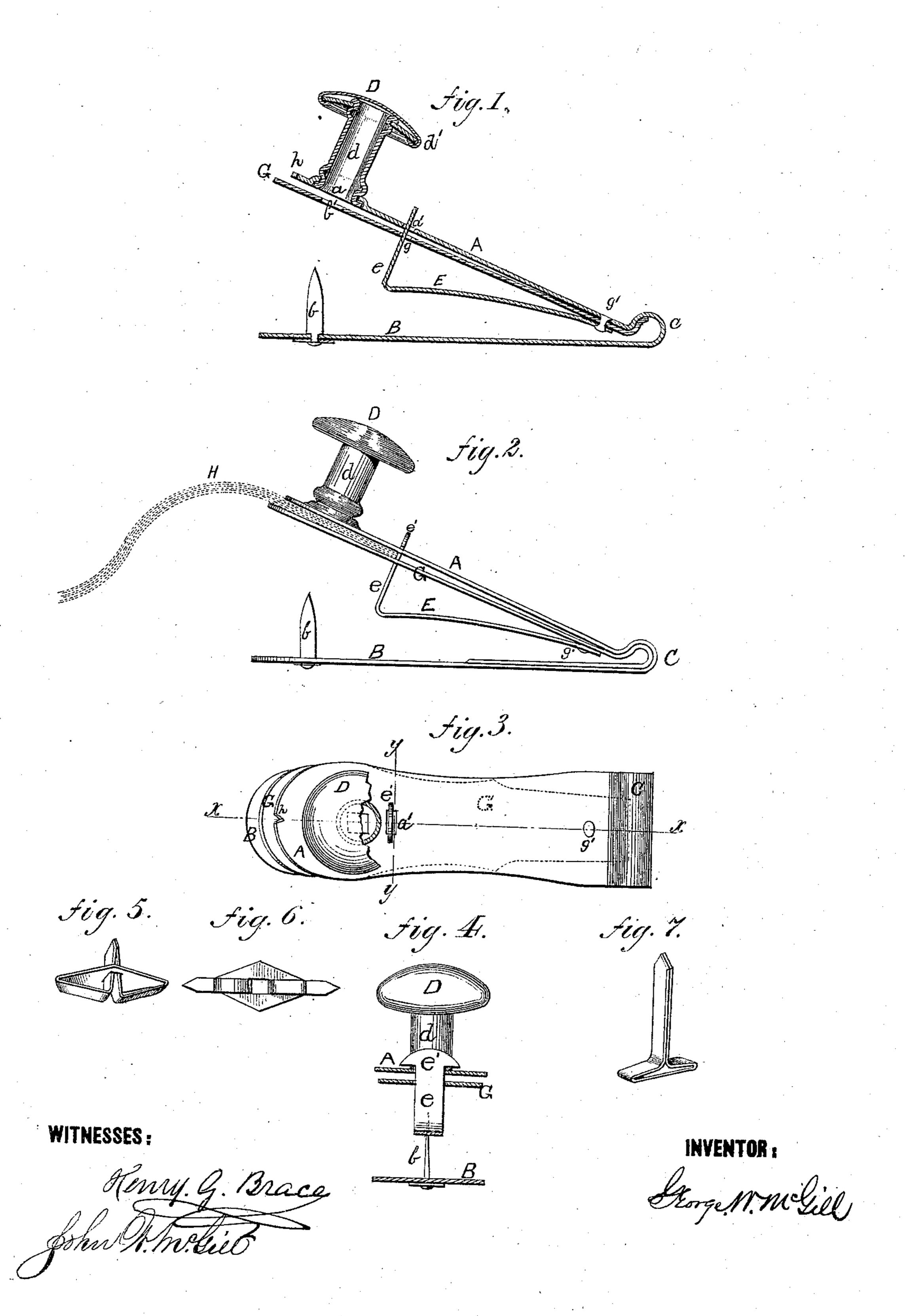
G. W. McGILL.

Punches for Perforating Paper.

No.151,236.

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UNITED STATES PATENT OFFICE.

GEORGE W. McGILL, OF NEW YORK, N. Y.

IMPROVEMENT IN PUNCHES FOR PERFORATING PAPER.

Specification forming part of Letters Patent No. 151,236, dated May 26, 1874; application filed April 27, 1874.

To all whom it may concern:

Be it known that I, GEORGE W. McGILL, of the city, county, and State of New York, have invented a new and Improved Punch for Perforating Papers, &c.; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing making part of this specification and to the letters of reference marked thereon.

The nature of my invention consists in a punch for perforating papers, cottons, or other fibrous material, to assist the insertion therein of McGill's patent paper-fasteners; and consists in a single strip of spring metal, doubled in its center so as to form an upper and lower jaw, and provided with a puncturing pin, a receiver for the same, and a stripper and guide.

In the accompanying drawing, Figure 1 represents a longitudinal sectional side elevation of the device, taken on the line x x of Fig. 3. Fig. 2 represents a longitudinal side elevation of the same. Fig. 3 represents a top view of the device with part of the cap of the knob D broken off to show the position of the head e' of the spring-guide E, and the slot b' in the stripper G in dotted lines. Fig. 4 represents a sectional view of the front end of the device, taken on the line y y of Fig. 3. Figs. 5 and 6 represent McGill's eyelet-fasteners, and Fig.

7 represents McGill's T-fastener.

A is the upper jaw of the device. B is the lower jaw, and C is the spring-hinge. The upper jaw, A, is pierced by the pin-vent a and the guide-slot a'. The pin-vent a is covered by the knob D, the neck d of which is secured to the jaw A in the manner shown in Fig. 1. The neck d is connected with its cap d' in a similar manner, thus obviating the use of solder in these joints. The lower jaw, B, is provided with the puncturing-pin b in its front end. On the jaws A and B being pressed together, the pin b enters the neck of the knob D, and in doing so pierces whatever is placed between its point and the upper jaw, A. The upper jaw A is also provided with the springguide E and the stripper G. The object of the spring-guide E is to regulate the point at which the papers shall be punctured, and the stripper G is to strip the papers from the puncturing-pin b after being punctured. The spring guide E is made of a piece of spring

metal, cut in a T shape, and bent in the form of an L. Its shank is run down through the guide-slot a' in the jaw A, and through a similar slot, marked g, in the stripper G, and is turned toward the spring-hinge C, where both it and the stripper G are riveted together to the jaw A by the rivet g', in such manner as to admit of its shoulder e moving freely up and down through the slots a' and g. The front end of the stripper G extends beyond the front of the jaw A, as shown in the drawing. The object of this extension is to facilitate the placing of papers to be punctured between it and the said upper jaw. The back or inner end of the stripper can end as shown in Fig. 1, or be carried around so as to give additional spring and strength to the spring-hinge C, as shown in Fig. 2. The front end of the stripper has an oblong slot, b', pierced through it, to admit of the pin b passing up into the neck of the knob D. The spring-guide E is provided with the head e' to hold it in the slot a', and is so bent that its head will always rest on the upper side of the upper jaw, when the said jaw and the jaw B are apart, thus keeping its shoulder e in position to regulate the insertion of the papers between the said jaws.

The mode of operating the device is as follows: If it is desired to bind together several sheets of paper, &c., with some of McGill's T-fasteners, Fig. 7, by inserting the fasteners in the papers at a uniform distance from the margin thereof, the papers will be so punctured for the reception of the said fasteners by being slid in between the stripper G and the upper jaw, A, up to the shoulder e of the springguide E, as shown by the dotted lines H in Fig. 2, and the jaws A and B pressed together. This will force the puncturing-pin b up through the slot b' in the stripper, and through the papers into the neck of the knob D, and on releasing the jaws A B the papers will be held between the stripper G and the jaw A, while the pin b withdraws itself therefrom. This can be repeated as often as there are fasteners to be inserted, and the spring-guide E will cause all the punctures to be made on the same line. If it is desired to puncture the paper at a greater distance from its margin, it can be run into the device between the point of the pin b and the stripper G and under the guidespring E. If it is desired to bind the papers with McGill's eyelet-fasteners, Figs. 5 and 6, one of the same is placed upon the point of the pin b, and the papers to be bound placed over the point of the pin, and under the stripper E close up to the guide-spring G, and the jaws of the punch being pressed together, the pin b and the shanks of the fastener are forced up through the papers into the neck of the knob D. On the jaws of the punch being released, the shanks of the fastener are turned down on the papers from the pin b, and pressed flat by the jaws of the punch being again brought together.

The spring-guide E offers no obstacle to the closing of the jaws A and B, for, as they are brought together, the shoulder e of the guide is forced up through the slot a' out of their way. The notch h in the front of the upper

jaw is to further assist in regulating the point of puncture.

Having thus fully described the nature, construction, and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A paper-fastener punch, consisting of the jaws A and B, connected by the spring-hinge C, and provided with the puncturing-pin b, stripper G, spring-guide E, and knob D, all constructed and arranged in the manner and for the purpose herein set forth and described.

2. The combination of the spring-guide E, stripper G, and jaws A B, in the manner shown, and for the purpose described.

GEORGE W. McGILL.

Witnesses:

JOHN W. McGILL, HENRY G. BRACE.