

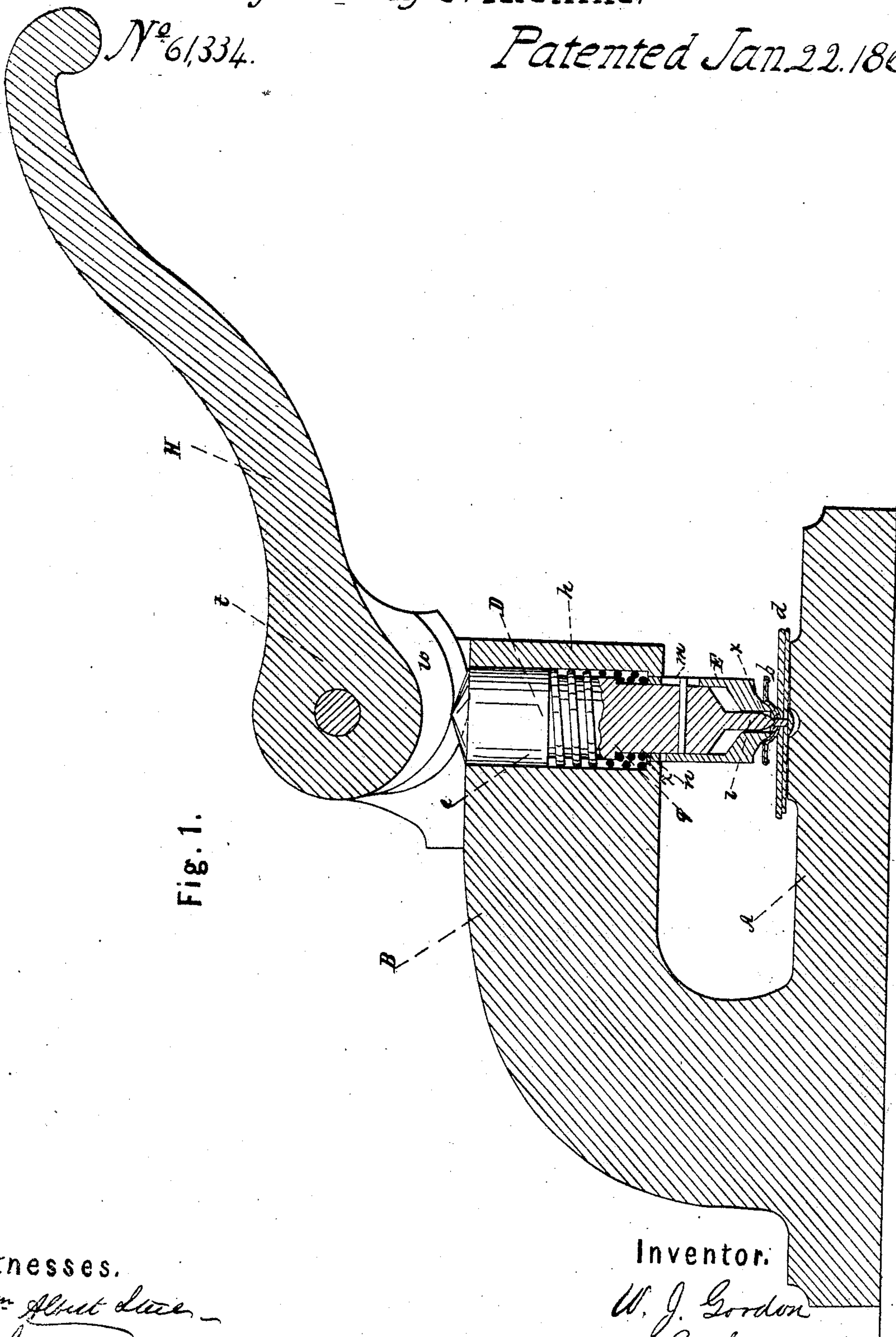
W. J. Gordon.
Eyeletting Machine.

Sheet 1
2 Sheets.

N^o 61,334.

Patented Jan. 22. 1867.

Fig. 1.



Witnesses.

Mr. Albert Luce
John Parker.

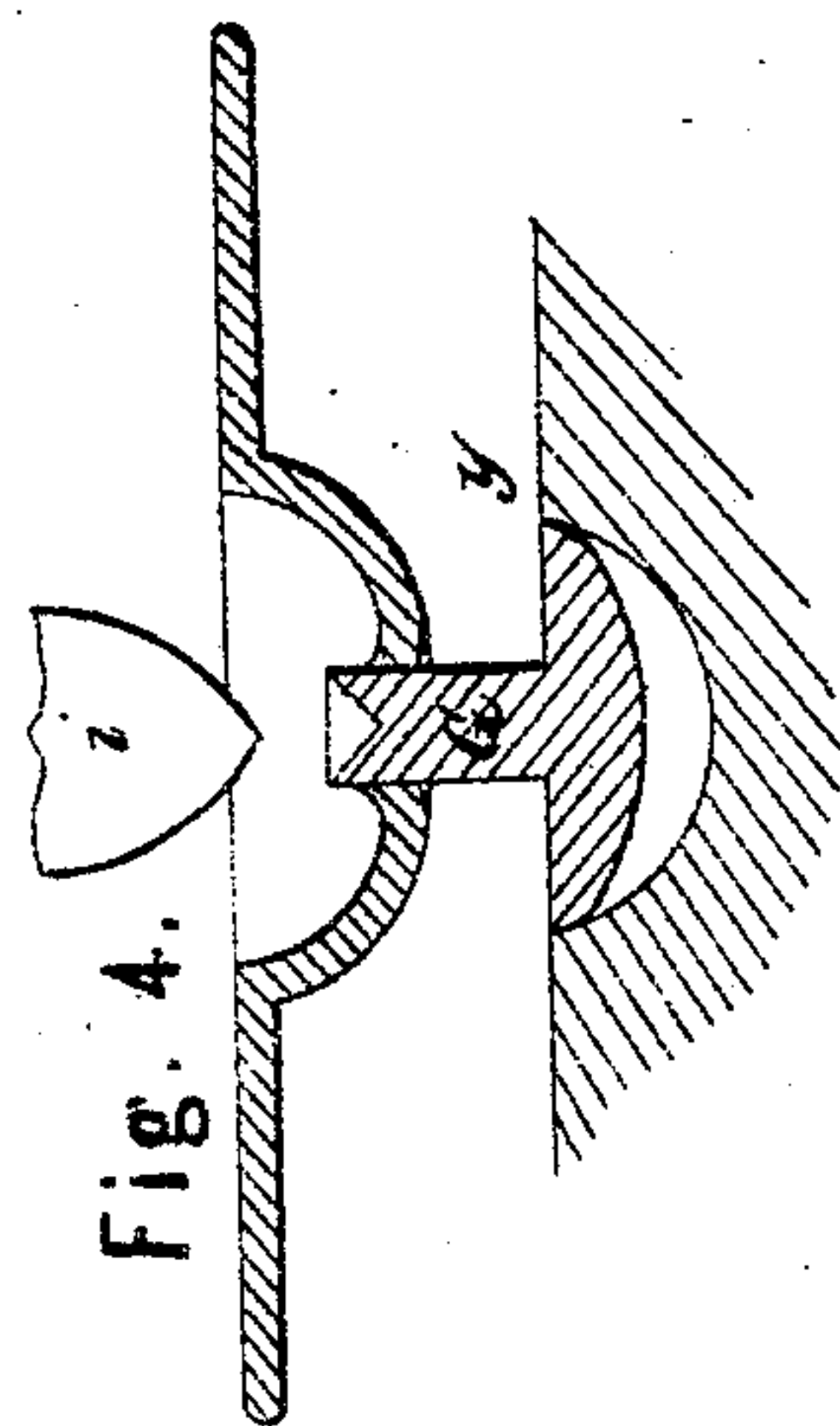
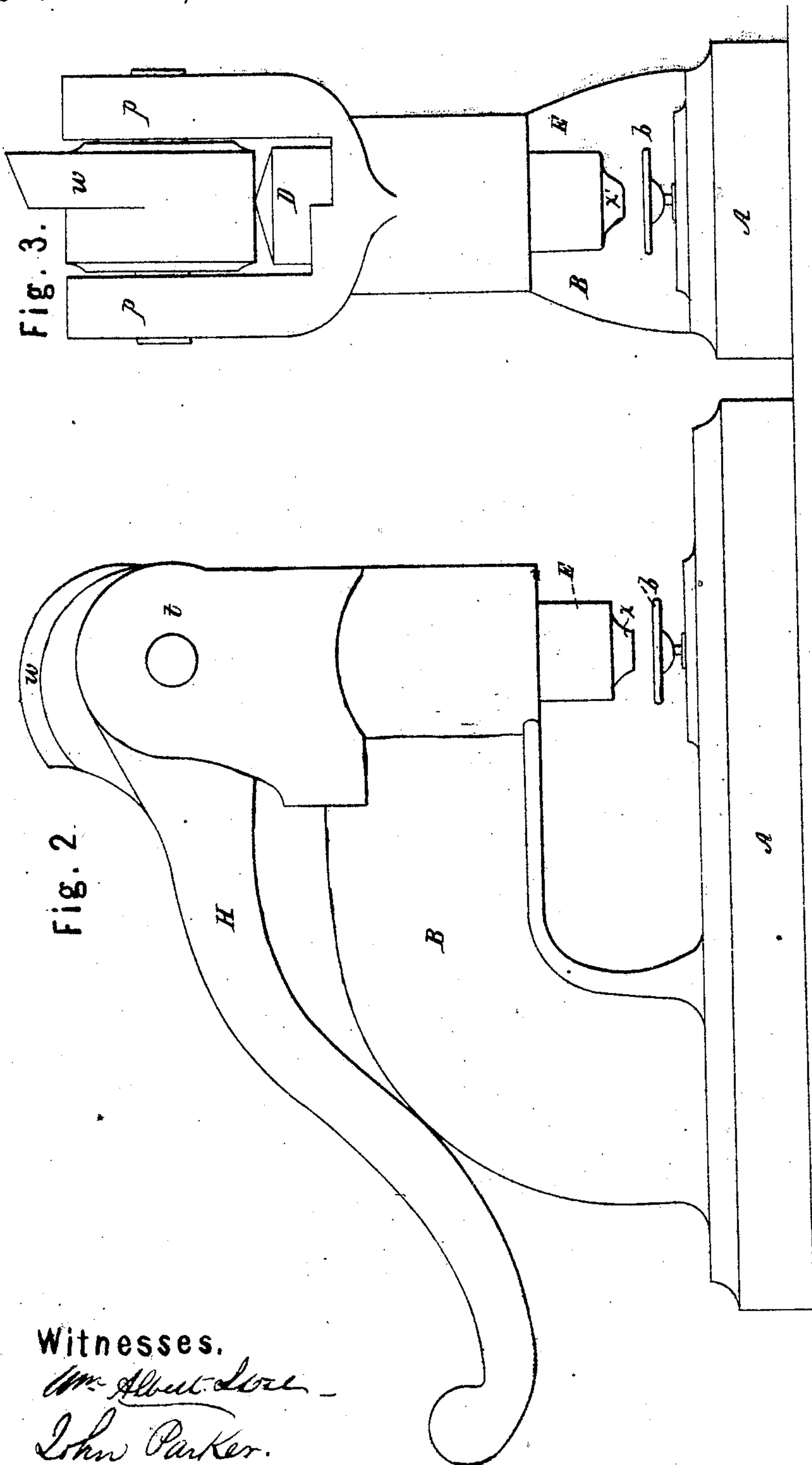
Inventor.

W. J. Gordon
By his attorney
H. Howson

W. J. Gordon.
Eyeletting Machine.

N^o 61334.

Patented Jan. 22. 1867.



Witnesses.

Mr. Albert Love
John Parker.

Inventor.

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By his atty
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United States Patent Office.

W. J. GORDON, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 61,334, dated January 22, 1867.

IMPROVEMENT IN MACHINES FOR RIVETING BUTTONS TO FABRICS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, W. J. GORDON, of Philadelphia, Pennsylvania, have intented a Riveting Press for Securing Buttons to Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention consists of certain mechanism, described hereafter, whereby buttons can be riveted to articles of wearing apparel with ease and rapidity; the mechanism being such as to adjust both button and rivet to a proper position before the former is secured; the riveting being effected by the combined turning and gradual pressure of a punch against the shank of the rivet, instead of the usual process of imparting a blow to the same, and the objectionable sharp edges of the head being forced out of the way into the fabric.

In order to enable others skilled in the art to which this most nearly appertains to make and use my invention, I will now proceed to describe its construction and operation. On reference to the accompanying drawing, which forms a part of this specification—

Figure 1 is a vertical section of my improved button-riveting press.

Figure 2, an exterior side view.

Figure 3, a front view; and

Figure 4, a diagram illustrating my invention.

Similar letters refer to similar parts throughout the several views.

The framework of the riveting press consists in the present instance of the base A and arm B, cast in one piece. The construction and form of the frame may, however, be modified without departing from the main features of the invention. In the arm B, near the outer end of the same, is an opening for the reception and guidance of a spindle, D, which can both turn and slide vertically in the said opening. A shoulder, e, is formed on the spindle, and between this shoulder and an annular projection, x, intervenes a spiral spring, h, the tendency of which is to force the spindle upwards. The spindle terminates in the pressing-punch i, which is pointed at the end as shown in the drawing, and which fits snugly, but so as to slide freely in an opening in the bottom of the sleeve E, the latter being fitted snugly, but so as to slide freely on the spindle D, to which the sleeve is connected by a pin, m, in such a manner that it can have a limited vertical movement independent of the spindle, which, however, on being elevated above this limit will carry the sleeve with it. A spiral spring, n, intervenes between a shoulder, q, on the spindle and the upper edge of the sleeve, so as to depress the latter. A hand-lever H is hinged by a pin, t, to projections, p p, on the arm B, and on one side of this lever is a projecting rib, w, the bevelled edge of which is eccentric with the pin t; the said bevelled edge being arranged to bear against the conical or bevelled top of the spindle D. The button b, which has to be riveted to the fabric d, has on the under side a projection, formed by making a cavity in the upper face, and to this cavity is adapted a projection, x', on the bottom of the sleeve E. When the hand-lever H is elevated and thrown back, the spindle D is raised by the spiral spring h, carrying with it the sleeve E to such a height that it cannot interfere with the ready adjustment of the rivet, fabric, and button to their places. The shank of the rivet C is passed through a hole in the fabric and through the button, and the whole are so adjusted that the convex head of the rivet will rest in a concave recess formed in the base A of the frame immediately below the centre of the spindle D. In the end of the rivet's shank is a conical recess adapted to the pointed end of the pressing-punch i. When the lever H is depressed, the eccentric bevelled projection w will force the spindle D downwards, thereby permitting the sleeve E to descend simultaneously with the spindle, its projection, x', fitting into the cavity of the button, which is thus caused to assume its proper horizontal position; at the same time the pressing-punch i takes its place in the conical recess in the end of the rivet, and, should the latter not be adjusted in a vertical position in the first instance, the descending pointed pressure-punch will soon right it, and adjust it to a proper position for receiving the final pressure, which is effected by a further depression of the hand-lever. The moment this pressure is applied the resistance presented by the rivet causes the bevelled edge of the eccentric projection w to bear with such force against one side of the conical top of the spindle that the latter must turn simultaneously with the descent of the punch, which expands the end of the rivet's shank and effectually secures the button to the fabric. The effect of this combined pressing and turning action of the punch on the shank of the rivet is very different from that of a blow imparted to a spindle which does not turn, as the former plan is certain to result

in a uniform expansion of the end of the rivet's shank, which presents a neat appearance; whereas a blow imparted to the punch might in many cases distort the end of the shank and render the same unsightly. It will be observed on reference to fig. 4 that the cavity in the base A of the frame for the reception of the rivet's head does not coincide with the latter, but that the cavity is deeper than the head, so that the edges of the latter will be forced upwards and compressed into the fabric when pressure is applied to the rivet; the objectionable exposure of sharp edges is thus avoided. Teeth may be formed on the bevelled edge of the eccentric projection *w* for gearing into similar teeth on the conical top of the spindle, to render the turning of the latter certain; but this will be unnecessary if proper care be taken in the formation of the bevelled edges of the eccentric and spindle.

I claim as my invention, and desire to secure by Letters Patent—

1. The lever H in combination with the spindle D, having a pointed projection *i*, when the lever is provided with a bevelled eccentric projection *w*, or its equivalent, and when the spindle is so constructed and arranged in respect to the lever that, on operating the latter, the spindle will turn round as it descends, for the purpose specified.

2. The combination of the above with the sleeve E, having a projection adapted to the cavity in the button, and with the springs *h* and *n*, the whole being arranged for joint action, as and for the purpose described.

3. The concavity so formed in the base A, in respect to the head of the rivet, and to the devices for spreading the latter, that on forcing the rivet into the said concavity the edges of the said head will be turned up, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

W. J. GORDON.

Witnesses:

CHARLES E. FOSTER,
JOHN WHITE.