

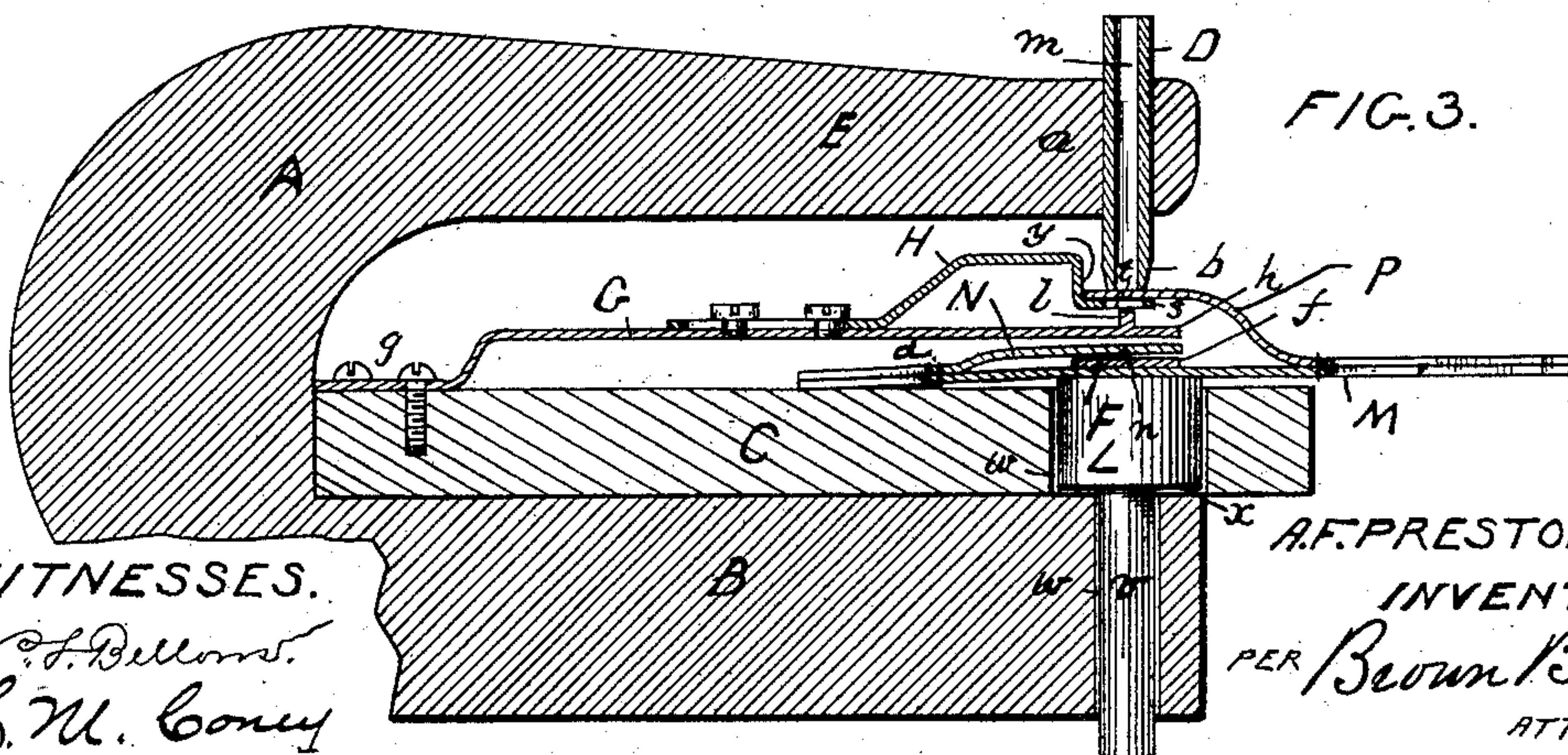
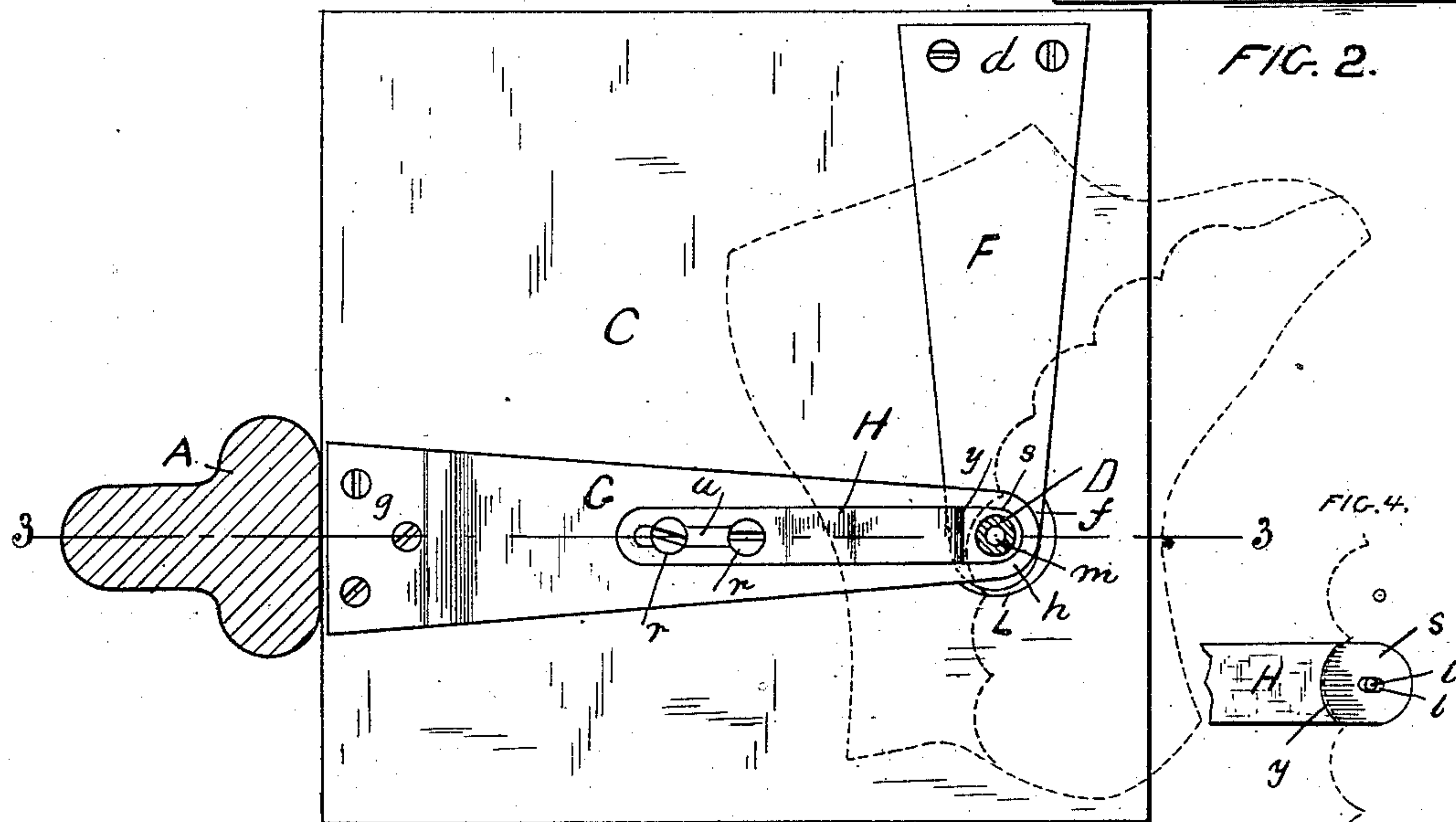
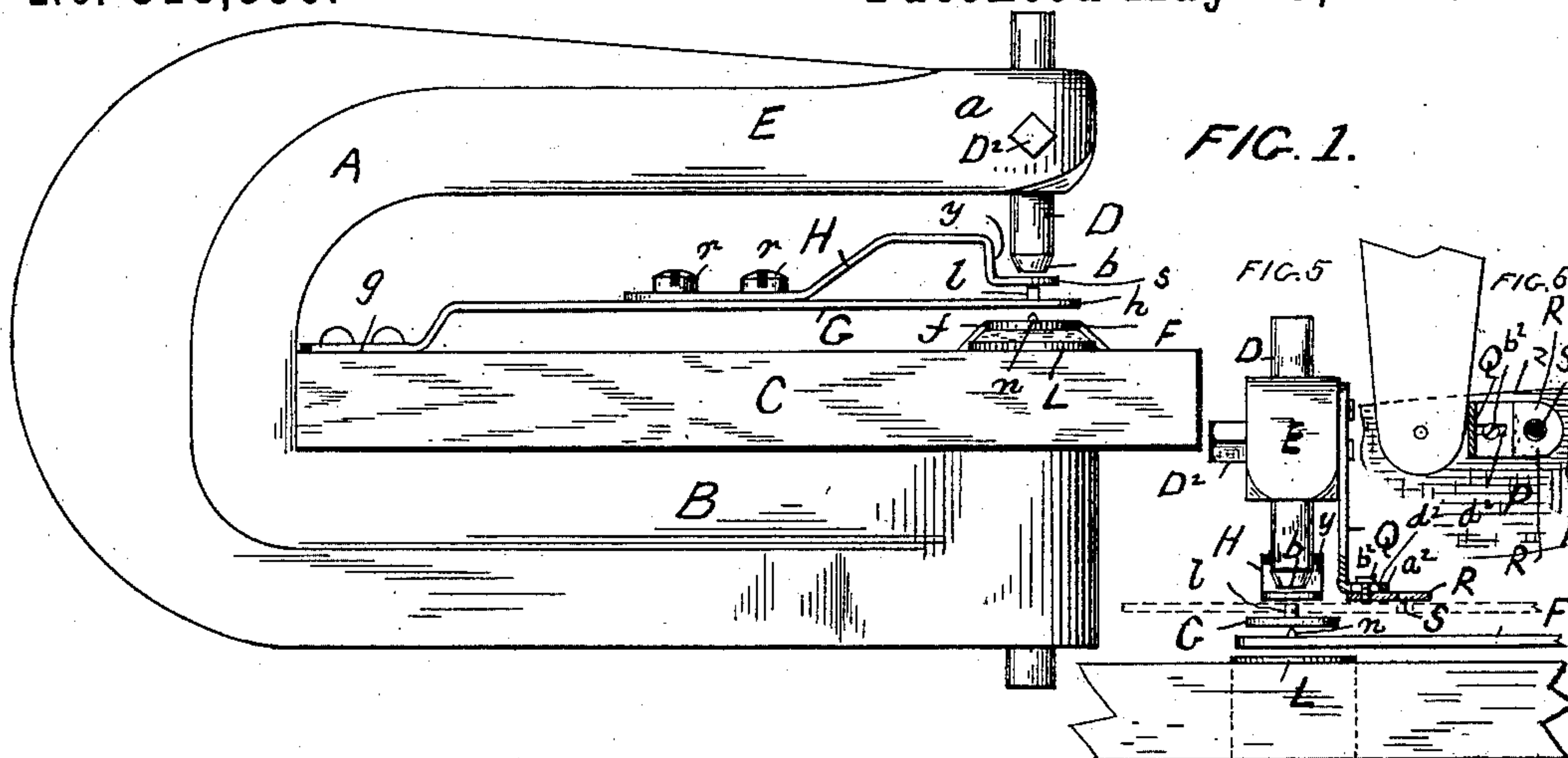
(No Model.)

A. F. PRESTON.

MACHINE FOR MARKING THE QUARTERS OF BOOTS OR SHOES FOR THE
BUTTONS.

No. 318,390.

Patented May 19, 1885.



WITNESSES.

W. F. Bellows.

H. M. Conner

A. F. PRESTON,

INVENTOR

PER Brown Bros.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALBERT F. PRESTON, OF LYNN, ASSIGNOR TO THE PRESTON MACHINE COMPANY, OF BOSTON, MASSACHUSETTS.

MACHINE FOR MARKING THE QUARTERS OF BOOTS OR SHOES FOR THE BUTTONS.

SPECIFICATION forming part of Letters Patent No. 318,390, dated May 19, 1885.

Application filed April 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALBERT F. PRESTON, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and
5 useful Improvements in Machines for Marking on the Quarters of Boots or Shoes the Places for the Buttons and Button-Holes, of which the following is a full, clear, and exact description.

This invention relates to a machine for marking
10 ing on the upper of a boot or shoe the places where the buttons are to be secured, and the places where the button-holes are to be made, so that when the buttons are afterward secured and the button-holes made in accordance with
15 said marks, and the boot or shoe finished, the buttons and button-holes will be in their true and proper positions in relation to one another and to the parts of the upper of the boot or shoe; and the invention consists in the
20 construction and arrangement of parts constituting such a machine, all substantially as hereinafter fully described and shown.

In the accompanying plate of drawings, Figure 1 represents a side elevation of a machine constructed and arranged for operation
25 according to this invention. Fig. 2 is a plan view of Fig. 1, showing in dotted lines an upper of a boot in position for operation thereon. Fig. 3 is a cross-section on line 3 3, Fig. 2, and
30 also showing in section an upper of a boot in the machine for operation thereon. Figs. 4, 5, and 6 are detail views to be hereinafter referred to.

In the drawings, A represents a frame, of
35 iron or of any suitable material, of U shape, and supporting on its lower arm, B, a bed or table, C, said frame and table being supported in any suitable manner upon a stand.

D is a tube arranged vertically in a socket in
40 the outer end, *a*, of the upper arm, E, of the frame A, and secured therein from movement by a set-screw, D², its lower end *b* extending a short distance below the under side of the arm B.

45 F is a thin plate of metal, preferably of spring-steel, secured by its end *d* to the bed C, its free end *f* extending to and under the lower end *b* of the tube D.

G is another thin plate of metal, preferably
50 of spring-steel, secured under the arm A, at

g, to the bed C, its free end *h* extending to and under the lower end *b* of the tube D, and between it and the end *f* of plate F.

Projecting vertically from the upper side of the plate G, near its end *h*, is a round pin, *l*, vertically coincident with the central opening, *m*,
55 of the tube D, and on the upper side of the plate F, near its end *f*, is a short vertical projection or pin, *n*, directly under the pin *l*.

H is a flat metal spring secured at one end
60 by screws *r* to the upper side of the plate G, and extending by its free end *s* to and under the lower end *b* of the tube D, and between it and the end *h* of the plate G, and having an elongated slot, *t*, on its end *s*, directly under the end *b* of the tube D, and over the pin
65 of the plate G, and through which slot *t* the pin *l* can project in the operation of the machine. The spring H has an elongated slot, *u*, through which the screws *r* pass, and screw into the
70 plate G to secure it thereto, and by which it can be adjusted longitudinally thereon, for the purpose hereinafter described.

Directly under the ends of the plates F and G is a block, L, having a spindle, *v*, arranged
75 to move vertically in a corresponding socket, *w*, in the lower arm, B, and bed-plate C, and when in its normal position to rest by its shoulder *x* upon the arm B of the frame A.

In the operation of the machine, the quarters M N and the button-hole piece P of the
80 boot are first sewed together at their front and back edges, face to face, as usual, and when so sewed they are flat and smooth and lie close together. They are then placed in the machine in the following manner: The button-hole piece being uppermost, the lower or
85 larger quarter is inserted under the end *f* of plate F, and between it and the block L. At the same time the small quarter N is inserted
90 between the two plates F and G, and the button-hole piece P placed over the end S of the spring H, between it and the lower end *b* of the tube D, abutting by its edge against the shoulder *y* of the spring H. The block L is
95 then forced upward in any suitable manner, which moves all parts with the quarters against the lower end *b* of the tube D, the pin *n* of the plate making an indentation in the front side of the small quarter N, against which it strikes;
100

and the pin *l* of plate G passing through the button-hole piece, making a small hole in the same. The block L is then allowed to fall, which returns all parts to their normal positions. The quarters are then moved along for the places for the next button-hole and button to be marked as above, and so on until all are marked. The plates F and G can extend back from their operating positions in any direction and be of any form desired; but the plate F should be sufficiently narrow and extend in such a direction as to allow its end *f* to enter between the quarters, and for the quarters to be moved along and under the tube or rest D for their proper marking, in accordance with the sweep of the edge of the button-hole piece. The slot *u* in the spring H permits the latter to be moved longitudinally, the screw *r* being used to adjust the shoulder *y* to suit the distance from the edge of the button-hole piece P in which the button-holes are to be made, and when adjusted said spring can be secured from movement by tightening the screw *r*. The spring also serves, after the piece P has been punched, to remove said piece from the pin *l* of the plate G, if it should adhere to it.

In Fig. 3 is shown in cross-section the two quarters M N and the button-hole piece P of a boot in proper position in the machine for operation, the parts being separated somewhat to show them more clearly. The pin *l* need only mark the button-hole piece, in lieu of making a hole through it; but the hole is preferable for obvious reasons. The tube or rest D can be rigidly attached to the arm E; but it is preferable to have it arranged substantially as described, so it can be adjusted as to its height. Its end *b* serves as a rest or block to punch against, and its opening *m* for the punchings to pass up out of the way; but in lieu of a tube, D, it can be made solid, having, however, a depression in its lower end *b*. The plate G serves as a block for the quarter to lie against when being marked by the pin *n*. If desired, the pin *n* of the plate F can be set at one side—that is, either forward or backward—of the vertical central line of the pin *l*, when desirous of setting the buttons either forward or backward on the piece N, to adjust them to the strain thereon when the boot is buttoned on the person's foot.

In lieu of either one or both of the pins *n* or *l* of the two plates F G, the plates can be provided with any suitable device for marking—such as, for instance, small holes, whereby marks or indentations can be made in the quarters—which will answer the purpose in some cases; but it is preferable to use the pins, as described. If desired, a depression can be made in the under side of the plate G over the pin *n*, by which the quarter will be more sharply marked.

In Fig. 4 is shown in plan view the spring H as having its shoulder *y* of curved or concave form, according to the outline of the edge of the scallop of the button-hole piece, which is shown in dotted lines, by which the mark

for the button-hole is the better insured in the center of the scallop, and in lieu of the curved form it can be of V shape.

In Figs. 5 and 6 is shown in detail views, respectively in side elevation and plan, an arrangement for gaging and regulating the distance between the button-hole marks, for use more particularly where the edge of the button-hole piece P is in a continuous straight or curved line without scallops; and it consists in a right-angular piece, Q, secured to the side of the arm E over the plate F, its horizontal part *a*² having secured to it by a screw, *b*², passing through a slot, *d*², in such part *a*², a horizontal plate, R, so that it can be moved and adjusted thereon longitudinally.

S is an opening in the plate R, substantially in a line with the pins *l* and *n* and the line of movement of the quarters as they pass through the machine when operated upon. Placing the first hole or mark made in the upper under this opening, the next mark is then made in the pieces N P, and then placing this second mark under the opening S the next mark is then made, and so on until the required marks are all made, by which the several marks will be equidistant from one another. Loosening the set-screw *b*², the plate R can be moved for its opening S to be set as to its distance from the pin *l* according to the distance desired between the button-holes, and when so set by tightening the screw the plate can be secured in its adjusted position.

A machine for operation and use as described has many advantages. It is accurate in its work, for the quarters and button-hole piece when operated upon being in a flat, straight, and smooth condition, they lie closely and evenly together, and thus the marks for the buttons and button-holes will be truer in relation to each other and the quarters. It works easily and quickly, marks the button-hole piece and quarter in one operation, does not mar or injure either quarter or button-hole piece, and is far superior to the present mode of marking the button-piece by hand after the button-holes are made in the button-hole piece, and which is generally done after the upper is stitched, when it is very difficult to adjust and hold the several parts in proper position in relation to each other to accurately mark the places for the buttons, and when such marking is done with an awl it is apt to prick through the button-piece and injure the quarter.

The plate R, having the gage-opening S, can be arranged to be adjusted in other ways than by the set-screw, as described, and the opening can be of any form and at any portion of the plate.

I do not claim a plate adapted to lie between two parts of the upper of a boot or shoe, as such is the subject-matter of another application of mine now pending.

Having thus described my invention, what I claim is—

1. Plates F and G, constructed and adapted

to mark the upper of a boot or shoe, respectively, where the buttons are to be secured thereto and the button-holes made therein, in combination with means for operating the same, substantially as described.

2. Plates F and G, constructed and adapted to mark the upper of a boot or shoe, respectively, where the buttons are to be secured thereto and the button-holes made therein, and provided with an adjustable gage, S, and rest or tube D, in combination with means, substantially as described, for operating the same, substantially as set forth.

3. Plates F and G, constructed and adapted to mark the upper of a boot or shoe, respectively, where the buttons are to be secured thereto and the button-holes made therein, and provided with a concave or V-shaped gage, y, and rest or tube D, in combination with means, substantially as described, for operating the same, substantially as set forth.

4. The combination, with a bed-plate or table, C, having a block, L, arranged to move vertically therein, of plates F and G, having pins n and l, respectively, and rest or tube D, when all arranged together for operation, substantially as and for the purpose specified.

5. The combination, with a bed-plate or ta-

ble, C, having a block, L, arranged to move vertically therein, of plates F and G, having pins n and l, respectively, a gage, y, and rest or tube D, when all arranged together for operation, substantially as and for the purpose specified.

6. The combination, with a bed-plate or table, C, having a block, L, arranged to move vertically therein, of plates F and G, having pins n and l, respectively, spring H, gage y, and rest or tube D, when all arranged together for operation, substantially as and for the purpose specified.

7. The combination, with a bed-plate or table, C, having a block, L, arranged to move vertically therein, of plates F and G, having pins n and l, respectively, and a plate, R, provided with an opening, S, said plate R being connected to said plate C so it can be adjusted thereon, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALBERT F. PRESTON.

Witnesses:

EDWIN W. BROWN,
WM. S. BELLOWS.