

(No Model.)

W. J. ATWELL.

MACHINE FOR ATTACHING HEEL PLATES.

No. 381,605.

Patented Apr. 24, 1888.

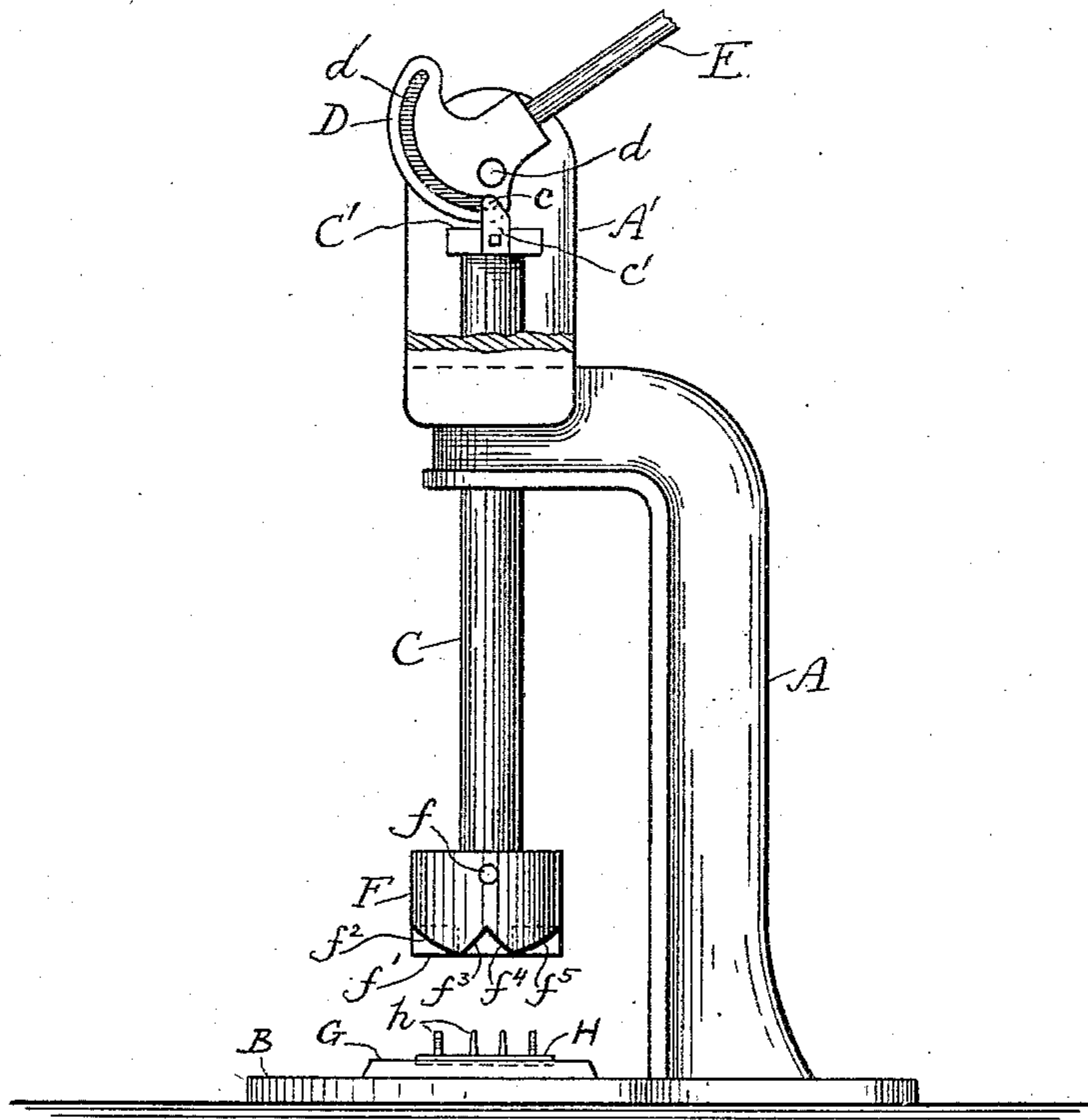


FIG. 1.

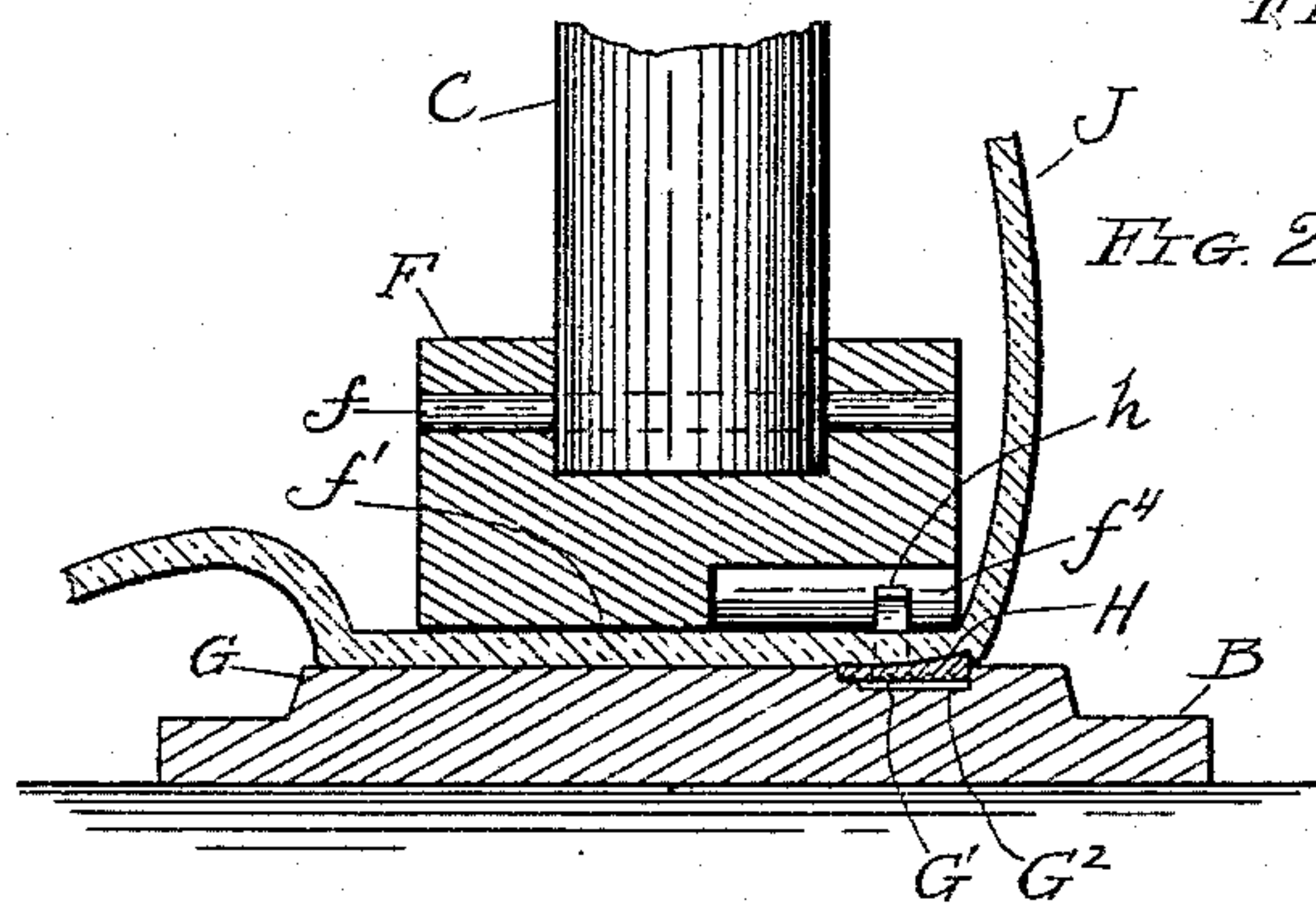


FIG. 2.

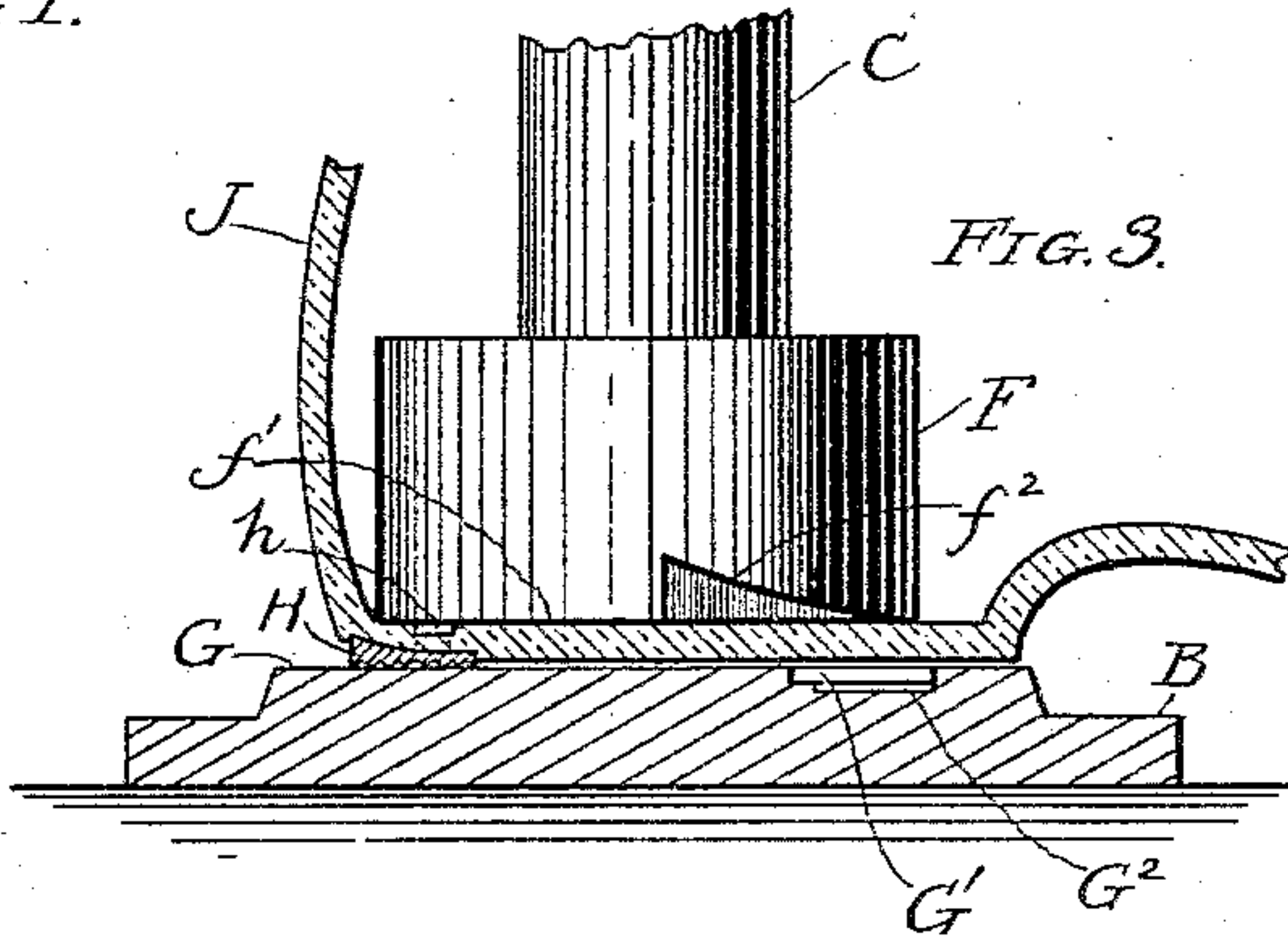


FIG. 3.

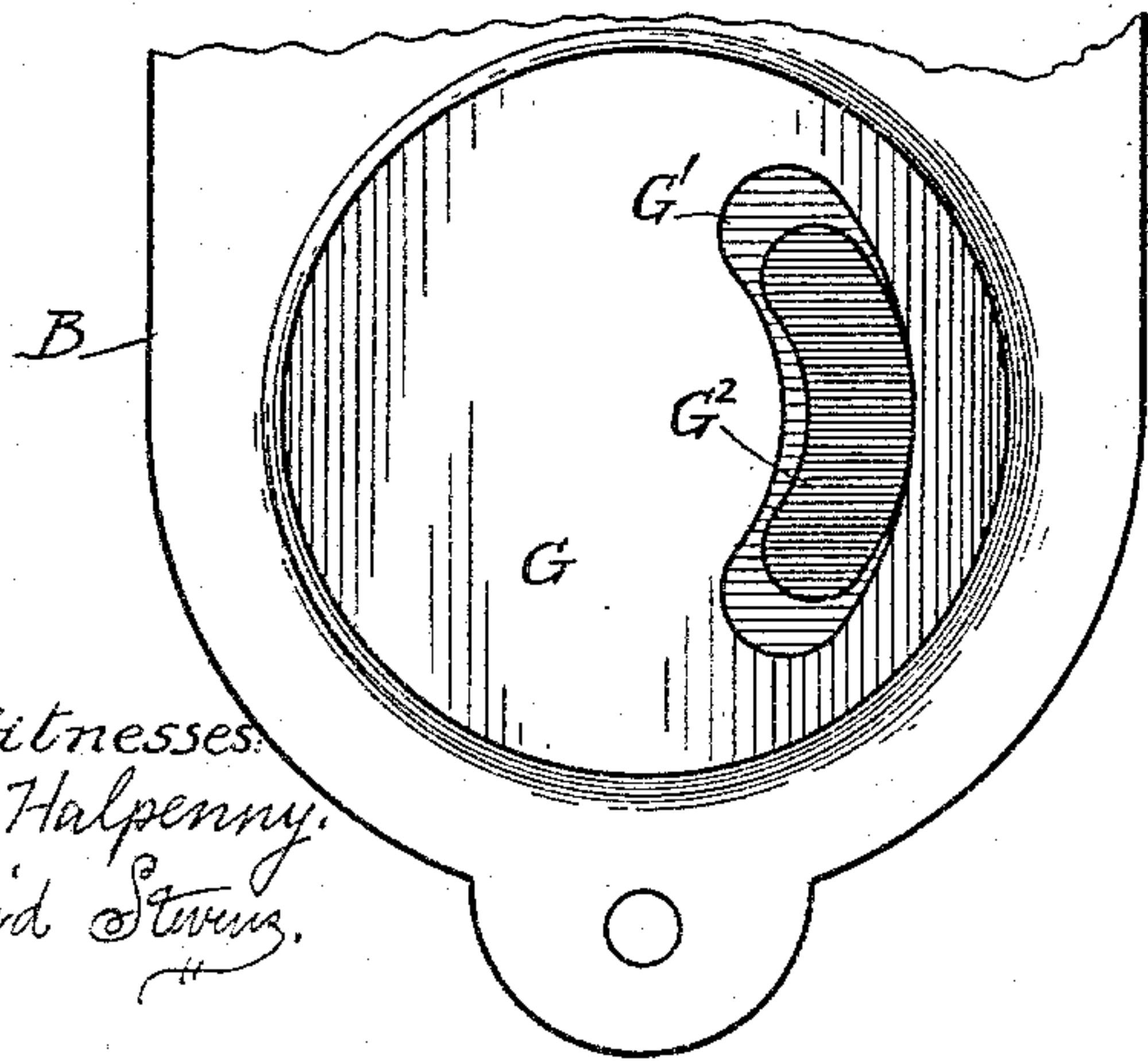


FIG. 4.

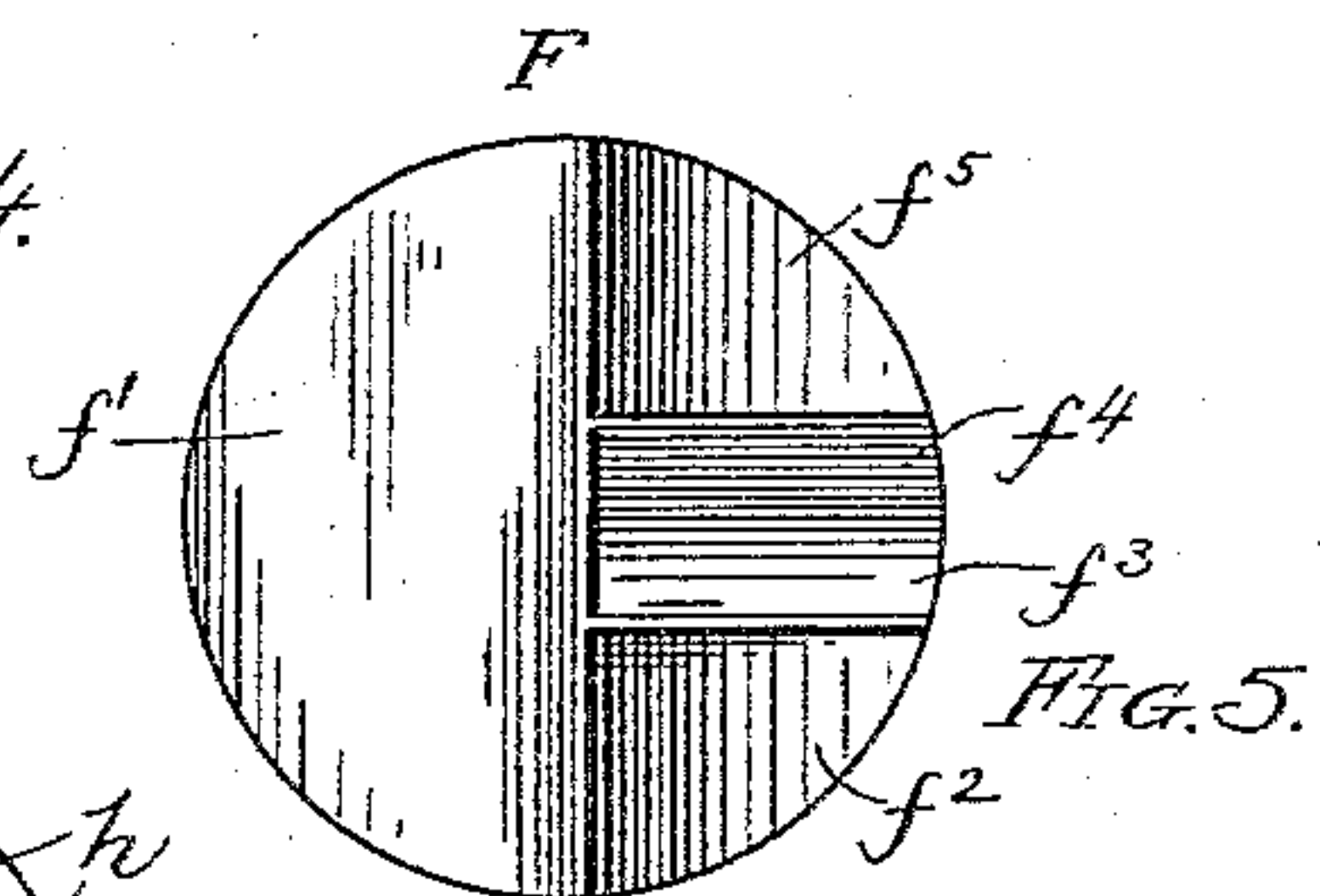


FIG. 5.

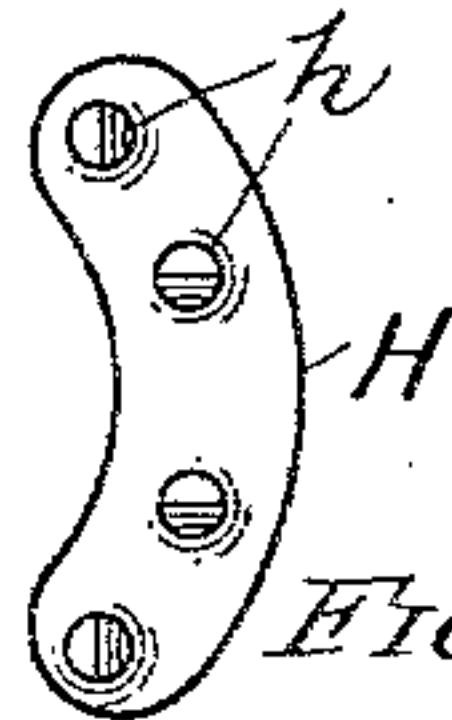


FIG. 6.

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UNITED STATES PATENT OFFICE.

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MACHINE FOR ATTACHING HEEL-PLATES.

SPECIFICATION forming part of Letters Patent No. 381,605, dated April 24, 1888.

Application filed February 4, 1888. Serial No. 202,988. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. ATWELL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Attaching Heel-Plates to Rubber Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of my improved machine, partially broken away at the top, and showing a heel-plate in position upon the plate-holder. Fig. 2 is a transverse sectional view in detail of the die and anvil as they appear when in the act of bending the nails in attaching a heel-plate to a rubber shoe. Fig. 3 is a like view showing the shoe reversed and the die in the act of clinching the nails. Fig. 4 is a plan view in detail of the anvil, showing the plate-holding recesses therein. Fig. 5 is a face view of the die, and Fig. 6 is a top view of a heel plate.

Corresponding letters of reference in the different figures designate like parts.

My invention relates to machines for attaching heel-plates to rubber shoes; and my object is to so construct said machine as to materially reduce the number of working parts as well as the cost of manufacture, and at the same time to simplify its operation.

To this end my invention consists in certain special features of construction and the combination of elements, as hereinafter shown, described, and claimed.

In the drawings, A, Fig. 1, represents the supporting-frame of the machine, which is integral with the base B. The supporting-arm A is bent forward, and is bored to receive and guide a plunger, C. Upon the top of said arm is formed a head, A', to which is loosely attached, by means of a pin, d, a cam, D, which acts upon the face or end C' of the plunger C to depress it. A groove, d', in the cam, in conjunction with a pin, c, projecting loosely therein from a lug, c', formed upon the head of the plunger, serves to raise the latter when the cam is thrown back in the position shown in said Fig. 1. A lever, E, serves to actuate the cam.

Upon the lower end of the plunger-rod C is rigidly attached, preferably by means of a pin, f, a die, F. One half, as f', of the face of

said die is made plain, while the other half is provided with a series of inclined faces, f² f³ f⁴ f⁵, which are arranged in planes oblique to the axis of the die, the faces f² f⁵ being in a common plane, while f³ f⁴ lie in planes which bisect each other, as well as that of the inclines f² f⁵.

Beneath the die F and upon the base B is an anvil, G, within the face of which are formed depressions G' G², Figs. 2, 3, and 4, for the reception of heel-plates H of varying size. The smaller of said depressions, G², is sunken deeper than the other, as represented, and serves as a support or rest for the smaller-sized heel-plate H. The larger sized plate is intended to fit and rest within the larger and shallower depression, G', as represented in Figs. 1 and 2, with the nails h thereof pointing upwardly.

J represents a rubber shoe, to the heel of which the plate is to be attached, the operation of which is as follows:

The plate H is first placed in the depression adapted to receive it, when the die F is inserted within the shoe, in the manner indicated in Fig. 1. Upon depressing the plunger by means of the lever E the nails h are bent, as shown in said last-named figure. The die is then slightly raised, the position of the shoe reversed, as shown in Fig. 3, so as to bring the nails beneath the plain surface f' of the die, when the nails are clinched by a further depression, as in said Fig. 3.

The advantages of said improvement are that a single die may be employed for plates of varying size, while toe-rests and adjustable or other independent heel-plate supports are entirely dispensed with.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a machine for attaching heel-plates to rubber shoes, the combination, with a plunger having a die at the lower end thereof, of the cam and lever for actuating the plunger, and a base having two heel-plate depressions, one within and deeper than the other, formed in its face and conformable in shape to the forms of the heel-plates, substantially as shown and described.

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