

(No Model.)

C. W. BABCOCK.  
HAIR CLIPPING MACHINE.

No. 532,628.

Patented Jan. 15, 1895.

Fig. 1.

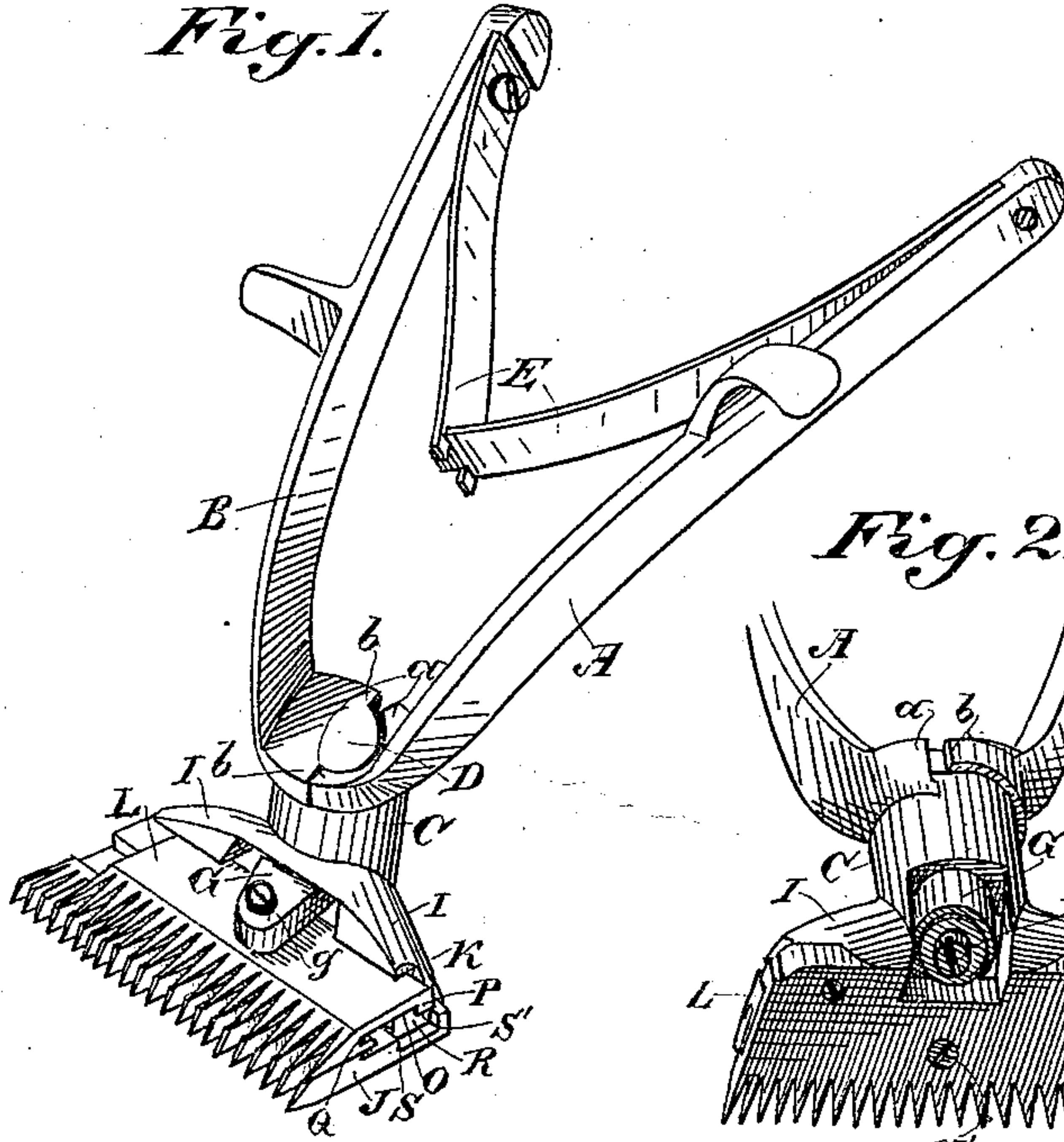


Fig. 2.

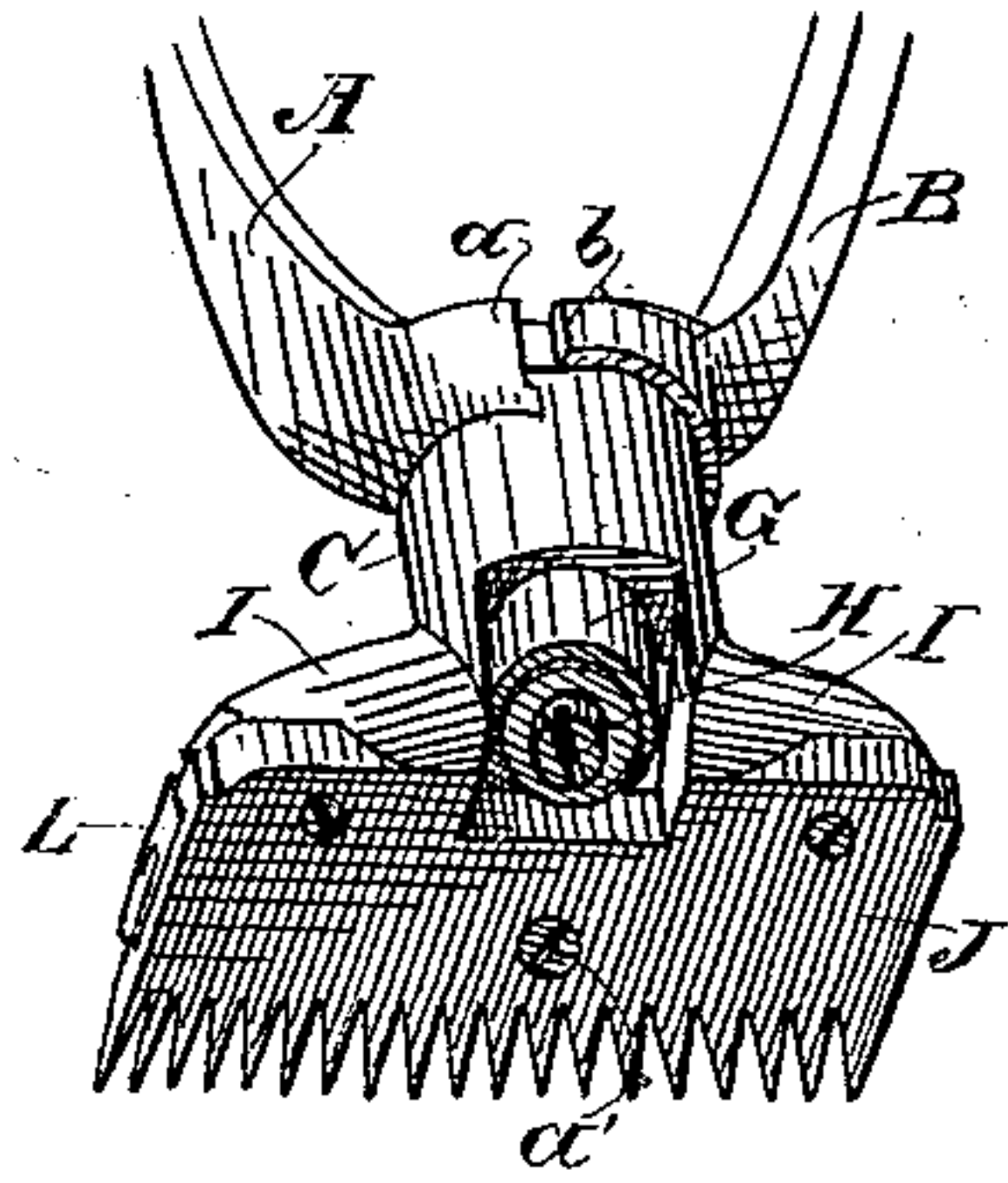


Fig. 3.

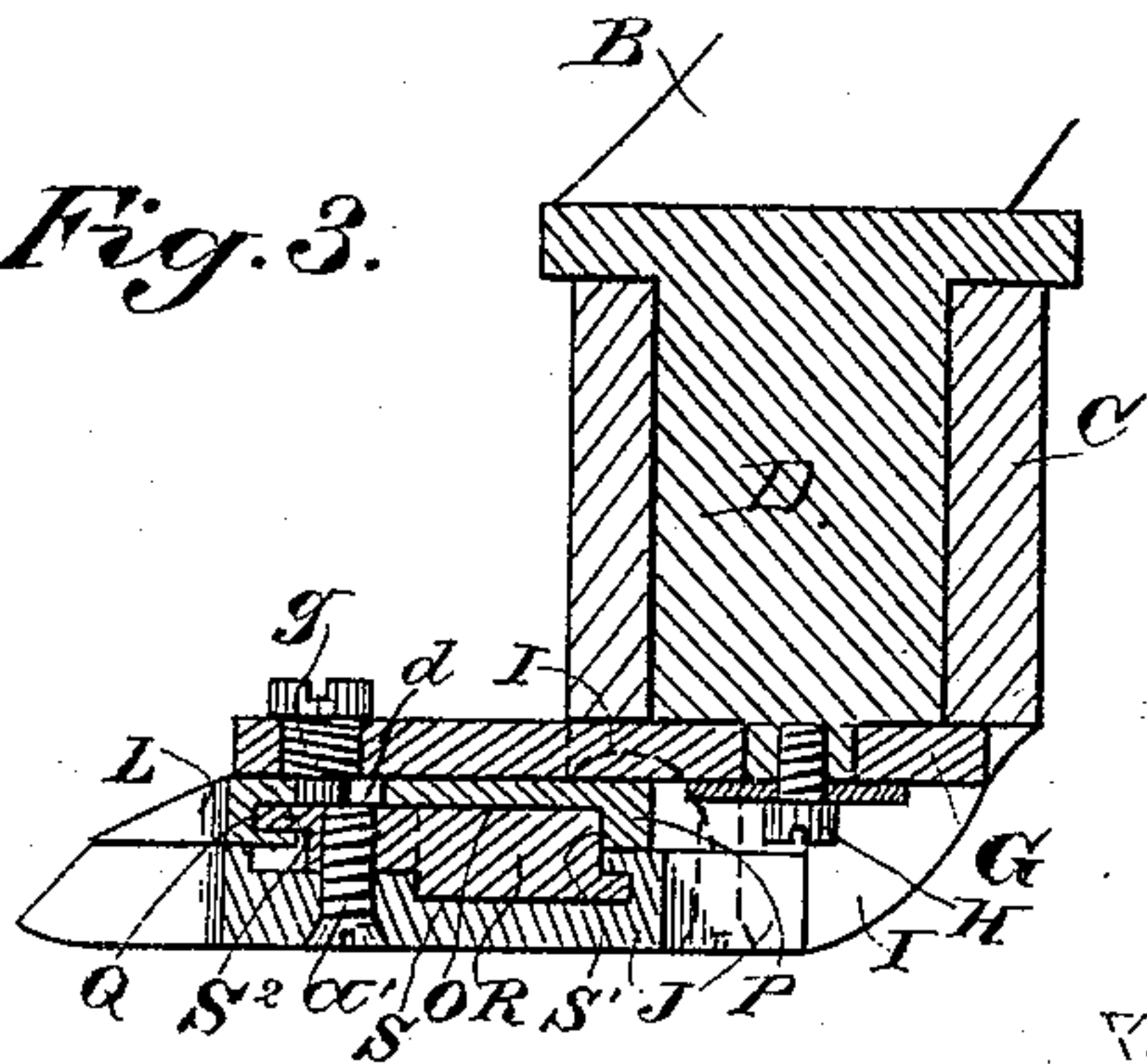


Fig. 5.

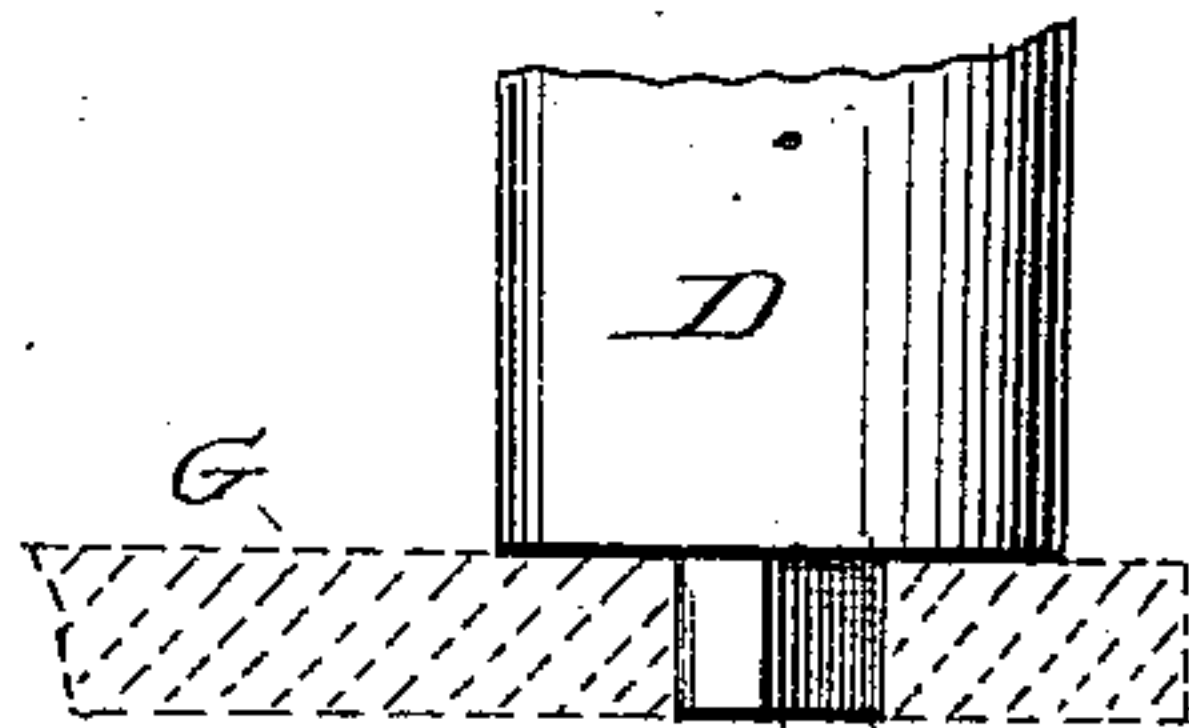
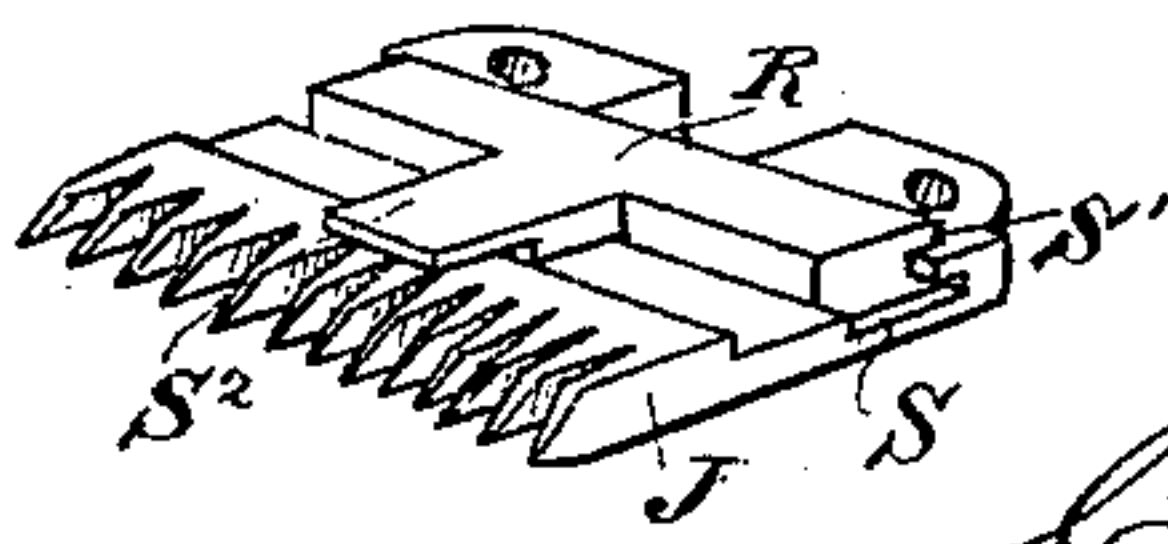


Fig. 4.



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# UNITED STATES PATENT OFFICE.

CHARLES W. BABCOCK, OF PORTLAND, OREGON.

## HAIR-CLIPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 532,628, dated January 15, 1895.

Application filed October 22, 1894. Serial No. 526,622. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. BABCOCK, a citizen of the United States, residing at Portland, Multnomah county, State of Oregon, have invented an Improvement in Hair-Clipping Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in hair clipping machines of that class in which a toothed cutter plate is adapted to be reciprocated over a fixed comb plate.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a front view of my device. Fig. 2 is a rear view. Fig. 3 is a vertical section through the center. Fig. 4 is a detail view of the comb plate and connections. Fig. 5, is a detail showing the lower portion of the shank D.

The object of my invention is to provide a machine which can be placed flat upon any part of the head and operated by means of handles without the necessity of any rotary joint to change the position of the clipper with relation to the handles, and to so construct the machine that the plates may be separated from each other and the different parts easily adjusted, taken out, or replaced.

The handles A and B are curved as shown, and approach each other adjacent to the cutting apparatus, where the handle A is provided with a long cylindrical tubular sleeve C, and the handle B with a corresponding cylindrical shank D which is adapted to enter and fit snugly while rotating freely within the sleeve. Above this sleeve and projecting from the lower end of the handle A are two lugs *a*, and upon the upper part of the cylindrical shank, projecting above the top of the sleeve, are two corresponding lugs *b* upon opposite sides of the center. These lugs *a b* are so separated as to allow the handles to be approached toward and separated from each other to a sufficient distance to operate the cutter, but they form stops to limit the amount of movement of these parts.

Between the handles A and B are fixed the springs E which may be of any suitable or desired form for the purpose of separating the handles. In the present case I have shown two flat springs bolted to the insides of the

handles and curved so that their ends meet and press against each other, but it will be manifest that a spiral spring may be used or a coiled spring connecting with the two rotary parts of the joint with a similar effect. The cylindrical shank or spindle which passes through the sleeve, has its lower end projecting below the bottom of the sleeve and made square (see Fig. 5) so as to receive a rocker arm G which has a square socket made in it to fit over the square post at the lower end of the shank. This rocker arm is secured upon the lower end of the shank by means of a screw H and a washer, so that it is easy to remove the screw at any time and withdraw the rocker arm and the shank which fits in the sleeve, if it is desired to separate the parts. From each side of the lower end of this sleeve, extensions project downward, and are turned outwardly, as shown at I, thus forming projections to which the fixed comb plate J is secured by screws, as shown. Between these projections I is a sufficient space to receive the rocker arm which is fixed to the lower end of the shank, as previously described, and it is thus contained within this space, the front end projecting out in front of the sleeve, and extensions as shown.

The extensions I are transversely chambered or channeled to receive the rear edge of the comb plate J which is bolted into the channel, its bottom being flush with the rear lower portion of the extension, while the upper front edge of the extension has a second groove or channel K made in it adapted to receive and guide the rear edge of the upper reciprocating cutter blade L. This cutter blade is formed as shown in Fig. 1, with beveled front edge divided into teeth which are adapted to reciprocate over the stationary comb plate. The lower surface of the cutter plate has a deep channel O made in it extending from end to end, forming a rib P upon the rear edge of the cutter plate and a groove Q extending into the front portion from the channel O as shown.

R is a tongue plate which is fixed in a groove or channel S which is made in the upper surface of the comb plate, and which has a rearward extending groove S' into which the lower edge of the tongue plate fits and by which it is held in position. The central portion of the tongue plate has a part projecting forward, as shown at S<sup>2</sup>, and the front edge of



this is channeled or cut away so as to receive the lower projecting edge of the cutter plate which fits into this channel, while the rear edge of the cutter plate rests upon the rear shoulder of the comb plate, and within the guide channel K.

The tongue R is secured to the comb plate by means of a screw  $\alpha'$  passing through the bottom of the comb plate and entering the central projection  $S^2$  of the tongue, thus drawing it firmly down into place upon the comb plate, and at the same time its projecting lip in front, pressing upon the flange at the lower side of the cutter plate, serves to draw the front portion and teeth of the cutter plate down upon the comb plate, and forms a medium for adjusting the two, so that the cutter will always be kept in close contact with the comb plate and made to work perfectly. In the center of the upper part of the cutter plate is an oval opening  $d$  and through the front end of the rocker arm G is made a hole with screw-threads. A screw-threaded pin is fitted into this hole, and the lower end of the pin  $g$  is turned so as to fit into the slotted opening  $d$  in the cutter plate. The oval shape of the opening  $d$  allows for a slight travel of the pin on account of the arc of movement of the rocker arm. By this construction it will be seen that when the handles are alternately pressed together and allowed to separate by the action of their spring, the rocker arm acts through its pin to reciprocate the cutter plate over the comb plate.

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

1. In a hair clipping machine, a comb plate fixed to one of the pair of handles, and channeled transversely upon the upper surface, a cutter plate, a tongue extending transversely between the cutter plate and comb plate and lying within said channel, having its front and rear edges adapted to form a tongue-and-groove engagement with the cutter plate and comb plate respectively, and a shank or spindle connected with the other handle having a rocker arm fixed to it and engaging the cutter plate whereby the cutter plate is reciprocated.

2. In a hair clipping machine, a comb plate channeled transversely upon the upper surface, a tongue lying within said channel, the rear edge engaging a groove in the rear portion of the channel, the front edge having a projecting lip, and an adjusting screw by which it is secured to the comb plate, a cutter plate having a transverse groove or channel in its lower face and a lip upon the front edge of the channel adapted to engage the lip of the front of the tongue plate while the rear edge of the cutter plate travels upon the rear shoulder of the comb plate, a handle having extensions to which the rear edge of the comb plate is fixed, said extensions projecting above the rear edge of the cutter plate, and a

second handle having a rocker arm connected with the cutter plate whereby the latter is reciprocated upon the comb plate.

3. In a hair clipping machine, a handle having a cylindrical sleeve projecting from its end with extensions at each side of the lower end of the sleeve, and a channeled offset into which the fixed comb plate is secured, a second handle having a shank or spindle fitting the cylindrical sleeve with a rectangular end projecting into the space between the extensions, a rocker arm removably fixed to the rectangular end of the spindle and projecting over the comb plate, a toothed cutter plate fitting upon the comb plate, a pin passing through the rocker arm and into the cutter plate whereby the movement of the handles reciprocates the cutter plate over the comb plate.

4. In a hair clipping machine, a pair of handles, one of which has a tubular sleeve extending from the end, with extensions from the bottom, channeled to receive a fixed comb plate which is secured thereto, and having a second transverse guide channel formed in the front portion of the extensions, a cutter plate, the rear edge of which is adapted to travel in said guide channel resting upon the rear of the comb plate and the front edge resting upon the toothed front portion of the comb plate, a locking and adjusting tongue extending transversely between the cutter and comb plates, and a lip by which the front edge of the cutter plate is connected with a corresponding lip upon the tongue, and a screw passing through the bottom or comb plate into the tongue whereby the latter is adjusted and the pressure of the cutter plate on the comb plate is regulated.

5. In a hair clipping machine, a pair of handles, one of which has a hollow cylindrical sleeve extending downwardly and provided with extensions from the lower end to which the fixed comb plate is secured, and in a channel of which the rear edge of the movable cutter plate is adapted to travel, a second handle having a shank or spindle which fits the interior of the sleeve, a polygonal extension of the shank below the sleeve, a rocker arm removably fitted to said extension and projecting forwardly over the cutter plate, a pin connecting the rocker arm with the cutter plate whereby the latter is reciprocated over the comb plate when the handles are opened and closed, stop lugs  $\alpha$  extending upon each side and above the cylindrical sleeve, and corresponding lugs  $b$  upon opposite sides of the upper end of the shank or spindle adapted to form contact and limit the movement of the parts.

In witness whereof I have hereunto set my hand.

CHAS. W. BABCOCK.

Witnesses:

H. F. STEWART,  
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