

(No Model.)

C. W. GLIDDEN.
HEEL TRIMMING MACHINE.

No. 403,747.

Patented May 21 1889.

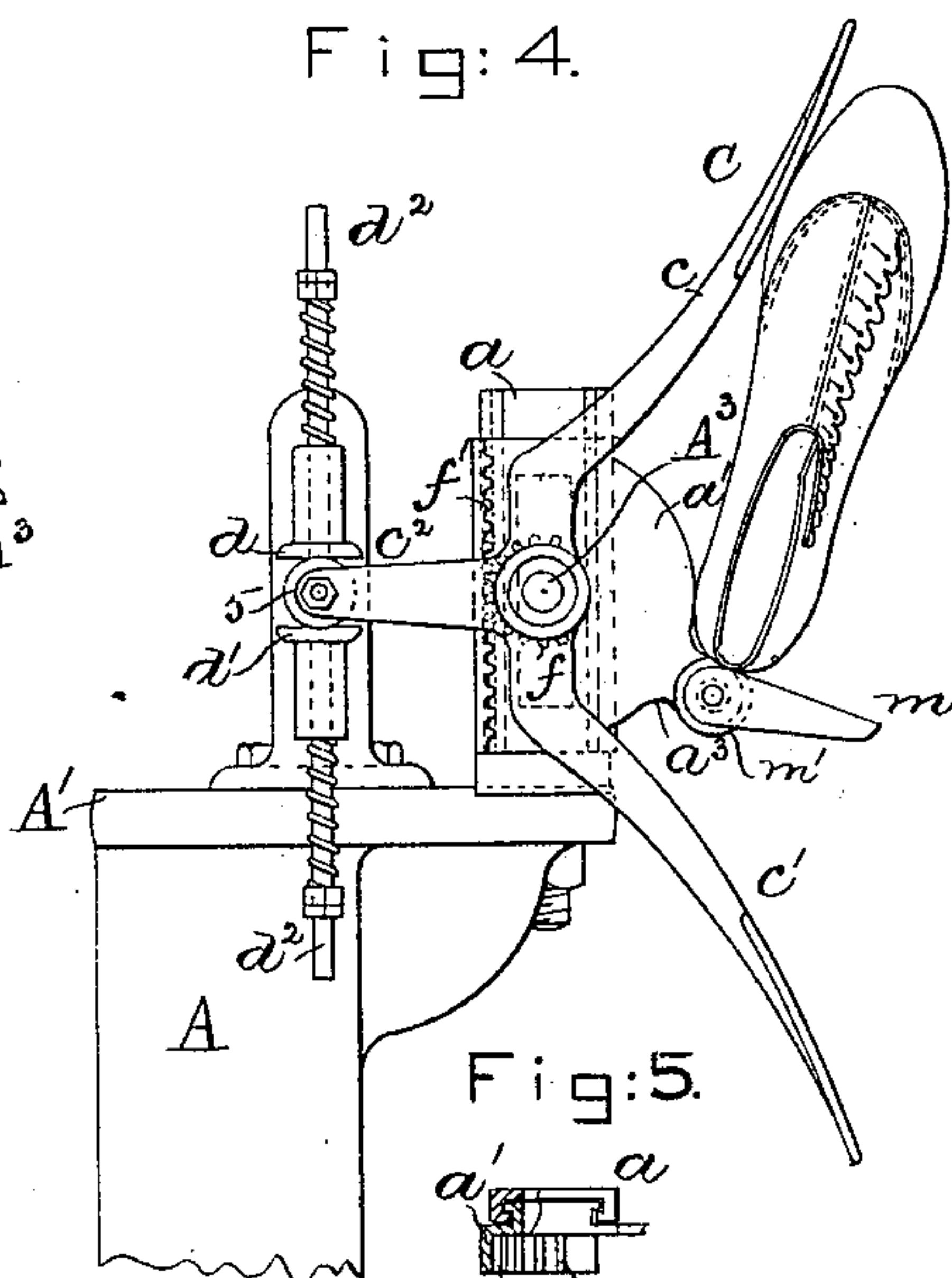
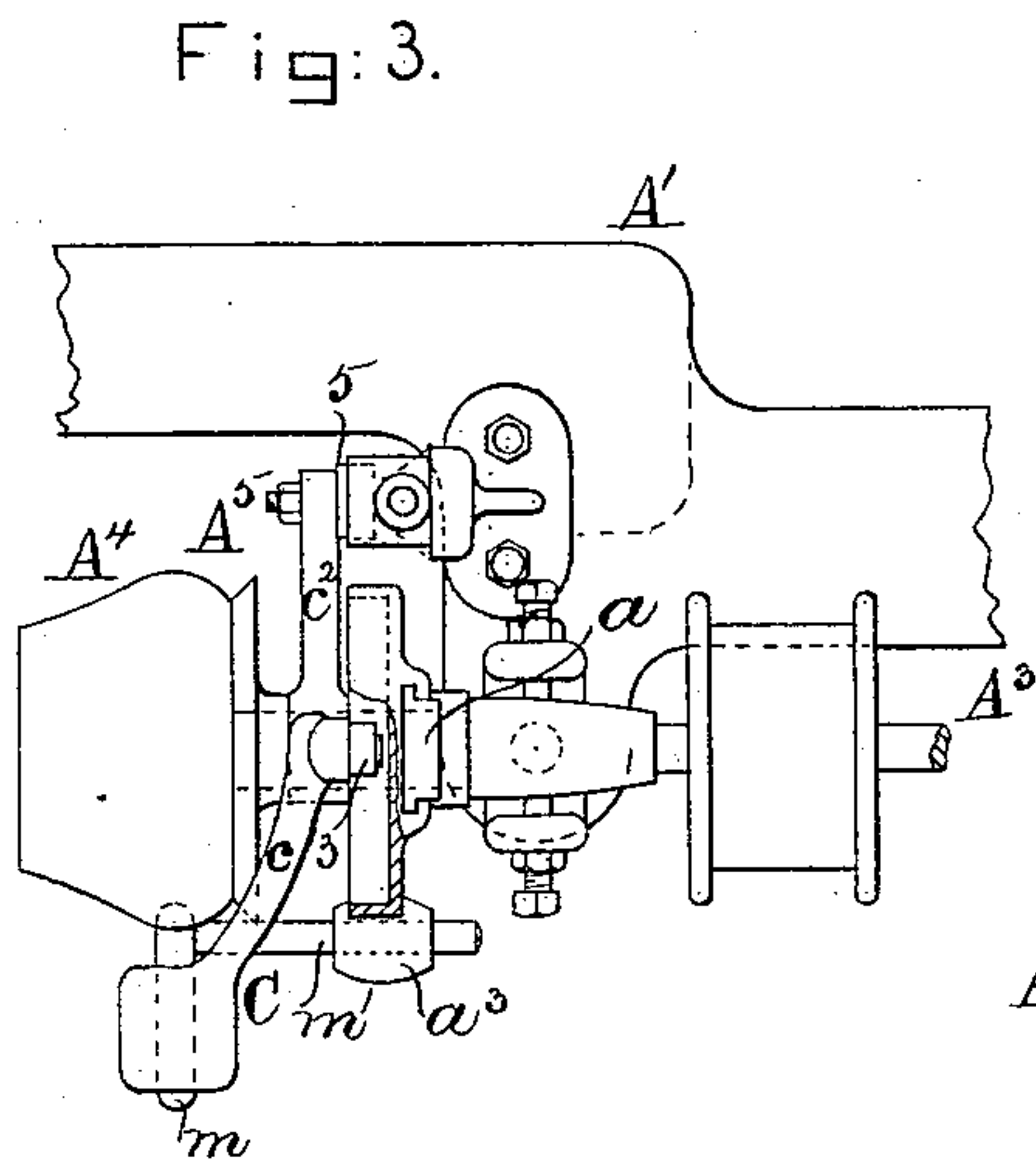
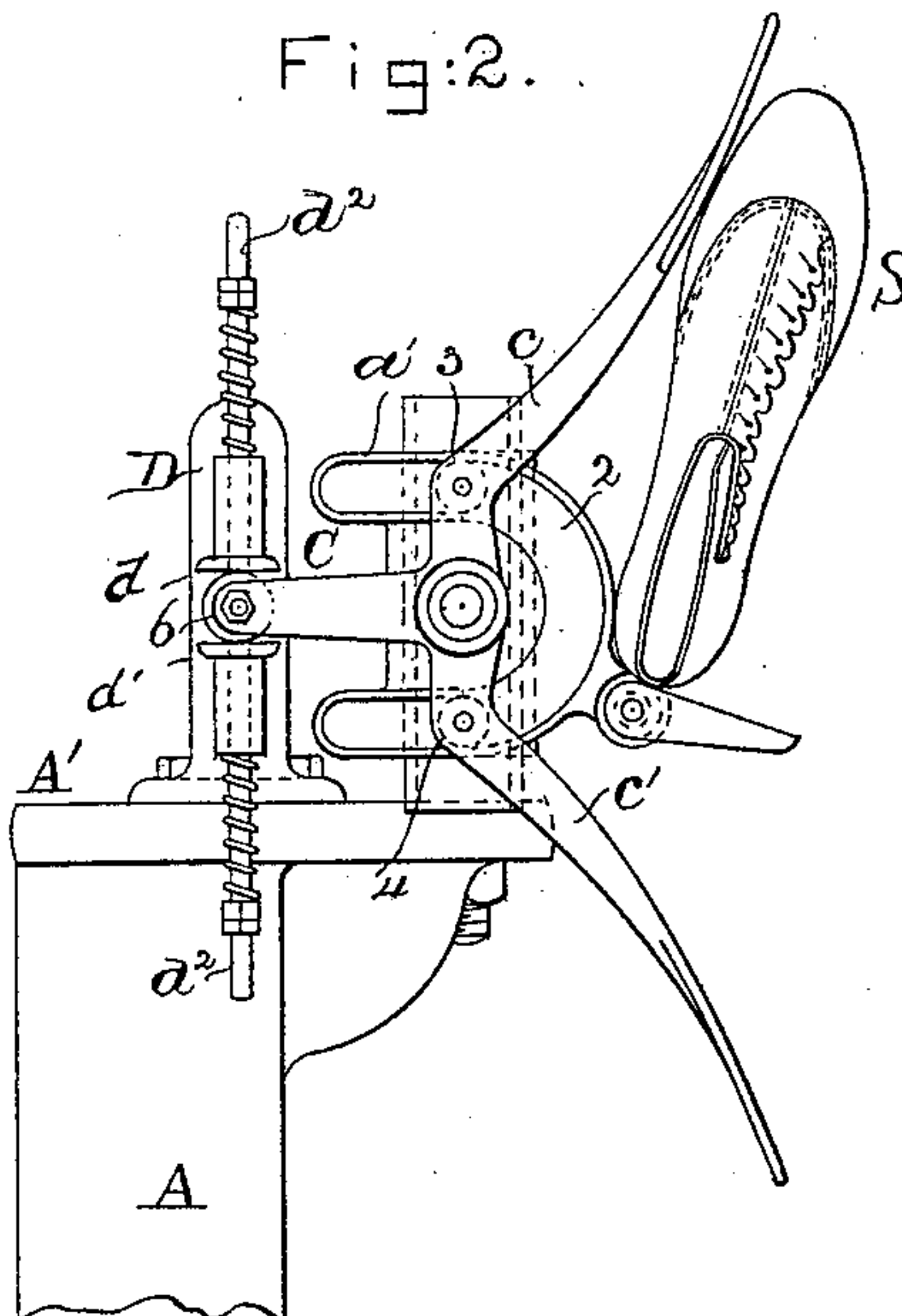
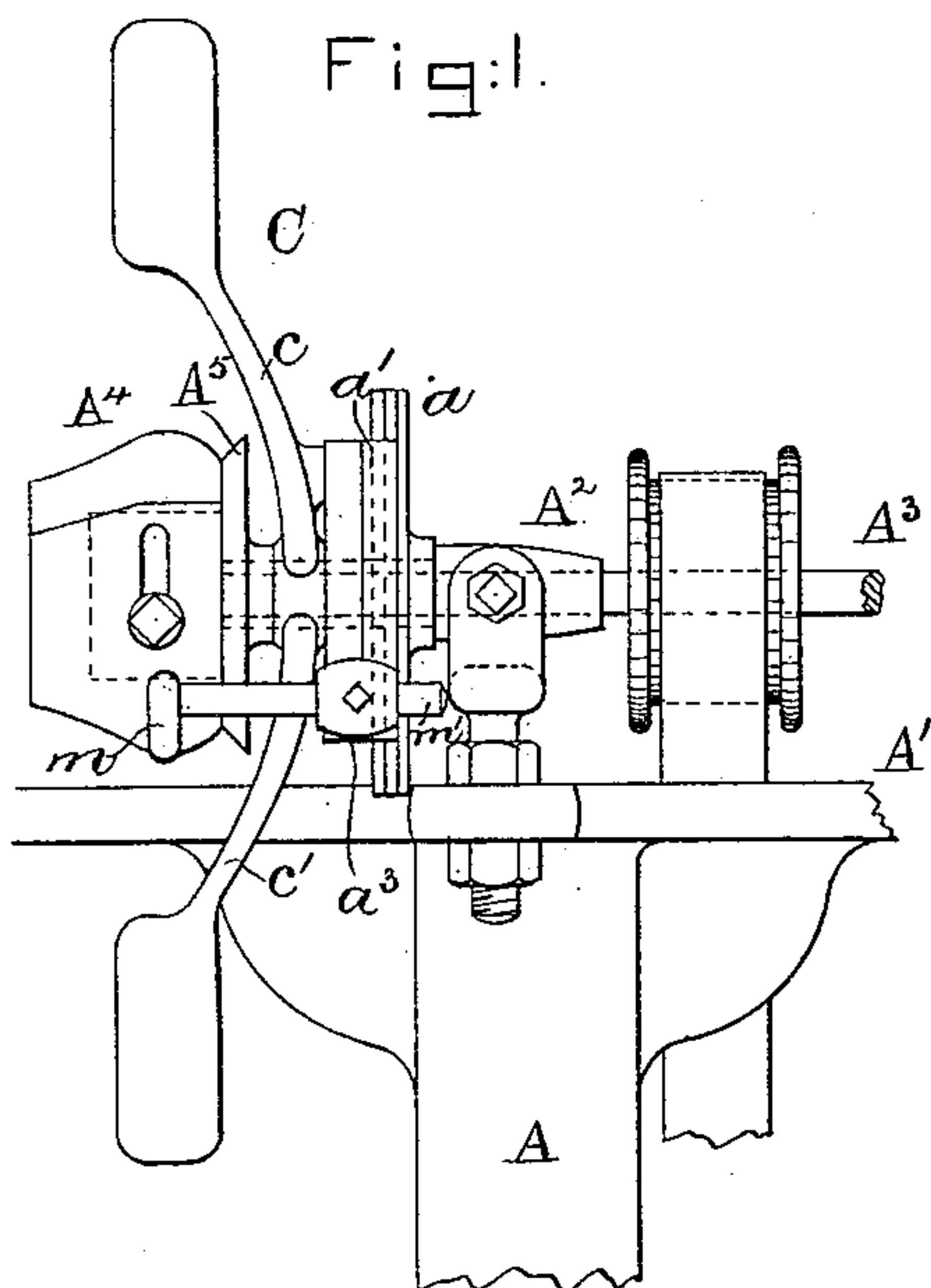
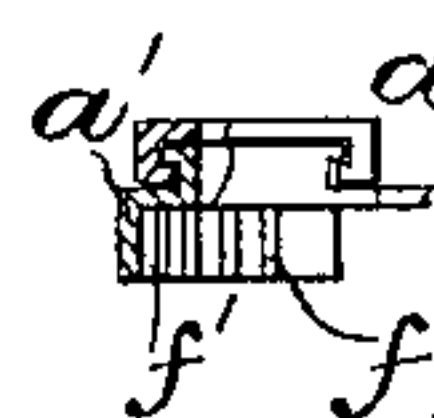


Fig:5.



Witnesses.

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UNITED STATES PATENT OFFICE.

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HEEL-TRIMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 403,747, dated May 21, 1889.

Application filed August 20, 1888. Serial No. 283,198. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. GLIDDEN, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Heel-Trimming Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention in heel-trimming machines has for its object more especially to improve the means for raising and lowering the edge-rest upon which the edge of the heel is supported while being trimmed, the said rest rising and falling as the heel is turned on the rest to enable it to be trimmed at its rear part and along its nearly or substantially straight sides, the edge-rest either rising or falling to at that time move the heel longitudinally with relation to the cutter employed to trim the heel.

This invention is intended as an improvement in the apparatus shown and described in my application, Serial No. 275,879, filed June 2, 1888, the edge-rest in that case being moved by a foot-treadle, whereas in this my present invention the said movement is gained either by the pressure of the edge or fore part of the shoe being trimmed against a lever, or by the pressure of the hand of the operator against said lever while guiding and holding the shoe on the edge-rest.

My invention in a heel-trimming machine consists, essentially, of a rotary cutter, an edge-rest, and movable carriage or support therefor, combined with means between it and the shoe whereby pressure on the shoe the heel of which is being trimmed will effect the raising or lowering of the said edge-rest while the sides of the heel are being trimmed, substantially as will be described.

Figure 1 is a partial side elevation of a heel-trimming machine embodying my invention; Fig. 2, a front or left-hand elevation of the machine shown in Fig. 1 with the cutter removed; Fig. 3, a top or plan view of the machine shown in Fig. 1, the support for the edge-rest being broken out to show the actuating-roll within it. Fig. 4 is a modification of my invention, and Fig. 5 a partial top view of Fig. 4.

The column A, the top plate thereon, the

bearing A², the cutter-shaft A³, the pulley thereon driven by a belt, and the rotary cutter A⁴, having movable blades, and the tread-guard A⁵ are all as in my said application, wherein like letters are used to represent like parts, so the said parts need not be herein further described. The tubular sleeve-like part of the bearing A² has secured to it a guide, a, (shown as T shape in cross-section,) on which is mounted to slide freely a carriage, a', having flanges to engage the said guide.

The carriage shown in Figs. 1 to 3, inclusive, is represented as provided with a cam-path, 2, to receive the rolls 3 and 4, attached to the arms c c' of a three-armed lever, C, mounted loosely on the said bearing A², between the guide a and the head of the cutter. The cam-path 2 in the said carriage, as shown in Fig. 2, is of substantially U shape; but the particular shape of the said cam-path, if used, will vary according to the particular style of the heel being trimmed. The third arm, c², of the said three-armed lever C has a roller or other stud, as 5, which is placed between the slide-blocks d d', each free to slide on a rod, d², secured near the center of its length to a boss or lug on the bracket D, erected on the top plate, A', the said rod above and below the said slide-boxes being surrounded by spiral or other equivalent springs, which normally act to keep the arm c² in substantially horizontal position, as shown in Fig. 2. The carriage a' has projecting from it a lug, a³, in which is held in an adjustable manner the shank m' of the edge-rest m, upon which will rest the edge of the heel to be trimmed.

To illustrate the operation of my invention, it will be assumed that the operator holding the shoe S in both hands in usual manner will place the rear end of the heel against and so as to be acted upon by the cutter A⁴ to trim the substantially circular part of the heel. During this operation the operator gradually turns the fore part of the shoe up into the position Fig. 2, and then to enable the substantially straight side of the heel to be trimmed the operator by pressure on the shoe against the uppermost arm causes the upper roll, 3, to move farther into the cam-path, so as to effect the depression of the carriage, and with it the edge-rest, the lower roll, 4, moving out

into the substantially circular part of the groove 2, thus letting the shoe descend gradually while trimming along the straight side of the heel to the breast. To trim the other half 5 of the heel, the operator will turn the shoe down from the position shown in Fig. 2 until the lower arm is acted upon, when in turn the roll 4 will enter farther into the cam-path and the roller 3 will come out into the circular 10 part of the said cam-path, and as a result thereof the carriage and edge-rest will be raised.

In the modification, Fig. 4, the hub of the lever C has a pinion, *f*, which engages rack-teeth *f'* of the carriage *a'*, which, by the move- 15 ment of the lever C in one or the other direction, raises or lowers the said carriage, and with it the edge-rest.

I claim—

1. In a heel-trimming machine, a rotary cutter, an edge-rest, a movable carriage upon 20 which the said edge-rest is mounted, and a

guide for the said carriage, combined with means, as a lever, against which the shoe the heel of which is being trimmed may be pressed, the pressure of the said shoe against the said 25 lever effecting the raising or lowering of the said edge-rest while the sides of the heel are being trimmed, substantially as described.

2. In a heel-trimming machine, a rotary cutter, an edge-rest, a carriage or support for the 30 same, and a guide for the said carriage or support, combined with a three-armed lever and with means to retain it in normal position while the rear end of the heel is being 35 trimmed, substantially as described.

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

CHARLES W. GLIDDEN.

Witnesses:

H. P. FAIRFIELD,
CHAS. H. BENJAMIN.