

No. 649,879.

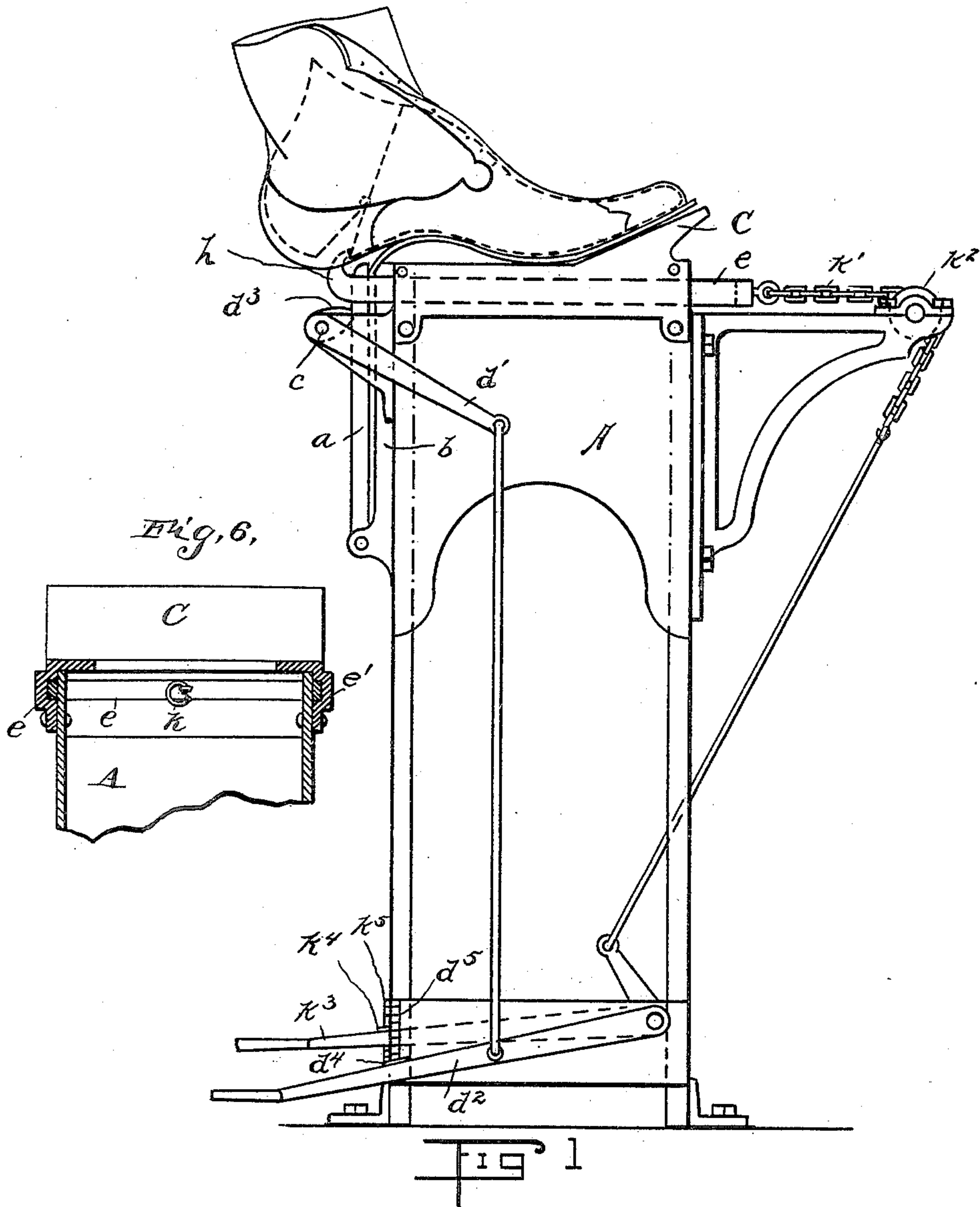
Patented May 15, 1900.

W. T. SHEILL.
RELASTING MACHINE.

(Application filed Aug. 24, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES
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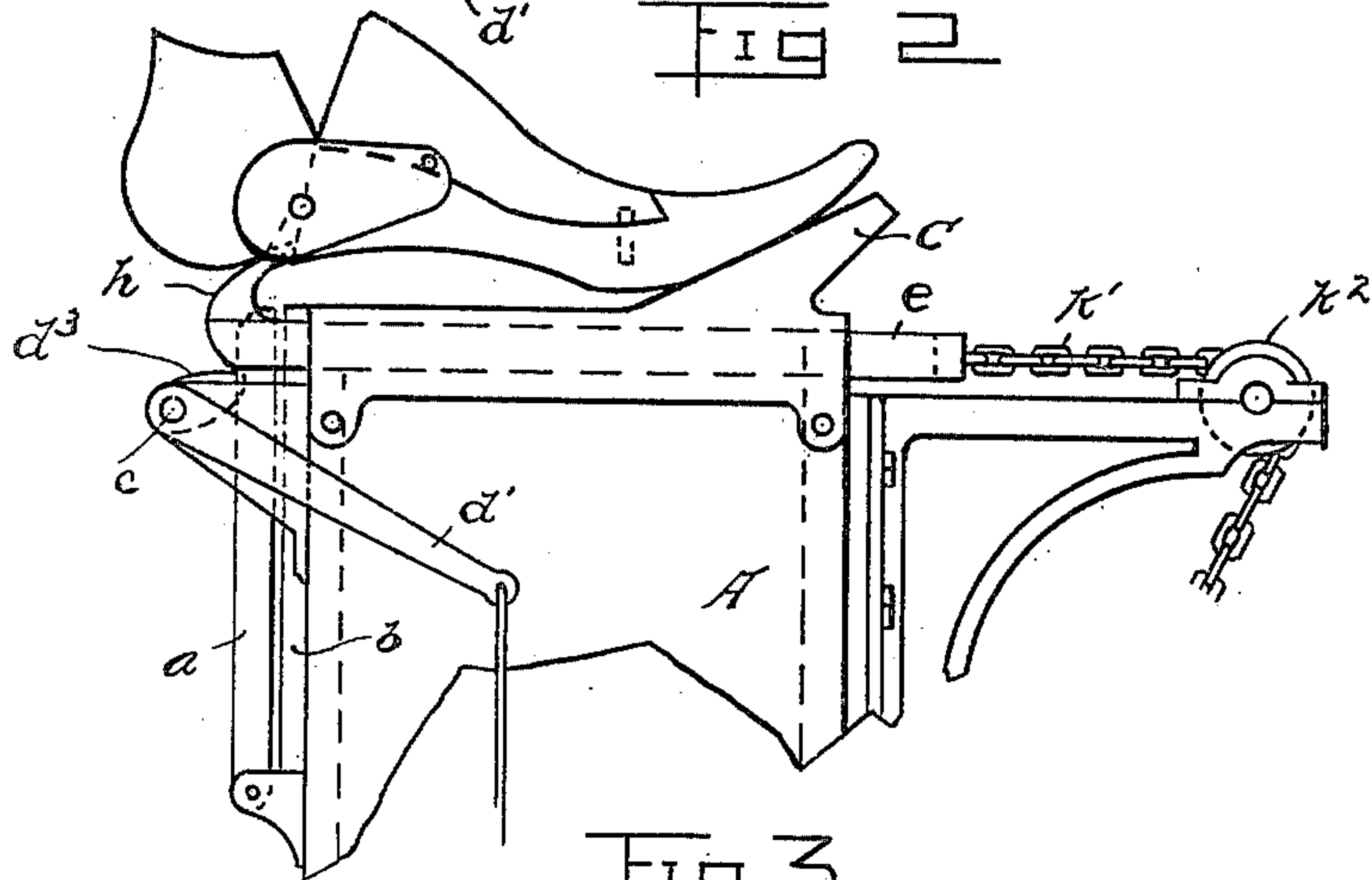
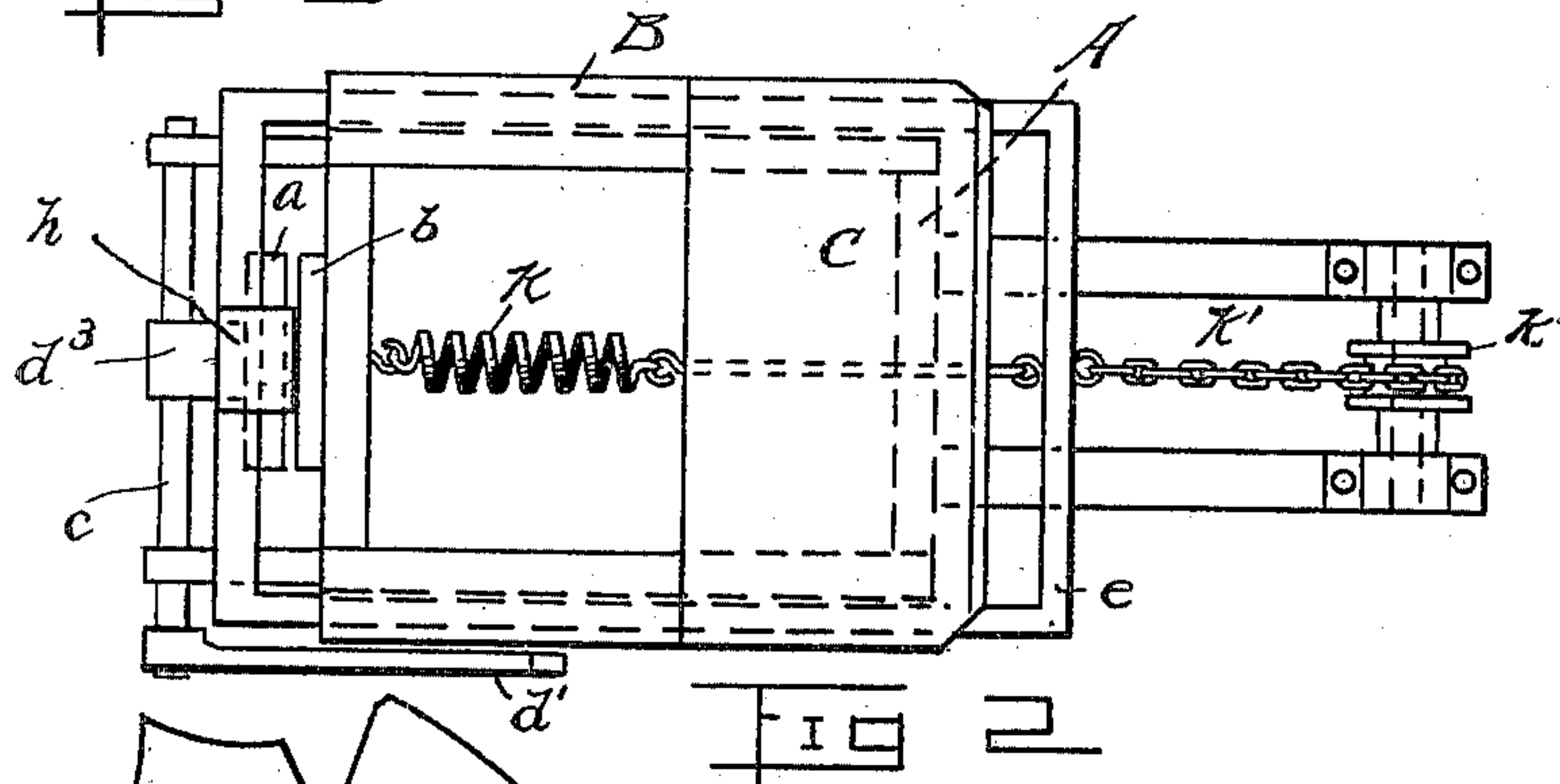
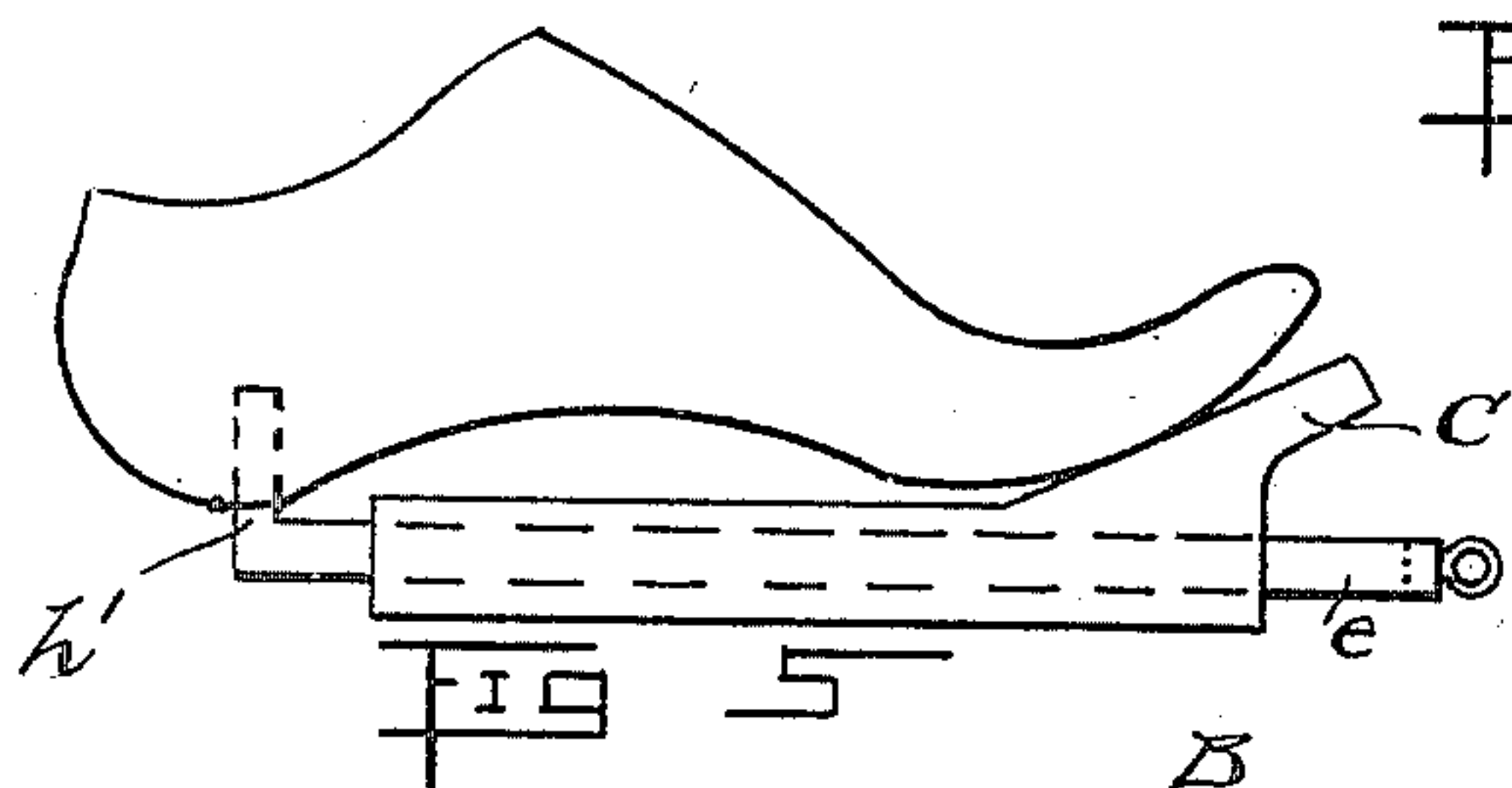
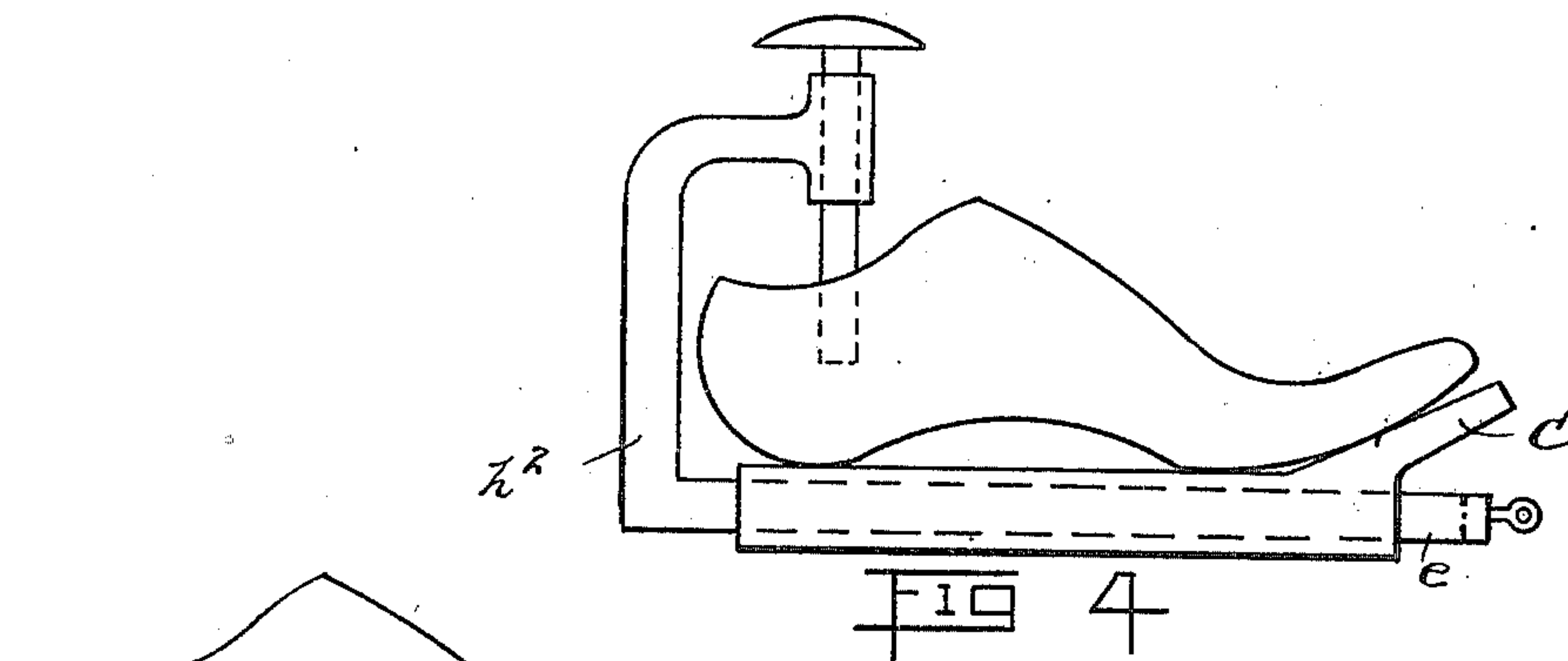
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2 Sheets—Sheet 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM T. SHEILL, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
EDWIN O. KREUTHER AND GEORGE A. KREUTHER, OF SAME PLACE.

RELASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 649,879, dated May 15, 1900.

Application filed August 24, 1899. Serial No. 728,323. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. SHEILL, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Relasting-Machines; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to a shoe-last inserter, and has for its object an improved machine adapted to insert a last in a turned shoe.

In that class of shoes which are known as "turned" shoes it is necessary to insert a last in the shoe after it has been partially made wrong side out and turned right side out, and it has been found very difficult to force the last into the toe of the shoe, so that it will fully fill the shoe out to its proper shape. The machine which contains this invention overcomes the difficulty and enables the workman to force a last into the shoe without pulling or stretching the upper of the shoe in any way to destroy its proper shape.

30 The machine is intended to be used especially with jointed lasts; but the principle employed may be used with the ordinary unjointed last equally as well as with the jointed last.

35 In the drawings, Figure 1 shows a machine with a shoe in place preparatory to forcing the last into the shoe. Fig. 2 is a plan view. Fig. 3 is a side elevation showing the last in the position on the machine as it would appear were it placed on the machine without the shoe. Fig. 4 shows the machine adapted for use with an unjointed last. Fig. 5 shows an unjointed last in position on the machine. The last in this case is provided with a hole 45 leading into the under side of it at the heel part of the last. Fig. 6 is a cross-section of the machine.

50 A indicates the frame of the machine; B, the tubular part of the frame; C, a toe-rest on the table. At that part of the frame over which the heel of the shoe rests and below the tubular part of the frame there is a clamp

consisting of a movable jaw *a*, a fixed jaw *b*, and means for forcing the movable jaw toward the fixed jaw. As shown in the drawings, the means employed is a cam-lever *d'*, 55 one end of which is mounted on a rock-shaft *c*, which bears in brackets that extend from the fixed jaw and one end of which, *d'*, is connected by a link to a foot-lever *d*². The cam *d*³ presses against the movable jaw and presses the movable jaw toward the fixed jaw. A sliding frame *e* rests in supporting-brackets *e'*, that project from the table-frame, and this sliding frame *e* is provided at the 65 end which lies above the clamp with a hook *h*. The hook *h* rises above the surface of the table and is adapted to engage against an opposing part of the last. When the jointed last is used, the hook *h* has the shape 70 shown in Fig. 1 and engages against the back or hinge end of the toe part of the last.

When an unjointed last is used, the hook *h* may take the shape of a pin rising straight from the sliding plate *e*, as is shown at *h'* of 75 Fig. 5, or it may take the form of a goose-neck hook, (shown at *h*² in Fig. 4.) In either of the latter forms the pin or hook engages in a hole in the last. The frame *e* is normally held back, with the hook *h* behind 80 the clamp, and it is held in this position by a spring *k*. To the forward end of the frame is engaged a chain *k'*, that extends over the sheave *k*² to a foot-lever *k*³. A catch *d*⁴ on the foot-lever *d*² engages under a toothed 85 standard *d*⁵, and a catch *k*⁴ on the foot-lever *k*³ engages under a toothed standard *k*⁵.

In operation the heel part of the sole of the shoe is left without fastening it to the upper when the shoe is sewed, and the rear part of 90 the sole, loose from the upper, is bent downward and engaged between the jaws *a* and *b* of the clamp. The last is inserted in the shoe either before the sole is clamped in the jaws or afterward, and the last is pushed into 95 the shoe until the hook can engage the last properly. If a jointed last is used, the last is pushed into the shoe until the hook can engage behind the toe part of the last. If an unjointed last is used, it is provided with 100 a hole that extends vertically into the heel part of the last either through it or from above into it or from below into it, and the hook *h'* or *h*² is engaged in the hole. After the slid-

ing part of the frame has been engaged to the last the last is pulled forward by means of the sliding frame *e*, which is actuated by the foot-lever *k*³. The shoe is held against the forward pressure of the last, because the heel part of the sole of the shoe is held between the jaws *a* and *b* of the clamp.

What I claim is—

1. In a last-inserting machine, in combination with means for grasping and holding the sole of a shoe, a hook adapted to engage the last, and means for pressing the last forward into the shoe, substantially as described.

2. In a machine for inserting a last in a shoe, in combination with a support for the shoe, a clamp arranged to grasp the heel part

of the sole, a hook arranged to grasp the last, and means whereby the hook is actuated to push the last forward, substantially as described.

3. In a machine for inserting a last in a shoe, in combination with a support for the shoe, a clamp arranged to grasp the heel part of the shoe-sole, means adapted to engage the last, and means whereby the last is forced into the shoe, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM T. SHEILL.

Witnesses:

CHARLES F. BURTON,
JOHN N. GOODRICH.

It is hereby certified that the names of the assignees in Letters Patent No. 649,879; granted May 15, 1900, upon the application of William T. Sheill, of Detroit, Michigan, for an improvement in "Relasting-Machines," were erroneously written and printed "Edwin O. Kreuther and George A. Kreuther," whereas said names should have been written and printed *Edwin O. Krentler and George A. Krentler*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 17th day of July, A. D., 1900.

[SEAL.]

F. L. CAMPBELL,
Assistant Secretary of the Interior.

Countersigned:

WALTER H. CHAMBERLIN,
Acting Commissioner of Patents.