

(No Model.)

2 Sheets—Sheet 1.

W. DENTON.
GARMENT TURNER.

No. 509,655.

Patented Nov. 28, 1893.

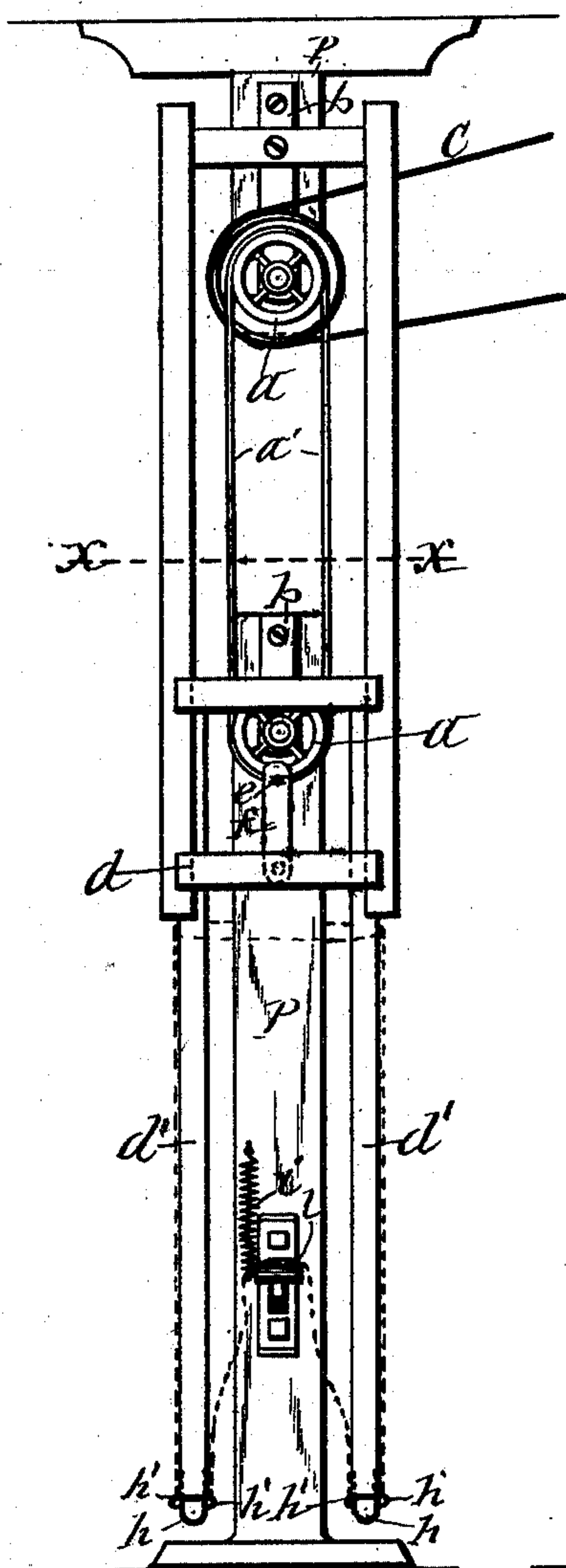


Fig. 1

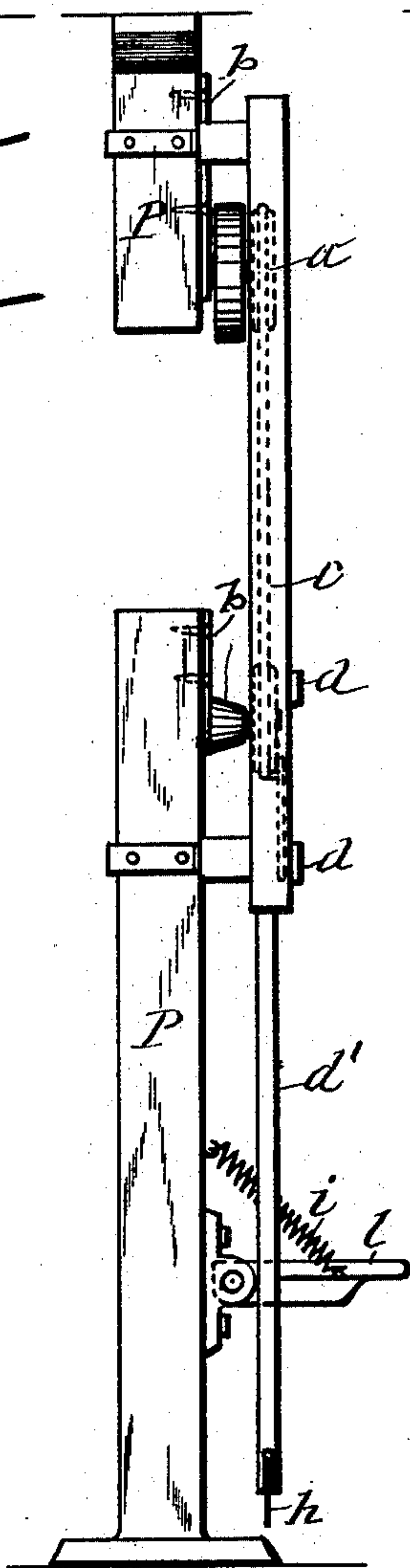


Fig. 3

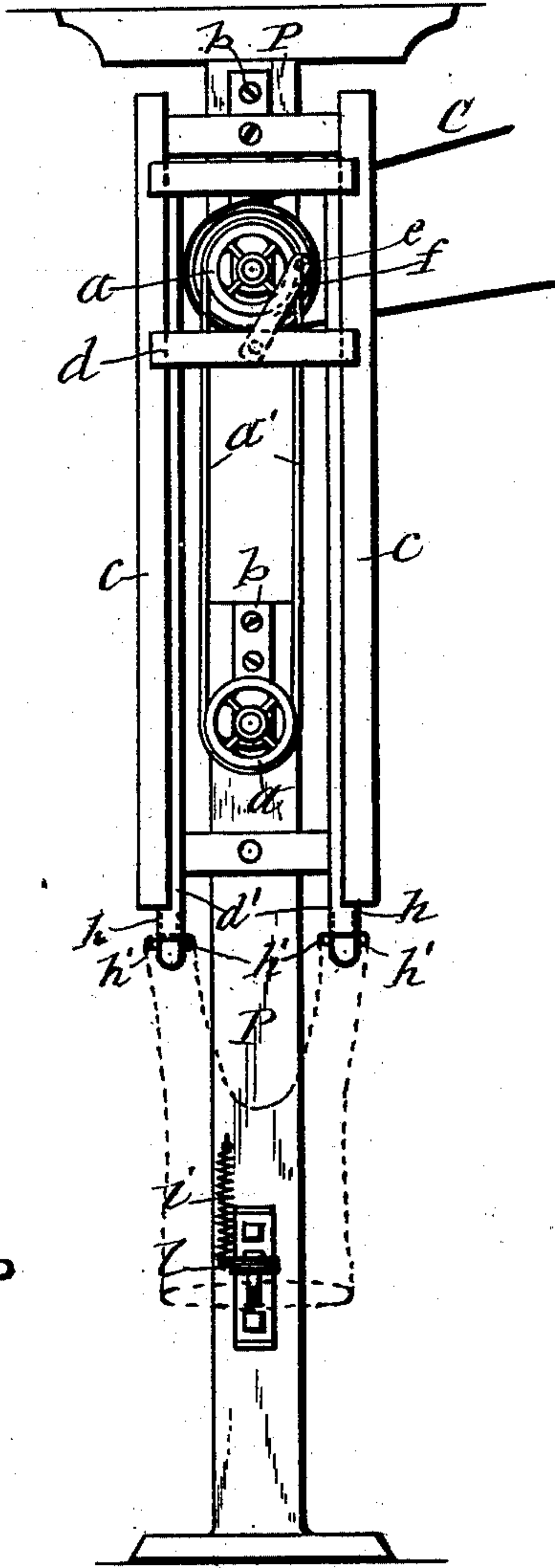


Fig. 2

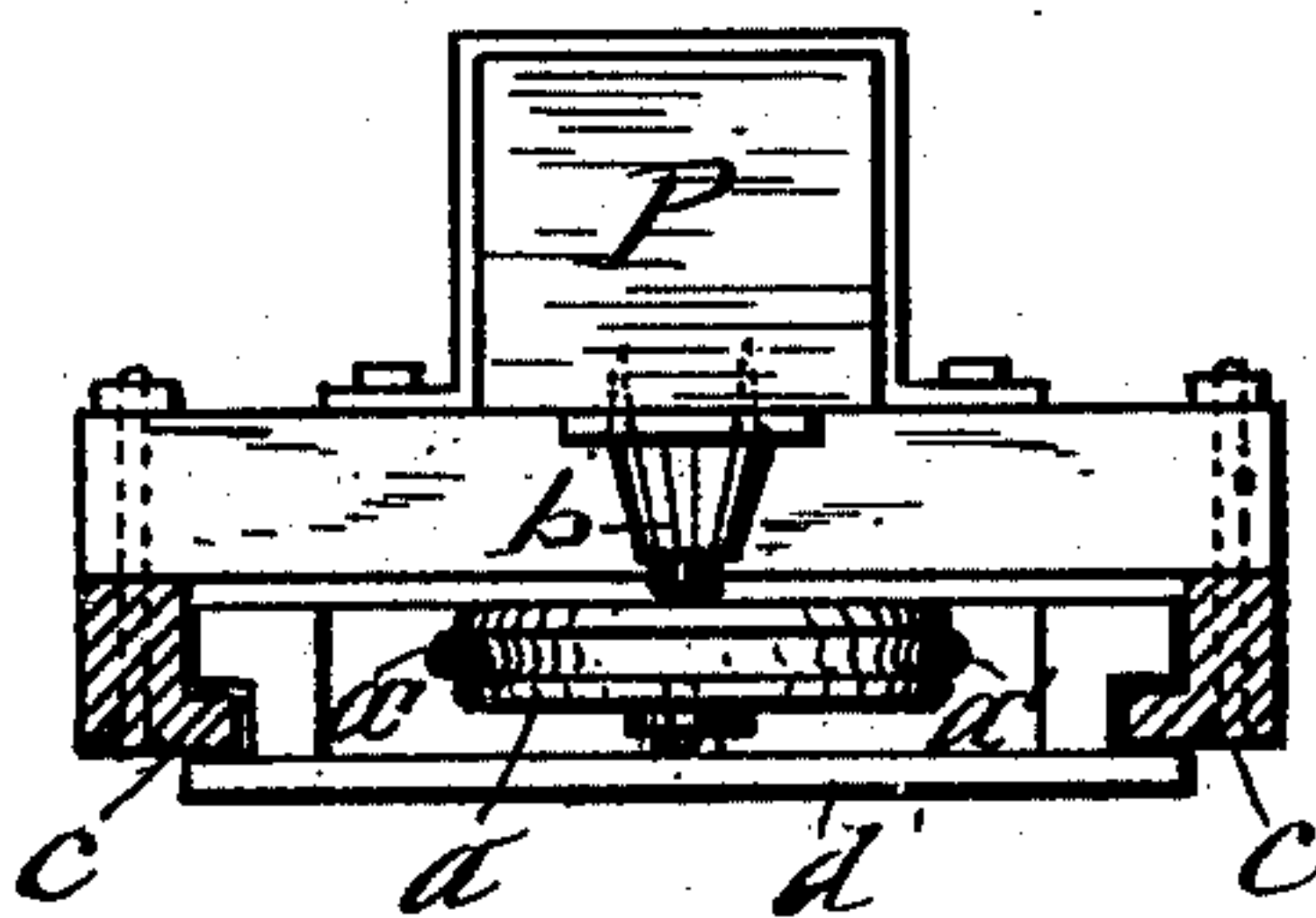


Fig. 4

WITNESSES:

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J. J. Laase

INVENTOR:

Whitley Denton
By E. Laase
his ATTORNEY.

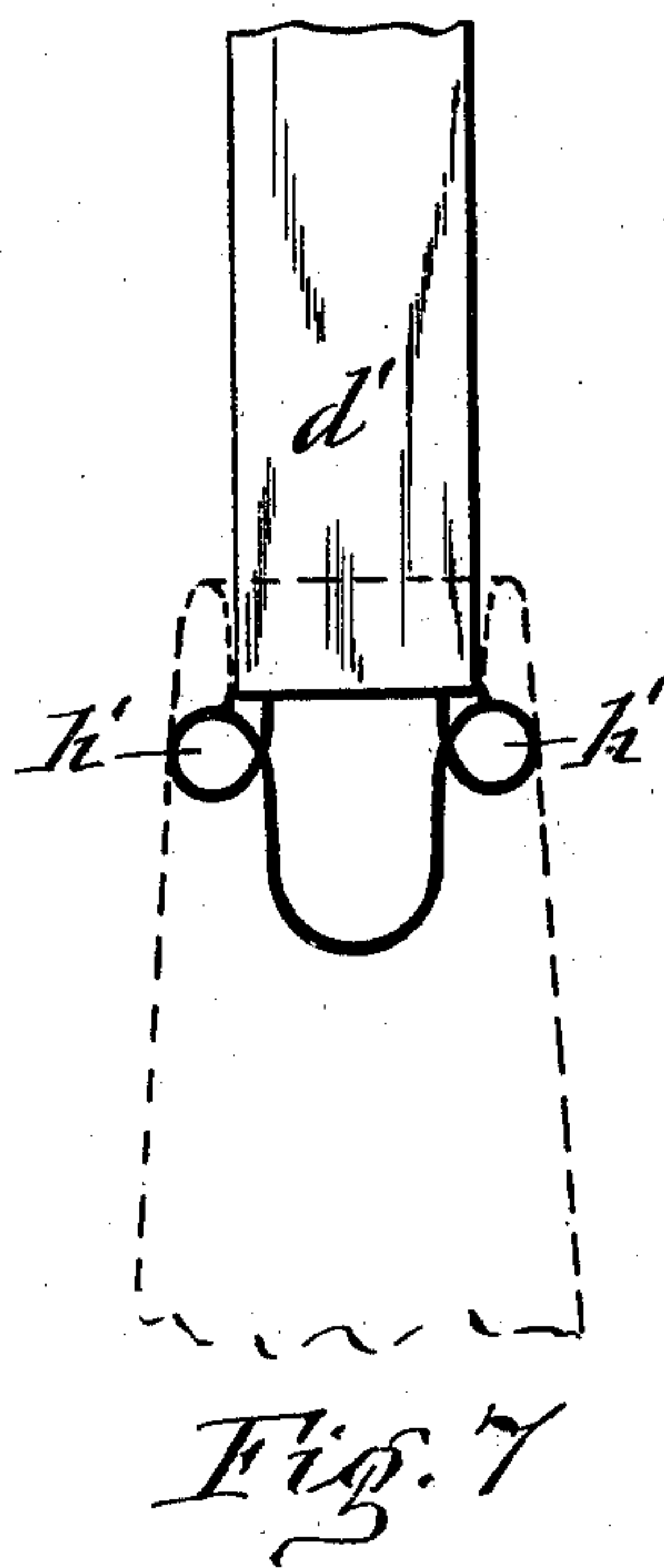
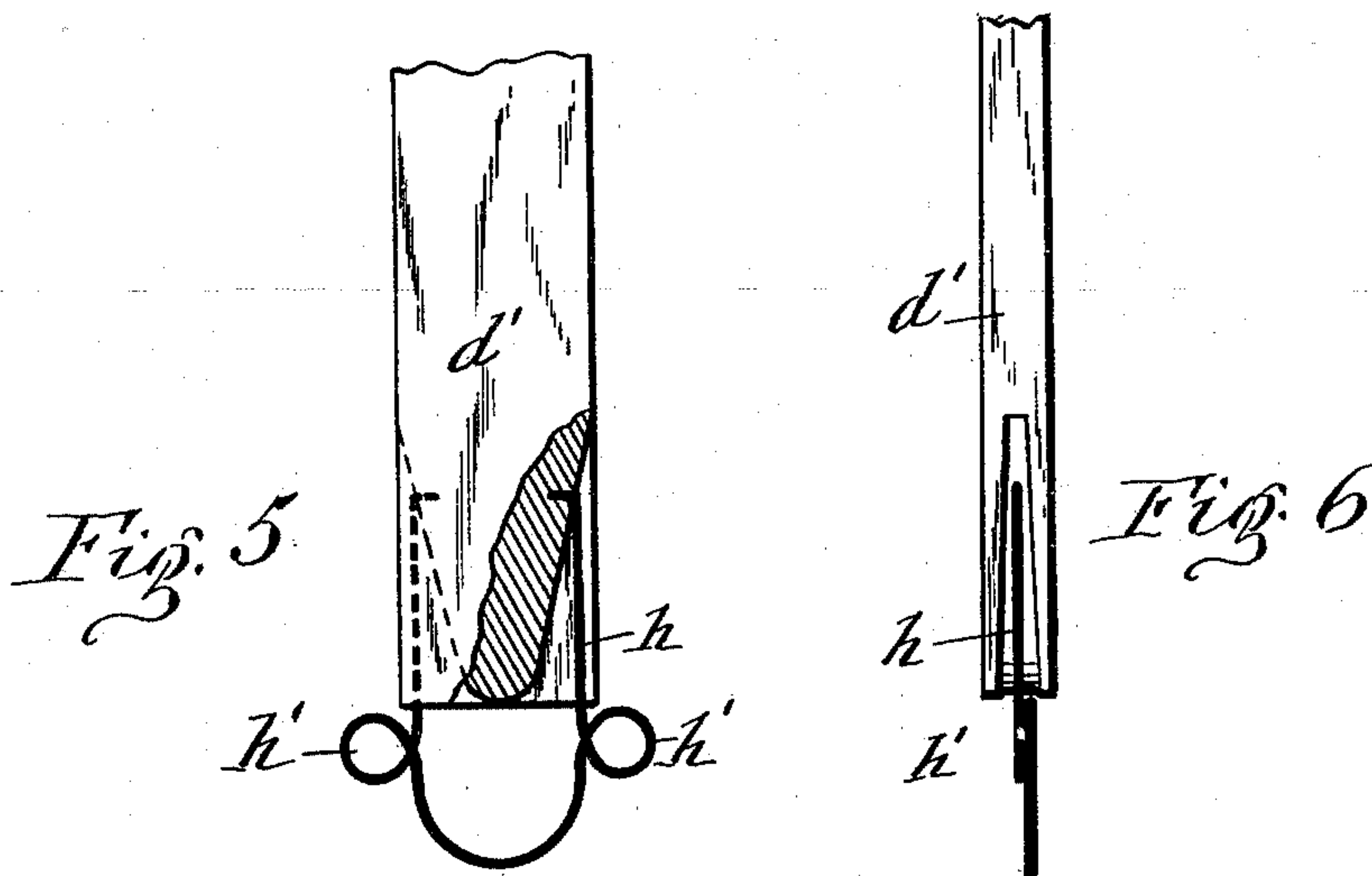
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WITNESSES:

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J. J. Laass

INVENTOR:

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By E. Laass
his ATTORNEY.

UNITED STATES PATENT OFFICE.

WHITLEY DENTON, OF CENTREVILLE, MICHIGAN.

GARMENT-TURNER.

SPECIFICATION forming part of Letters Patent No. 509,655, dated November 28, 1893.

Application filed April 13, 1893. Serial No. 470,140. (No model.)

To all whom it may concern:

Be it known that I, WHITLEY DENTON, of Centreville, in the county of St. Joseph, in the State of Michigan, have invented new and useful Improvements in Garment-Turners, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention is designed chiefly for factories of knitted garments, and the purpose of the invention is to turn the garments inside out in an expeditious, convenient and safe manner.

To that end the invention consists in certain novelties in the details of said garment turner and auxiliary devices connected therewith, all as hereinafter more fully described and specifically set forth in the claims.

In the annexed drawings Figures 1 and 2 are front elevations of a garment turner embodying my invention and showing the same in two of its operative positions. Fig. 3 is a side elevation of the same. Fig. 4 is an enlarged transverse section on line *x, x*, in Fig. 1. Fig. 5 is an enlarged front view of the free end of one of the garment-turning arms of the machine, shown partly in section to better illustrate the arrangement of the spring-catches connected to said arm. Fig. 6 is an edge view of the same, and Fig. 7 is an enlarged front view of the lower end of one of the garment turning arms with the sleeve or leg of a garment hung thereon and in process of being turned.

Similar letters of reference indicate corresponding parts.

a-a are two pulleys arranged one above the other and a proper distance apart for the purpose hereinafter explained, said pulleys being mounted on journals projecting from brackets *b-b* attached to suitable rigid supports *P-P* to which supports are also fastened the vertical guides *c-c* on which slides the frame *d*. Upon the aforesaid pulleys runs a belt *a'* which receives motion by a driving belt *C* connecting one of said pulleys with the pulley of a suitable motor, not shown. To this belt *a'* is firmly secured a laterally projecting pin *e* which is pivotally connected to an arm *f* pivoted to the frame *d* which latter is thus

carried up and down by the travel of the belt. The frame *d* has arms *d'-d'* extending downward from it, and to the lower end of each of said arms are secured the spring-catches *h-h* which normally project from opposite edges of the arm and are adapted to be compressed toward each other. These catches I preferably form of spring wire lying in vertical grooves in the edges of the arm *d'* and fastened at one end to said arm and formed with coils *h'-h'* immediately beneath the arm and in a plane parallel with that of the arm. To the lower support *P* is hinged another arm *l* which is supported in a horizontal forward projecting position by means of a spiral spring *i* connecting the free end portion of said arm to the support *P* at a point above the hinge. Said spring is detachable either from the support *P*, as shown, or from the arm, for the purpose hereinafter explained.

The operation of my invention is as follows: To turn a shirt the operator takes hold of the bottom of the shirt and lets the top thereof drop so as to bring the shoulder of the shirt upon the arm *l* and, while the operator holds the shirt in a suspended position he distends it to allow the descending reciprocating arms *d'-d'* to enter the shirt and pass through the sleeves thereof. In this operation the engagement of the arm *l* with the shoulder of the arm causes the sleeves to hang straight in line with the body of the shirt. In case the descending arms *d'-d'* should accidentally catch on the interior of the sleeves, the spring-supported arm *l* yields to the downward strain and thus obviates the liability of the shirt being torn. In passing through the sleeves the catches *h-h* yield laterally and after passing out of the lower ends of the sleeves said catches spring outward, and in the succeeding ascending movement of the arms *d'-d'*, the catches *l-l* engage the extremities of the sleeves and draw the same up through the inside of the shirt held by the operator as aforesaid. The shirt is thus turned completely inside out. For turning trousers or drawers the arm *l* is not required and is dropped out of the way by unhooking or detaching one end of the spring *i*. In turn-

ing trousers or drawers the operator takes hold of the top thereof and, while suspending and distending the same, the descending arms —*d'*—*d'*— pass through the legs of said trousers or drawers, and, in the succeeding upward movement, the catches —*h*—*h*— engage the bottom edges of the legs and draw the latter up through the inside of the trousers or drawers and thus turn the same.

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

1. In combination with rigid supports and vertical guides attached thereto, a frame sliding on said guides, garment-engaging arms extending downward from said frame, pulleys arranged one above the other and pivoted to the aforesaid supports, a belt running on said pulleys, and an arm pivoted to the
20 sliding frame and connected to the belt, as set forth.

2. In combination with rigid supports, ver-

tical guides attached to said supports, a reciprocating frame sliding on said guides, arms depending from said frame, spring catches 25 attached to the pendent arms, and a horizontal arm projecting from the lower support to receive the shoulder of the shirt to be turned, as set forth.

3. In combination with the rigid supports, 30 vertical guides attached to said supports, a reciprocating frame sliding on said guides, arms depending from said frame, catches on the lower ends of said arms, an arm pivoted to the lower support, and a spring supporting the said arm in its horizontal position, as
35 set forth.

In testimony whereof I have hereunto signed my name this 25th day of March, 1893.

WHITLEY DENTON. [L. s.]

Witnesses:

E. H. MANBECK,
JOHN FARROW.