

No. 820,287.

PATENTED MAY 8, 1906.

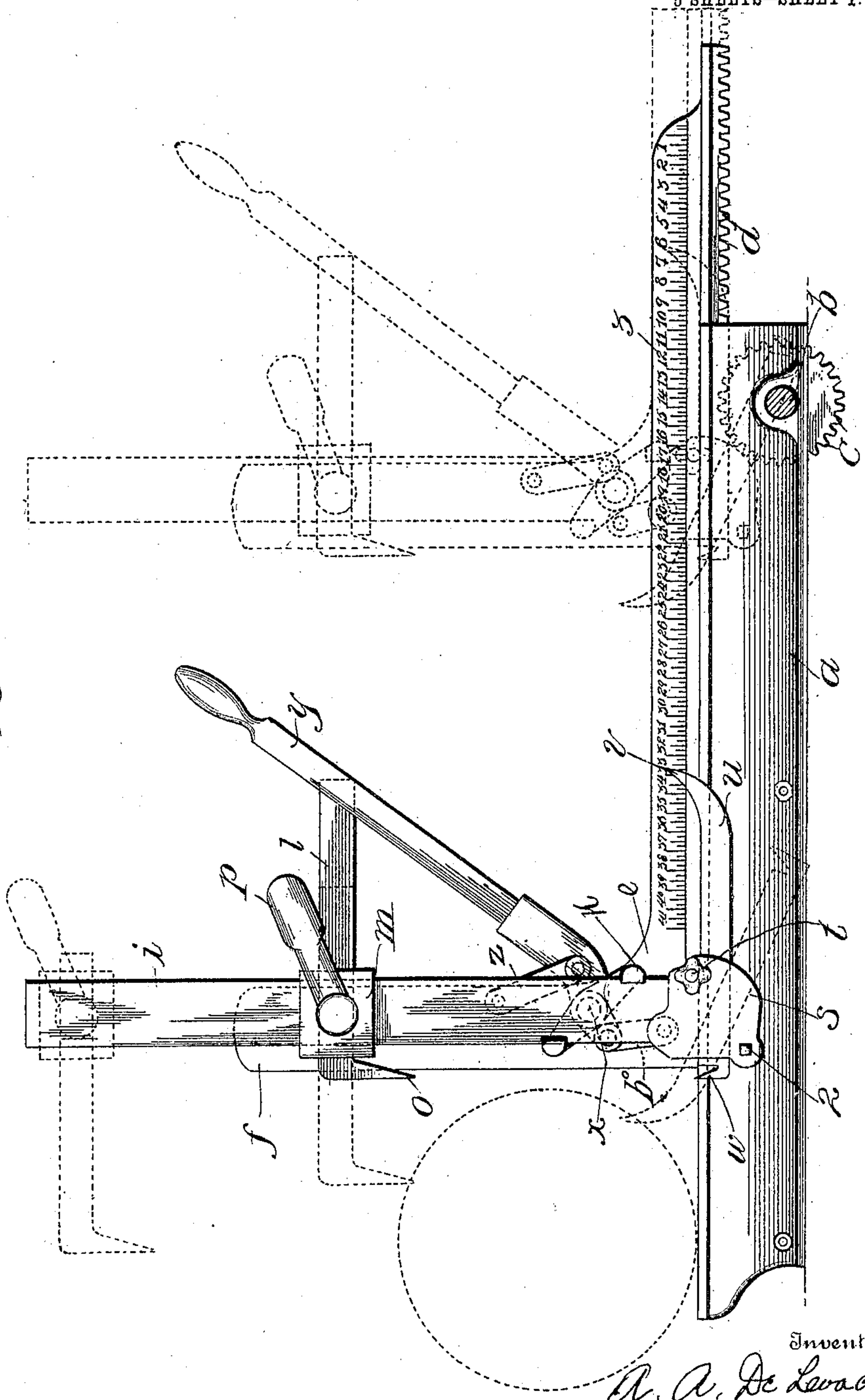
A. A. DE LOACH.

SAWMILL DOG.

APPLICATION FILED OCT. 16, 1905.

5 SHEETS—SHEET 1.

Fig. 1.



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Witnesses

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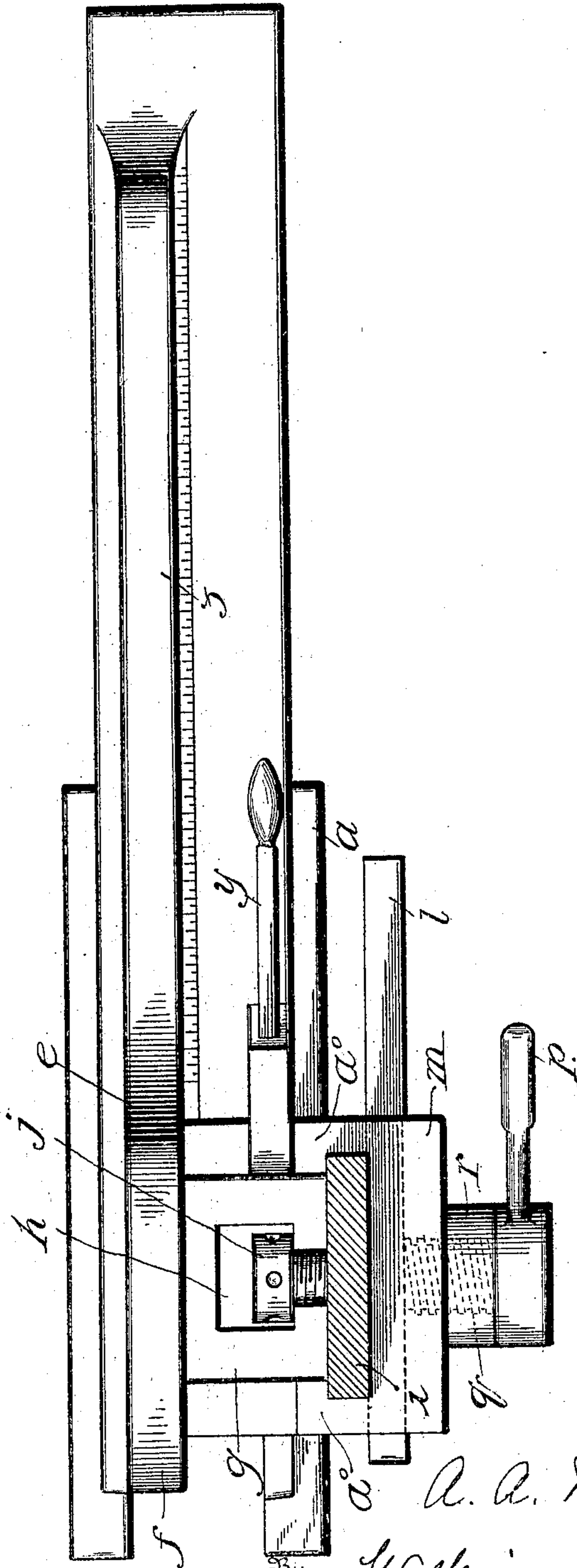
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5 SHEETS—SHEET 2.

Fig. 2.



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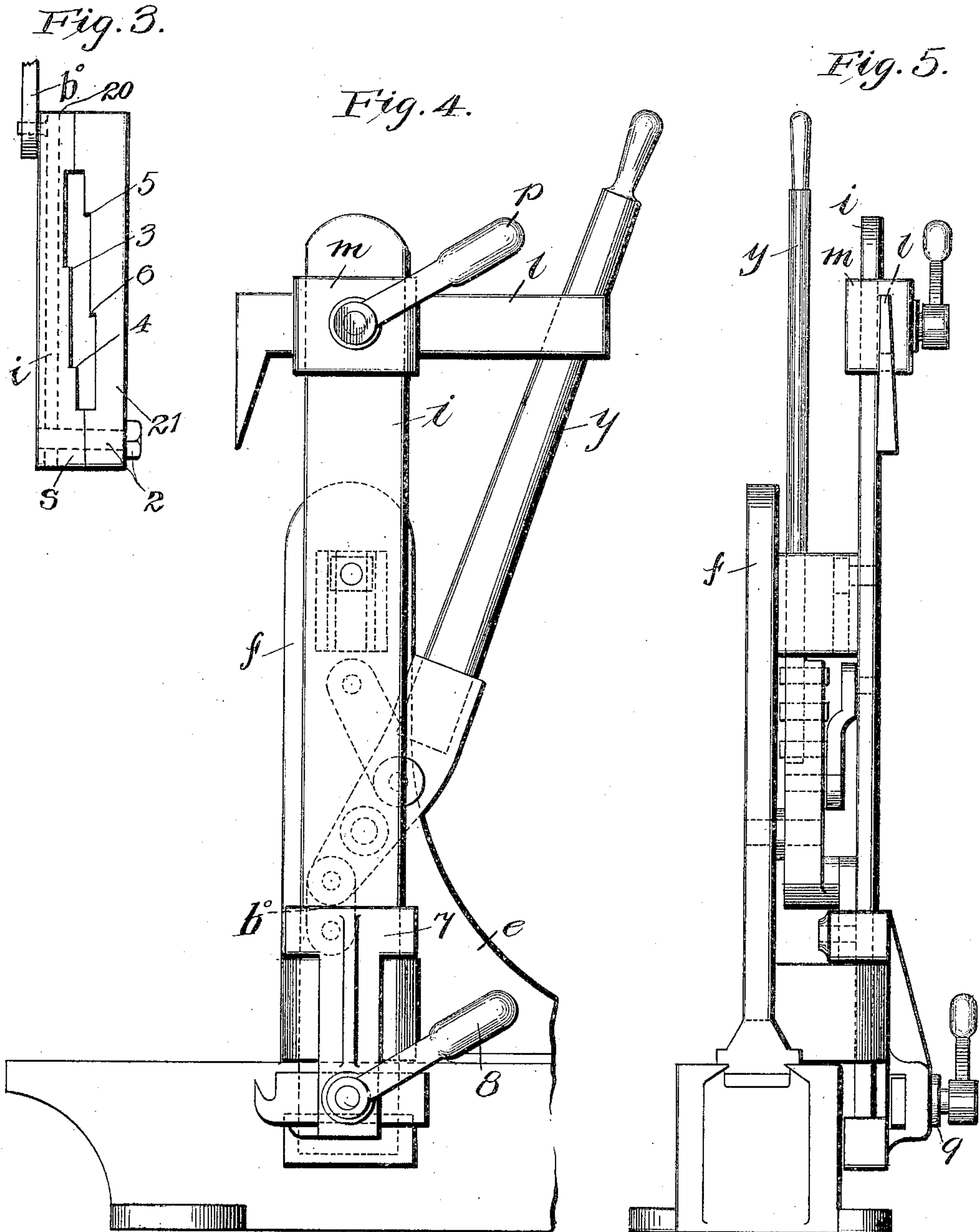
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5 SHEETS—SHEET 3.



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5 SHEETS—SHEET 4.

Fig. 6.

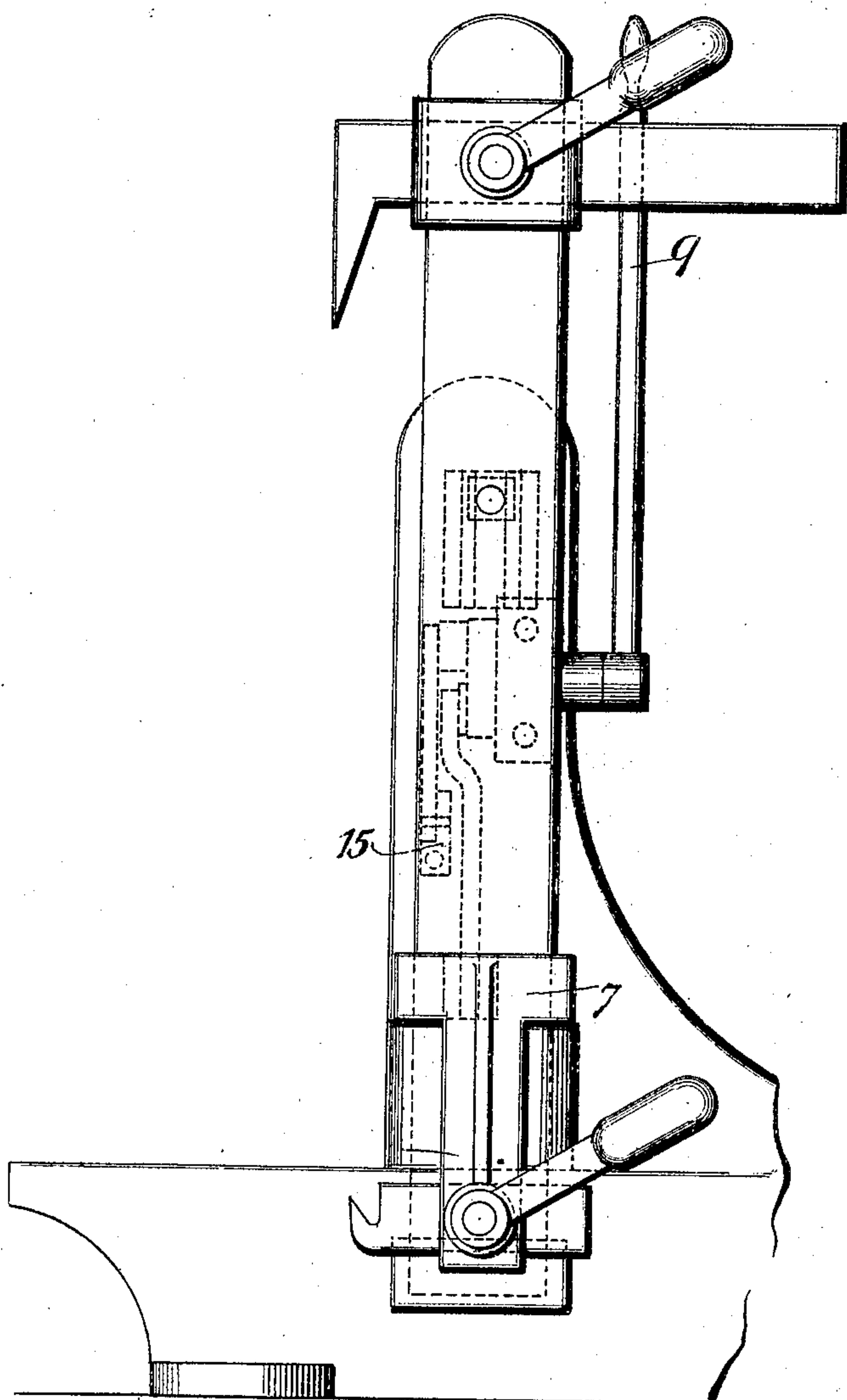
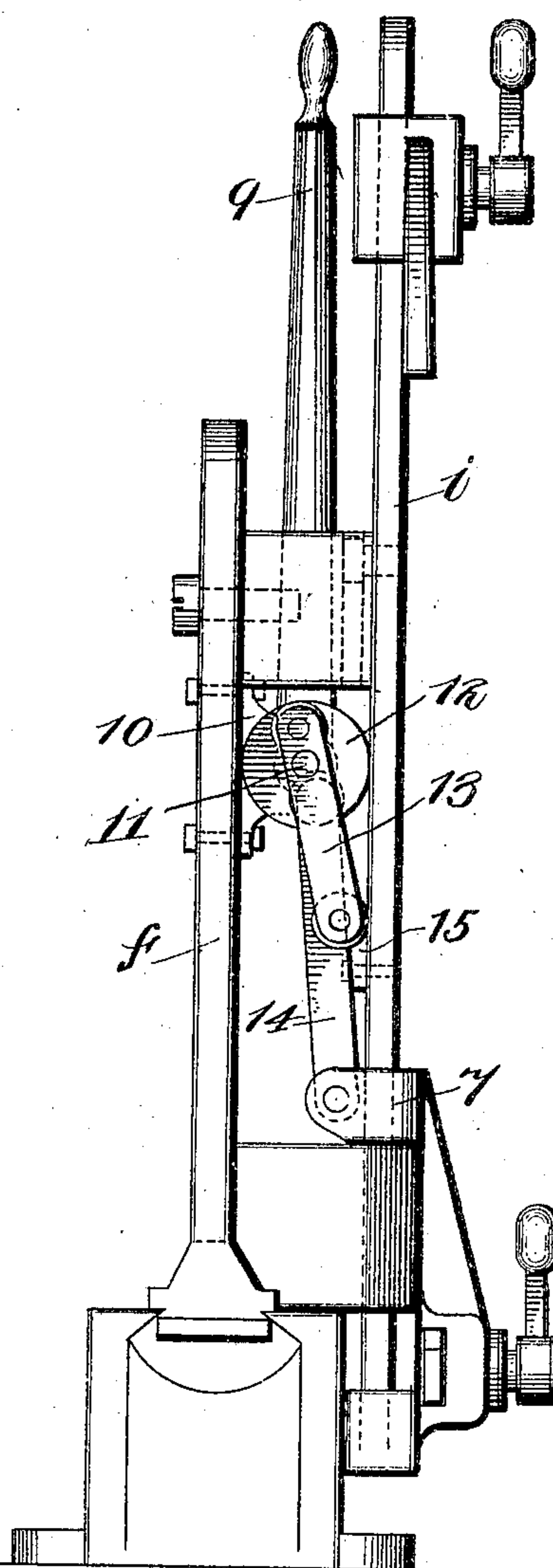


Fig. 7.



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5 SHEETS—SHEET 5.

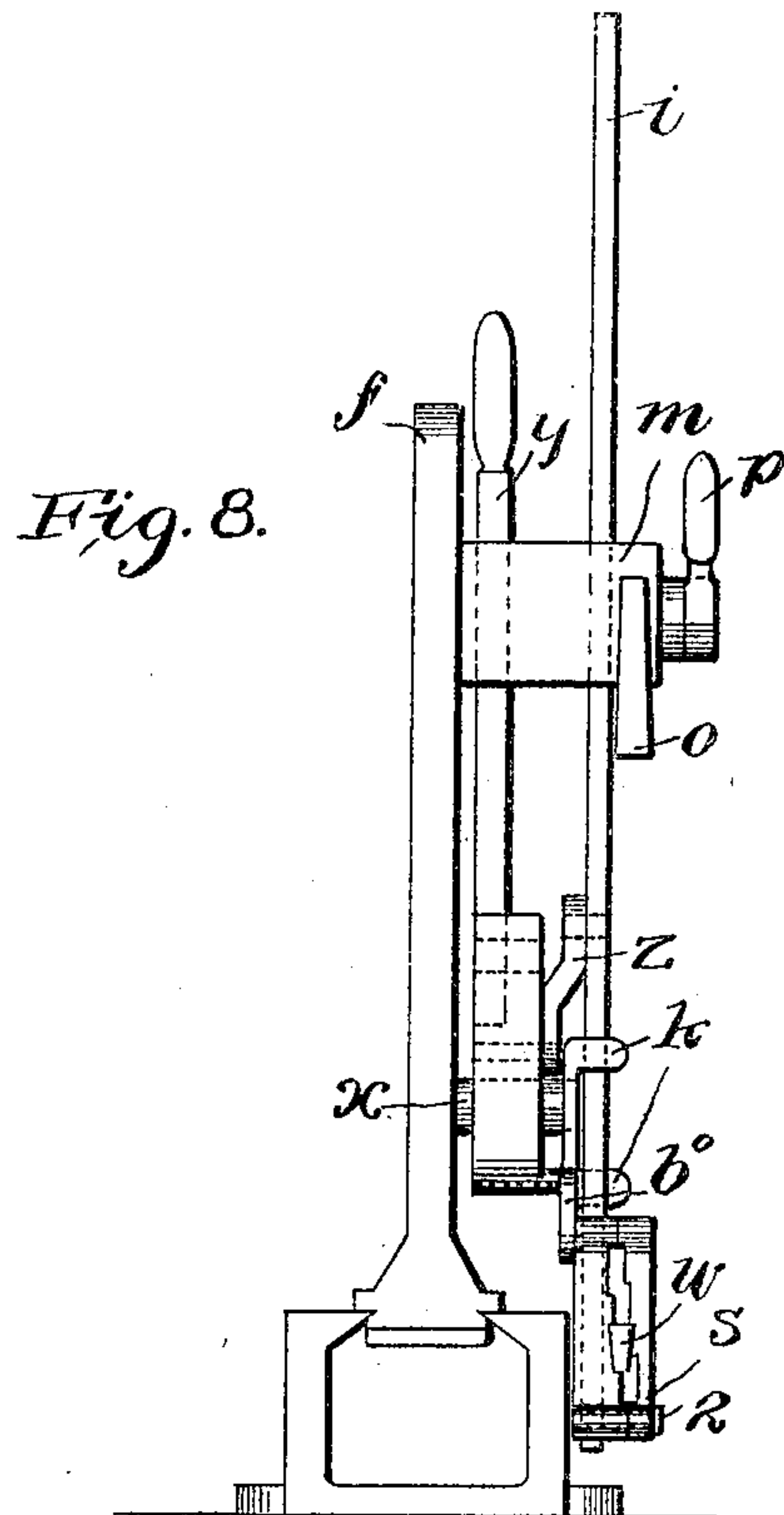
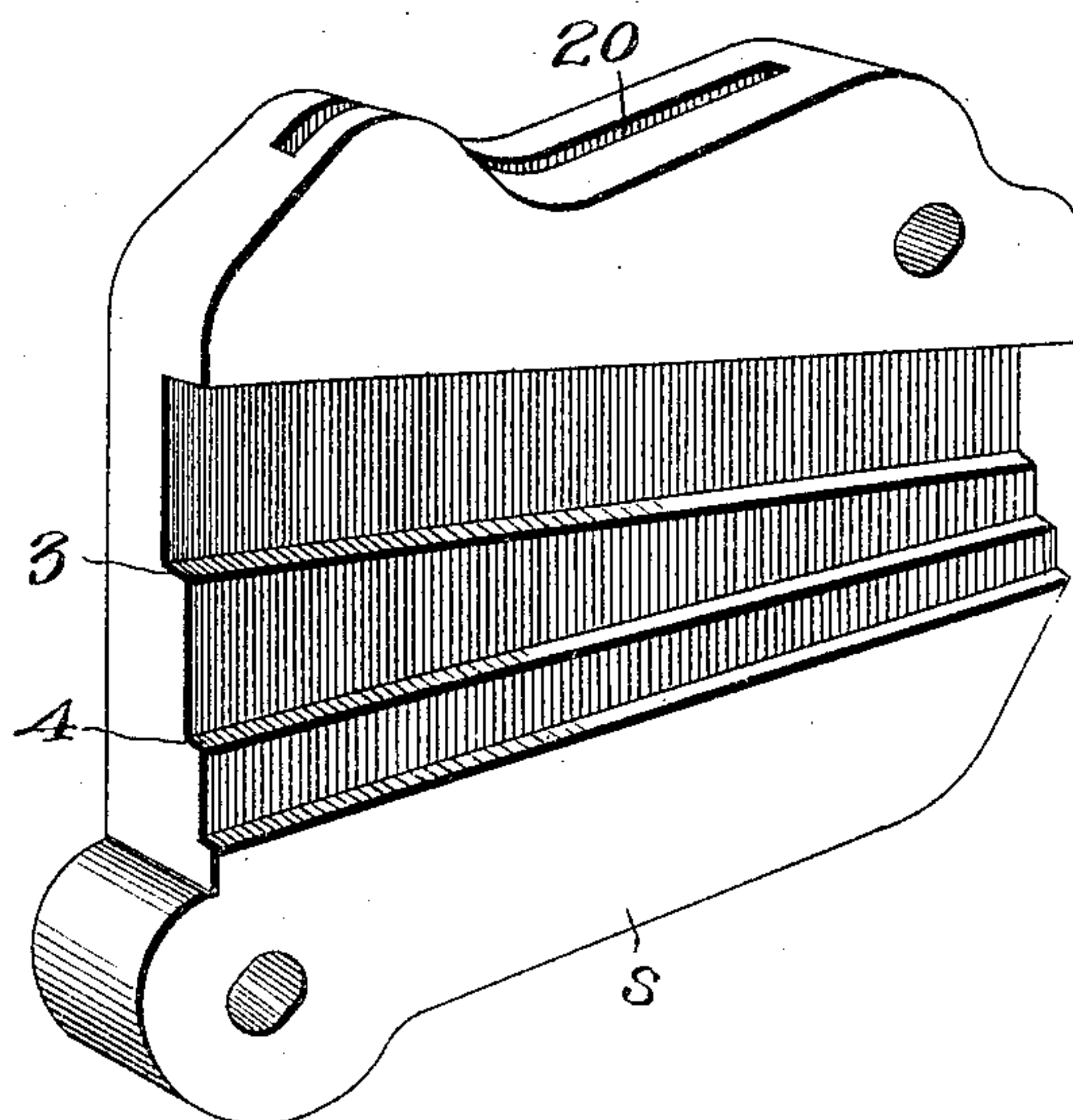


Fig. 9.



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UNITED STATES PATENT OFFICE.

ALONZO A. DE LOACH, OF ATLANTA, GEORGIA.

SAWMILL-DOG.

No. 820,287.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed October 16, 1905. Serial No. 283,010.

To all whom it may concern:

Be it known that I, ALONZO A. DE LOACH, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Sawmill-Dogs; and I do hereby 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 appertains to make and use the same.

My invention relates to improvements in sawmill-dogs; and the object of my invention is to provide a simple and efficient device of this class and one that is provided with a reversible dog-bit for use either with logs or uneven pieces of timber or with squared pieces of timber like beams or boards.

With this object in view my invention consists in the construction and combinations of parts as hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents my invention in side elevation. Fig. 2 is a plan view of the same. Fig. 3 is an end view of the lower dog-block illustrated in Fig. 1. Fig. 4 is a side elevation of a modified form of my invention. Fig. 5 is an end view of the same. Fig. 6 is a side elevation of another modified form of my invention. Fig. 7 is an end view of the same. Fig. 8 is an end view of Fig. 1, and Fig. 9 is a view of the stepped face of the permanent portion of the lower dog-block.

a represents the usual head-block through which passes a shaft *b*, provided with a gear-wheel *c*, which engages a rack *d* on the horizontal part of the knee *e*, these parts being of the usual construction. To the vertical part *f* of the knee is fastened by a bolt (not shown) a filler-block *g*, which is slotted at *h*, as shown in Fig. 2.

i represents a vertically-slidable beam into which passes an adjustable screw *j*. This screw is provided with a large head which slides freely in the slot *h*. The beam *i* is further guided in its movement by the guide *k* attached to the knee near the angle thereof, Fig. 1.

The upper dog-bit *l* is carried in a block *m* provided with projections *a'*, which extend over the edges of the beam *i*, as shown in Fig. 2. The dog-bit *l* is provided with a downwardly-extending sharp point *o* and may be adjusted through a horizontal slot in the block *m*. The dog-bit *l* may be fixed in any desired position by means of the lever *p*,

which carries a screw *q*, mounted in a boss *r* on the block *m*. The movement of the lever *p* forces the screw *q* against the dog-bit *l* and holds it in any desired position.

Near the lower angle of the knee is a hollow dog-block *S*, provided with a vertical slot 20, through which passes the beam *i*, thus holding said dog-block on said beam, though slidable thereon. This permanent portion is provided with an outer and removable casing 21, which is fastened to the main part by the bolts *t* and 2. The inner faces of the permanent and removable parts are cut away, as shown in Fig. 3, making a series of steps 3, 4, 5, and 6, the steps 5 and 6 of the casing being constructed alternately with the steps 3 and 4 of the permanent portion, although the whole series extend downwardly to the rear of the block. Thus it will readily be seen that when the double-pointed dog-bit *u* is to be thrown into engagement with a square timber or a board the point *w* will be used and the bit clamped in a horizontal position, as shown in full lines in Fig. 1, but when a round rough log is to be sawed and it is preferable to use the point *v* of the bit the bolts *t* and 2 are unscrewed, the casing 21 removed, the bit changed end for end, placed at either angle, and the block again clamped together. The dog-bit *u* thus placed at angle will bear downwardly upon one of the steps cut in the permanent portion and will be held securely and rigidly, partly by the steps in the casing and partly by clamping the two parts tightly together, the steps being oppositely cut in the two parts—that is, the bearing edge of the steps in the permanent part being upward and the bearing edge of the steps in the casing being downward.

On the bolt *x*, which passes through the guide *k* and the upright portion *f* of the knee, is pivoted a lever *y*. This lever is connected by the link *z* to the beam *i* and by another link *b'* to the lower dog-block. It is obvious that a movement of the lever *y* to the left from the position shown in Fig. 1 will elevate the beam *i* carrying the dog-bit *l* and will move down the lower dog-block carrying the dog-bit *u*, thus separating the dog-bits, while the reverse movement of the lever *y* will bring said dog-bits together, causing them to engage the log or beam to be sawed.

In Figs. 4 and 5 is shown a modified form of the invention. In these figures the lower dog-block is a plain block in which the ordinary dog-bit, which is not meant to be re-

versible, is used. In this modification 7 represents the dog-block connected by the link 1 to the lever *y* as before. The dog-bit is adjustable through a horizontal slot in the dog-block 7 and may be clamped in any desired position by means of the handle 8, which operates a screw passing through the lever 9, similar to that described in connection with the upper dog-block *m*.

10 In Figs. 6 and 7 is shown another modified form by means of which the dog-blocks are operated by a lever swinging in a plane crosswise instead of lengthwise of the main head-block, which form I have found in practice to be more convenient and desirable than the other form. In these two figures the main parts of the construction are exactly the same as those shown in Figs. 4 and 5, except that the operating-lever 9 is arranged to work crosswise of the head-block, being pivoted in a block 10, secured to the upright portion *f* of the knee. On the pivot 11, to which the lever 9 is attached, is a disk 12, which disk is provided with two links, one of which, 13, is pivotally connected at one end to said disk at a point above its center and at the other end is connected to the beam *i* by the hinge-plate or pivot-plate 15, and the other of which, 14, is pivotally connected at one end to said disk 12 at a point below its center and at its other end is connected to the dog-block 7. The links 13 and 14 are arranged on opposite sides of the disk 12, so that a movement of the lever 9 will by means of these links cause the beam and lower dog-block 7 to move in opposite directions either to withdraw the dog-bits from the article to be sawed or to insert them therein.

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

1. The combination with a supporting-knee, of a dog-block, a dog-bit, and means for adjusting the dog-bit at different angles within said dog-block, substantially as described.

2. The combination with a supporting-knee, of a dog-bit, a dog-block, comprising permanent and removable parts, and means for holding said dog-bit at different angles between said parts, substantially as described.

3. In a sawmill-dog, the combination of a vertically-slotted dog-block, a beam slidably mounted in said slot, said dog-block comprising permanent and removable parts, a two-pointed dog-bit, and means for clamping said dog-bit at different angles between said parts of said dog-block, substantially as described.

4. In a sawmill-dog, the combination with a beam, a dog-block and a dog-bit mounted near the upper end of said beam, a dog-block near the other end of the beam, having a slot through which said beam passes, a lever, links connecting said lever to the beam and to the dog-block at the lower end of the beam

and means within the lower dog-block for adjusting and clamping a dog-bit at different angles, as shown and described.

5. In a sawmill-dog, the combination of a beam carrying a dog-block and a dog-bit thereon, a second dog-block carrying a dog-bit, through which second block said beam passes, a lever, and connecting means whereby the movement of the lever in one direction causes said bits to approach each other and a movement in the opposite direction causes them to recede from each other, and means whereby a two-pointed dog-bit may be reversed and clamped at different angles in the lower dog-block, substantially as described.

6. The combination with a supporting-knee, of a dog-block, comprising a permanent part and a removable part, said parts being cut away on their inner faces to form oppositely-faced steps, substantially as described.

7. The combination with a supporting-knee, of a vertically-slotted dog-block, comprising a permanent part and a casing or removable part, said parts being cut away to form steps, a two-pointed reversible dog-bit adapted to be inserted in said dog-block and to rest upon said steps and means whereby the removable portion of said dog-block may be rigidly clamped in engagement with the permanent part and with the dog-bit, substantially as described.

8. The combination with a supporting-knee, of a vertically-slotted dog-block, comprising a permanent part and a casing or removable part, said parts being cut away on their inner faces to form steps, said steps being constructed slantingly at different angles, and means whereby the casing or removable part may be tightly clamped to the permanent part, substantially as described.

9. In a sawmill-dog, the combination of a beam carrying a dog-block and a dog-bit thereon, a second dog-block carrying a dog-bit, through which said beam passes, a lever, and connecting means whereby the movement of the lever in one direction causes said bits to approach each other and a movement in the opposite direction causes them to recede from each other, said second dog-block comprising a permanent part and a casing or removable part, said parts being cut away on their inner faces to form steps, said steps being constructed slantingly at different angles, the steps upon the permanent part alternating with those upon the casing or removable part, and means for clamping said removable part to said permanent part, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALONZO A. DE LOACH.

Witnesses:

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