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PATENTED MAY 30, 1905.

S. H. LEAVENWORTH.
ADJUSTABLE STOP FOR FEED MECHANISMS.
APPLICATION FILED MAR. 20, 1905.

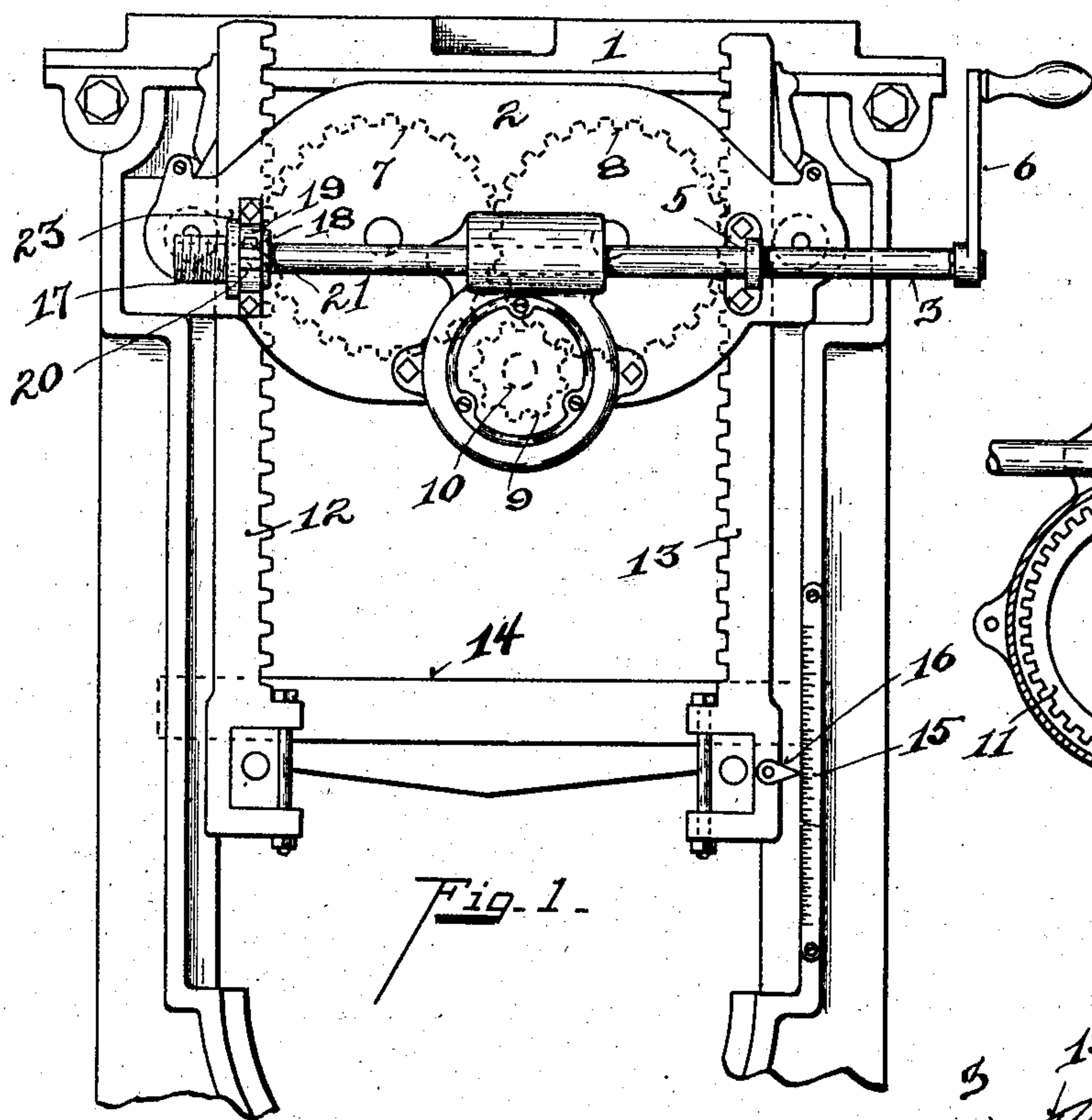


Fig. 1.

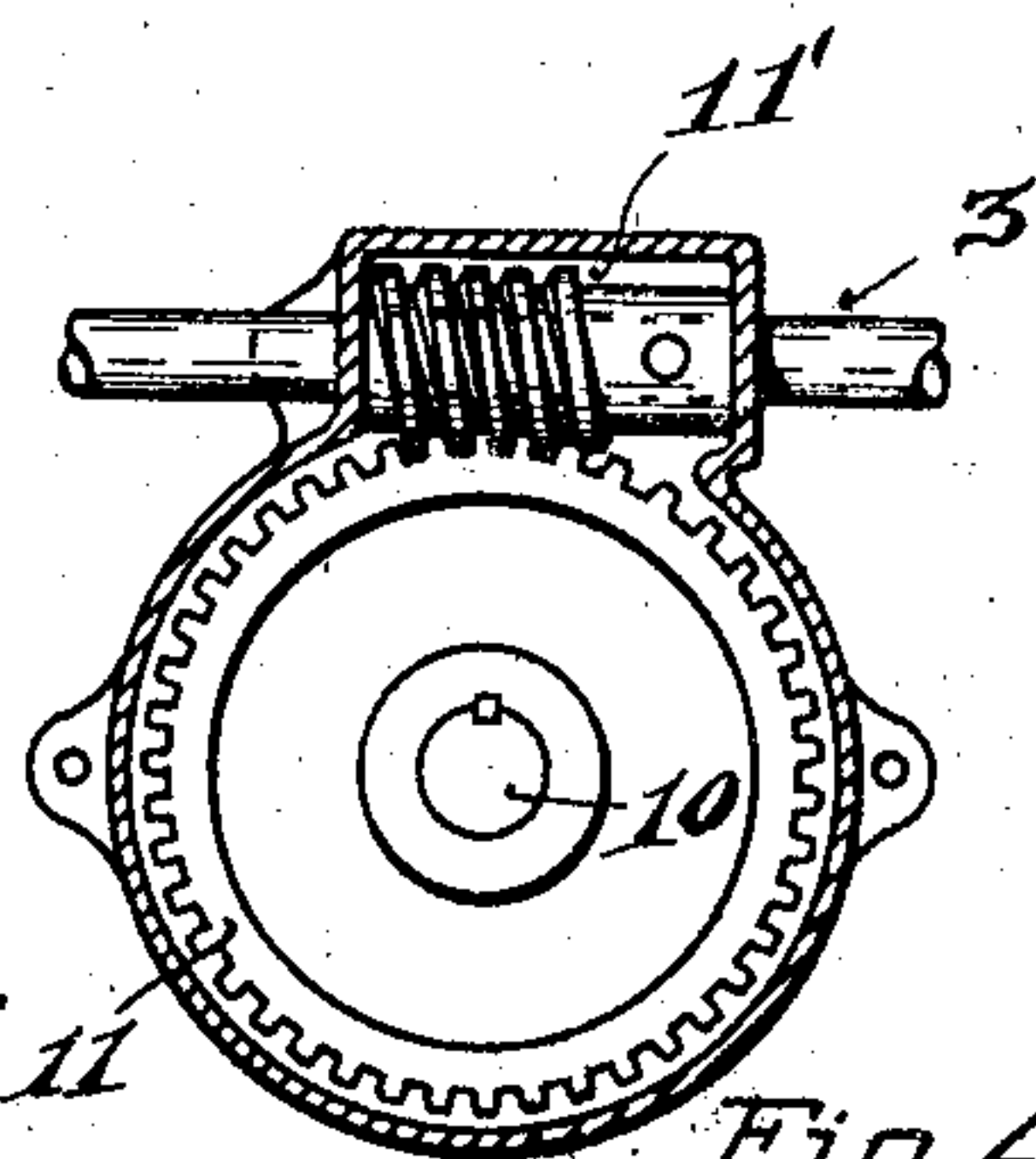


Fig. 4.

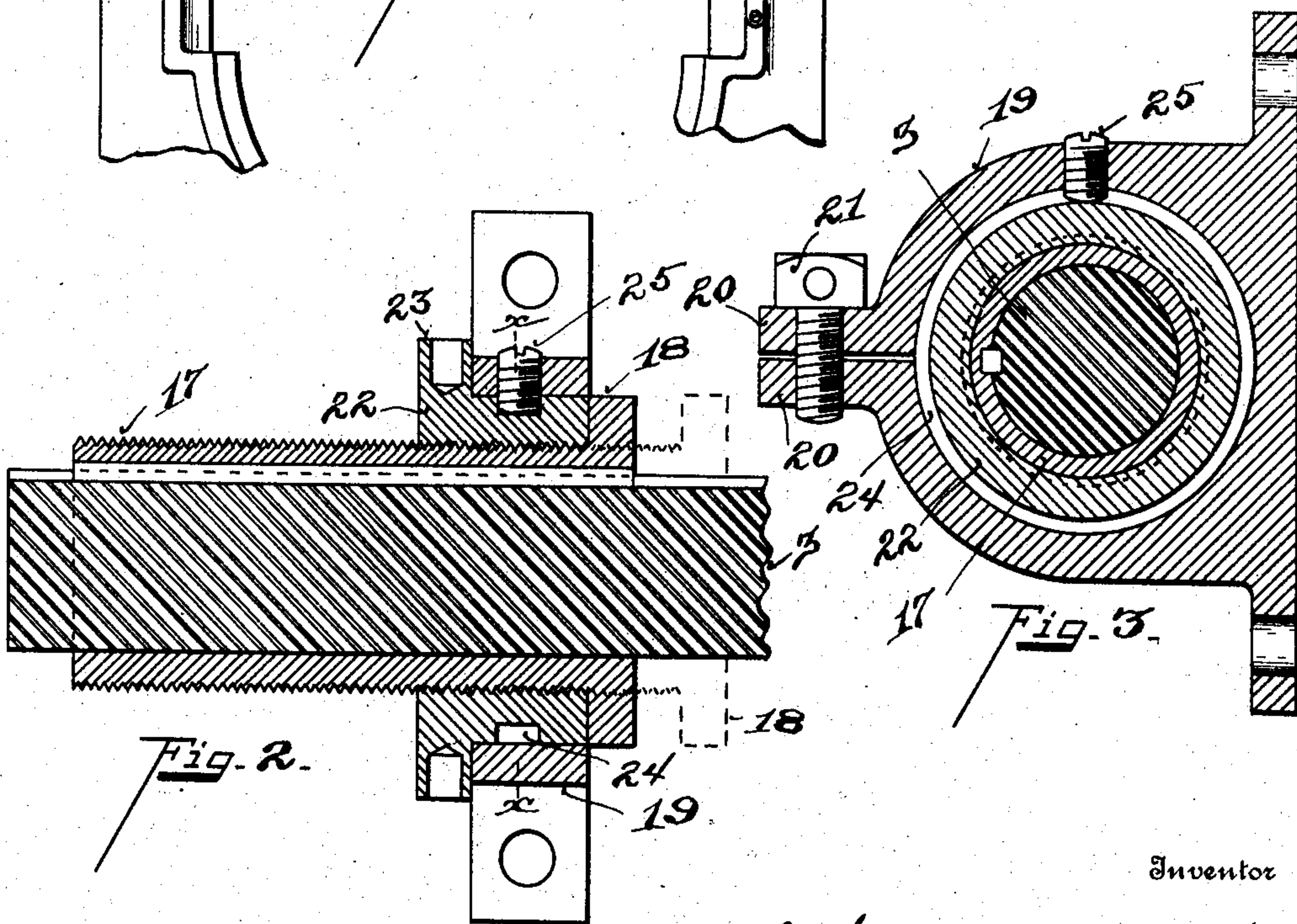


Fig. 2.

Fig. 3.

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SETH H. LEAVENWORTH, OF CINCINNATI, OHIO, ASSIGNOR TO HOMAN & COMPANY, OF CINCINNATI, OHIO, A FIRM.

ADJUSTABLE STOP FOR FEED MECHANISMS.

SPECIFICATION forming part of Letters Patent No. 791,273, dated May 30, 1905.

Application filed March 20, 1905. Serial No. 250,949.

To all whom it may concern:

Be it known that I, SETH H. LEAVENWORTH, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Adjustable Stops for Feed Mechanism, of which the following is a specification.

My invention relates to an adjustable stop mechanism between a movable element and its work.

The invention is shown as applied to a candle-making machine, only that portion of the machine being shown which involves the subject-matter of this improvement.

The features of the invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an end elevation of a candle-making machine with my stop mechanism applied. Fig. 2 is an enlarged central vertical section of the stop mechanism. Fig. 3 is a section on line *x x*, Fig. 2. Fig. 4 is a sectional view, partly in elevation, illustrating the driving element for raising and lowering the mold-platen.

1 represents the cross-head or support.

2 represents a bracket secured across the top of the support.

3 represents an operating-shaft suitably journaled in the ear 5 of said bracket 2, said shaft being provided with a crank-handle 6.

7 8 represent gear-wheels journaled upon the bracket 2, one of which, 8, is intermeshed with a driving-pinion 9, fixed upon a shaft 10.

11 represents a worm-wheel also fixed upon shaft 10, the teeth of which intermesh with the worm 11, formed or secured on shaft 3.

It is obvious that when the handle 6 is rotated the gear-wheels 7 and 8 are driven in opposite directions.

Gear-wheels 7 and 8 intermesh, respectively, with the right and left hand rack-bars 12 and 13, which support the table 14. These rack-bars and table constitute the movable element. The table is for supporting a portion of the molding mechanism. The support is pro-

vided with the index 15, and the rack-bar 13 has a cooperating indicator 16.

Upon the end of shaft 3 is splined an externally-screw-threaded sleeve 17, having a flanged head 18. This connection enables sleeve 17 to turn with and slide on shaft 3 as the latter is rotated.

19 represents a split clamp-wing having the ears 20, through which engages the bolt 21 for tightening and loosening the sections of said ring. Said ring is secured to bracket 2.

22 represents an internally-threaded adjusting-collar within the ring 19, which is provided with the flanged head 23, said collar having a screw-threaded engagement with the said sleeve 17. Said collar is provided with an external annular groove 24 and the split ring 19 has a set-screw 25, the inner end of which engages into the said annular groove 24 for holding the collar in position within the split ring.

It is apparent from Fig. 2 that the flanged head 23 of the collar 22 abuts against the outside surface of the split ring 19, while the flanged head 18 of the sleeve 17 abuts the inner end of the collar 22.

In operation the bolt 21 is turned to loosen the split ring 19, permitting the free rotation of collar 22. The handle 6 is turned and the table 14 is lowered to a selected position, indicated by the index and indicator. While in this position the collar 22 is rotated by manipulating the flange 23, sliding the sleeve 17 outwardly on shaft 3 until the head 18 of the sleeve 17 engages against the inner end of the collar 22. Bolt 21 is then tightened, which clamps ring 19 upon collar 22, holding the latter against rotation. The handle 6 is then turned to raise the table, which movement, owing to the threaded relation between sleeve 17 and collar 22 and the splined relation between sleeve 17 and shaft 3, will advance the sleeve 17 inwardly upon the shaft, as indicated in dotted lines, Fig. 2. The device is then ready for the regular feeding operation. When the handle 6 is turned to lower the table, the sleeve 17 will be fed outward on shaft 3 until the head 18 engages the inner ends of

collar 22, as indicated in full lines, Fig. 2, thus locking the shaft 3 against rotation at the predetermined position, indicated by the index.

Having described my invention, I claim—

5 1. In the device of the class described, a support, a movable member thereon, feed mechanism connecting said members, a shaft for operating said feed mechanism in either direction, an externally-screw-threaded sleeve, having a head, said sleeve being adapted to turn
10 with and slide on said shaft, an internally-threaded adjusting-collar engaging said sleeve, a ring holding said collar, means for locking and unlocking said collar rotatively in
15 said ring, and a stationary abutment for engaging the head of the sleeve, substantially as described.

2. In the device of the class described, a support, a movable member thereon, feed mechanism connecting said members, a shaft for
20 operating said feed mechanism in either direction, an externally-screw-threaded sleeve, having a head, said sleeve being adapted to turn with and slide on said shaft, an internally-threaded adjusting-collar engaging said
25 sleeve, a ring holding said collar, means for locking and unlocking said collar rotatively in said ring, a stationary abutment for engaging the head of the sleeve, and an index mechanism, between said support and its movable
30 member, substantially as described.

3. In a device of the class described, a support, a movable member thereon, feed mechanism

connecting said members, a shaft for operating said feed mechanism in either direction, a ring, a collar rotatively mounted in the ring, means for locking said collar against rotation, a sleeve within the collar having screw-threaded engagement therewith, one end of said operating-shaft passing through said
4 sleeve, said sleeve being adapted to turn with and slide on said shaft, when the latter is rotated, and a head on the sleeve, adapted to be brought by the rotation of said collar into engagement with the end thereof, at any selected position in the path of travel of the movable member, whereby in the feeding operation, the said movable member will be automatically stopped at such selected position, substantially as described.

4. In a device of the class described, a supporting member, a movable member, feed mechanism connecting said members, a feed-operating shaft journaled on the support, a clamping-ring and an adjustable collar therein, a sleeve splined to the shaft, having screw-threaded engagement with the collar, and a head on the sleeve adapted to engage the collar, substantially as described.

In testimony whereof I have hereunto set my hand.

SETH H. LEAVENWORTH.

Witnesses:

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