

(No Model.)

J. R. SCOTT & C. DANCEL.

MACHINE FOR SCORING INSOLES FOR BOOTS OR SHOES.

No. 549,028.

Patented Oct. 29, 1895.

Fig. 1.

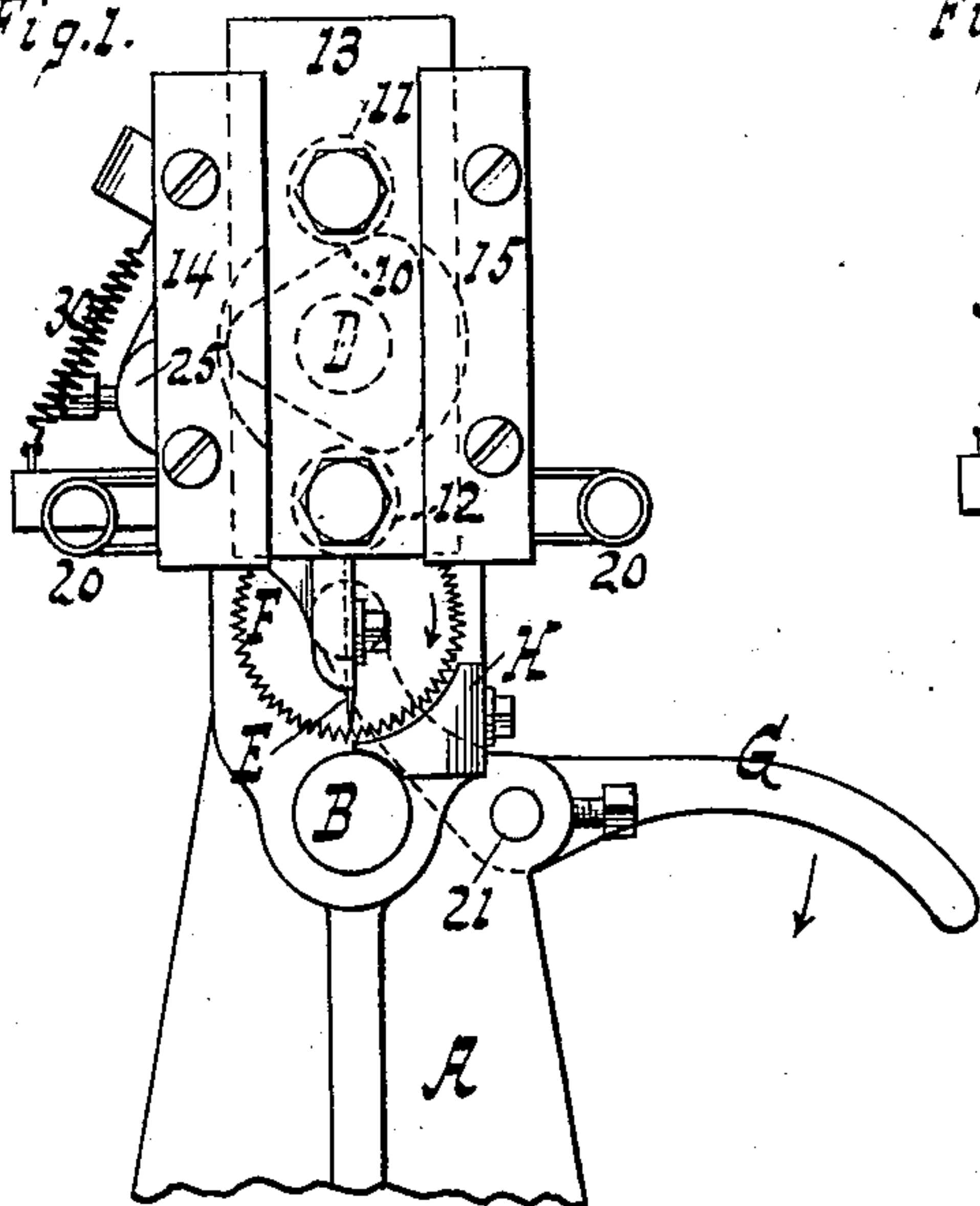


Fig. 2.

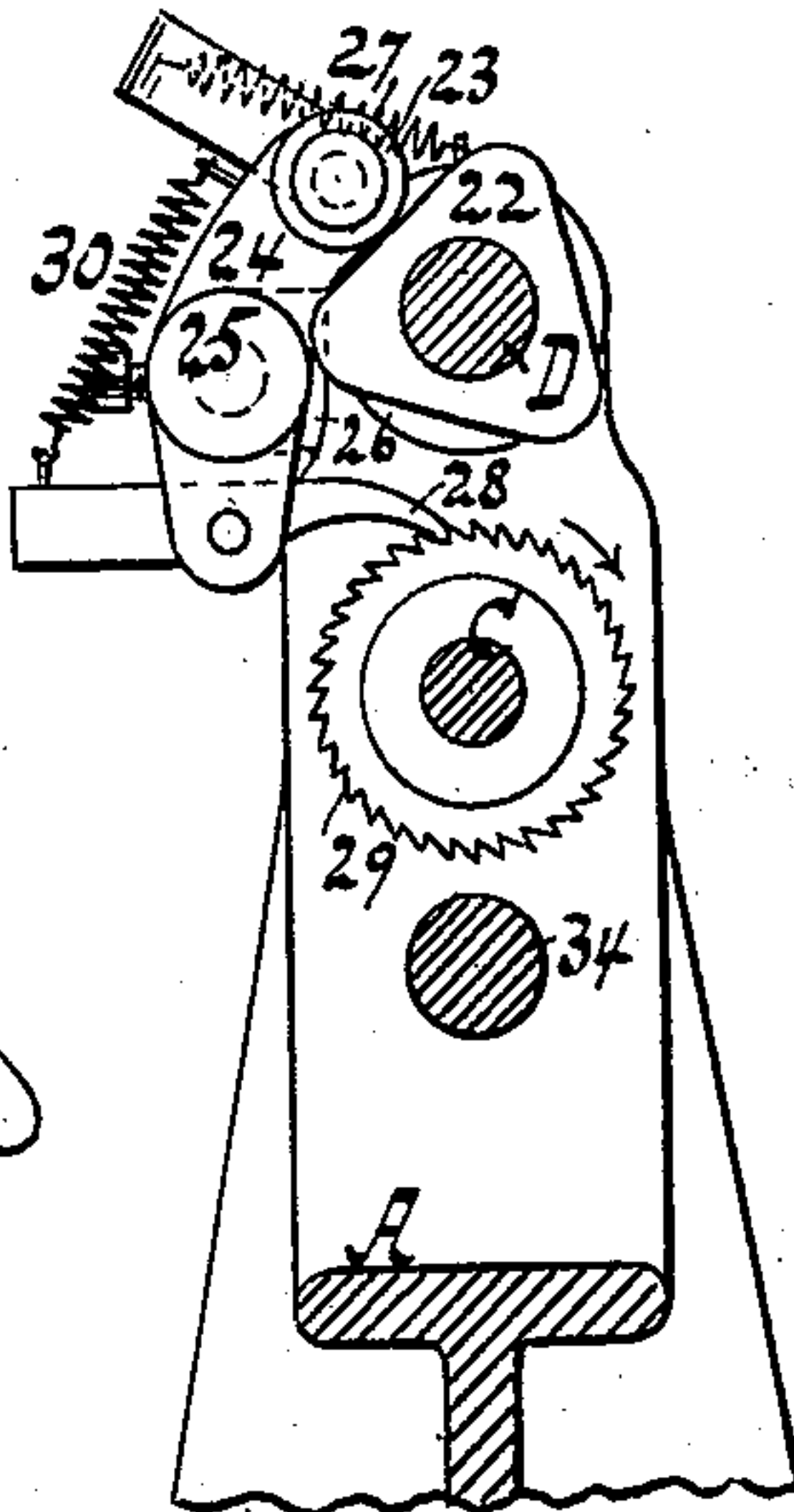


Fig. 3.

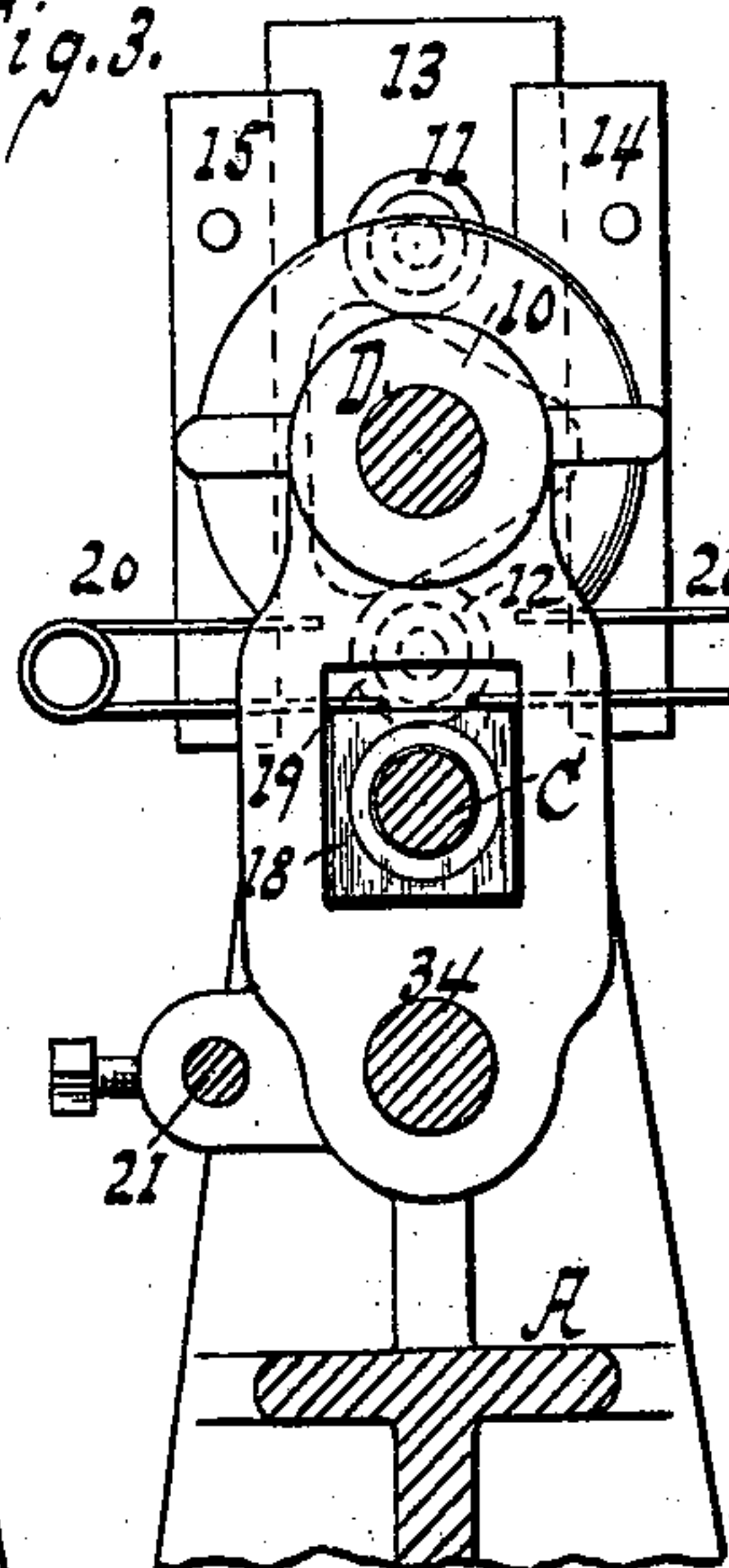


Fig. 4.

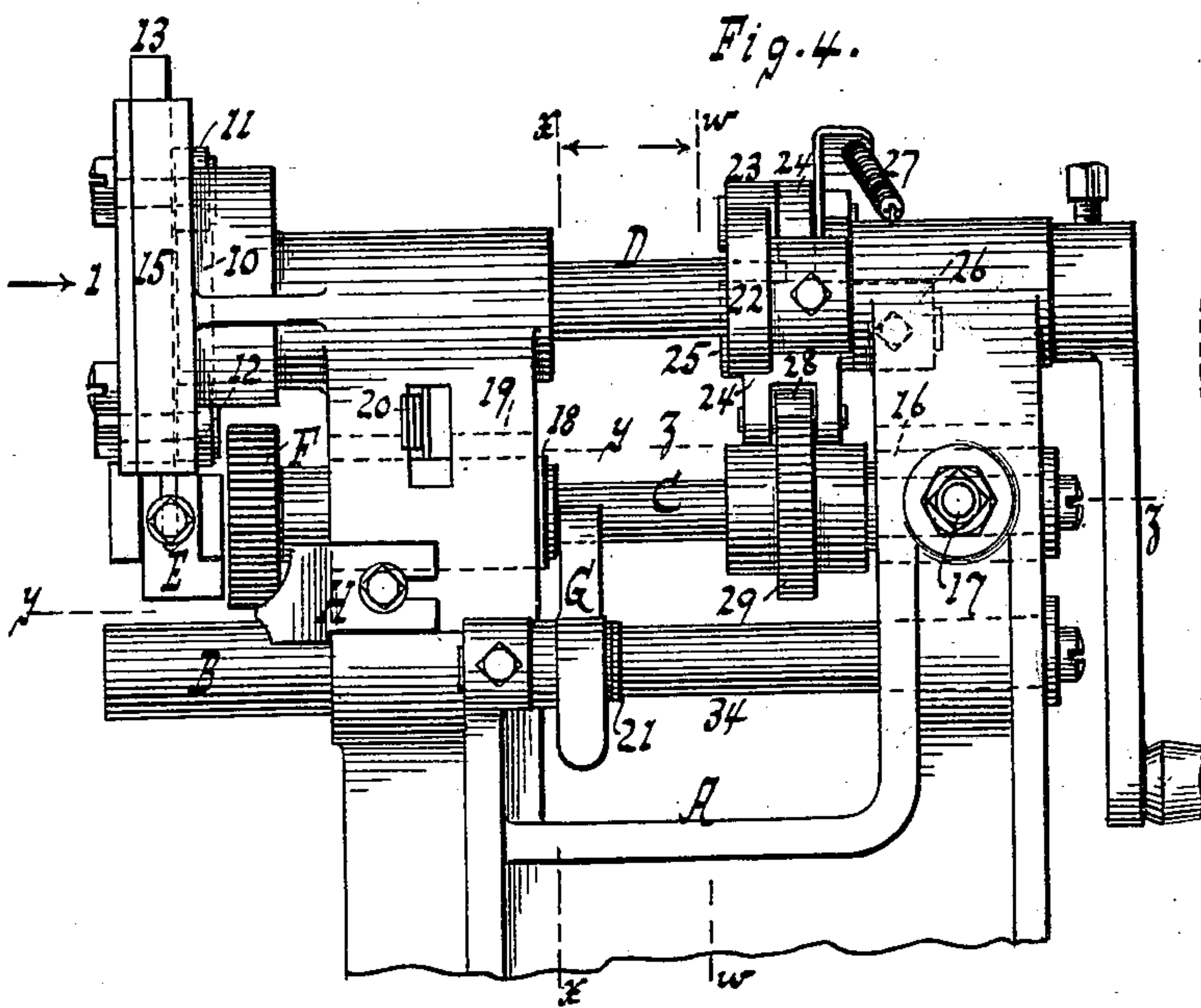


Fig. 5.

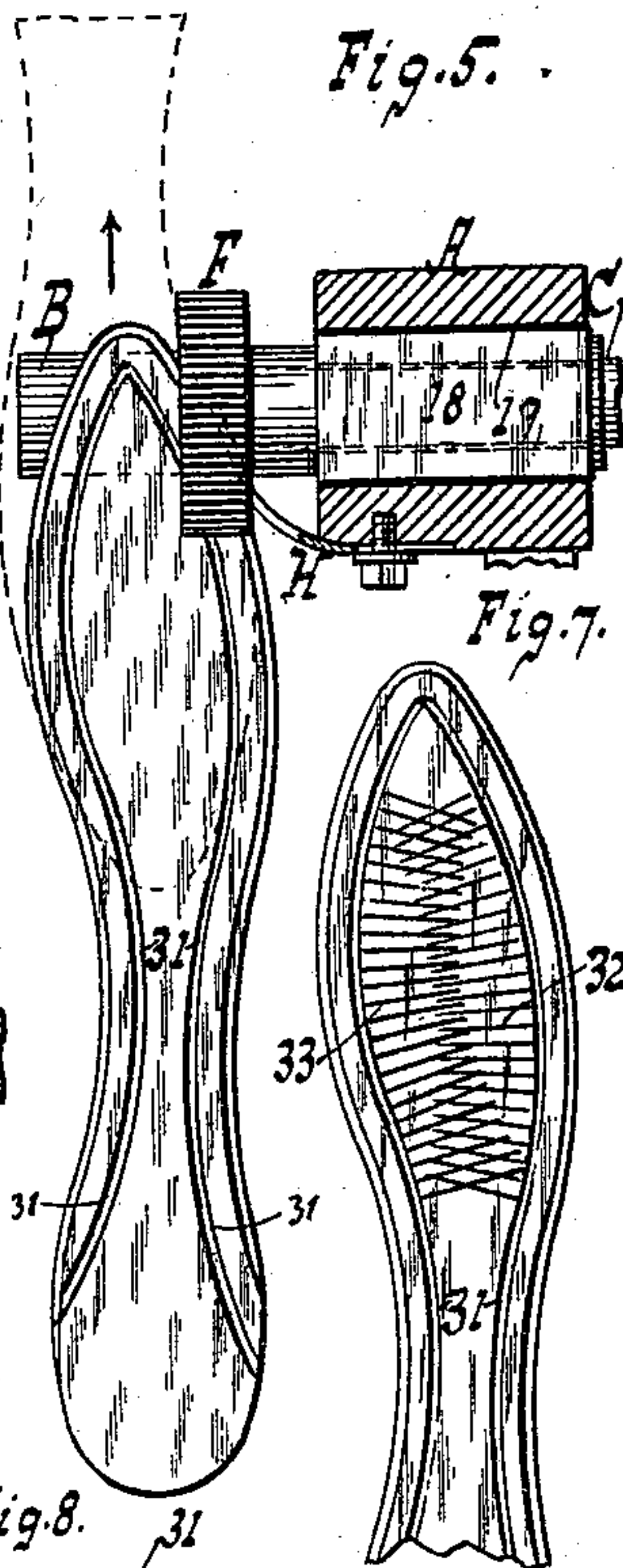


Fig. 7.

Fig. 6.

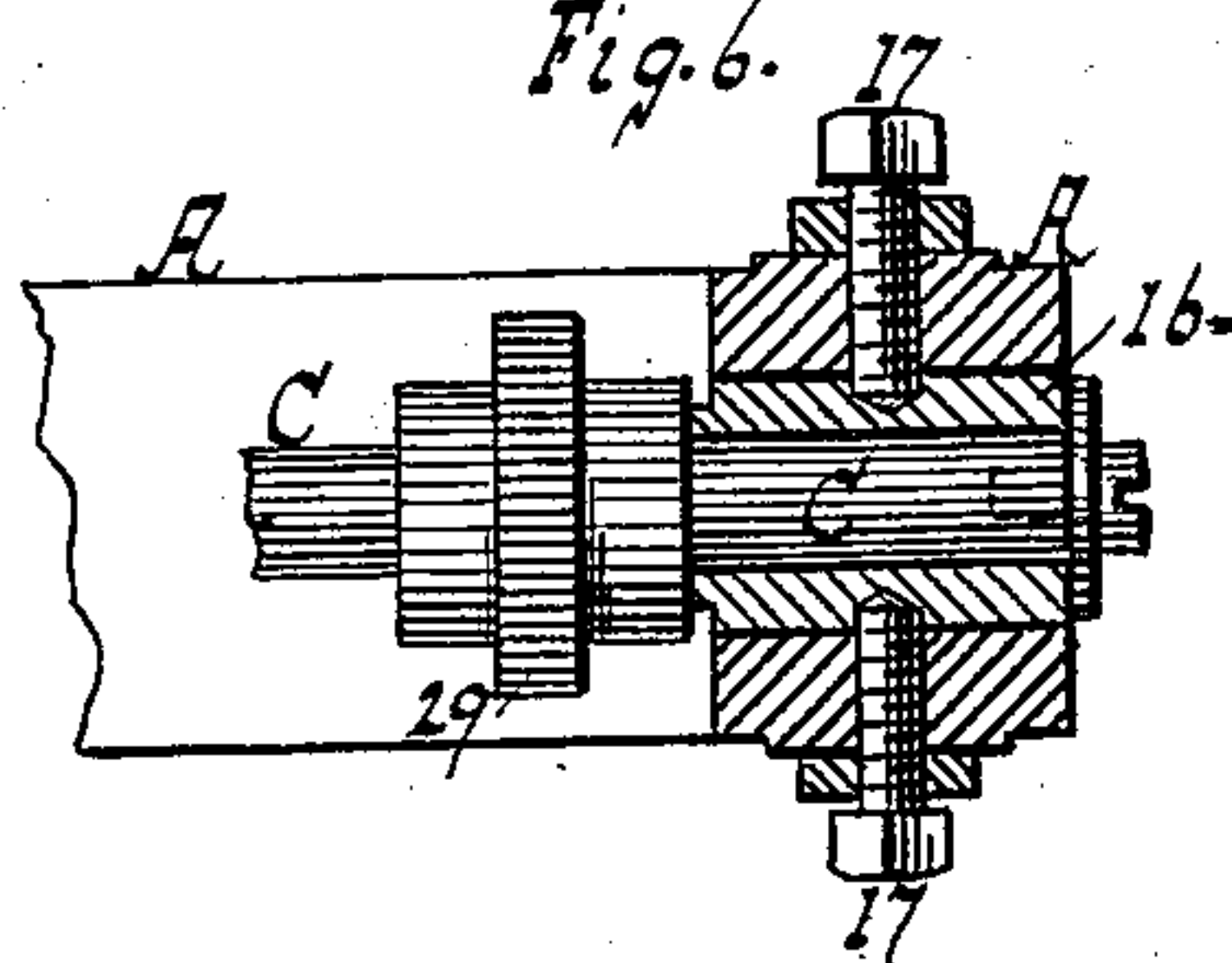


Fig. 8.



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MACHINE FOR SCORING INSOLES FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 549,028, dated October 29, 1895.

Application filed March 8, 1895. Serial No. 540,993. (No model.)

To all whom it may concern:

Be it known that we, JACOB R. SCOTT, residing at Chicago, in the county of Cook and State of Illinois, and CHRISTIAN DANCEL, residing at Brooklyn, in the county of Kings and State of New York, citizens of the United States, have invented new and useful Improvements in Machines for Scoring Insoles for Boots or Shoes, of which the following is a specification.

The object of this invention is to provide an improved machine for producing scored insoles, the various features of which will be set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is an end elevation of the machine, looking in the direction of arrow 1, Fig. 4. Fig. 2 is a transverse vertical section in the plane indicated by the line *ww*, Fig. 4, looking in the direction of the arrow opposite to that line. Fig. 3 is a similar section in the plane indicated by the line *xx*, Fig. 4, looking in the direction of the arrow opposite to that line. Fig. 4 is a front view. Fig. 5 is a horizontal section in the plane *yy*, Fig. 4. Fig. 6 is a horizontal section in the plane *zz*, Fig. 4. Fig. 7 is an inverted plan view of a scored insole prepared on this machine. Fig. 8 is a transverse section of the same.

In the drawings the letter A designates the frame which forms the bearings for the shank of the work-support B, the feed-arbor C, and the shaft D, which serves to impart a reciprocating motion to the knife E. On the shaft D is firmly mounted an eccentric 10, which engages two roller-studs 11 12, mounted on a slide 13, which carries the knife E. This slide engages two guides 14 15, which are firmly secured to the frame A. On the front end of the shaft C is firmly mounted the feed-wheel F, and the rear end of said shaft C has its bearing in a box 16, Figs. 4 and 6, which swings on center points 17 17, while the forward end of said shaft has its bearing in a box 18, which can move up and down in a slot 19 in the frame A, Fig. 3, and is exposed to the action of springs 20 20, which have a tendency to depress the same toward the work-support B. A lever G serves to raise the front end of the shaft C, so as to move the feed-wheel F away

from the work-support B. This lever is mounted on a stud 21, extending from and secured in the frame A.

The knife-shaft D is rotated either by hand or by power, and on it is mounted an eccentric 22, Figs. 2 and 4, which acts upon a roller-stud 23, mounted on the upper end of a double-armed lever 24, which has its fulcrum on a stud 25, secured in a lug 26, extending from the frame A. A spring 27 keeps the stud 23 in contact with the eccentric 22. On the lower end of the lever 24 is mounted a pawl 28, which engages a ratchet-wheel 29 and is retained in engagement with this ratchet-wheel by a spring 30. The ratchet-wheel 29 is firmly mounted on the shaft C, which carries the feed-wheel F, so that when the knife-shaft D is rotated an intermittently-rotating motion is imparted to the feed-wheel. Of course the movements of the knife and of the feed-wheel are timed so that the feed-wheel moves when the knife is up and the knife descends when the feed-wheel is at rest, or, in other words, the movements of the feed-wheel alternate with the movements of the knife.

H is the curved and pointed edge-gage, which is adjustably secured to the frame A and the point of which (see Fig. 1) extends between the feed-wheel and the work-support B, this point being less in height than the thickness of that portion of the work which is to be clamped between the feed-wheel and the work-support.

As seen in Figs. 5 and 7, the insoles which are to be scored are provided with a channel 31, and the scores 32 33, Fig. 7, are made on the inside of this channel. In order to facilitate the operation, the work-support B is made cylindrical and provided with a shank 34, which is mounted in suitable bearings in the frame A, so that the work-support can freely rotate.

In order to introduce the insole to be scored, the feed-wheel is raised by means of the lever G, the edge of the insole is placed against the edge-gage H, as shown in Fig. 5, and then the feed-wheel is lowered and motion is imparted to the knife-shaft D. As the insole is moved inward by the action of the feed-wheel the scores 32 are produced, and as the inward motion of the insole progresses care must be taken to

keep the edge of the insole in contact with the edge-gage. After the scores 32 have been produced the feed-wheel is raised, the insole is turned to the position shown in dotted lines in Fig. 5, the feed-wheel is lowered, and the scores 33 are produced.

It will be readily seen from the foregoing description that when the edge-gage is curved (see Fig. 5) the insoles can be readily held in the proper position as the operation of scoring progresses.

The insoles scored with this machine are of superior flexibility, since the scores can be made to extend close to the inner edge of the channel without injuring the channel.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a work support, a knife, and a feed wheel having a yielding pressure toward the work support and adapted to be lifted from said support, of a vertically movable slide by which the knife is carried, a knife shaft carrying an eccentric for operating said slide, an arbor on which the feed wheel is secured, and means for intermittently rotating said arbor from the feed shaft, substantially as described.

2. The combination with a work support, an edge gage and a knife, of a shaft D for imparting to said knife a reciprocating motion,

a feed wheel on a shaft C, a cam 22 mounted on the knife shaft and serving to actuate a lever 24, a pawl 28 supported by said lever and a ratchet wheel 29 mounted on the feed wheel shaft C substantially as described.

3. The combination of the frame A having mounted therein the cylindrical work support B, feed arbor C and knife shaft D; the feed wheel F carried on one end of said arbor, an eccentric 10 on the shaft D; a reciprocating knife E carried by a slide 13 having roller studs mounted thereon and engaged with the eccentric 10; the curved and pointed edge gage H; means for imparting an intermittent rotation to the feed arbor C from the shaft D; and springs 20 for causing the feed roller to have a yielding pressure toward the work support, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

JACOB R. SCOTT.
CHRISTIAN DANCEL.

Witnesses as to Jacob R. Scott:
S. W. BRAINARD,
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Witnesses as to Christian Dancel:
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