

No. 724,924.

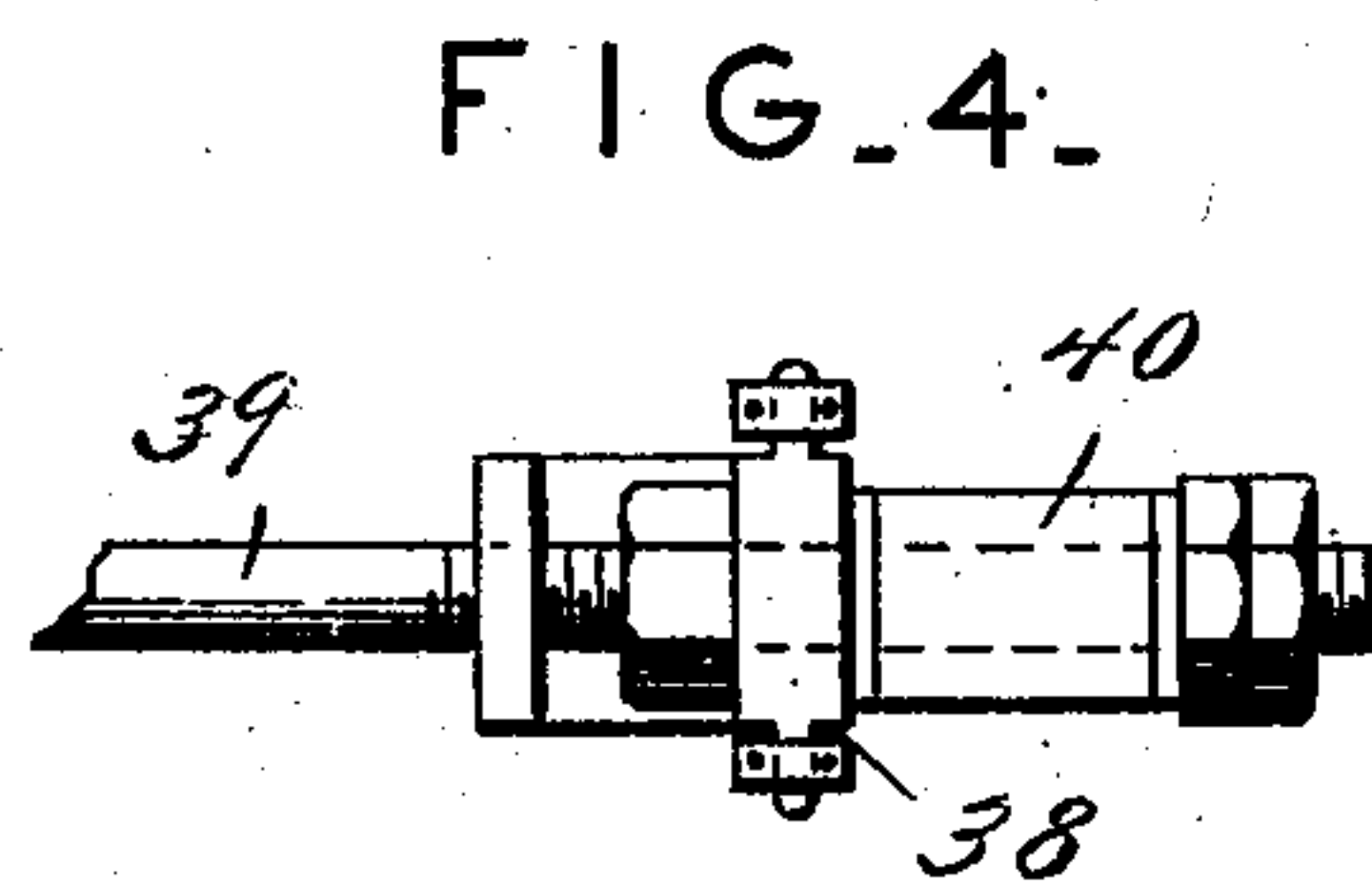
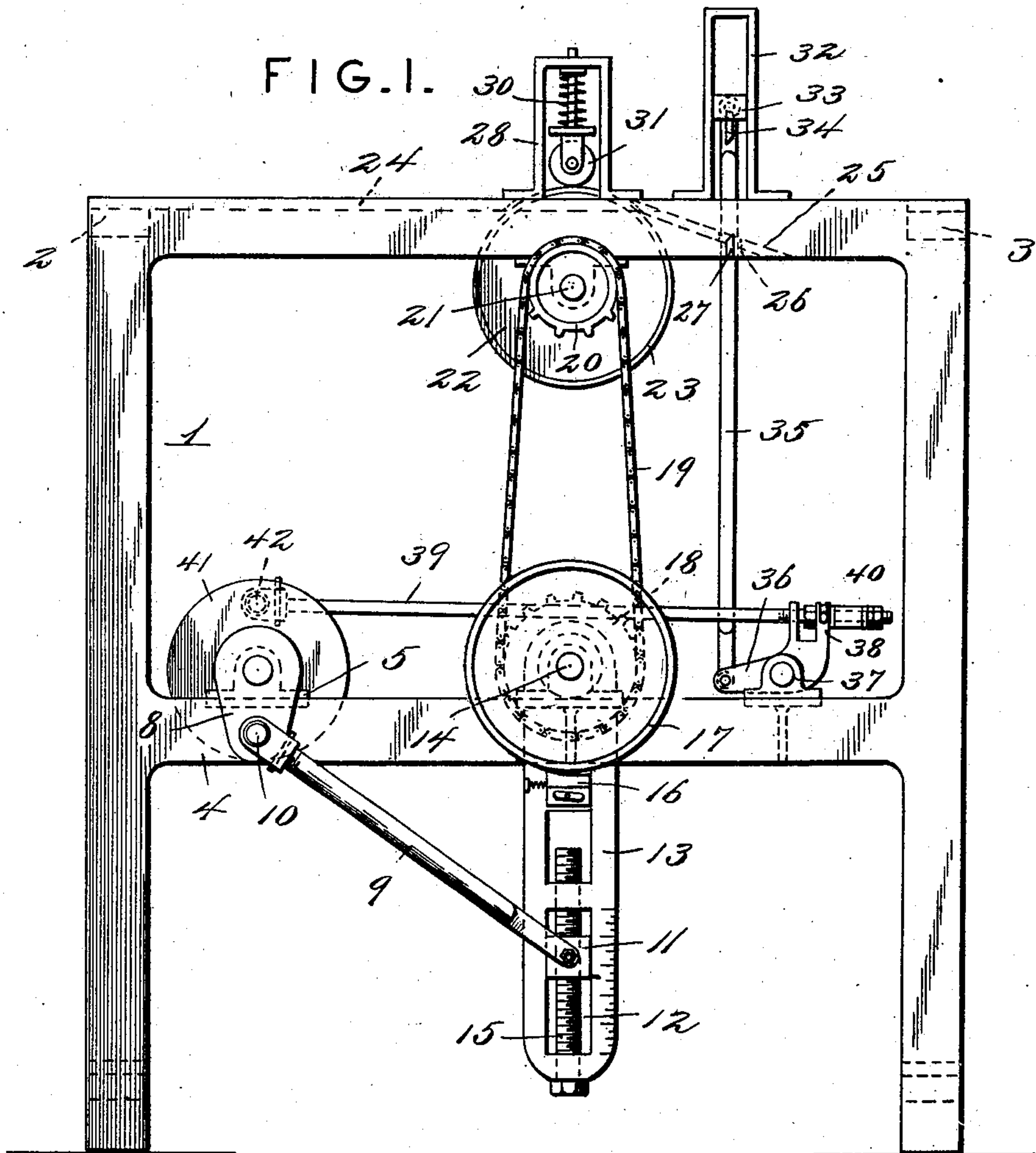
PATENTED APR. 7, 1903.

C. & A. McVICAR.  
POWER SHEARS.

APPLICATION FILED OCT. 17, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

FIG. 2.

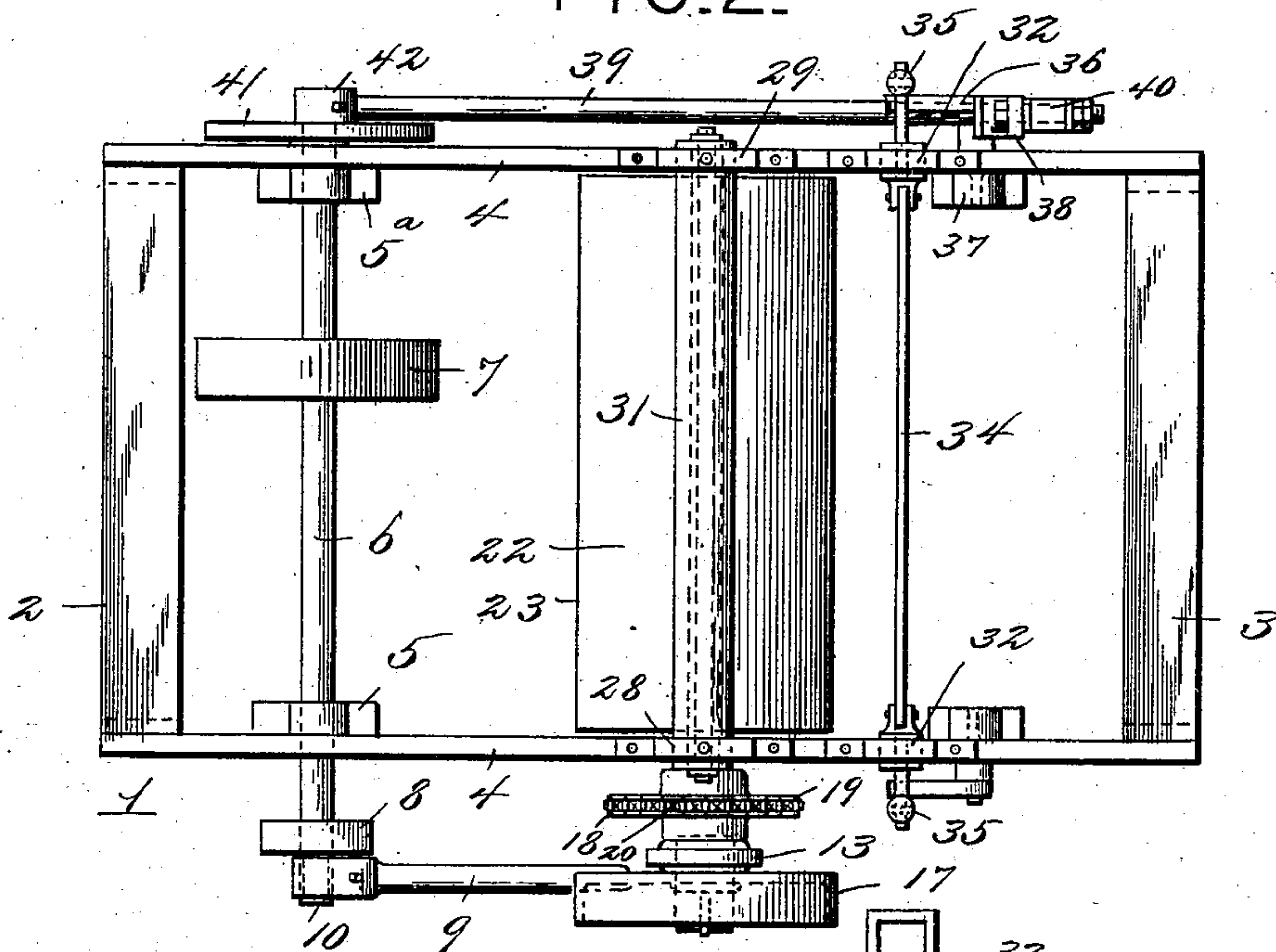
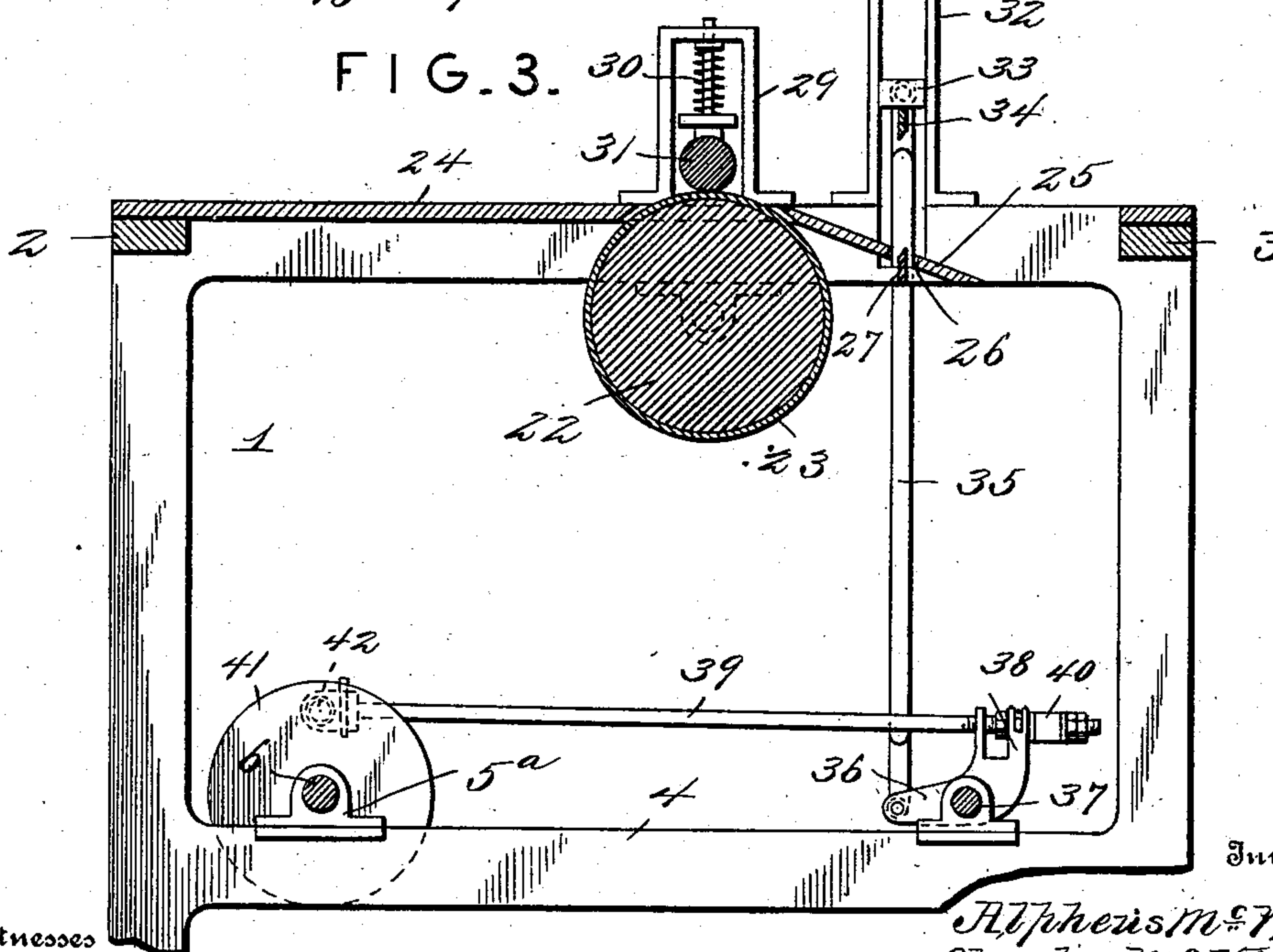


FIG. 3.



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# UNITED STATES PATENT OFFICE.

CHARLES McVICAR AND ALPHEUS McVICAR, OF SYRACUSE, NEW YORK.

## POWER-SHEARS.

SPECIFICATION forming part of Letters Patent No. 724,924, dated April 7, 1903.

Application filed October 17, 1902. Serial No. 127,660. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES McVICAR and ALPHEUS McVICAR, citizens of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Power-Shears, of which the following is a specification.

This invention relates to power-shears, and is particularly designed for cutting fabrics, such as sleeves, for knit underwear or cloth; but it can be employed as a paper-cutter or for analogous purposes.

The invention consists in certain novel arrangements of parts and combinations of parts to be referred to hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cutter constructed in accordance with our invention. Fig. 2 is a top plan view of the cutter, the table and chute being removed. Fig. 3 is a vertical longitudinal sectional view through the cutter, and Fig. 4 is an enlarged top plan view of the pitman connection and a bell-crank to which it is attached.

The reference-numeral 1 designates a skeleton frame comprising two sides, which are connected by the transverse bars 2 and 3. Arranged midway between the top and bottom of the sides of the frame are horizontally-disposed bars 4, on which are secured the journals 5 and 5<sup>a</sup> for the reception of the transverse shaft 6, which is the drive-shaft of the machine, and carries intermediate its ends a band-pulley 7, which may be engaged by a belt to impart a rotary motion to the shaft. On one end of the shaft 6 is a crank 8, to which is secured a pitman 9 by a wrist-pin 10. On the end of the pitman 9 opposite to the wrist-pin connection is pivoted a block 11, vertically movable in an elongated slot 12 of the depending or oscillating lever 13, mounted on a stub-shaft 14, secured to one side of the frame. The block 11 may be moved vertically with relation to the oscillating lever 13 by a screw 15, which is threaded in the lever and projects through the block, so that the limit of swing of the lever can be regulated. Resting in a suitable seat on the lever 13 is a spring-pressed dog or shoe 16, which will frictionally engage the periphery of the wheel 17 as the lever swings from right

to left and turn the wheel 17, thus rotating the stub-shaft 14. As the lever swings from left to right the shoe will disengage the periphery of the pulley, and thereby the pulley will be rotated only in one direction, providing an intermittent motion for the shaft 14, to which the pulley is keyed. A sprocket 18 is also keyed to the shaft 14 and drives a sprocket-chain 19, extending upwardly and around a sprocket 20 on a journaled shaft 21, suspended from the top of the frame 1. Surrounding the shaft 21 is an enlarged roller 22, provided with a covering 23, of canvas, felt, or other fibrous material. This roller projects upward through a space formed by the edges of the table 24 on the top of the machine and the inclined chute-board 25, transversely arranged with relation to the frame, the board having an elongated slot 26, in which is arranged a rigid knife or shear-blade 27. To the top edges of the respective sides of the frame are two approximately inverted-U-shaped bearing-frames 28 and 29, in which are secured the spring-pressed bearings 30, carrying a friction-roller 31. In guide-frames 32 are vertically slidably secured the guide-blocks 33 carrying a vertically-moving knife or blade 34, which coincides with and is adapted to coact with the rigid blade 26. The blade 34 is actuated to move vertically in the guides 32 and 33 by means of a pitman or similar connection 35, which is connected at one end to the moving blade and at the other end to one extremity of a bell-crank lever 36, pivoted in a bearing 37. The vertical portion of the bell-crank lever 36 is provided with two upwardly-projecting parallel arms 38, provided with alining perforations through which a pitman 39 projects and on one end of which is a resilient buffer 40, abutting against one of the arms to relieve the jar caused by the oscillating movement of the pitman 39 as it is moved by the disk 41, to which it is eccentrically secured by a wrist-pin 42.

It will be noticed that the disk 41 is secured to the shaft 6 at the end opposite to the one on which the crank 8 is keyed and that for each revolution of the disk the movable knife 34 will overlap the knife 26, thus providing a cutting or shearing effect on any goods which may be in proper position on the chute-board



25, the cut ends being deposited in a basket or other receptacle conveniently near.

The block 11 can be moved in the slot 12 of the lever 13, so as to regulate the swing of the lever, and the proper adjustment can be determined by means of a scale 43 on the lever. Thus the intermittent motion can be so regulated as to time the rotation of the shaft 21 and incidentally the roller 22 so as to project the material to be cut immediately over the knife 26 and under the knife or blade 34 at proper intervals.

It will of course be understood that the sprocket 18 and the sprocket 20 will be so proportioned that a partial rotation of the wheel 17 will rotate the roller 23 sufficiently to project a determined amount or length of the material onto the chute-board 25, so that given lengths will be cut at each operation unless the stroke of the lever 13 is changed by operating the screw 15.

From the foregoing description, in connection with the drawings, it will be apparent that the machine will effectually perform the services for which it is intended and that cloth, paper, or other material may be severed or cut in equal lengths and a determined length of the goods will be successively fed to the shears.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination with a suitable support and a feed-table carried thereby, of a feed-

roller arranged at one end of the table, a chute-board secured adjacent the roller having a transverse slot, a rigid knife projecting through the slot, a vertically-moving knife arranged above the rigid knife and adapted to overlap the edge thereof, a pitman connected to the vertically-movable knife, a rocking bell-crank lever to which the pitman is secured, a rotating shaft, a disk carried by the shaft and a resiliently-secured pitman connection between the disk and the bell-crank lever for the purpose set forth.

2. In a device of the character described, the combination with a support, of a rotary shaft thereon, a crank on the shaft, an oscillating lever, a connection between the crank and oscillating lever, a feed-roller, means for imparting motion to the feed-roller and actuated by the lever, a disk carried by the first-named shaft, a rocking bell-crank lever, a pitman connection between the bell-crank lever and disk, a vertically-arranged lever, a movable blade carried thereby, and a stationary blade below the movable blade and adapted to be engaged thereby to cut material fed by the roller into lengths.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES McVICAR.  
ALPHEUS McVICAR.

Witnesses:

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MARGARET McVICAR.