

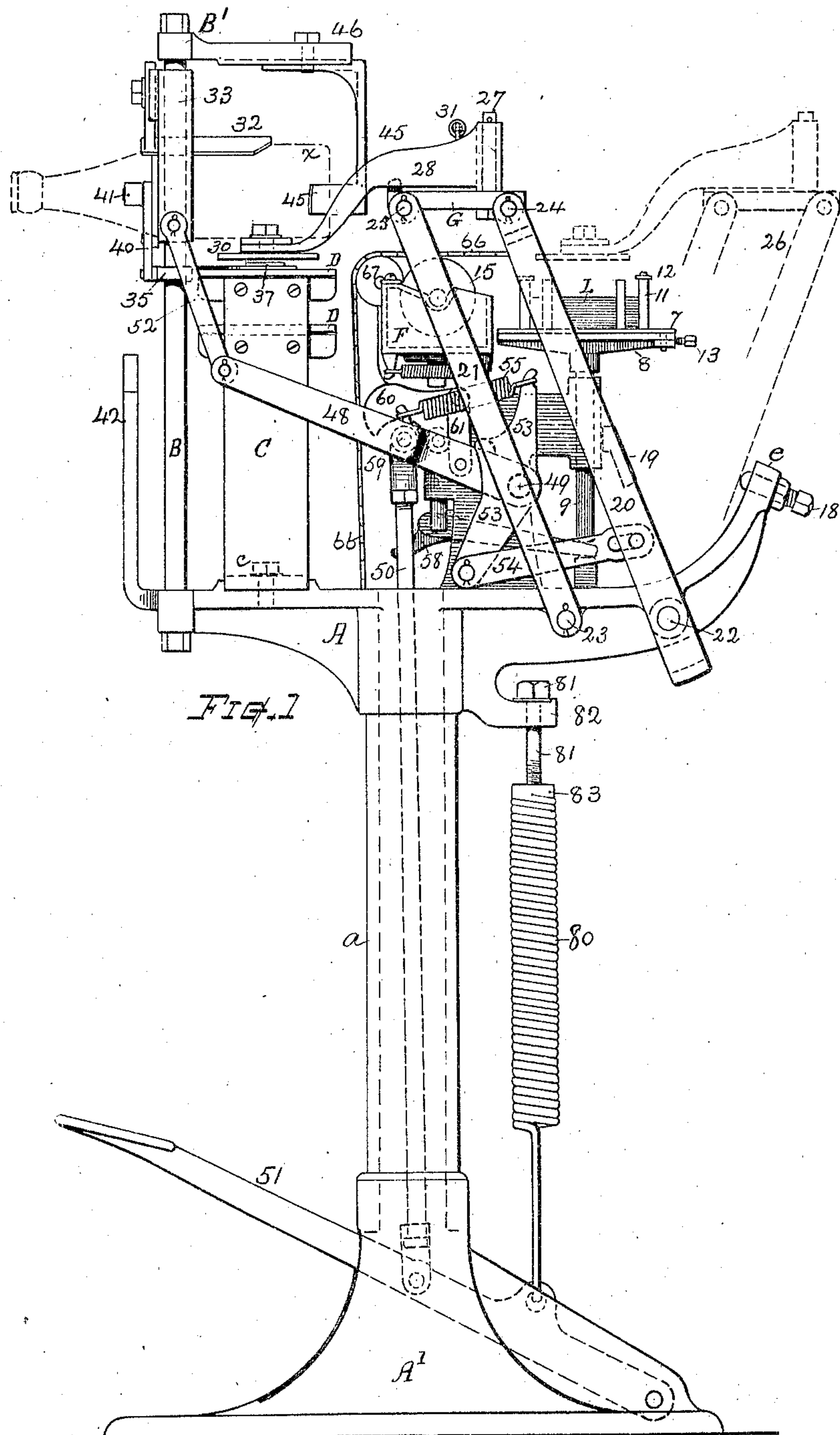
No. 859,713.

PATENTED JULY 9, 1907.

F. O. WOODLAND.
LABELING MACHINE.

APPLICATION FILED JAN. 6, 1902.

4 SHEETS—SHEET 1.



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4 SHEETS—SHEET 2.

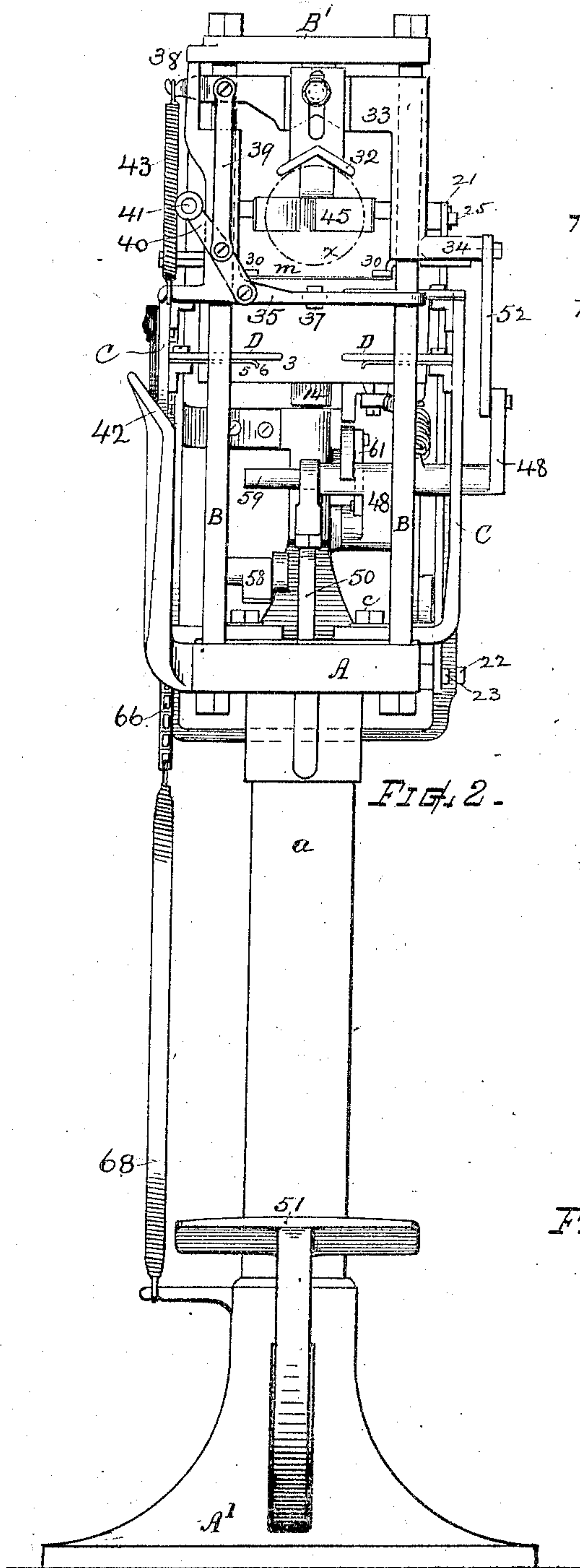


FIG. 2.

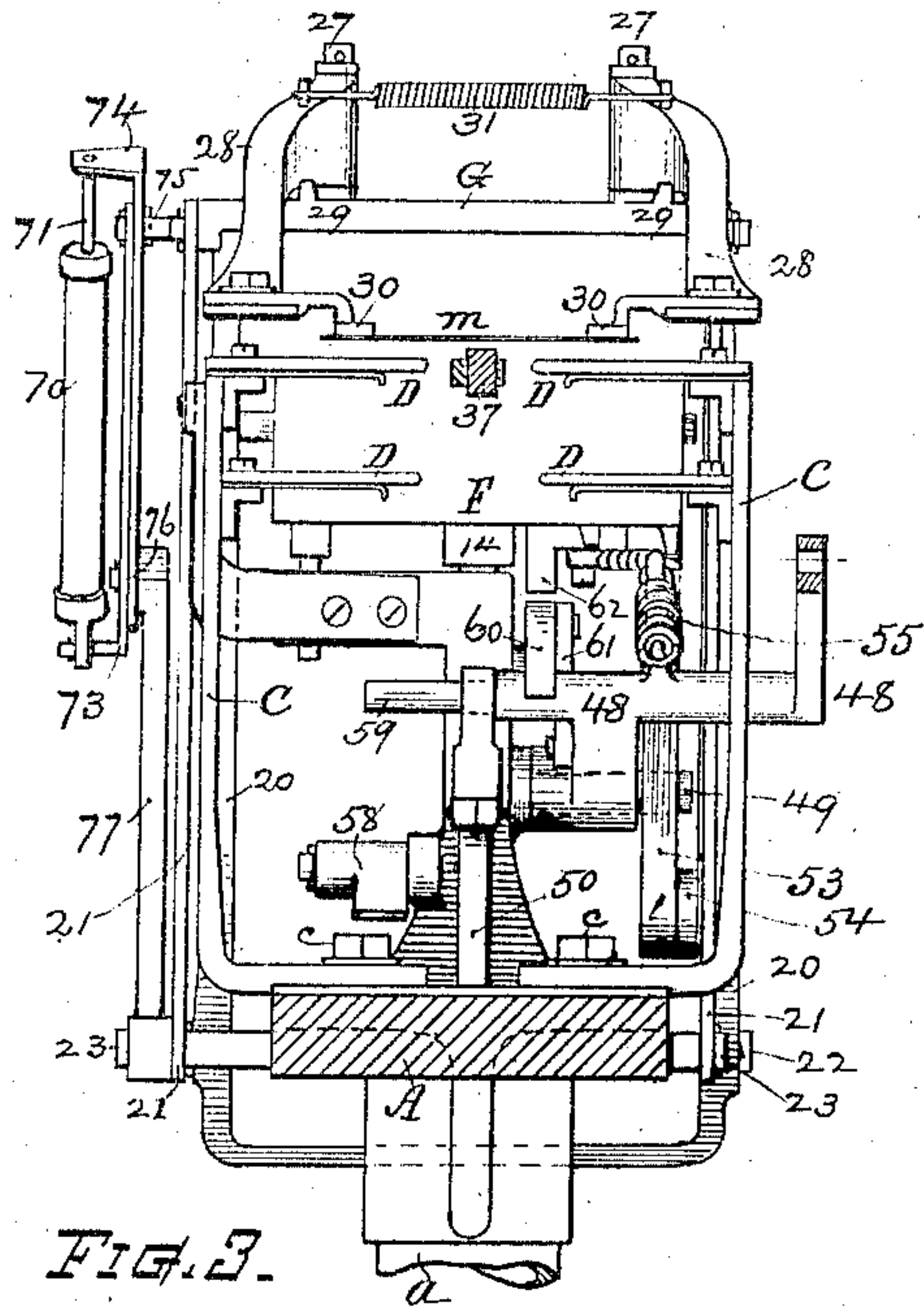


FIG. 3.

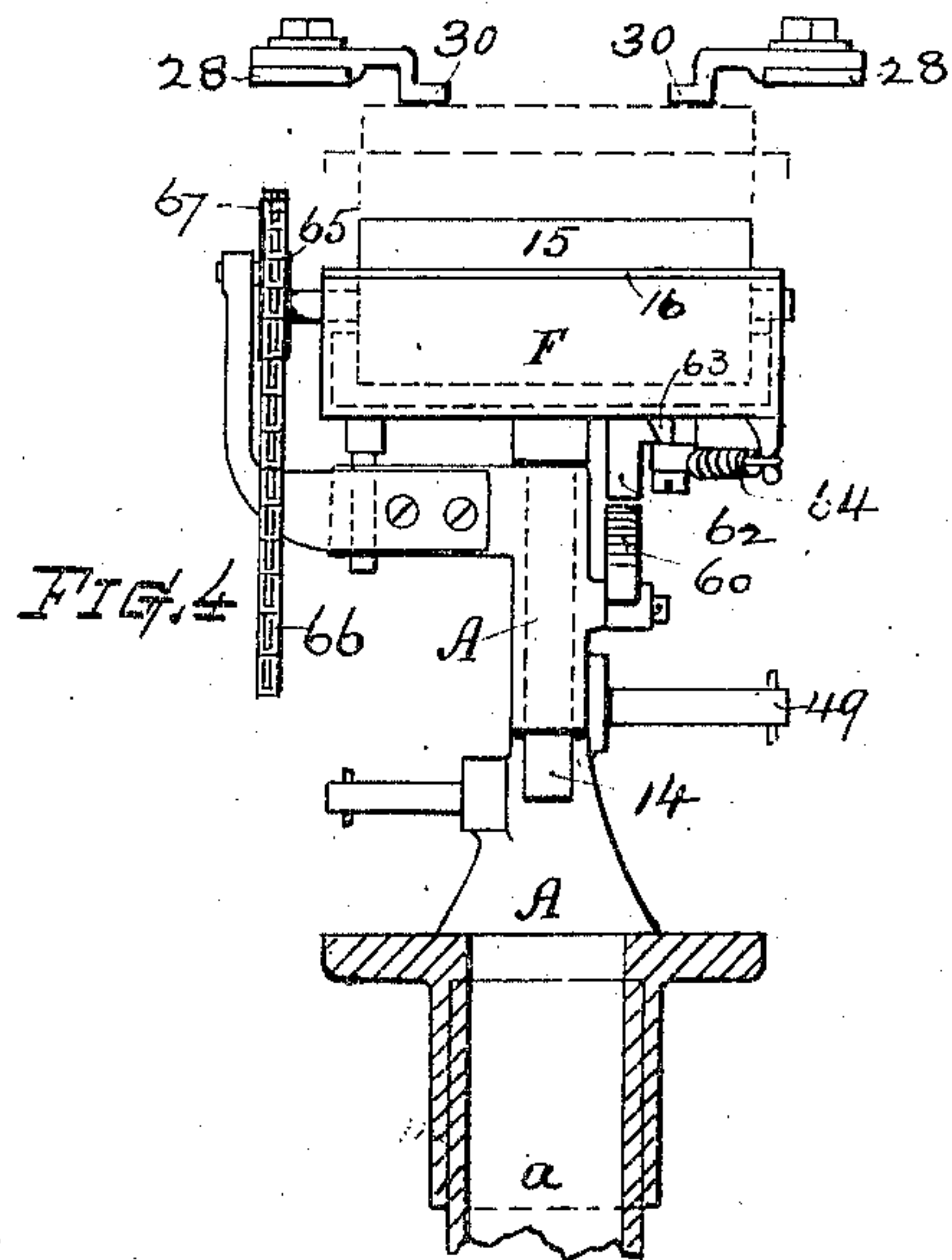


FIG. 4.

Witnesses.

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4 SHEETS—SHEET 3.

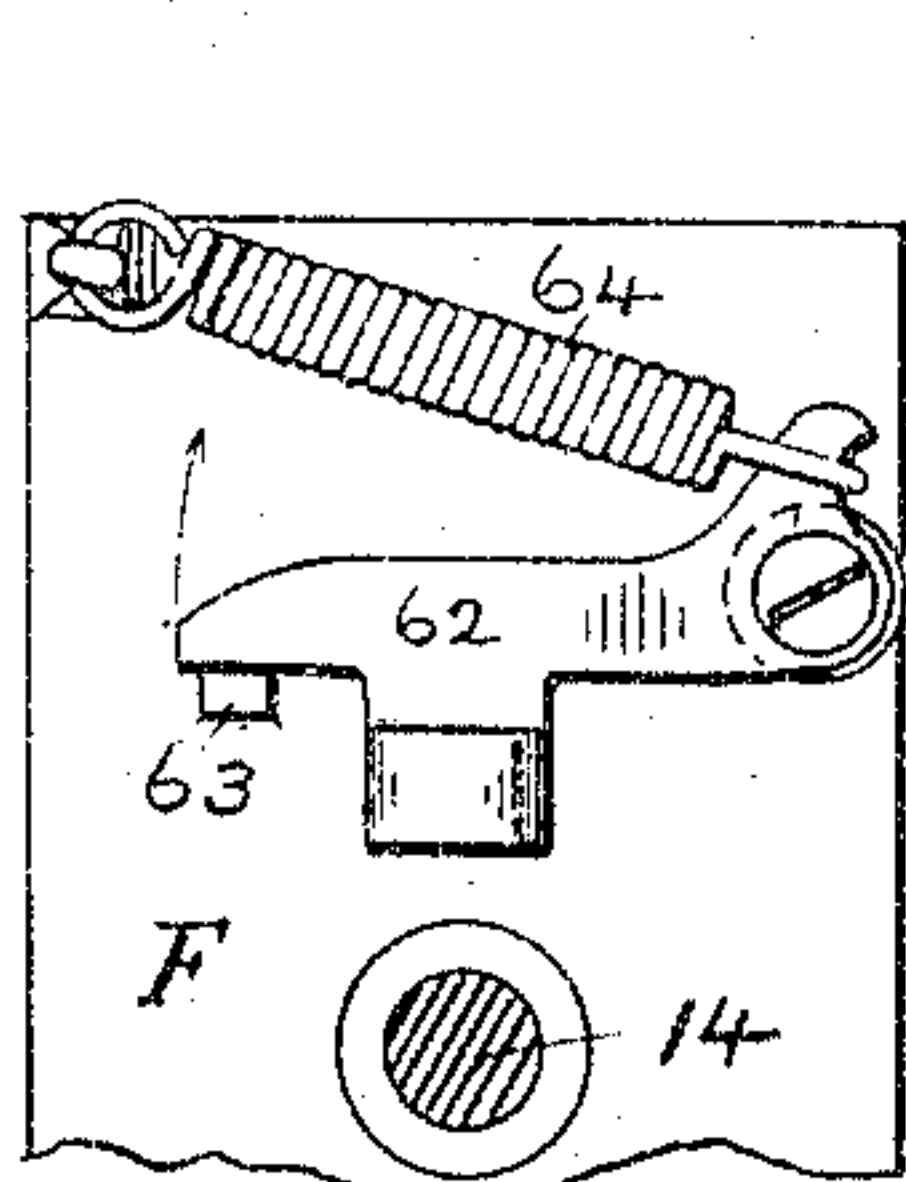
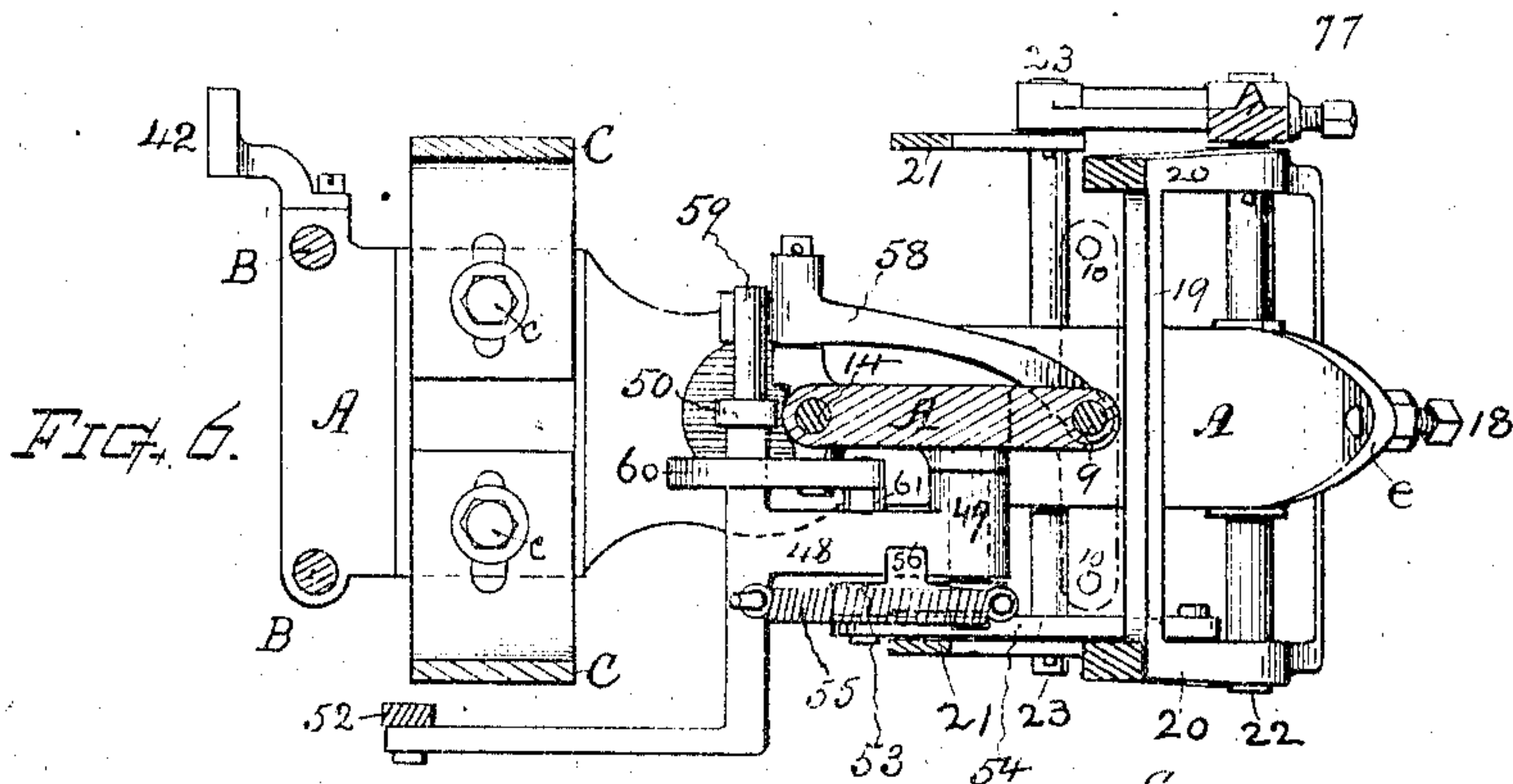
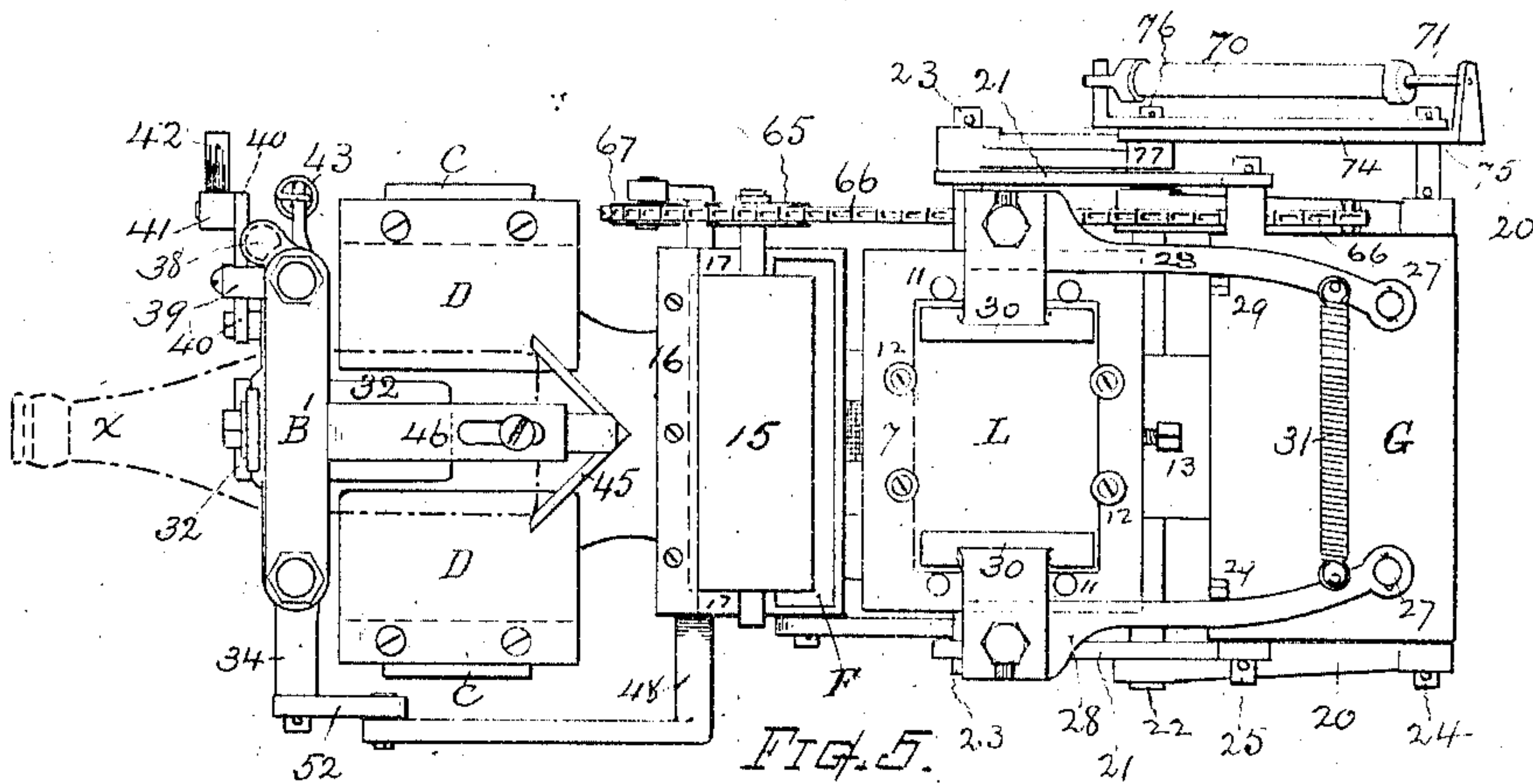


FIG. 8.

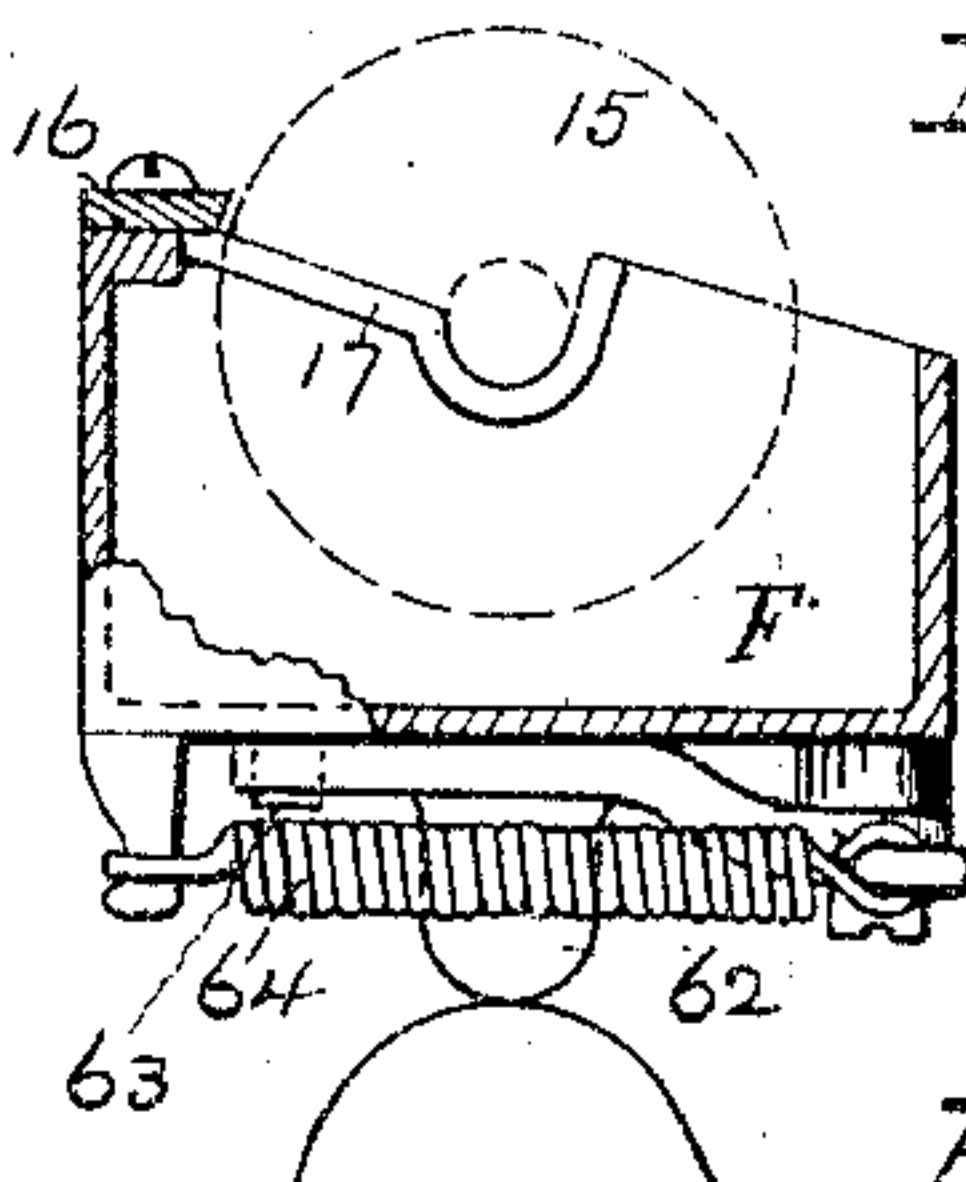


FIG. 7.

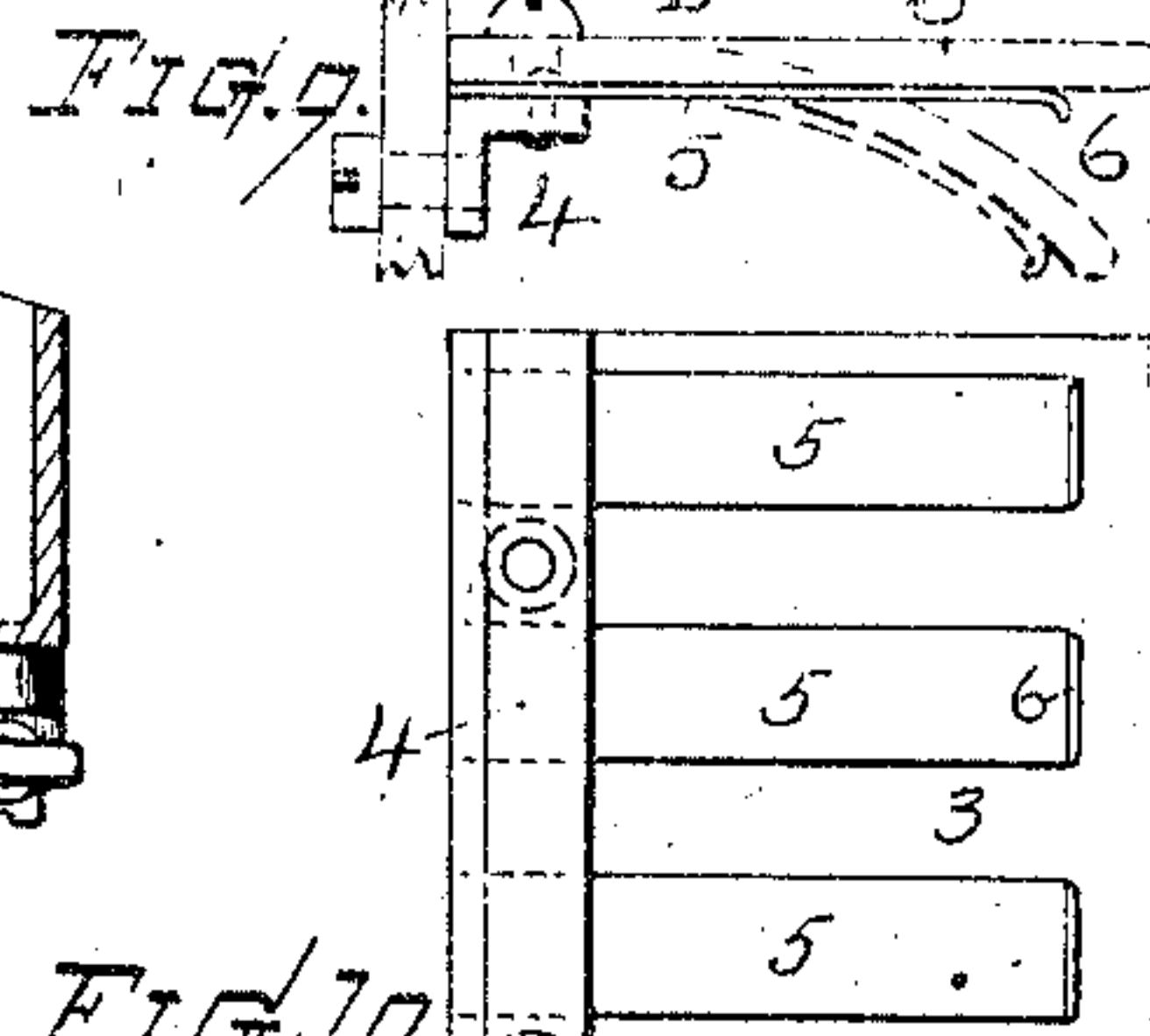


FIG. 9.

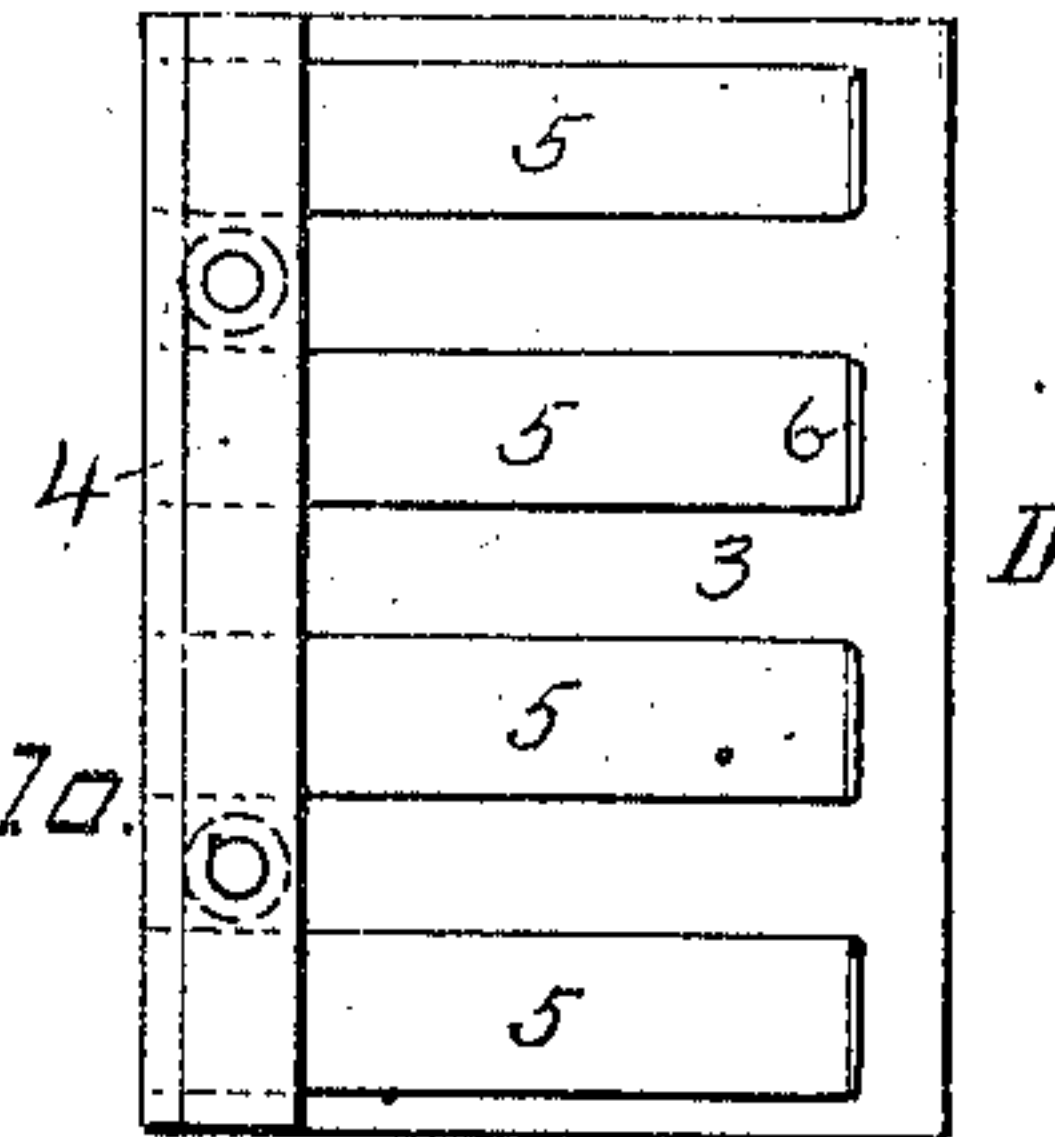


FIG. 10.

Witnesses.

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4 SHEETS—SHEET 4.

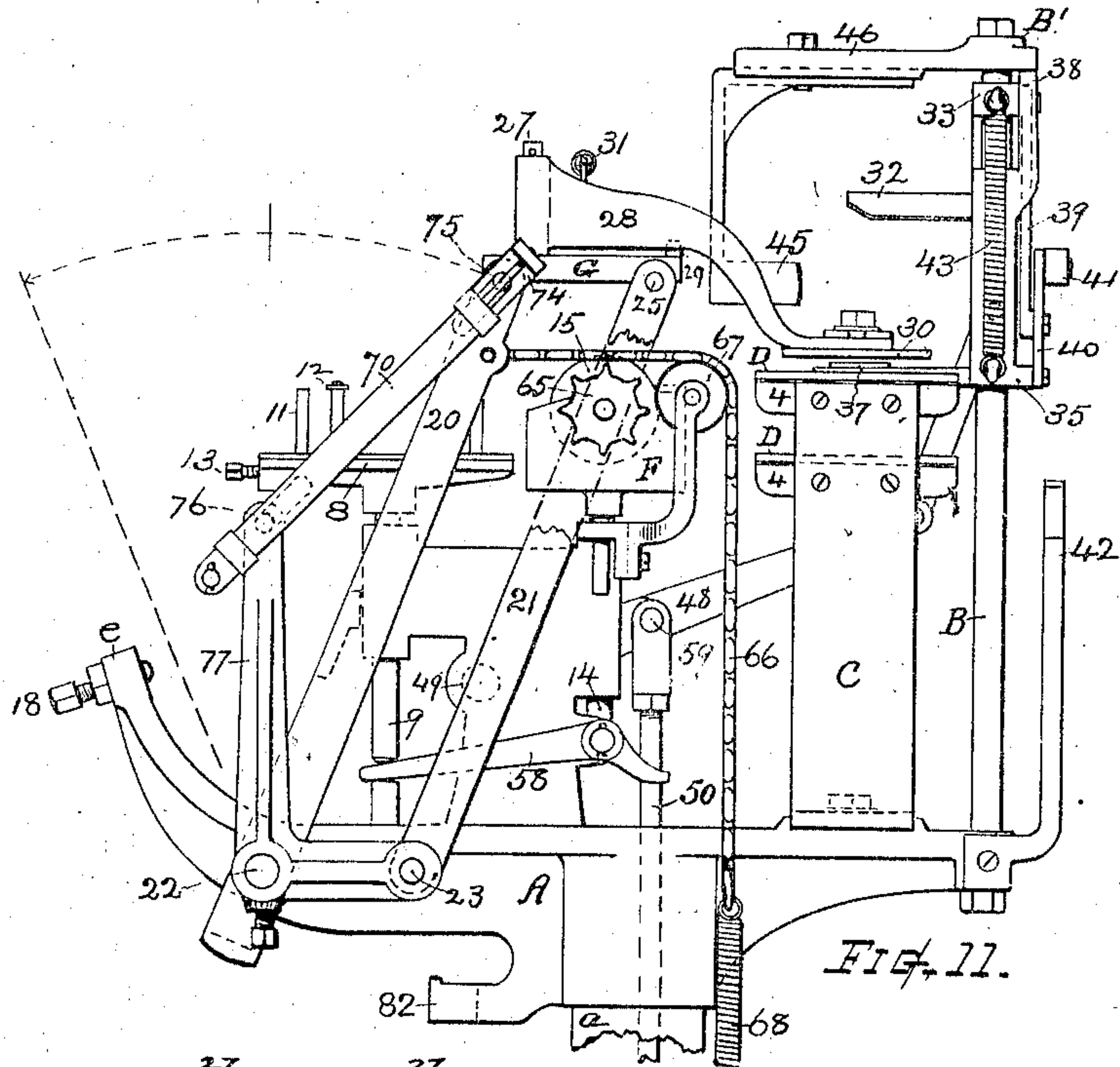


FIG. 11.

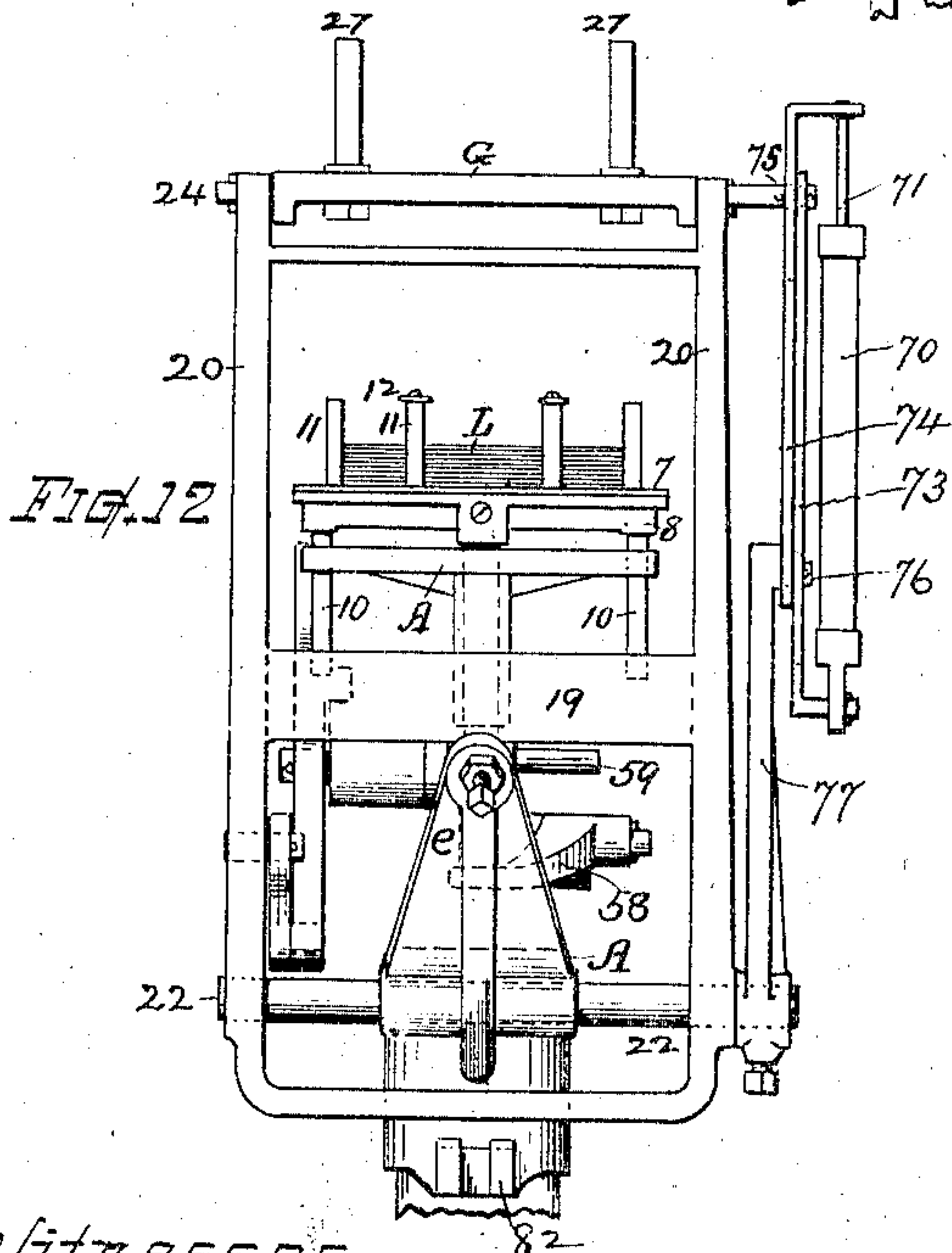


FIG. 12.

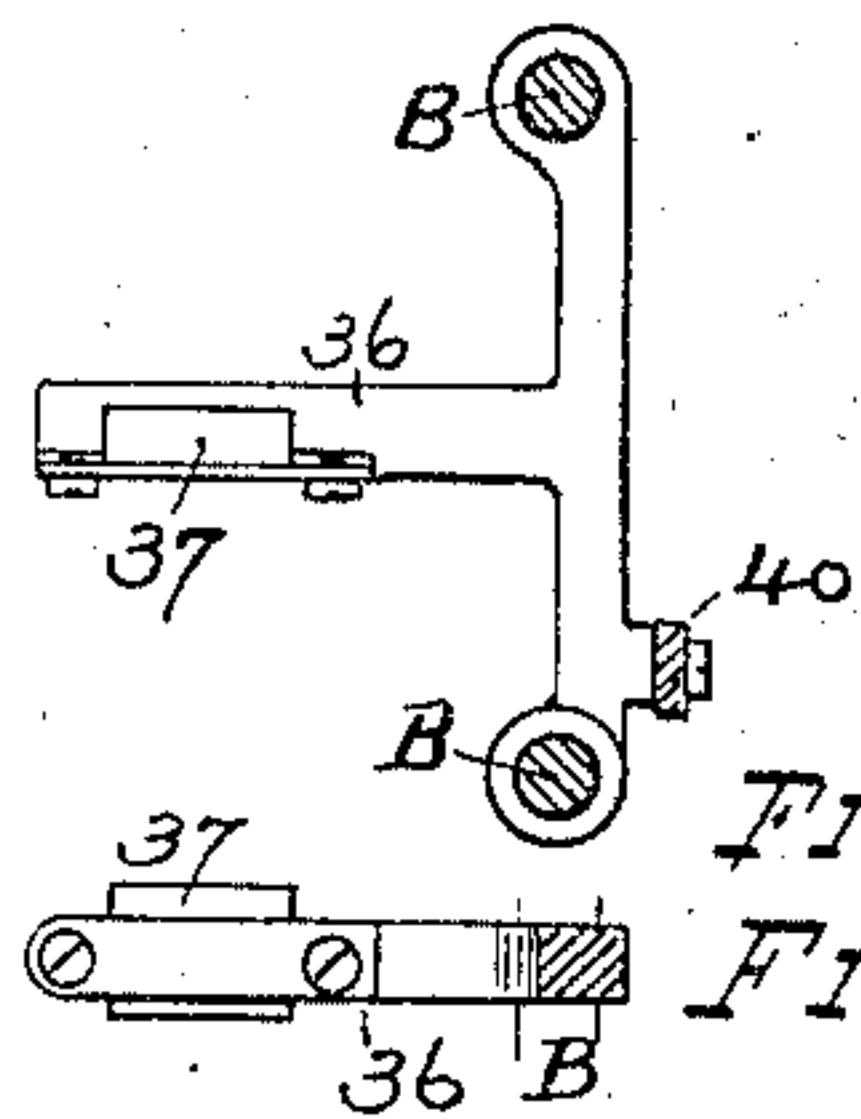


FIG. 13.

FIG. 14.

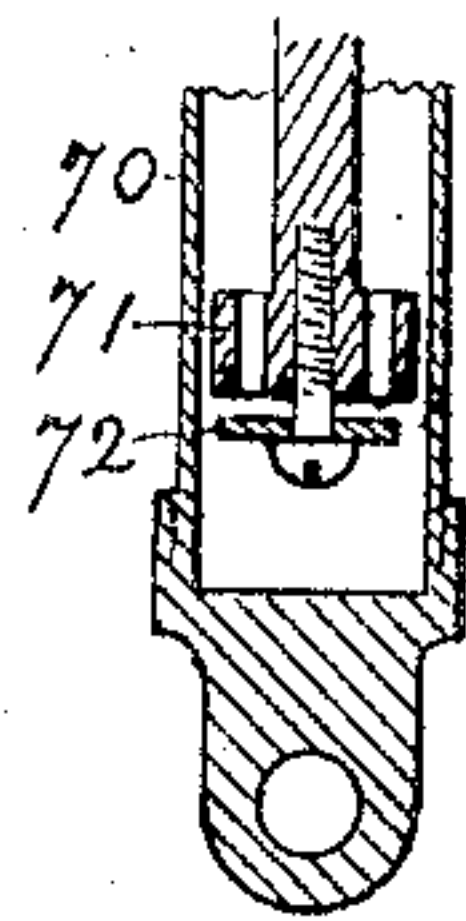


FIG. 15.

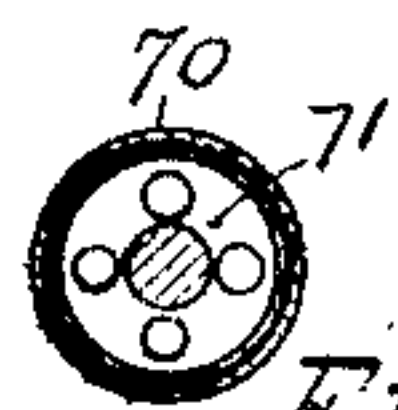


FIG. 16.

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UNITED STATES PATENT OFFICE.

FRANK O. WOODLAND, OF WORCESTER, MASSACHUSETTS.

LABELING-MACHINE.

No. 859,713.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed January 6, 1902. Serial No. 88,495.

To all whom it may concern:

Be it known that I, FRANK O. WOODLAND, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Labeling-Machines, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

The objects of my present invention are, to improve the construction and operative organization in various parts of the mechanism; to render the machine practically convenient, simple and easy for operation; and to provide an economic, efficient and desirable machine for affixing labels to bottles and similar articles.

To attain these objects my invention consists in a labeling machine embodying certain novel features in construction, the character of which is explained in the following detailed description, and particularly defined in the summary; and having the various parts severally constructed and combined substantially as illustrated in the accompanying four sheets of drawings; wherein

Figure 1 represents a side view of a labeling machine embodying my invention. Fig. 2 is a front view of the same. Fig. 3 represents a section or front view with the upright guides and bottle-pusher devices removed. Fig. 4 is a sectional front view of the paste-box mechanism. Fig. 5 represents a top plan view of the machine. Fig. 6 is a horizontal section below the paste-box and label holder. Fig. 7 is a detail sectional view of the paste-box and its lifting mechanism. Fig. 8 is a bottom view of a portion of the paste-box and its lift-escapement. Figs. 9 and 10 show a side view and bottom view of one of my improved wipers. Fig. 11 represents the side view of the machine opposite to that of Fig. 1. Fig. 12 is a rear view of the label-holder stand, carrier-supporting arm and oil-resistance devices. Figs. 13 and 14 show a plan view and side view of the center grip device. Figs. 15 and 16 show transverse section and longitudinal section of the oil-resistance cylinder and piston.

As shown in the drawings, the main frame for supporting the operating parts is best formed as a standard frame, consisting of a narrow centrally disposed head-piece A fixed to the top of a tubular standard or column a provided with a broad flaring base or foot A¹ adapted to give ample support for the mechanisms.

Fixed at the front of the head-frame there is a pair of parallel upright stationary guide-rods B, and adjacently in rear thereof a pair of oppositely disposed stands C for supporting pairs of stationary wipers D that are rigidly fixed to and project inward therefrom.

The wiper-stands are arranged to be adjusted laterally

on the frame, by loosening the attaching bolts c, but are secured stationary for use.

The wipers D for smoothing the labels upon the bottles, are of improved construction, and consist respectively of a plate or flap 3 of flexible material, such as leather, firm cloth, felt or some similar substance, made in rectangular or suitable form and rigidly secured at one edge to a supporting bar or bracket 4, together with an underlying series of thin flat-metal springs or resilient reinforce plates 5 resting against the under surface of the leather. (See Figs. 9 and 10.) The bracket-bars 4 are rigidly secured to the wiper-stand C. The springs 5 project to somewhat less extent than the leather 3, and their ends are best slightly curved downward, as shown at 6. The number of springs 5, and degree of resilience thereof, can be made more or less as required in any particular instance. I provide the mechanism with a plurality of pairs of wipers D, of this character, which are disposed as an upper pair at the top of the stands, and a lower pair at a position somewhat lower upon the stands, both acting at stationary positions.

Above the rear part of the frame there is a vertically movable holder for supporting the labels, and comprising a holder-plate 7 and a stand 8, having a central stem 9 guided in an upright bearing on the head-frame A, suitable steady pins 10 being provided so that the label-holder stand can move up and down without lateral rotative displacement. The label-holder plate consists of a thin flat plate with upright pins 11 fixed therein for keeping the pile of labels L in place. Some of the pins are furnished with overhanging caps or lips 12 for catching the edges and separating dually adhering labels. The plate 7 is seated upon the stand and retained by dowel pins and a set-screw 13. Label-holding plates with different forms or sizes of labels can be readily interchanged upon the stand 8 by simply loosening the screw 13 and replacing one label-holding plate by another.

The paste-box F, which is located between the label-holder and wiper mechanisms, is supported by a guide-stem 14 that slides in an upright bearing on the frame, a steady pin being arranged to prevent the paste-box turning out of place laterally. The paste-box is provided with a paste-delivering roller 15 removably mounted with journals in open bearings on the ends of the box. At the front there is provided a scraper-plate 16 for gaging the thickness of the film of paste on the face of the roller 15, and at the ends of the paste-box there are formed lips or flanges 17 (see Fig. 7) which fit against the ends of the roller and keep the end surfaces clean of paste.

For transferring the labels from the label-holder to the wiper position, I employ a carrier G consisting of a plate, bar or frame which is supported at opposite sides of the frame by dual parallel swinging arms 20

and 21, pivotally mounted at their lower ends upon axes or bars 22 and 23 projecting from the frame A, and having their upper ends respectively pivoted at 24 and 25 to the carrier G, as illustrated.

5 Upon the carrier G, which is provided with upright pivots or pins 27, there is mounted a pair of forwardly projecting picker fingers 28 having the pasters or picker-plates 30 respectively secured to their front ends. Said picker fingers are pivoted to swing laterally, but
10 are normally held inward against stop lugs 29 by means of a suitable spring 31, which permits a lateral yield of said fingers when forced. The pasters 30 are formed to imprint a proper or desired shape of paste surface upon the labels, and said pasters are detach-
15 ably secured to the fingers, and are made interchangeable for various shapes, styles or sizes of labels; exchange being effected by loosening the fastening bolt and replacing the pasters one for another.

The pasters 30 oscillate from the wiper-way to the
20 pile of labels, and vice versa, when movement of the carrier is effected by the swinging of the dual parallel arms from the position shown in full lines, to the position indicated by dotted lines at 26 on Fig. 1; the carrier, fingers and pasters maintaining a substantially
25 horizontal relation while traversing in an upwardly arched line of movement corresponding to the swing of the parallel arms.

The rearmost arms 20 are best united by transverse braces or cross-bars, integral or attached thereto, a cen-
30 tral cross-bar 19 being arranged to contact with a back-stop, on the upwardly turned rear end *e* of the frame A, for limiting the backward swing of the arms and label-transfer mechanism, and with the bearing or frame beneath the label-holder, for limiting the forward
35 swing or movement of said arms. The back-stop is preferably provided with an adjusting screw 18 and check-nut for regulating with accuracy the position at which the pasters or pickers are caused to stop upon the pile of labels L.

40 The bottle-guiding pusher 32 is adjustably attached to an upper cross-head 33 slidable on the guide-rods B, said pusher is angularly hollowed on its under surface, and extends horizontally rearward in central align-
45 ment with the label-carrying pasters and wiper-way space. The pusher is adjustable up or down on the cross-head to accommodate bottles of different sizes or diameters. The position of the bottle is indicated by dotted lines *x* on Figs. 1, 2 and 5. The cross-head has a long guiding sleeve at one side, provided with a
50 projection 34 to which the actuating connection is pivoted, and a short guide-bearing at its other side, furnished with a spring-attaching point.

Adjacently below the level of the pasters, there is arranged a lower cross-head 35 slidably mounted on
55 the guide-rods B and carrying a rigid rearwardly projecting finger 36 provided with a block or pad 37 of rubber or suitable semi-elastic material (see Figs. 13 and 14) that serves as a center stay, grip or presser for holding the label firmly in its presented posi-
60 tion against the bottle, and preventing its displacement or skewing during the wiping-on operation. The lower-cross-head is made with a long guide-sleeve at one side, and provided with a spring-attaching hook, and a stop-finger 38 that abuts against a lug on the sta-
65 tionary part or head-piece B' that unites the top ends

of the guide-rods. Said lower-cross-head is coupled to the upper cross-head by knuckle-jointed arms 39 and lever 40, the latter having a projecting end pro-
vided with a roll or stud 41 for contact with a trip
dog 42 arranged at the lower position of action. The
70 cross-heads are also connected to each other by a pull spring 43.

An angular or V-shaped end gage 45, adapted for centering and gaging the position of the bottle in re-
75 lation to the presented label *m*, is supported by a de- pending arm or bracket from a rearwardly project- ing portion 46 of the head-piece B', to which said gage-supporting arm is adjustably secured by a clamp-
bolt, or means adapted for holding the angular gage rigid at the desired position for receiving the end of
80 the bottle between the arms thereof.

For working the several devices I employ a main operating lever 48 which is fulcrumed on the frame at
49, and connected by a rod 50 through the hollow tubular standard *a*, to a treadle 51 arranged in the
85 base A'. Said treadle is pivoted at its rear end, as shown in Fig. 1, and has a laterally spread foot-plate at its projecting front end. The operating lever has a forwardly projecting arm which is connected by a link
52 with the projection 34 of the upper cross-head 33,
90 for operating the bottle-pusher mechanism and depressing the bottle through the wipers. Said main operating lever has combined therewith a supple-
mental or flexion member 53, serving as part of a
operating lever and having its arm connected by
link 54 with one of the swinging arms 20 for actuating
the carrier and paster devices. The link 54 is best
provided with an elongated eye for its connection with
the arm to afford a degree of movement of the operat-
ing lever before the movement of the arms 20 and 21
100 commences. The supplemental member is fulcrumed on the hub or axis 49 of the main lever, and is con-
nected with said main lever by a strong spring 55 and a limiting stop 56, so as to work with said main lever,
but to yield and permit further downward movement
105 of the operating lever after the swinging arms 20 and 21 and carrier mechanisms have reached their limit of
backward movement.

For elevating the label-holder a lever 58 is provided,
fulcrumed on the frame, and having an arm that ex-
110 tends beneath the end of the stem 9 of the holder-stand, and a short forward arm adapted to be acted upon by pin or projection 59 on the operating lever
48 when the latter approaches the limit of its down-
ward movement. Said forward arm is best formed to
115 act partially as a cam to give quick movement to the lifter.

The means for raising the paste-box F consists of a tumbler cam 60 pivoted to the side of the bearing-frame,
and having its end connected with the operating lever
120 48 by a link-piece 61. Upon the bottom of the box (see Figs. 7 and 8) there is a pivoted laterally swinging escapement member 62 normally held against a stop-
lug 63 by means of a suitable spring 64, and said mem-
ber has a depending body against which the tumbler
125 60 acts. When the tumbler is moved in one direction the member 62 rides upon the cam-face of the tumbler, and the paste-box is lifted to bring the paste-delivering
roller into contact with the rearwardly moving pasters
30; but when the tumbler moves in the other direction
130

the yielding of the spring 64 permits the member 62 to swing laterally, so that its body escapes at one side of the tumbler, consequently not effecting an upward movement of the paste-box. The cam surface at the 5 end of the tumbler is shaped so as to give a movement to the paste-box that will accord with the variation in level of the pasters while passing across the roller 15.

One axle of the paste-delivering roller is provided with a sprocket or band-wheel 65, and in line therewith 10 is a band or chain 66, one end of which is attached to the arm 20, or to some part that moves in concert therewith. The chain passes over a guide sheave 67, and its depending end is connected with a pull spring 68, having its lower end attached to the standard or base 15 of the frame. (See Figs. 2 and 11.) The guide-sheave is mounted on an axis stud carried by a stationary arm of the frame, and it supports the chain so that it is normally slightly above or out of contact with the sprocket 20 when the paste-box is at low position, but so that the sprocket is brought into engagement with the chain when the paste-box is raised. Thus when the pasters 30 are carried rearward across the face of the paste-delivering roller, by the backward swing of the dual parallel arms 20 and 21, the roller is given a positive corre- 25 sponding rotation by the action upon the sprocket 65 of the chain or band 66 which moves with said arms.

At a position approximately midway of the reciprocating action of the picker-carrier, or oscillative movement of the swinging arm 20, there is mounted an oil 30 resistance appliance adapted for cushioning the action or reducing the momentum of the moving carrier and paster devices at either limit of its movement, and to avoid jar and shock when meeting the stops, as best shown in Figs. 11, 12, 15 and 16. Said oil resistance 35 consists of a cylinder 70 and a piston 71, perforated and provided with a valve 72; the piston working within the cylinder with a certain degree of looseness, in a volume of oil which easily flows through the perforated piston as it is worked in one direction, but must leak 40 past the rim of the piston when worked in the other direction. The cylinder 70 is connected to one of a pair of slide-bars 73 while the rod of the piston is connected to the other slide-bar 74, and said pair of slide-bars is pivotally mounted at or near their respective ends, 45 upon a stud 75 arranged on the movable carrier G and with a stud 76 on a stationary bracket or part of the frame 77, so as to give a swinging movement to the oil cylinder and slide-bars as the pickers or pasters are moved from the wipers to the label-holder and vice 50 versa.

The fixed or mounting pivot 76 is located at a midway position of the swing movement, and at a height of about one half, more or less, the working length of the arm 20. The bar 73 has a close bore fitting the carrier 55 pivot 75 and a longitudinal slot embracing the fixed pivot 76; while the bar 74 has a close bore fitting the fixed pivot 76 and a longitudinal slot embracing the carrier-pivot 75. The swing of the resistance appliance being less than the swing of the arm 20, or movement of the carrier G, there results a relative movement of the piston 71 within the cylinder as the bars 73 and 74, and cylinders 70 approach and recede from the vertical position in their swinging action; the piston 71 being forced down with its valve 72 closed against the 65 oil, as the carrier approaches the end of its movements,

forward or backward; and the piston raised with the valve open as the carrier approaches the central position in its movement. It will thus be seen that cushioning effect is produced at each end of the carrier movement, and the greatest steadiness in action and 70 ease of operation results.

A contractile coil spring 80 is arranged from the treadle 51 to the head frame A. The attachment to the frame is best made by a tension adjusting screw 81 supported between projecting lugs 82, and threaded into a 75 nut 83 fixed to the end of the spring-coil, so that regulation of the spring can be effected by turning the screw. The spring acts to raise the treadle 51 and operating lever 48, and thereby effects the return of the several parts to their normal positions. 80

In the operation, assuming that the parts are at positions shown in Fig. 1, and a pile of labels L arranged face downward upon the label-holder; also that a previous operation has caused a single label to be presented at *m* over the wipers; then the operator taking hold of 85 the neck of the bottle inserts it beneath the pusher 32 until its end hits against the angular face of the gage 45. He then, with his foot, depresses the treadle thereby drawing downward the operating lever 48 which in turn by its several connections, depresses the pusher 90 cross-head 33, and at the same time swings back the dual parallel arms and carrier G, and works the paste-box lifting tumbler, etc. As the pusher starts downward the bottle is brought evenly against the label *m* which is presented and held in proper position by the 95 pickers or pasters 30, and at the same instant the center-holding pad 37 presses the center of the label against the bottle surface, owing to the action of the spring 43, which is allowed to act by reason of the stop-finger 38 receding from the lug on the head-piece. The knuckle 100 joint is also flexed swinging the roll-stud 41 outward. The center of the label is thus firmly clamped to the bottle and as the cross-heads and pusher descend the bottle is carried between the stationary wipers D and the pasted ends of the label are, by the flexible, spring- 105 supported projecting leather flaps, wiped on and caused to smoothly adhere to the surface of the bottle. When the bottle has passed through the wiper way, the roll-stud 41 strikes the incline of the trip dog 42, and the knuckle joint arms 39 and 40 are straightened, forcing 110 apart the cross-heads with the pusher 32 and center-holding pad 37, and thereby releasing the labeled bottle. Simultaneous with the above described action the arms 20 are swung backward, a slight delay at starting being afforded, by the long eye stop on the connecting link, 115 for the purpose of allowing the pusher to move the bottle far enough to pull the label from the pasters 30 before their rearward movement commences. The arms swing the carrier with its picker-fingers and pasters 30 rearward, bringing the pasters to a position over the 120 label-holder. (See dotted lines Fig. 1 and full lines Fig. 5.) As the pasters 30 pass the roller 15 the paste-box is raised by the tumble-cam 60, bringing the paste-delivering roller against the faces of the pasters and transferring thereto a uniform film of glue or paste, the 125 roller being rolled against the same by the sprocket 65 and chain 66, after which the paste-box drops down to normal position. As the operating lever approaches its low limit, and as the arms 20 reach the back-stop 18, the projecting pin 59 strikes the lifting lever 58 which, 130

- throws up the label-holder stand, bringing the top of the pile of labels against the glue-charged under surfaces of the pasters, to which the top label adheres. Then the operator releases the treadle, and by power of the spring the several parts re-act to their original positions, and the label is transferred from the pile L, by the forward swing of the carrier and picker-fingers, and presented by the pasters over the wiper-way ready to receive the next bottle, when the operation is repeated.
- 10 What I claim as of my invention and desire to secure by Letters Patent, is—
1. In a labeling machine, the combination with the label-holder, the paste-box provided with a delivering roller, and a pair of flexible resilient wiper-plates mounted on stationary supports; of an oscillating carrier, dual parallel rocking arms supporting said carrier, a pair of horizontally swinging picker-fingers mounted on said carrier, pasters attached to said fingers, means for moving said rocking arms for transferring the pasters from the wipers to the label-holder over said paste-delivering roller, and vice versa, and mechanisms for elevating and depressing said paste-box and said label-holder, substantially as described.
 2. In a labeling machine, the combination, with the label-holder, the paste-box provided with a delivering roller, and the stationary wipers as set forth; of a movable carrier having vertical pintles thereon, dual parallel rocking arms pivoted at their lower ends in connection with the frame, with their upper ends pivoted respectively to the corners of said carrier, a pair of forwardly projecting picker-fingers horizontally swinging on said carrier pintles, pasters secured to the fore ends of said fingers, a bottle-pusher and grip-devices movable from above to below said wipers, upright guide-rods therefor, means for imparting motion to said rocking arms, means for elevating and depressing the paste-box and label-holder, and means substantially as described for operating said bottle-pusher and grip-devices, and a main actuating member or lever common to and controlling all said operating means, substantially as described.
 3. In a labeling machine, in combination as described a label-holder, a paste-box with paste-delivering roller, a pair of stationary upright wiper-supporting arms, oppositely projecting flexible resilient wiper pads rigidly secured to said arms, means for pushing a bottle through the wiper-way, a backwardly and forwardly movable carrier, a pair of forwardly projecting picker-fingers having the pasters secured to the ends thereof, said fingers pivotally supported by vertical pivots upon said carrier and laterally yieldable to permit the passage of a bottle between the pasters or ends of said fingers, substantially as set forth.
 4. The combination with the label-holder, the paste-box, the wipers, the picker-finger-carrier and dual parallel rocking arms supporting said carrier; of the main operating-lever provided with a yieldable supplemental member pivoted thereon, a spring adapted for retaining said member in normal relation to the main lever, a link connecting said supplemental member with the rocking arm, and having an elongated pivot-eye, a box-actuating cam linked to said main lever, a lifting lever fulcrumed on the frame and engaging beneath the label-holder stem, a lug on said main-lever that contacts with said lifting lever, and an operating rod connecting said main lever with the treadle or motor power, for the purposes set forth.
 5. In a labeling machine, in combination as described, the supporting frame comprising the base, the tubular standard and narrow head-piece with upright bearings for the paste-box and label-holder stand, and the wiper-stands having their foot secured to and laterally adjustable on said frame, inwardly projecting wiper-flaps rigidly secured to said wiper-stand, the paste-box and label-holder-stand each having a stem slidably supported in said bearings, upwardly disposed rocking arms mounted on laterally projecting axles at the opposite sides of said frame, a carrier pivotally supported between said arms at their upper part and maintained horizontal by the dual parallel rocking arms, the picker-fingers pivoted on said carrier, the pasters secured to the ends of said fingers, an operating-lever and connections for moving said parts disposed between the planes of the opposite arms, a treadle fulcrumed at the base of the frame, and a rod connecting said operating-lever and treadle through the tubular standard.
 6. In a labeling machine, the frame having a rearward upward extension adapted as a back-stop, in combination with the label-holder-stand, picker-finger-carrier, and oscillating arms upon which said carrier is mounted, one pair of said arms having a bunter, cross-bar or plate adapted to contact with said back-stop, and means for regulating the point of back-stop contact, for the purpose set forth.
 7. In a labeling machine, a wiper composed of a flexible flap and an underlying spring, or springs, rigidly supported at one edge and acting against the label with its projecting flexible edge, substantially as set forth.
 8. In a labeling machine, the combination of a pair of rigidly supported oppositely disposed wipers, composed of flat springs covered by a flap of leather, or equivalent flexible material, and projecting into the pathway of the bottle as it advances from above to below the label-delivering devices, substantially as set forth.
 9. The combination, with label-delivering devices, and the bottle-guiding mechanism adapted for moving the bottle in a path across the delivered and gummed label; of a pair of stationary wiper-stands respectively disposed at opposite sides of the bottle path, and having the rigid wiper-attaching supports removably attached thereto at different levels, and a flexible flap wiper outstanding from each of said wiper-attaching supports, for pressing their flexible edges upon the label with a yielding pressure as the bottle is passed between the opposite wipers.
 10. The combination, with the stationary set of wiping-on devices, and means for pasting a label and presenting said label adjacent to said wiping-on devices; of the primary cross-head sliding on guide-rods fixed in the frame, and carrying a bottle pusher, a secondary cross-head sliding on said guide rods and carrying a presser finger for centrally holding the label to the bottle, a pull spring connecting said cross-heads, a pair of knuckle-jointed arms pivoted to and connecting said cross-heads, a projecting roll-stud on one of said arms, a dog or contact member for engaging therewith at the downward limit, an upward limiting stop member for the secondary cross-head, and a connection for actuating said primary cross-head from the main operating lever.
 11. In a labeling machine, in combination with oppositely projecting wipers, and means of pasting a label and presenting said label in alignment with and adjacent to said wipers; of a furcated angle-shaped end-gage adapted for centering the end of the bottle in relation to said wipers and label, substantially as set forth.
 12. The combination, with the label-holder, its lifting lever, the parallel rocking arms, a carrier and means for pasting and transferring a label, mounted on said arms; of a main operating-lever, a foot treadle, a treadle spring, a treadle connecting-rod coupling said treadle and operating-lever, said operating-lever having a projection for actuating said label lifting lever, and a supplemental arm-actuating-member flexibly united with said operating-lever and yieldable to enable the main lever to continue its movement to move said lift-lever after the arms and arm-actuating member have reached the limit of their movement.
 13. In a labeling machine comprising a label-holder, paste-supply mechanism, wiper devices, a backwardly and forwardly movable carrier with pickers for transferring labels, and means for pushing a bottle through the wiper-space; of an operating lever having connections for actuating both said bottle-pushing means and said transferring carrier, the carrier-actuating connection being provided with a means for affording lost motion for delaying the start of the carrier motion until the bottle pusher has moved a predetermined distance, substantially as set forth.
 14. In a labeling machine comprising a vertically movable label-holder, paste-box, paste-delivering roller, wipers and an oscillating carrier with means for picking up, pasting and transferring a label; the combination therewith, of stops for limiting the motion of said transferring

carrier, a lever for lifting said label-holder, and a main operating-lever provided with a flexible joint or yieldable member in connection with the carrier, and with a non-yielding member adapted to contact with and actuate said lifting lever for raising the label-holder, after the carrier motion has been arrested by said stops.

15. In a labeling machine, the combination, of the paste-box supported upon a guide-stem vertically movable in the frame, a swing cam for elevating said paste-box, a bearing device upon the bottom of said paste-box adapted to engage said cam to effect elevation of the paste-box when the cam moves in one direction, and to move out of the path of said cam without effecting movement of the paste-box when the cam moves in the opposite direction, and means for imparting motion to said cam.

16. In combination with the stationary wipers, the label-holder, and the oscillating carrier having picker fingers with paster-plates mounted thereon; of the vertically movable paste-box provided with a paste delivering roller, a yielding escapement member pivoted to the bottom of said paste-box, a tumbler cam pivoted to the frame and acting against said member, the operating-lever, and a link-bar connecting said tumbler-cam and operating lever, substantially as set forth.

17. In combination with the label pickers, their oscillating carrier, the rising and falling paste-box, and the paste-delivering roll provided with a sprocket-wheel; of the chain connected with said oscillating carrier and engaging said sprocket when the paste-box is elevated.

18. In a labeling machine, in combination with the label-holder, wipers and means for pasting and transferring a label from the label-holder to the wipers; of the paste-box, a paste-delivering roller provided with a sprocket-wheel, a chain disposed above said sprocket and attached to move with said pasting and transferring mechanism, said sprocket engaging said chain to effect rotation of the paste-delivering roller when the paste-box is raised for bringing the roller into contact with the rearwardly moving pasters, and disengaging from said chain when the paste-box is dropped to normal position.

19. The combination of the label-holder, the wipers, the vertically movable paste-box, the paste-roller within said box having a projecting axle provided with a sprocket or operating wheel, a pair of picker-fingers and pasters, a movable carrier for said fingers, and parallel rocking arms supporting said carrier, a chain or band moving with said arms, a guide roll mounted on a stationary axis and supporting said chain, a contractile spring connected to the chain, and means for elevating and depressing the paste-box for bringing the roller to contact with said pasters, and the operating wheel into coacting engagement with said chain, substantially as set forth.

20. In a labeling machine, the combination, with wipers, paste-delivering mechanism, and a label-holder; of laterally spreadable label-carrying fingers furnished with paste-applying surfaces, dual rocking arms for the support thereof, and means pivotally connecting the label-carrying fingers with the rocking arms and maintaining horizontality of the paste-applying surfaces of said fingers.

21. In a labeling machine comprising a label-holder, paste-supply devices, wipers, means for pushing a bottle through the wiper-way, a carrier having the picker-fingers mounted thereon, and dual parallel rocking arms supporting said carrier; a pair of reversely swinging levers or bars mounted on pivots respectively fixed to said carrier and to a stationary part of the frame, and an oil-resist-

ance cylinder and piston mounted between and severally connected with the opposite ends of the respective levers, for the purpose set forth.

22. In a labeling machine, the combination with the movable carrier, having the picker and label-carrying devices thereon, and the operating mechanism therefor; of an oil-resistance appliance adapted for reducing the momentum of said picker and label-carrier devices at the ends of its respective movements.

23. In a labeling machine, the combination of pasting pickers and a picker carrier supported on dual pairs of swinging arms; of an oil resistance cylinder and piston respectively connected with slide bars, one of which is pivoted to move with said carrier arm, and the other to a fulcrum axis independent of said arm, and at shorter length than said arm.

24. In a labeling machine, an oil-resistance appliance pivotally mounted midway between the limits of the picker-carrier movement, and connected for alternately cushioning the stroke of the picker carrier at each end of its backward and forward movements; in combination with the picker carrier, supports for said carrier, a label-holder, a set of wipers, and means for moving said picker-carrier back and forth for the transference of the labels from said label-holder to the wiper-stand.

25. The combination, of a label-holder, a stationary set of wipers, paste-supply devices intermediate thereto, a backwardly and forwardly movable carrier having picker-fingers carrying pasters mounted thereon, mechanism for pushing the bottle past said wipers, a main operating lever with connections for working said carrier and pusher mechanism, actuating devices for raising the label-holder and paste-supply, and an oil-resistance comprising a pair of swinging slide levers, a cylinder and a piston having a one-way resistance.

26. In a labeling machine, the combination of a reciprocating piece, having label-carrying fingers, a paste fountain, a paste roll mounted in the fountain, and a flexible connection between the reciprocating piece and paste roll.

27. In a labeling machine, the combination with wipers, a label-holder, and paste-delivering mechanism disposed intermediate to said wipers and said label-holder; of a carrier supported by a plurality of pivotally attached rocking arms to swing in an upward circular arc above the label-holder, a pair of forwardly projecting label-carrying fingers furnished at their front ends with paste-applying surfaces below the plane of the carrier, means pivotally connecting the fingers to the carrier, and means for moving the label-holder to bring the labels into the arc of movement of the paste-applying surfaces on said fingers.

28. In a labeling machine, the combination with wipers a label-holder, and paste-delivering mechanism; of label-carrying devices having paste-applying surfaces, by which labels are transferred from the label-holder, a plurality of parallel rocking arms on which said label-carrying devices are supported, and means for resisting, reducing or arresting the momentum or throw of said label-carrying devices and rocking supporting-arms, without injurious shock or jar when the label-carrying devices are brought to position for delivering the label for affixment to the bottle.

Witness my hand this 3rd day of January, 1902.

FRANK O. WOODLAND.

Witnesses:

CHAS. H. BURLEIGH,
ELLA P. BLENUS.