

No. 807,722.

PATENTED DEC. 19, 1905.

C. C. CLAWSON.
COIN CONTROLLED APPARATUS.

APPLICATION FILED MAY 29, 1905.

6 SHEETS—SHEET 1

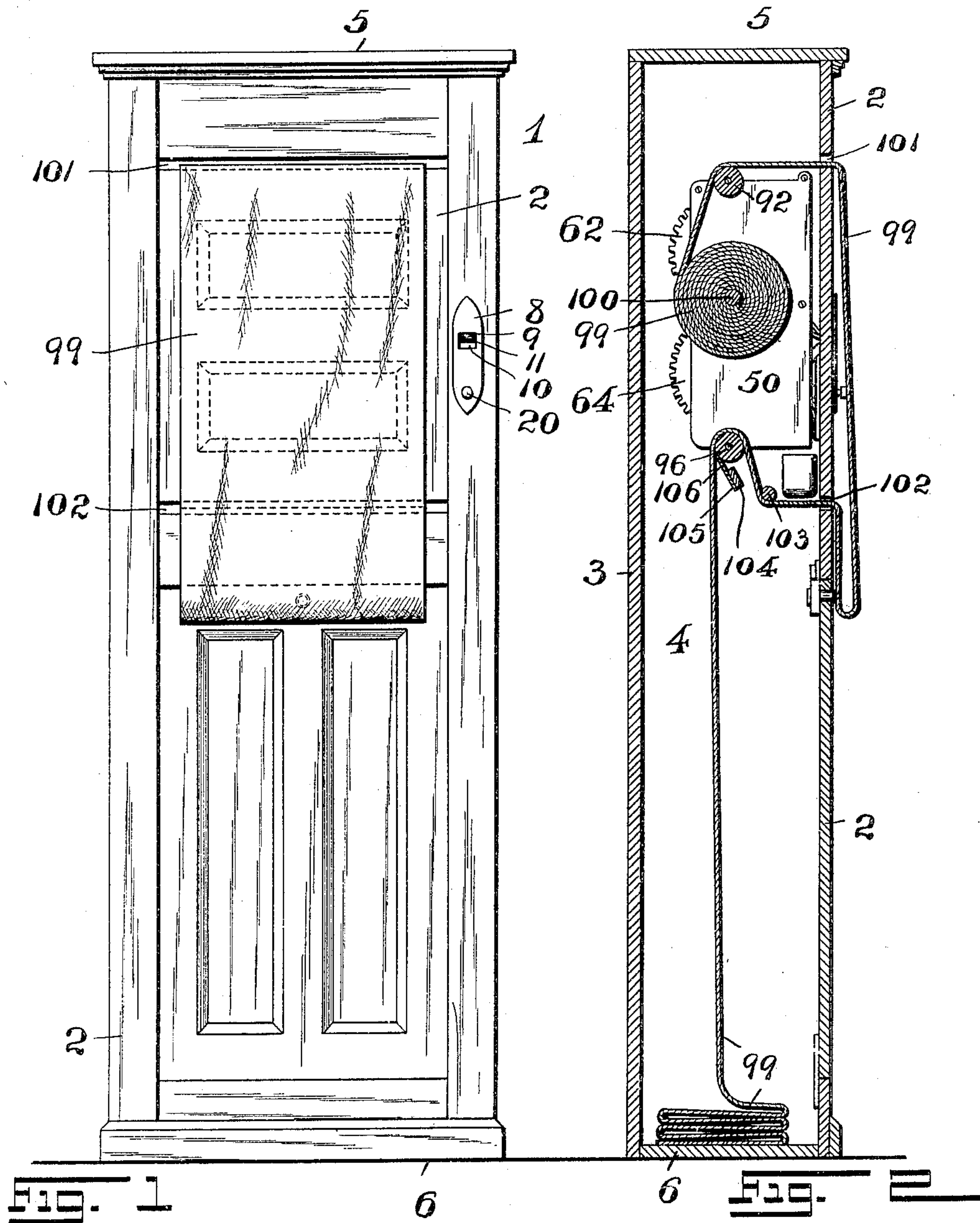


FIG. 1

6

6

FIG. 2

WITNESSES:

Geo. S. Richards
Wm. Greenfield

INVENTOR:

Clement C. Clawson,

BY

Fred C. Fraumel
ATTORNEY

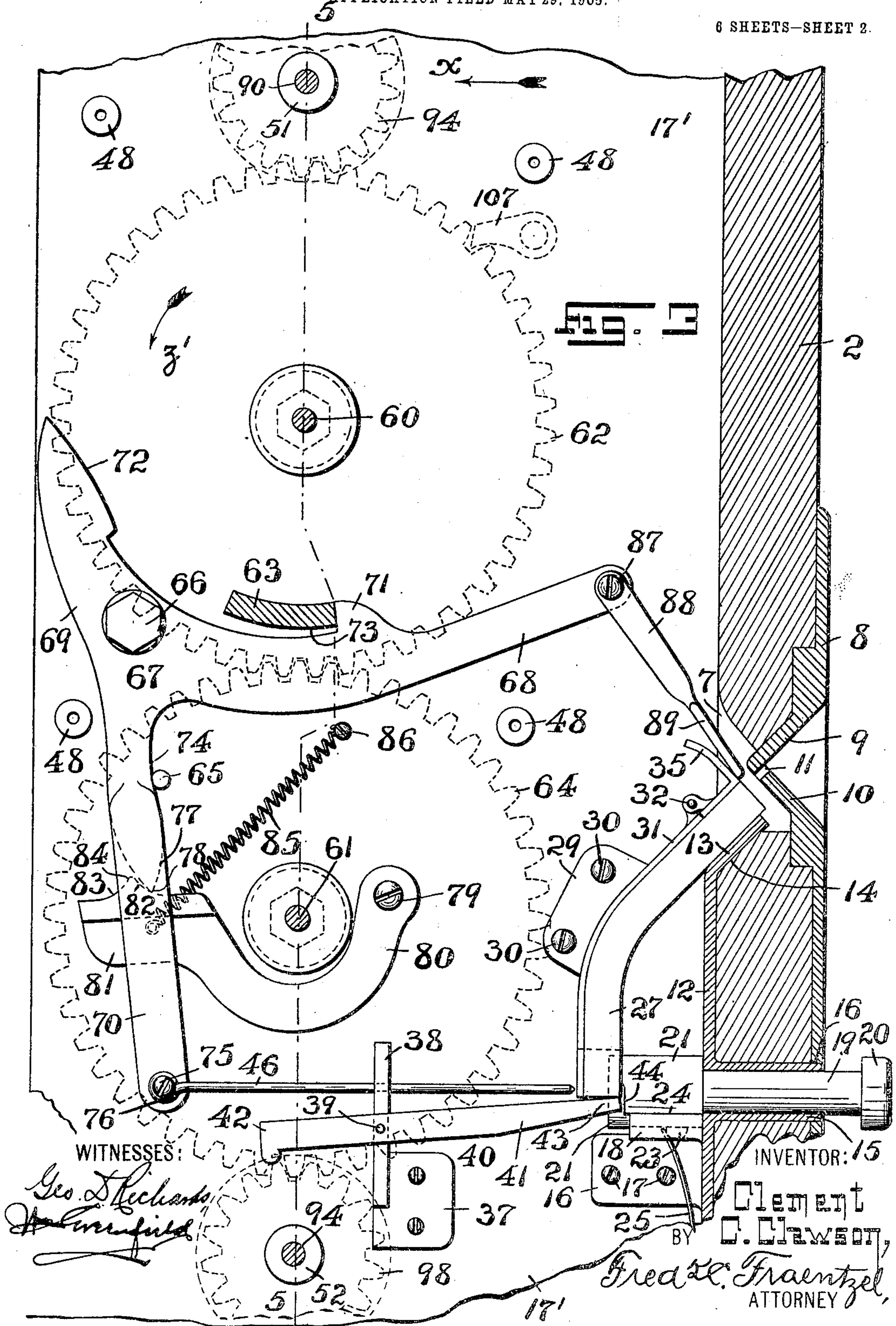
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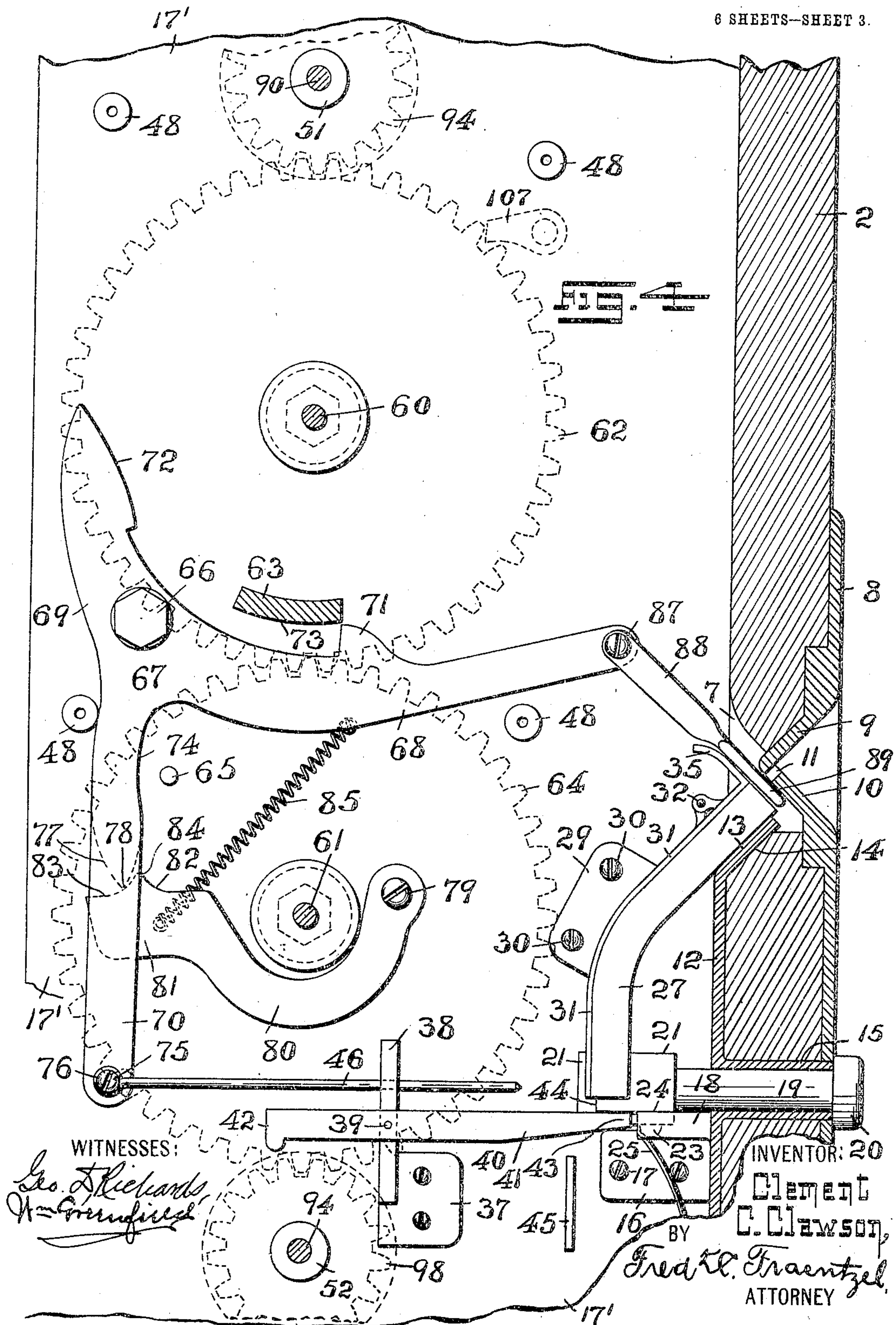
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6 SHEETS—SHEET 3.



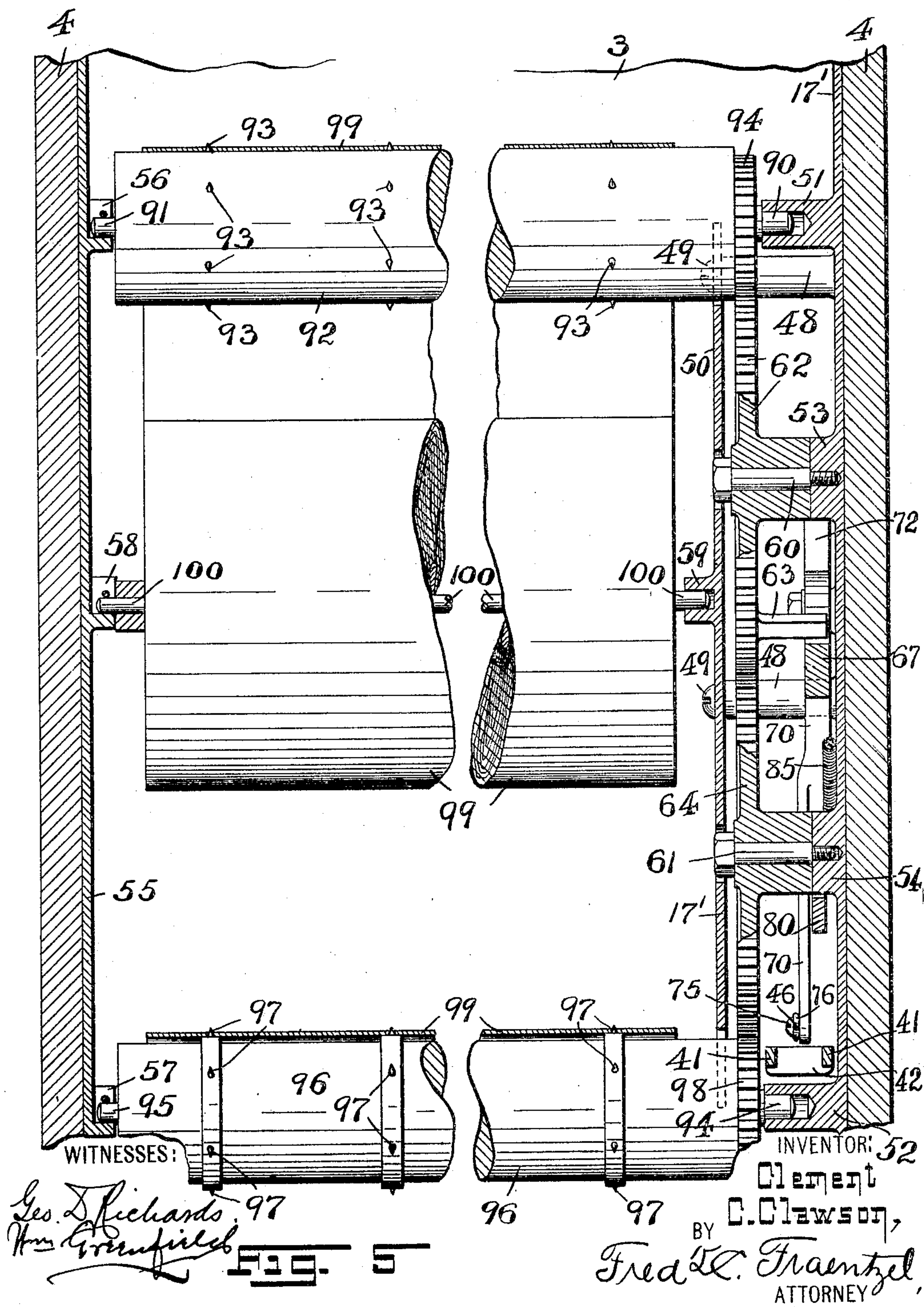
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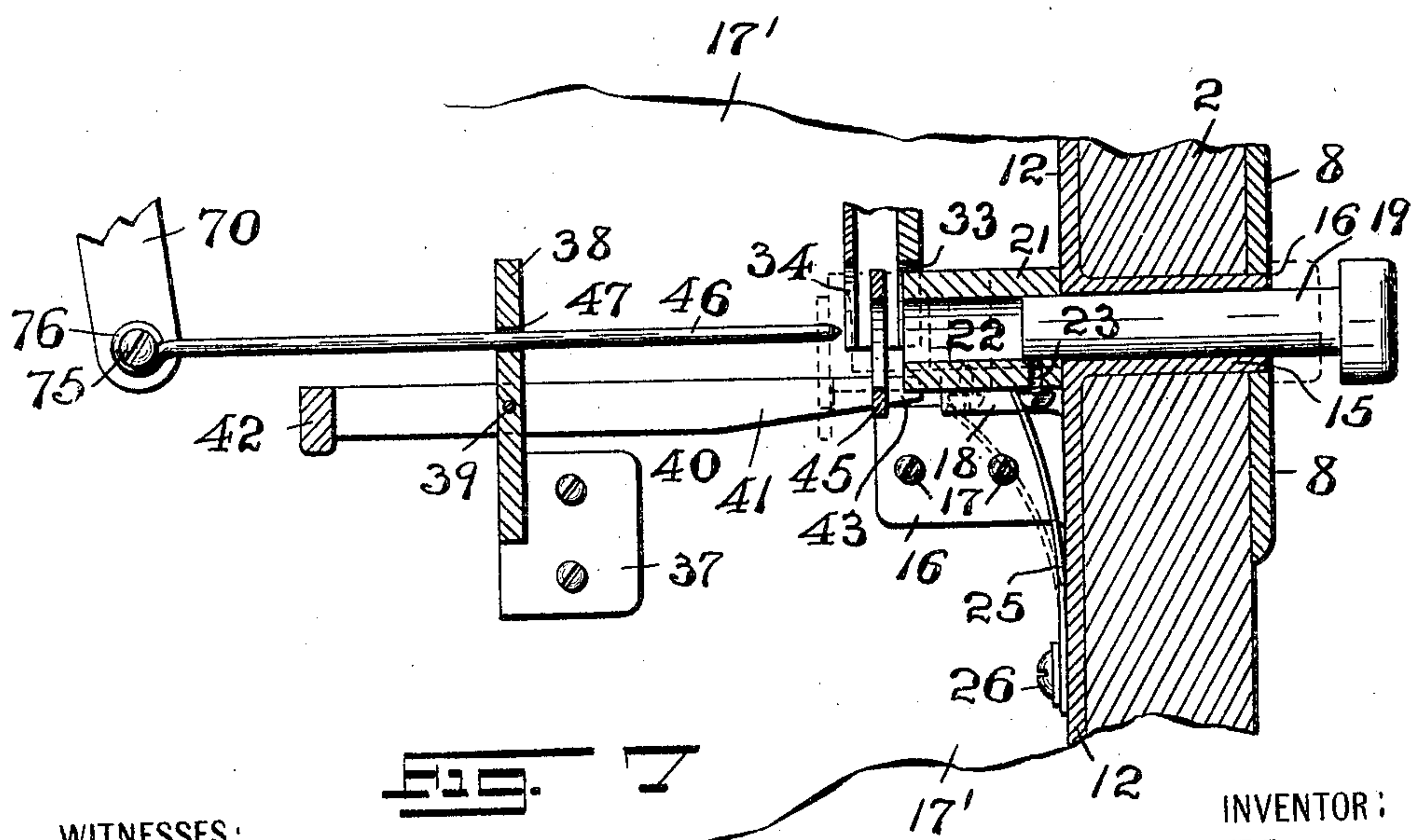
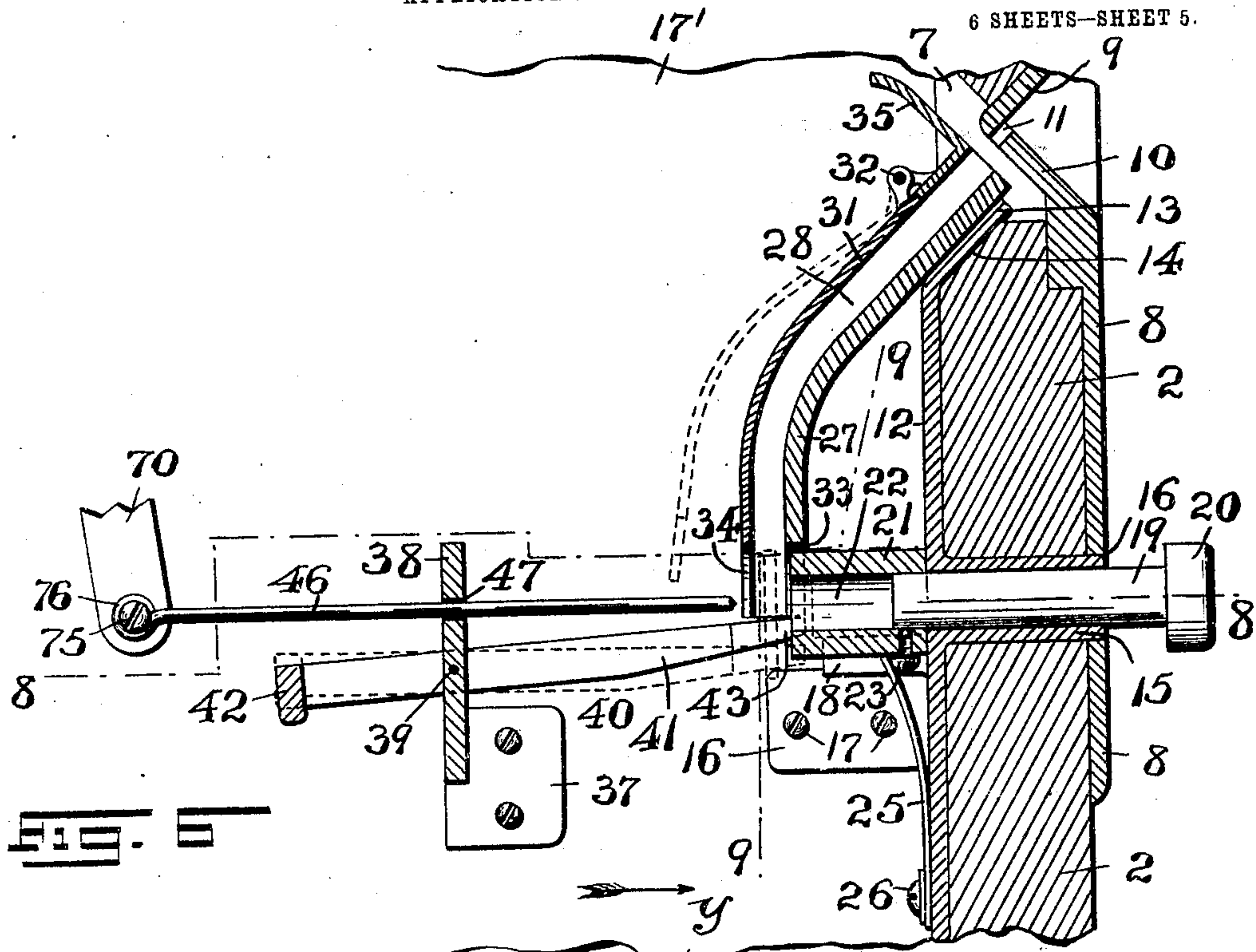
APPLICATION FILED MAY 29, 1905

6 SHEETS—SHEET 4.



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6 SHEETS—SHEET 5.



WITNESSES:

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6 SHEETS—SHEET 6.

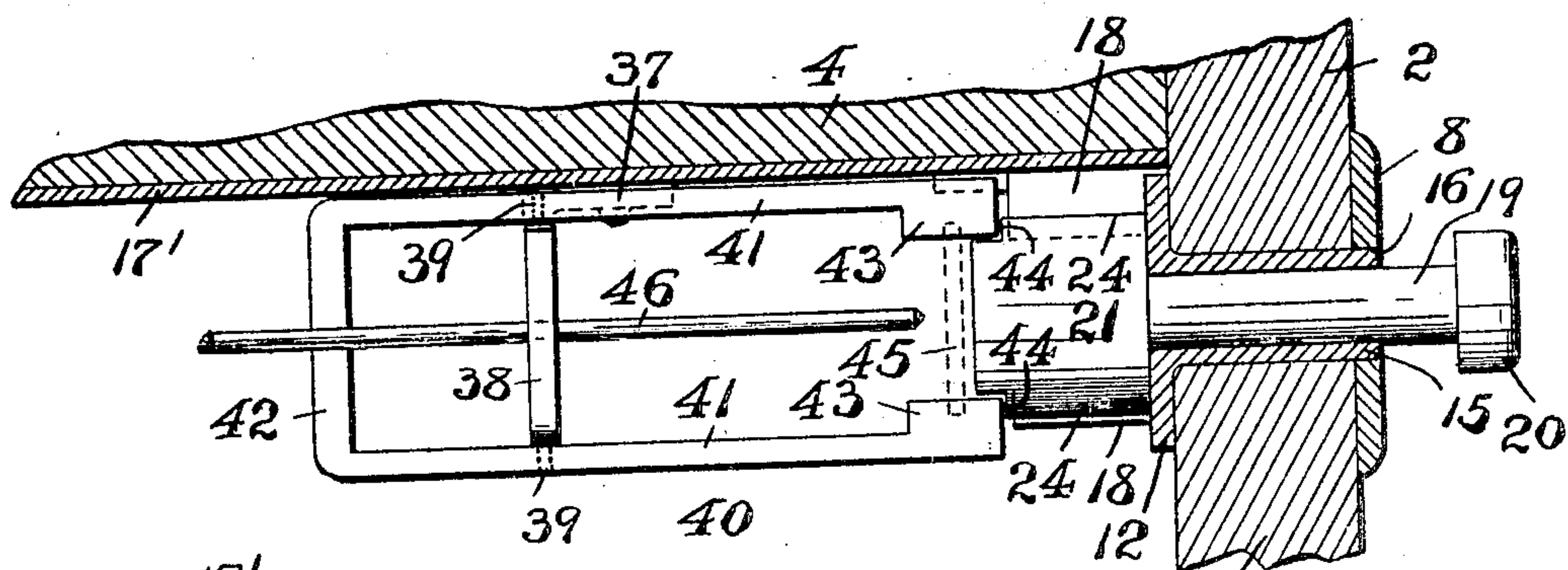


Fig. 8

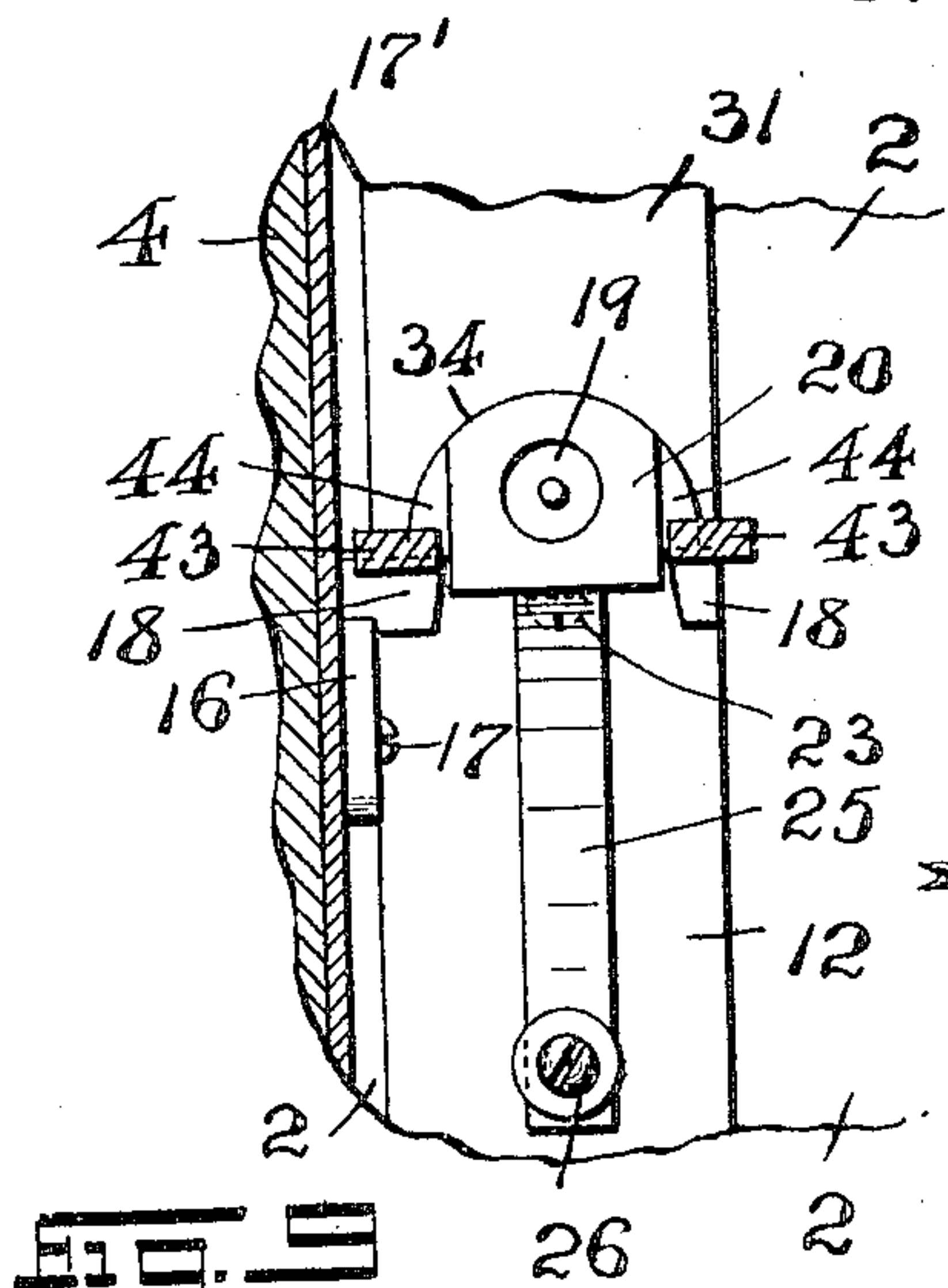


Fig. 9

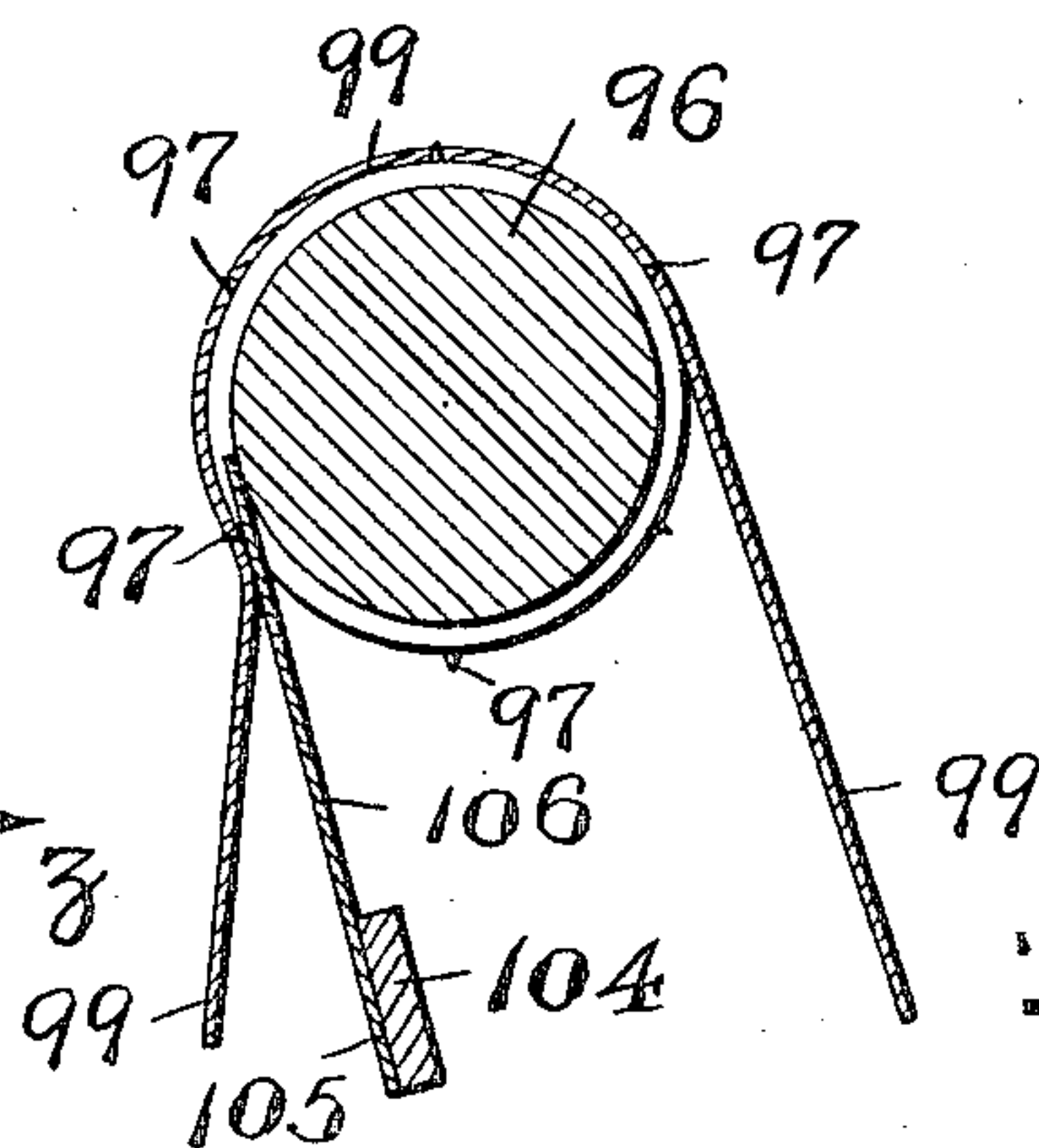


Fig. 10

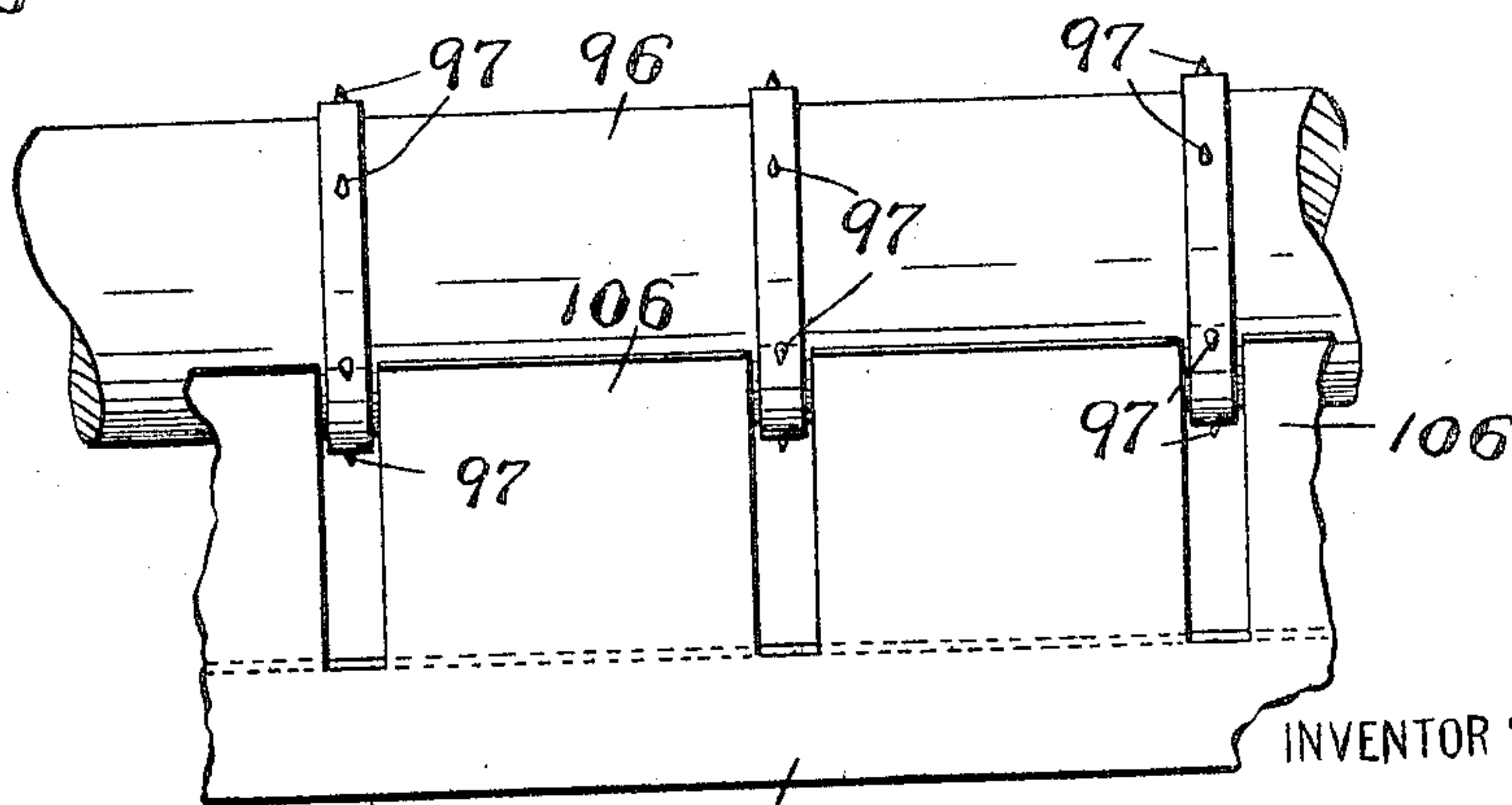


Fig. 11

WITNESSES:

Geo. S. Richards
Wm. W. W. W. W.

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UNITED STATES PATENT OFFICE.

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COIN-CONTROLLED APPARATUS.

No. 807,722.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed May 29, 1905. Serial No. 262,730.

To all whom it may concern:

Be it known that I, CLEMENT C. CLAWSON, a citizen of the United States, residing at Flagtown, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Coin-Controlled Apparatus; 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, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

My present invention has reference to improvements generally in coin-controlled mechanism; and this invention relates more particularly to a novel and coin-operated mechanism which is to be used more especially with toilet-supply cabinets for presenting to a person a portion of clean toweling, the coin-controlled mechanism being of such arrangement and construction that a fresh and clean supply of toweling is presented upon the exterior of the cabinet every time that a coin of a predetermined denomination is deposited in the coin-receiving means connected with the casing or cabinet of the apparatus.

My present invention has for its principal object to provide a novel and simple construction of coin receiving and controlled mechanism for delivery apparatus of the various kinds, and especially for apparatus for presenting fresh and clean portions of toweling to a person operating the device.

A further object of this invention is to provide a novel and simple construction of coin-chute having a hinged or swinging back adapted to open out when more than one coin, disk, or slug is deposited in the chute, thereby preventing the "choking up" of the coin-chute and preventing its being rendered useless for future use.

A still further object of this invention is to provide, in connection with the coin-chute and mechanism, means for receiving all perforated or ring-shaped slugs or washers that may be deposited in the chute without setting the mechanism for operation, and thereby greatly reducing the loss in money ordinarily occasioned by the use of such perforated slugs or ring-shaped washers with slot-machines.

Other objects of my present invention not at this time more especially mentioned will be clearly understood from the following detailed description of the same.

With the various objects of my invention in view the same consists in the novel coin-operated mechanism hereinafter set forth; and, furthermore, this invention consists in the various arrangements and combinations of the devices and their parts, as well as in the details of the construction of the same, all of which will be fully set forth in the following specification and then finally embodied in the clauses of the claim, which are appended to and form an essential part of the said specification.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a toilet-supply cabinet with which the coin-controlled mechanism embodying the principles of this invention is to be used, and Fig. 2 is a vertical sectional representation of the same. Fig. 3 is a sectional representation, on an enlarged scale, of a portion of the casing or apparatus and a side elevation of the coin-receiving chute and gear-releasing mechanism, the latter being represented in its normal initial position, said view also showing in dotted outline the various gears connected with the mechanism, all the parts being set for receiving a coin and the gear mechanism being held against turning. Fig. 4 is a view similar to and of the same devices and parts represented in said Fig. 3, but illustrating the gear-releasing mechanism in its operated relation after having been actuated by the deposited coin and the gears in their free positions to permit of the moving of a supply of toweling over the respective rollers and along a portion of outer side of the cabinet or case of the apparatus. Fig. 5 is a vertical cross-section taken on line 5 5 in said Fig. 3 looking in the direction of the arrow X with the various rollers of the apparatus and portions of the gears represented in elevation. Fig. 6 is a longitudinal vertical section, on an enlarged scale, of the coin-chute and coin-actuated cradle, the actuated positions of the movable parts being indicated in dotted outline; and Fig. 7 is a similar view of the lower end portion of the coin-chute and the various other parts shown in said Fig. 6 represented in their non-operable positions when a perforated slug or ring-shaped washer is deposited in the coin-chute. Fig. 8 is a horizontal section taken on line 8 8 in said Fig. 6 with the cradle and actuating-plunger of the mechanism shown in plan; and Fig. 9 is a transverse section of the same parts, said section being taken on line 9 9 in said

Fig. 6 looking in the direction of the arrow Y. Fig. 10 is a transverse section of a lower feed-roll and stripping or take-off device for stripping the wet toweling from said roll as it passes back into the cabinet of the apparatus, and Fig. 11 is a view of the said parts looking in the direction of the arrow Z.

Similar characters of reference are employed in the above-described views to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference character 1 indicates any suitable cabinet, box, or casing comprising an ornamental front 2, a back 3, the sides 4, a top 5, and bottom 6. The front of the said cabinet, box, or casing is formed with an opening 7, over which is secured a plate 8. Said plate 8 is made with a pair of inwardly-extending angular members 9 and 10, one of which, as 10, is formed with an opening or slot 11 for the reception of a coin. Suitably secured upon the inner face of the said front 2 is a second plate 12, having an upper angular portion 13, which extends into and rests upon a correspondingly-formed portion 14 of the said opening 7, substantially as shown in Figs. 3, 4, and 6 of the drawings. The said plate 12 is also provided with a tubular bearing 15, extending forwardly through the said front 2 and terminating in an opening 16 in the lower portion of said plate 8. The said plate 8 may be provided at one of its edges with a bracket 16, provided with perforations for the reception of screws 17, by means of which the said bracket is secured against the inner face of a plate 17', secured upon one of the sides 4, and the said plate 8 is thereby rigidly arranged against the inner face of the front 2. It will be understood, however, that any other suitable means may be employed for securing said plate 8 in place. The said plate 8 is also provided with a pair of rearwardly-projecting posts 18, forming guides, substantially as and for the purposes to be presently more fully set forth. Slidably arranged within the said bearing 15 is a rod or plunger 19, formed upon its forward end with a finger-piece or knob 20. The inner end portion of the said rod or plunger 19 is connected with an enlarged push-piece or member 21, the latter being preferably made tubular, as at 22 and as shown in Figs. 6 and 7, into which the end portion of the said rod or plunger 19 extends, and is secured therein by means of a screw 23. The said push-piece or member 21 has upon its opposite outer faces longitudinally-extending projections or shoulders 24, which rest slidably upon the guides formed by the posts 18. A spring 25 is secured at its lower end by means of a screw 26, or in any other suitable manner, against the said inner plate 12, the upper end portion of said spring bearing against the head of the screw 23, whereby the said push-piece or member 21 and the rod or plunger 19 are normally forced in the po-

sitions indicated in Figs. 3, 6, 7, and 8 of the drawings.

The reference character 27 indicates a suitably-constructed coin-chute which is provided with a coin duct or passage 28. Extending from the one side of said coin-chute 27 is a perforated lug or ear 29 for securing the same by means of screws 30 against the inner face of the said plate 17'. The upper curved end portion of the said chute 27 extends into the opening 7 in the front 2 of the cabinet, box, or casing and rests upon the upper angular portion 13 of the plate 12, with the coin-receiving end portion of the coin-chute being located directly back of the coin slot or opening 11 in the member 10 of the plate 8. The upper plate 31 of the coin-chute 27 is hinged or pivoted to the main body of the chute at 32, so as to automatically swing outwardly, as indicated in the dotted outline in Fig. 6 of the drawings, to prevent the coin from becoming lodged within the chute when improperly deposited or when two or more coins are inserted in the chute at one time.

From an inspection of Figs. 6 and 7 it will be seen that the lower part of the main body of the coin-chute is made with an open portion 33, into which the end of the push-piece or member 21 projects and is movable therein, and in the lower part of the said upper plate or cover 31 is a similar open portion 34 for the forcing of the deposited coin from the lower end of the coin-chute 27 when the said push-piece or member 21 is forced in an inward direction by the application of pressure upon the finger-piece 20 of the rod or plunger 19. In addition to these various parts the said coin-chute 27 is preferably provided with an upwardly-extending arm 35, forming a suitable guard or guide for the purpose hereinafter more fully specified.

Suitably secured upon the inner face of the plate 17' is a bracket 37, formed with an upwardly-extending supporting-plate 38 or other suitable means, which is provided upon its opposite edges with outwardly-extending pivots 39, upon which is swung an oscillating or rock cradle 40. This cradle 40 consists, essentially, of a pair of longitudinally-extending side arms or bars 41, connected at one end by a heavy cross bar or piece 42 and having the coin-supporting receiving ends 43 upon each side arm 41, as clearly illustrated in the several figures of the drawings.

When in its normal initial position, the weight of the cross bar or piece 42 is such that the said coin-supporting ends 43 of the cradle 40 are raised, as shown, the said ends being located directly beneath the outlet of the coin-chute and in close proximity to the shouldered portions 44, formed by the parts 24, of the push-piece or member 21, substantially as illustrated in Figs. 3 and 8 of the drawings. As long as the parts are in these relative positions the said push-piece or member 21 and the rod or

plunger 19 cannot be operated, and the remaining mechanism of the apparatus is also locked against any movement. When, however, a coin 45 is deposited in the chute 27, and rests with its edges upon the two coin-supporting ends 43 of the cradle, the heavier end of the cradle is overbalanced and said ends 43 move downwardly and away from engagement of the said shouldered portions 44 of the push-piece. The latter can now be pushed inwardly against the action of the spring 25, which returns said push-piece and its rod or plunger 19 to its normal position as soon as the operator removes the pressure from the finger-piece 20. The said push-piece or member 21 thus moves upon the guides 18, at the same time forcing the coin 45 against the end of a rod 46, to release and permit the actuation of the remaining mechanism of the apparatus, as will be hereinafter more fully described. When the coin has been forced from the open portion 34 of the coin-chute and has passed above the wider space between the side arms or pieces 41 of the cradle 40, it drops down between the said arms and the operative connection between the end of the rod 46, and the push-piece or member 21 is again broken, the parts returning to their normal initial positions, as above stated. The said rod 46, as will be seen from an inspection of Figs. 6 and 7 of the drawings, is slidably supported in a guide 47 in the supporting-plate 38 of the bracket 37. From an inspection, more especially, of Fig. 7 of the drawings it will be seen that when a perforated slug or ring-shaped washer has been deposited in the coin-chute and has actuated the rock-cradle 40 the push-piece 21 and plunger 19 can be pushed forwardly into the apparatus, but without actuation of the said rod 46 and the other mechanism, because of the fact that the said slug or washer will be pushed directly upon the rod, as indicated in the dotted outline in said Fig. 7, instead of against the free end of said rod, as with a coin. The said plate 17' is provided with a suitable number of posts 48, provided with screw-threaded sockets for the reception of screws 49, by means of which a plate 50 is secured upon said posts 48, as shown in Fig. 5 of the drawings. The said plate 17' is provided with a pair of bearings 51 and 52 and with a pair of links 53 and 54, formed with screw-sockets. Suitably secured upon the inner face of the opposite side 4 of the cabinet, box, or casing 1 is a second plate 55, which is provided with three bearings 56, 57, and 58, the bearing 56 being opposite bearing 51 and bearing 57 being opposite bearing 52, both upon the plate 17', while the bearing 58 is opposite a bearing 59 upon the plate 50. Secured upon the respective hubs 53 and 54 are bearing posts or studs 60 and 61. Rotatively arranged upon the post 60 is a gear 62, which is provided upon one of its faces with a laterally-

extending lug or projection 63. In mesh with the teeth of the gear 62 is a second gear 64, which is rotatively arranged upon the other post or stud 61, and extending from the side of the plate 17' is a laterally-projecting pin or projection 65. Pivotaly arranged upon a pin or stud 66, extending from the plate 17', is an oscillating device 67, which consists, essentially, of an arrangement of three arms or members 68, 69, and 70, the member 68 being formed with a projection 71, which acts as a stop and normally lies in the path of rotation of the lug or projection 63 of the gear 62 to prevent turning of the said gear in the direction of the arrow Z' in said Fig. 3 of the drawings. The upwardly-extending arm or member 69 is provided with a cam-shaped or similarly-curved edge portion 72, which is to be engaged by the lower curved surface 73 of said lug or projection 63 during the rotary movement of the latter, in the manner and for the purposes hereinafter more fully specified, and the downwardly-extending arm or member 70 has its edge 74 normally in holding engagement with the pin or lug 65, which extends from the side of the plate 17'. At a suitable point near the lower end of said arm or member 70 is a screw or pin 75, upon which an eye portion 76 of the rod 46 is loosely arranged. The said arm or member 70 is also formed upon its inner face with a suitably-made projection 77, having the curved edges terminating in a point 78, as indicated in the dotted outline in Figs. 3 and 4 of the drawings. Upon a pin or screw 79 is pivoted an arm 80, provided with the part 81, which is formed with a pair of curved edge portions 82 and 83, meeting in a point 84 and either of said curved edge portions 82 and 83 being forced in engagement with the point 78 of the projection 77 upon the arm or member 70 by the action of a spring 85, secured at its lower end to the part 81 of the arm 80 and at its upper end by means of a pin or screw 86 to the plate 17'. The said arm 80 acts as a positive stop and is for the purpose of preventing any undue oscillation of the device 67 and parts connected therewith during the workings of the apparatus, as will be clearly evident. In addition to the above the arm or member 68 of the device 67 may be provided at its free end with a pin or screw 87, upon which is pivoted a bar or rod 88, provided at its free end with a flat piece or plate 89, which extends into the opening 7 in the front 2 of the cabinet, box, or casing 1 and rests upon the horn or extension 35 of the coin-chute 27, as shown. The purpose of this flat piece or plate 89 is to move over the end of the chute 27, as illustrated in Fig. 4, and close the receiving-opening of the same after a coin has been deposited and the mechanism operated to prevent a second coin being inserted until all of the parts of the mechanism have again assumed their normal initial positions.

Rotatively arranged in the bearings 51 and 56 are the journals 90 and 91 of a roller 92, said roller being provided upon its cylindrical face with suitably-disposed points or prongs 5 93 and having connected with its one end a pinion 94, meshing with the teeth of the gear 62. Journalled in the bearings 52 and 57 are the journals 94 and 95 of another roller 96, which may also be provided upon its cylindrical face with prongs 97 and having connected with its one end a pinion 98, meshing with the teeth of the gear 64. The toweling 99 is usually arranged in the form of a roll upon a rod or spindle 100, which is journalled 10 in the bearings 58 and 59 of the respective plates 55 and 50; but said toweling may be otherwise arranged in the cabinet, box, or casing. From the said roll of toweling 99 the toweling is arranged over the roll 92 and 20 then passed forwardly through a slot or opening 101 in the front of the cabinet, box, or casing 2, then down the said front, hanging loosely in front of the same to permit the drying of the face or hands upon the toweling, the latter then being passed back into 25 the cabinet, box, or casing 2 through a second slot or opening 102, then under a guide-roller 103 upwardly and around the roller 96, and finally being deposited in the lower portion of the cabinet, box, or casing, as clearly illustrated in Fig. 2 of the drawings. The purposes of the pins or prongs upon the respective rollers 92 and 96 is to feed the toweling in a smooth and non-wrinkled condition 35 from and into the cabinet of the apparatus. Connected with the lower roller 96 there may be a take-off or stripping device for stripping the wet or moist toweling from the feeding-prongs of the lower roller and depositing the 40 soiled portions of the toweling in the lower portion of the cabinet. This device is illustrated in Figs. 2, 10, and 11, and consists, essentially, of a bar 104, suitably fixed between the sides of the cabinet, the said bar being 45 provided in any suitable manner with a stripping-plate 105, preferably of sheet metal and preferably formed with the stripping members 106, which extend between the toweling and the cylindrical face of the roller 96, and 50 thus remove the toweling from said roller, as will be clearly evident.

The operation of the device will be clearly understood from an inspection of Figs. 3 and 4 of the drawings, the parts, as indicated in 55 said Fig. 3, being held against turning by the lug or projection 63 of the gear 62, and when in this relation it is impossible to pull out a fresh portion of the toweling. However, when a coin is deposited in the coin-chute 27 and the various parts have been operated in the manner hereinabove stated, so as to actuate the device 67 and cause the various parts to assume the positions shown in said Fig. 4, then the operator can pull out a 65 fresh portion of clean toweling, the soiled

toweling at the same time passing back into the cabinet until the curved surface 73 of the projection or lug 63 slides against the edge portion 72 of the arm or member 69 of the device 67, whereby all the parts once more 70 assume their normally inoperative positions. (Indicated in Fig. 3 of the drawings.) To prevent any rotary motion of the gear 62 in the wrong direction, a pawl or dog 107 may be pivoted upon the inner face of the plate 75 50 or other suitable part, the said pawl or dog engaging the teeth of the gear 62 in the usual manner and as indicated in Figs. 3 and 4 of the drawings.

Having thus described my invention, what 80 I claim is—

1. In a coin-controlled apparatus, the combination, with a cabinet provided with a mechanism to be operated, of a coin-chute, a plunger and push-piece, said push-piece being located directly in front of the coin-outlet of the chute and being adapted to be moved across said outlet, said push-piece being formed with shoulders, a bracket and support and an oscillatory coin-receiving cradle, said cradle comprising a pair of side bars pivoted upon said support, and a connecting-piece between said side bars, the free ends of said side bars being in removable holding engagement with the shoulders of said push-piece, substantially as 95 and for the purposes set forth.

2. In a coin-controlled apparatus, the combination, with a cabinet provided with a mechanism to be operated, of a coin-chute, a plunger and push-piece, said push-piece being located directly in front of the coin-outlet of the chute and being adapted to be moved across said outlet, said push-piece being formed with shoulders, a bracket and support and an oscillatory coin-receiving cradle, said cradle comprising a pair of side bars pivoted upon said support, and a connecting-piece between said side bars, the free ends of said side bars being in removable holding engagement with the shoulders of said push-piece, and means adapted to be actuated by a deposited coin, for releasing a gear mechanism of the apparatus, comprising a rod movable horizontally in a perforation in said support of the bracket and above said cradle, and an oscillatory holding 115 device with which said rod is connected for actuating said holding device and releasing the gear mechanism, substantially as and for the purposes set forth.

3. In a coin-controlled apparatus, the combination, with a cabinet provided with a mechanism to be operated, of a coin-chute, a plunger and push-piece, said push-piece being located directly in front of the coin-outlet of the chute and being adapted to be moved across said outlet, said push-piece being formed with shoulders, a bracket and support and an oscillatory coin-receiving cradle, said cradle comprising a pair of side bars pivoted upon said support, and a connecting-piece between said 130

side bars, the free ends of said side bars being in removable holding engagement with the shoulders of said push-piece, and means adapted to be actuated by a deposited coin, for releasing a gear mechanism of the apparatus, comprising a rod movable horizontally in a perforation in said support of the bracket and above said cradle, and an oscillatory holding device with which said rod is connected for actuating said holding device and releasing the gear mechanism, said holding device consisting of an arrangement of three arms 68, 69 and 70, a holding-stop on said arm 68, and means on said gear mechanism with which said holding-stop is adapted to engage, substantially as and for the purposes set forth.

4. In a coin-controlled apparatus, the combination, with a cabinet provided with a mechanism to be operated, of a coin-chute, a plunger and push-piece, said push-piece being located directly in front of the coin-outlet of the chute and being adapted to be moved across said outlet, said push-piece being formed with shoulders, a bracket and support and an oscillatory coin-receiving cradle, said cradle comprising a pair of side bars pivoted upon said support, and a connecting-piece between said side bars, the free ends of said side bars being in removable holding engagement with the shoulders of said push-piece, and means adapted to be actuated by a deposited coin, for releasing a gear mechanism of the apparatus, comprising a rod movable horizontally in a perforation in said support of the bracket and above said cradle, and an oscillatory holding device with which said rod is connected for actuating said holding device and releasing the gear mechanism, said holding device consisting of an arrangement of three arms 68, 69 and 70, a holding-stop on said arm 68, and a coin-slot-closing device also connected with said arm 68, substantially as and for the purposes set forth.

5. In a coin-controlled apparatus, the combination, with a normally locked gear mechanism, of a holding device comprising an arrangement of three arms, one of said arms being provided with a stop normally in holding engagement with said gear mechanism, a coin-actuated means connected with another of said arms for releasing said stop on the other arm from its holding engagement with the gear mechanism, and means on said third arm for again forcing said stop in its holding engagement with the said gear mechanism, substantially as and for the purposes set forth.

6. In a coin-controlled apparatus, the combination, with a normally locked gear mechanism, of a holding device comprising an arrangement of three arms, one of said arms being provided with a stop normally in holding engagement with said gear mechanism, a coin-actuated means connected with another of said arms for releasing said stop on the other arm from its holding engagement with the gear mechanism, and means on said third arm for again forcing said stop in its holding engagement with the said gear mechanism, substantially as and for the purposes set forth.

anism, of a holding device comprising an arrangement of three arms, one of said arms being provided with a stop normally in holding engagement with said gear mechanism, a coin-actuated means connected with another of said arms for releasing said stop on the other arm from its holding engagement with the gear mechanism, and means on said third arm for again forcing said stop on its holding engagement with the said gear mechanism, and a spring-controlled positive stop device in engagement with one of said arms, substantially as and for the purposes set forth.

7. In a coin-controlled apparatus, the combination, with a gear mechanism, one of the gears thereof being provided with a projection 63, of a holding device comprising an arrangement of three arms 68, 69 and 70, said arm 68 having a stop 71 normally in engagement with the projection of said gear, means connected with said arm 70 for the disengagement of said stop from the said projection, and a cam-shaped member 72 on said arm 69 with which said projection on the gear can be brought in slidable engagement and thereby bring said stop 71 on the arm 68 again in its holding engagement with the projection of said gear, substantially as and for the purposes set forth.

8. In a coin-controlled apparatus, the combination, with a gear mechanism, one of the gears thereof being provided with a projection 63, of a holding device comprising an arrangement of three arms 68, 69 and 70, said arm 68 having a stop 71 normally in engagement with the projection of said gear, means connected with said arm 70 for the disengagement of said stop from the said projection, and a cam-shaped member 72 on said arm 69 with which said projection on the gear can be brought in slidable engagement and thereby bring said stop 71 on the arm 68 again in its holding engagement with the projection of said gear, a projection 77 upon the side of said arm 70, said projection having a pointed portion 78, and a spring-controlled positive stop device provided with a pair of curved portions 82 and 83 with which the pointed end portion 78 of said projection 77 is in slidable engagement, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 25th day of May, 1905.

CLEMENT C. CLAWSON.

Witnesses:

FREDK. C. FRAENTZEL,
GEO. D. RICHARDS.