

No. 713,779.

Patented Nov. 18, 1902.

S. L. LONG.
COIN CONTROLLED APPARATUS.

(Application filed June 27, 1901.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.

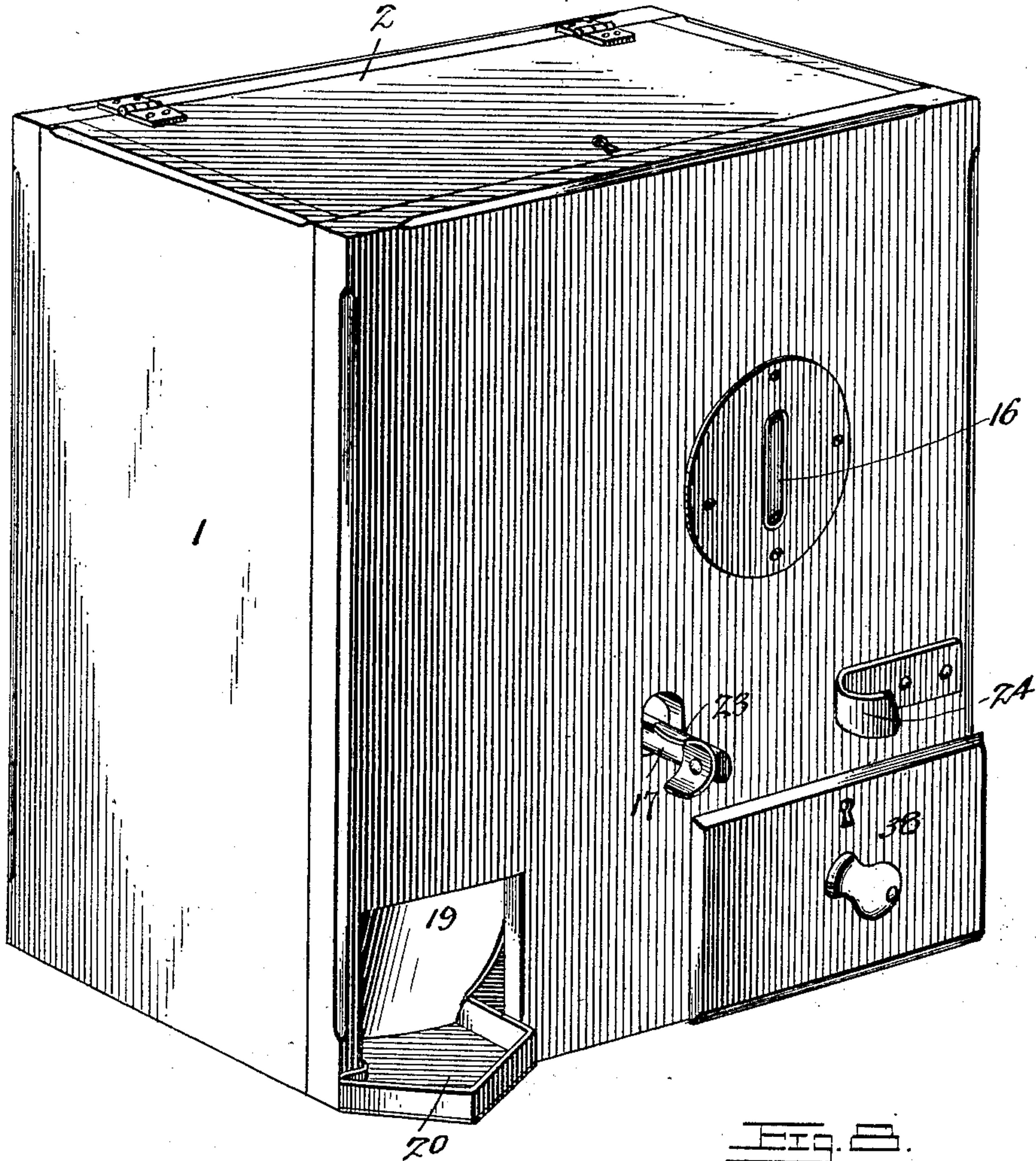


Fig. 2.

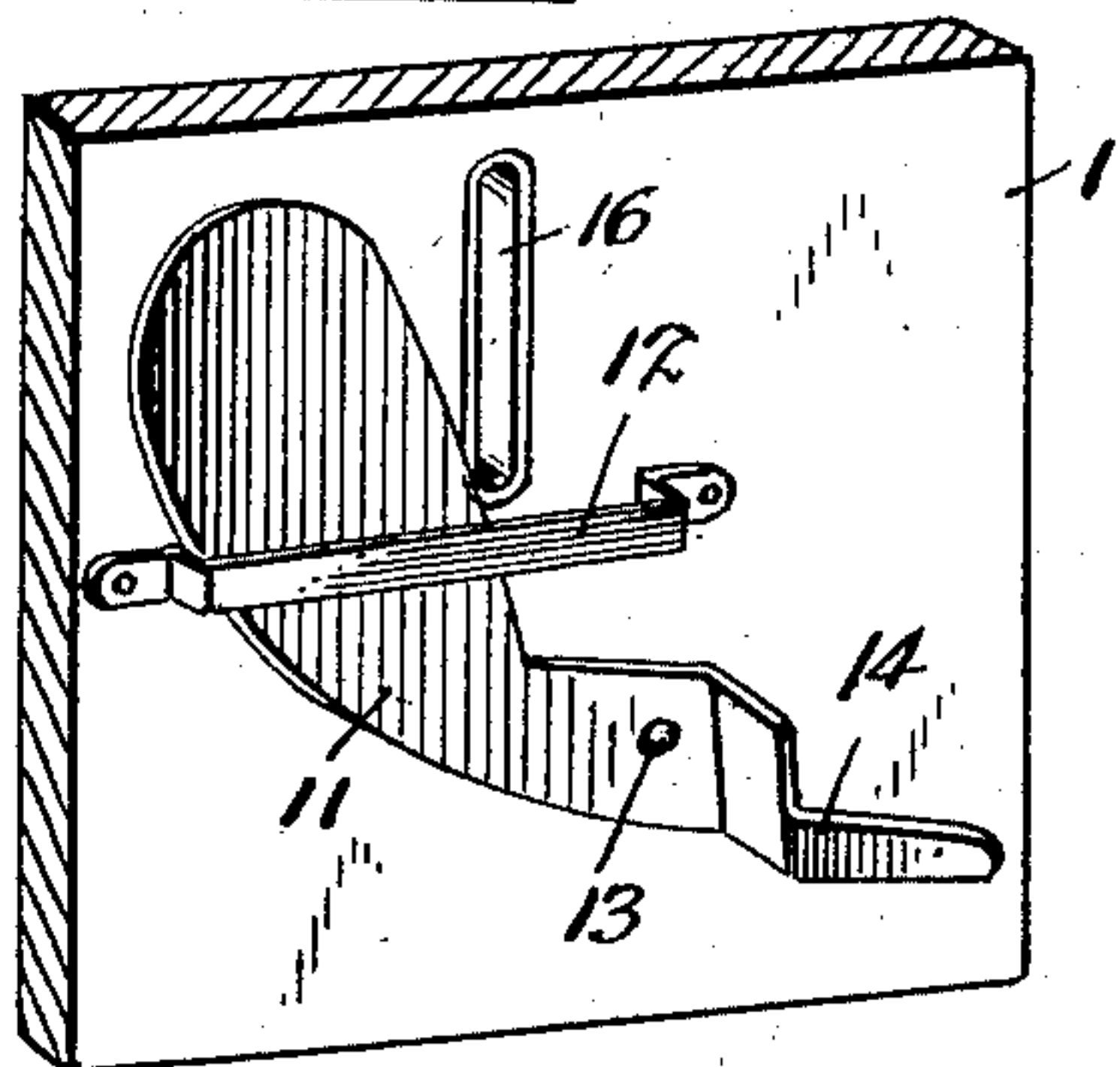
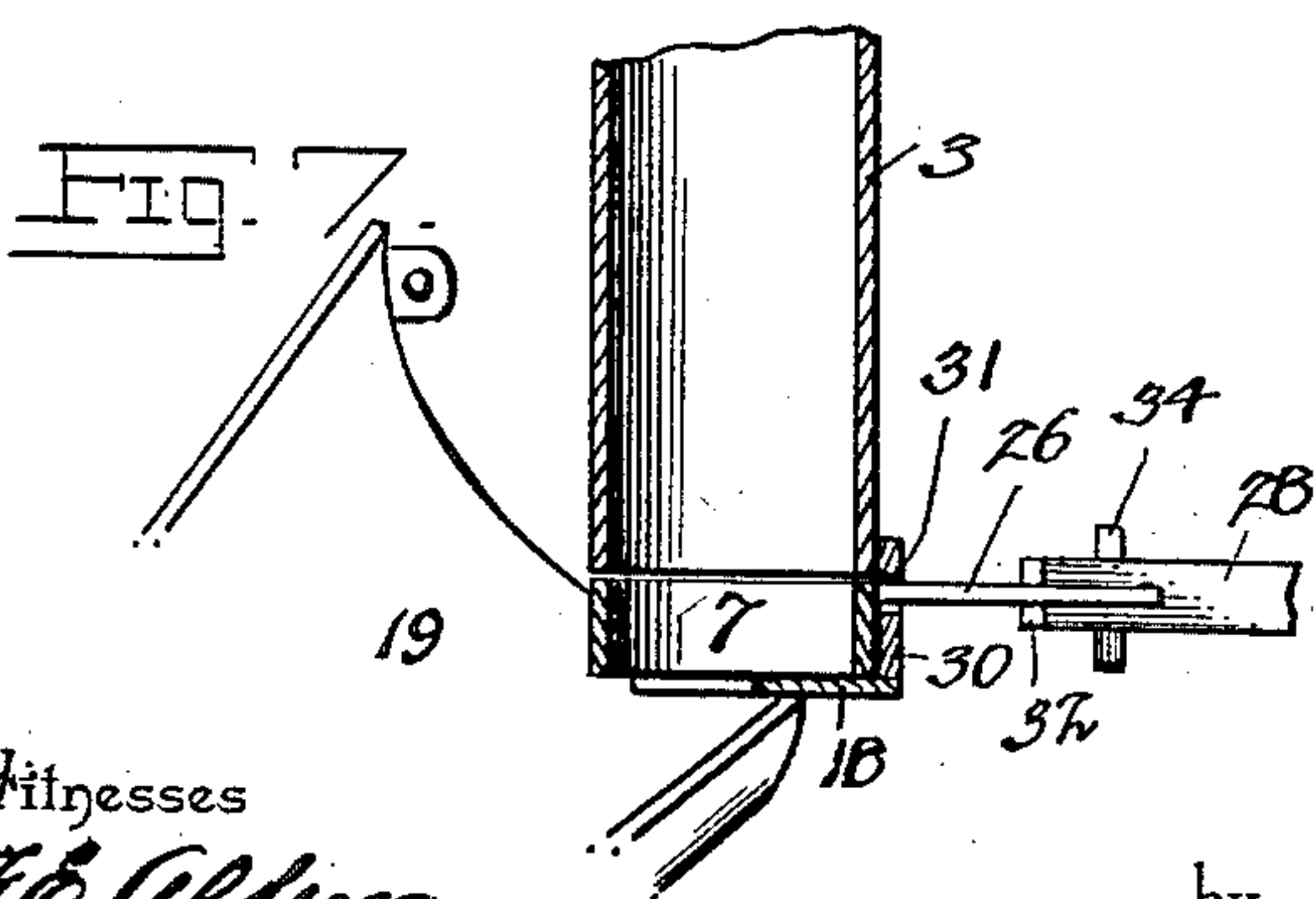


Fig. 3.



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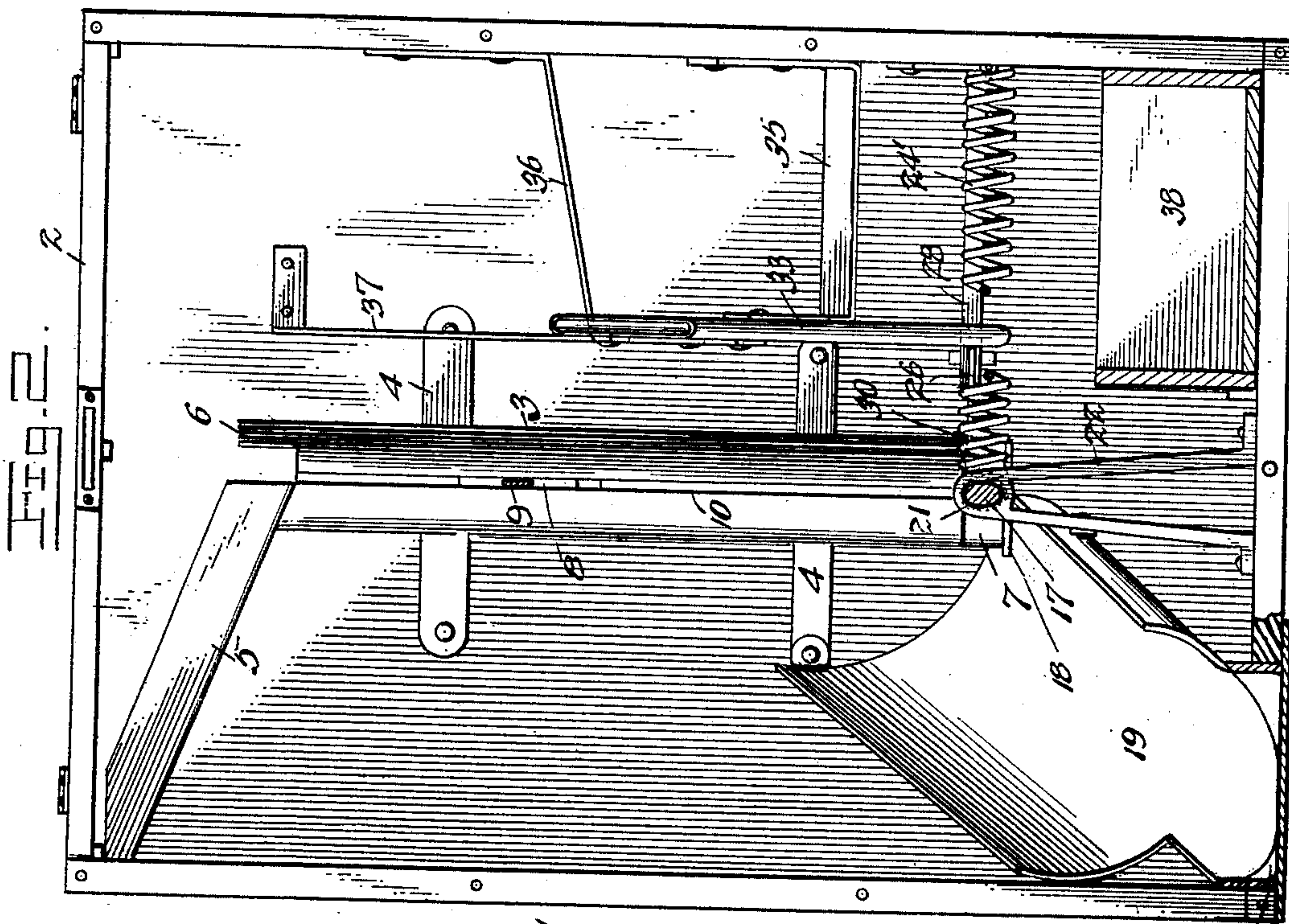
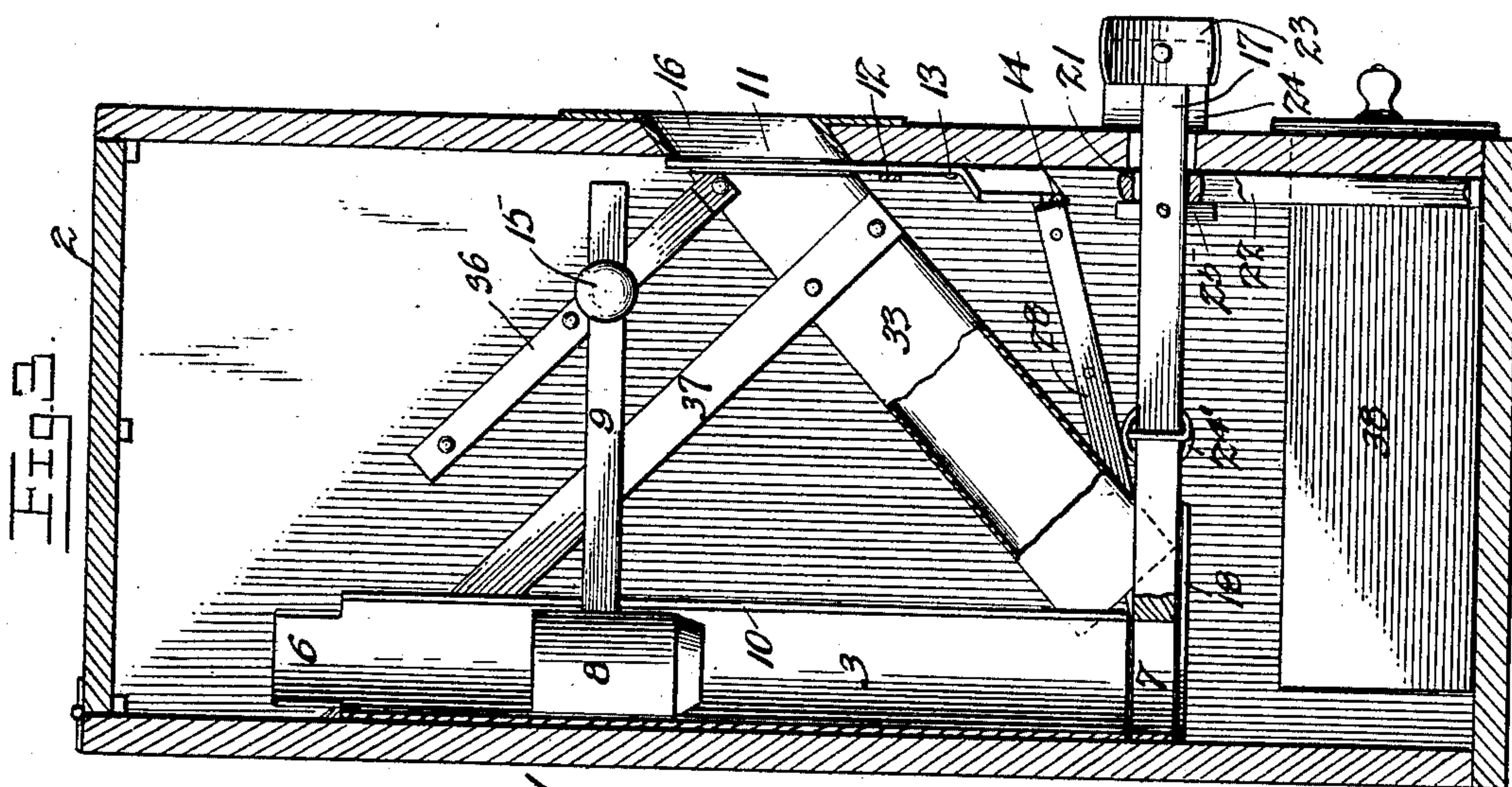
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3 Sheets—Sheet 2.



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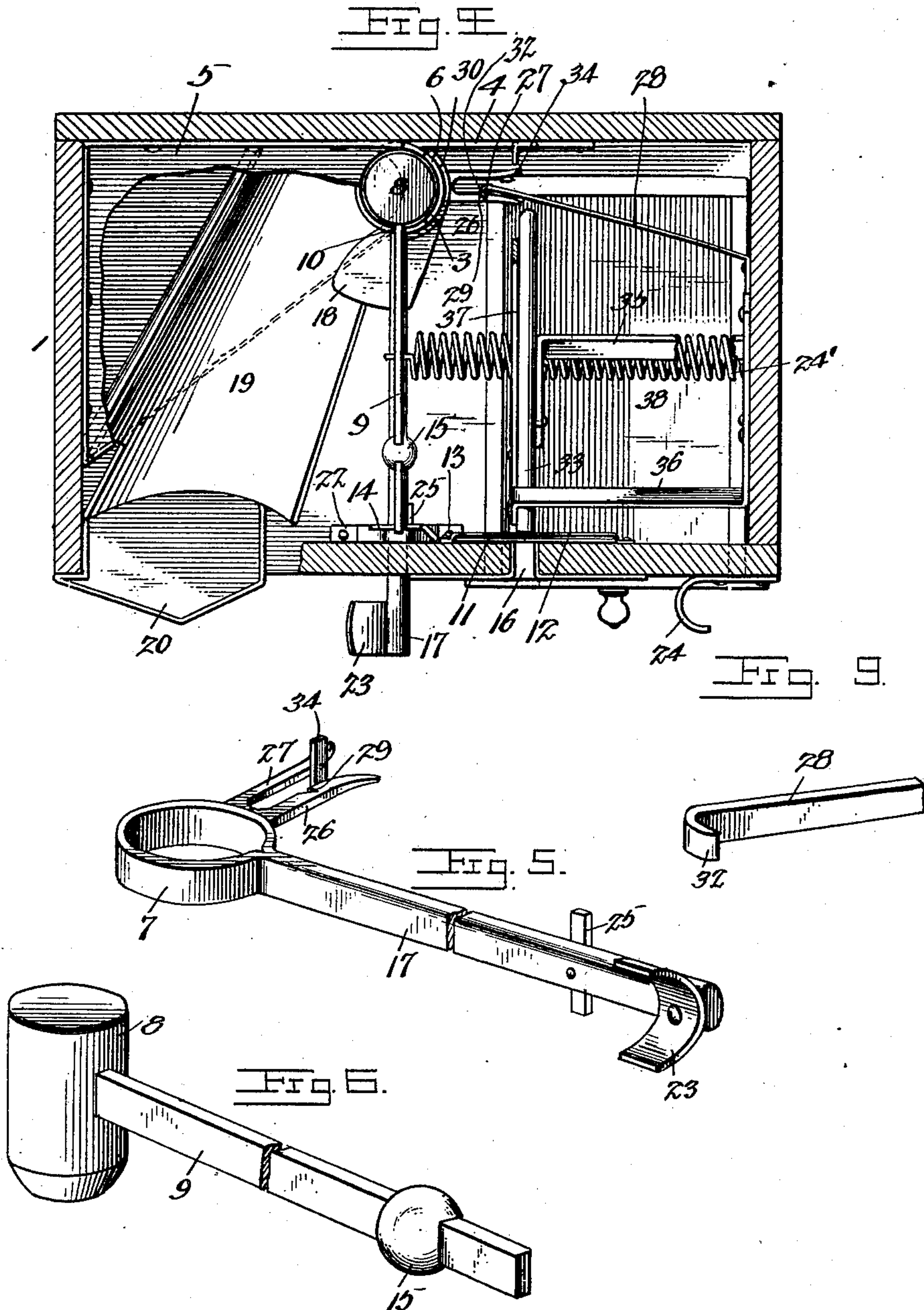
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

SIDNEY L. LONG, OF WILMONT, MINNESOTA.

COIN-CONTROLLED APPARATUS.

SPECIFICATION forming part of Letters Patent No. 713,779, dated November 18, 1902.

Application filed June 27, 1901. Serial No. 66,295. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY L. LONG, a citizen of the United States, residing at Wilmont, in the county of Nobles and State of Minnesota, have invented a new and useful Coin-Controlled Apparatus, of which the following is a specification.

The invention relates to improvements in coin-controlled apparatus.

The object of the present invention is to improve the construction of coin-controlled machines and to provide a simple and comparatively inexpensive one designed for use either as a money-changer or as a vending apparatus and adapted to change money accurately and capable of operation only by a coin of the proper denomination.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is perspective view of a coin-controlled apparatus constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a similar view taken at right angles to Fig. 2. Fig. 4 is a horizontal sectional view. Fig. 5 is a detail perspective view of the operating-lever. Fig. 6 is a detail view of the weight. Fig. 7 is a detail sectional view illustrating the construction of the lower end of the vertical tube and the oscillatory receptacle for carrying the change or the article sold to the delivery-chute. Fig. 8 is a detail view illustrating the manner of mounting the movable shutter for closing the slot when the machine is empty. Fig. 9 is a detail view of the resilient catch for locking the operating-lever against movement when it is not held out of such engagement by a coin of the proper denomination.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a rectangular casing provided at the top with a hinged cover or lid 2, designed to be secured when closed by a suitable lock and adapted to be opened to afford access to the interior of the machine; but any other suitable form of casing may be employed, and a door may be arranged at any other de-

sired point. Within the casing is arranged a vertical tube 3, designed to contain the change or the articles to be sold and provided with suitable attachment-plates 4, which are secured by suitable fastening devices to the inner face of the back of the casing, as clearly illustrated in Fig. 2 of the accompanying drawings. A supply-chute 5 of tapering form is mounted within the casing at the top thereof, as illustrated in Figs. 2 and 4 of the drawings, and it is provided with side walls or flanges, and it extends downward to the top of the vertical tube to enable the latter to be rapidly and conveniently supplied with chains or with the articles to be sold. The inclined supply-chute is also provided at its top or upper end with a flange, and this flange, together with the rear wall or flange, is secured to the casing, as clearly illustrated in Fig. 4, whereby the supply-chute is held in proper position. The lower end of the supply-chute may be secured to the upper end of the tube in any suitable manner, and the said tube is provided with an upwardly-extending guard or flange 6, located opposite the lower end of the supply-chute, to cause the change or the articles to be sold to drop into the tube.

In order to insure a positive delivery of the change or the articles to be sold to a receptacle 7 at the bottom of the tube, a weight or follower 8 is arranged upon the change or other contents of the tube, and this weight or follower is provided with an arm 9, extending forward through a slot 10 of the tube to within a short distance of the front of the casing and adapted to engage an arm or extension of a shutter 11. The shutter 11, which oscillates within a guide or keeper 12, is pivotally mounted on the inner face of the front of the casing by a rivet 13 or other suitable fastening device, and the arm or extension 14 is angularly bent and offset from the front of the casing to arrange it in the path of the arm 9, which may be provided near its outer end with a weight 15 to insure a positive operation of the shutter. The shutter is arranged to cover a coin-slot 16 of the front of the casing when the machine is empty to prevent a coin from being deposited in the machine when the latter is in such condition. The shutter is arranged at an inclination, and its upper or body portion is enlarged and is

heavier than the lower portion or arm 14, and as the pivot 13 is located at a point below and to one side of the slot the shutter will open automatically by gravity when its arm is relieved of the weight of the follower 8.

The receptacle 7, which is arranged at the inner end of an operating-lever 17, is rigid with the same, and it consists of a sleeve or cylinder open at the top and bottom and conforming to the configuration of the tube and being of a depth to receive the proper amount of change or the article sold. The vertical tube is located directly above a shelf or support 18 and is spaced therefrom to permit the receptacle to oscillate to carry its contents from the tube to a delivery-chute 19, which extends downward and forward from the receptacle to the front of the casing to discharge the change or other contents of the receptacle upon a tray or support 20. The casing is provided at its front with an opening located at the bottom and permitting access to the tray or support 20.

The operating-lever is fulcrumed between its ends in an opening 21 of a bracket 22, and it is provided at its outer end with a thumb-piece 23, presenting a concave face to the thumb of the operator, as clearly shown in Figs. 1 and 5. The casing is provided on its exterior with a hook 24, arranged in the same horizontal plane as the thumb-piece and adapted to be engaged by the forefinger of the operator simultaneously with the engagement of the thumb with the thumb-piece to enable the operating-lever to be readily oscillated against the action of a coiled spring 24, which returns the operating-lever and the receptacle to their initial position. The lever is provided with a stop 25 to limit its outward movement; but it may be fulcrumed in any other suitable manner, and the bracket is secured to the bottom of the casing, as clearly shown in Fig. 2. The coiled spring 24 is secured to the rear arm of the operating-lever and to one of the end walls of the casing, and it is distended when the lever is oscillated to swing the receptacle from the tube to the delivery-chute, and it will return the lever as soon as the same is released by the operator.

The receptacle is provided with a pair of arms 26 and 27, spaced apart and provided with beveled diverging outer ends forming a flaring mouth for directing a resilient catch or locking device into the space between the arms. The arms 26 and 27 have their upper faces arranged in the same plane as the upper edge of the receptacle, and when the latter is moved from under the tube they support the column or contents of the tube and prevent such contents from dropping until the receptacle has been returned to its initial position and reengaged by the catch 28, whereby more than one operation by a coin of the proper denomination is effectually prevented. The arm 26, which is arranged in advance of the rear arm 27, is provided with a shoulder

29, which is engaged by the resilient locking device 28, and the tube is provided with a depending extension 30, which has a slot 31 for the arms 26 and 27 and which extends from the tube to the shelf or support 18.

The resilient locking device consists of a spring secured to one of the end walls of the casing and extending therefrom to the arms 26 and 27 and having an engaging portion to interlock with the shoulder. The outer engaging portion of the spring is located adjacent to the inclined coin-chute 33, which is spaced from the front wall of the casing to provide a passage for the shutter and which extends downward from the slot 16 to a point opposite the locking device. When a coin is deposited in the machine, it rolls down the inclined coin-chute and is supported by the locking device 28, which is forced away from the front arm by the weight of the coin and which is supported by the rear arm to prevent the coin from dropping before the operating-lever has been actuated to carry the article or articles from the tube or holder. As soon as the operating-lever is actuated the arms are carried forward and the free or engaging end of the spring is received between the diverging portions of the arms and is permitted by the rearward-extending portion of the arm 27 to spring backward sufficiently to release the coin. As soon as the receptacle is returned to its initial position beneath the holder it is reengaged by the coin-controlled locking device. The rear arm 27 is provided with a stop 34, which limits the movement of the receptacle and which consists of a piece extending upward and downward from the arm and arranged to engage the extension of the tube or holder. The coin-chute, which may be mounted in any suitable manner, is preferably supported by arms 35, 36, and 37, secured to the walls of the casing.

The casing is provided with a cash-drawer 38, arranged beneath the coin-chute and adapted to receive the coins as they fall from the same. The machine is adapted for making change quickly and accurately, and the tube may be supplied with pennies, so that five of them will be discharged when a nickel is deposited into the machine. The receptacle may be made for holding five pennies or any other number of coins of any other denomination desired, or the machine may be employed for vending chewing-gum, candy, or any other goods.

It will be seen that the machine is exceedingly simple and inexpensive in construction, that it is adapted for use as a vending apparatus and for a rapid change-maker, and that it can be operated only by a coin of the proper denomination, as a larger coin will not enter the slot and a smaller coin will drop through the space between the coin-chute and the locking device. It will also be apparent that the follower, which positively causes the con-

tents of the tube to drop into the receptacle, actuates the shutter and closes the slot of the machine when the latter is empty.

What I claim is—

5 1. In an apparatus of the class described, the combination with a holder having an open bottom, of a receptacle arranged to move horizontally and provided with a pair of arms arranged horizontally in position to be carried
10 beneath the holder when the receptacle is moved away from the frame, whereby the contents of the holder are retained in the same, a resilient locking device extending between the arms and engaging one of the same,
15 and a chute arranged to direct a coin against the locking device, substantially as described.

2. In an apparatus of the class described, the combination of a receptacle provided with
20 a pair of arms, a resilient locking device located between and engaging one of the arms, and adapted to be supported by the other, a coin-chute spaced from the locking device and adapted to direct a coin against the same
25 to release the receptacle, and means for actuating the latter, substantially as described.

3. In an apparatus of the class described, the combination of a receptacle, arms extending from the receptacle and spaced apart and
30 having diverging outer portions to increase the size of the space, means for actuating the receptacle, a locking device engaging one of the arms and adapted to be supported by the other, and a coin-chute arranged to direct a
35 coin against the locking device, substantially as described.

4. In an apparatus of the class described, the combination of a spring-actuated lever provided with a receptacle, arms extending from the lever, a locking device engaging one
40 of the arms, a stop arranged on the other arm, and a coin-chute for directing a coin against the locking device, substantially as described.

5. In an apparatus of the class described, 45 the combination of a horizontally-oscillating lever provided with a receptacle and having a pair of arms, and a resilient locking device located between and engaging one of the arms and adapted to be engaged by a coin, 50 substantially as described.

6. In an apparatus of the class described, the combination of a horizontally-operating lever having a receptacle and provided with
55 arms, a locking device located between the arms, a coin-chute arranged to direct a coin into engagement with the locking device, a shutter arranged at the outer end of the coin-chute for closing the same, and a follower adapted to force the contents of a holder into
60 the receptacle, and provided with means for engaging and operating the shutter to close the same when the holder is empty, substantially as described.

In testimony that I claim the foregoing as 65 my own I have hereto affixed my signature in the presence of two witnesses.

SIDNEY L. LONG.

Witnesses:

C. F. JAEGER,
CHAS. W. MEAD.