

No. 646,260.

Patented Mar. 27, 1900.

G. F. BROWN.
VENDING MACHINE.

(Application filed Dec. 12, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1,

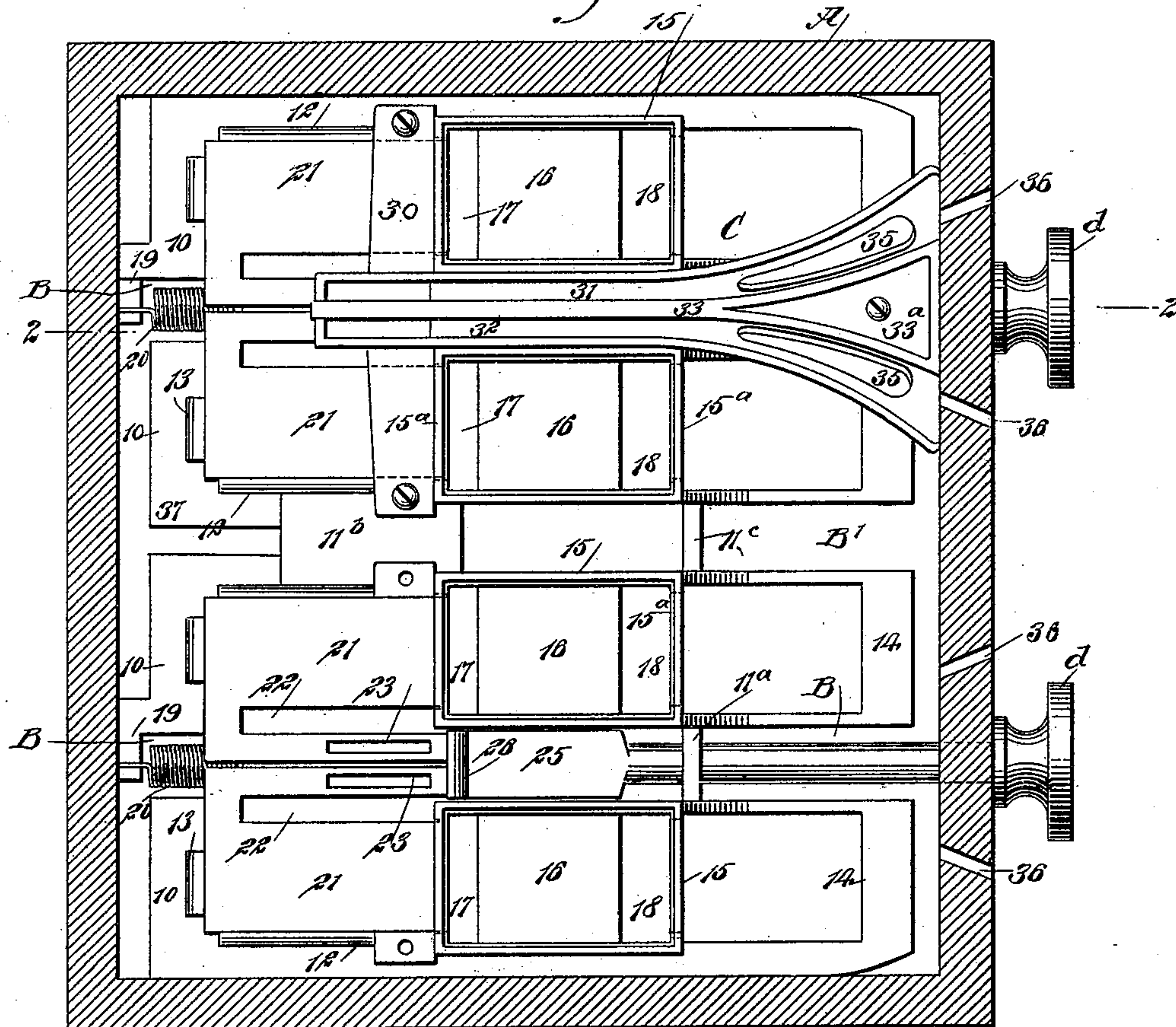
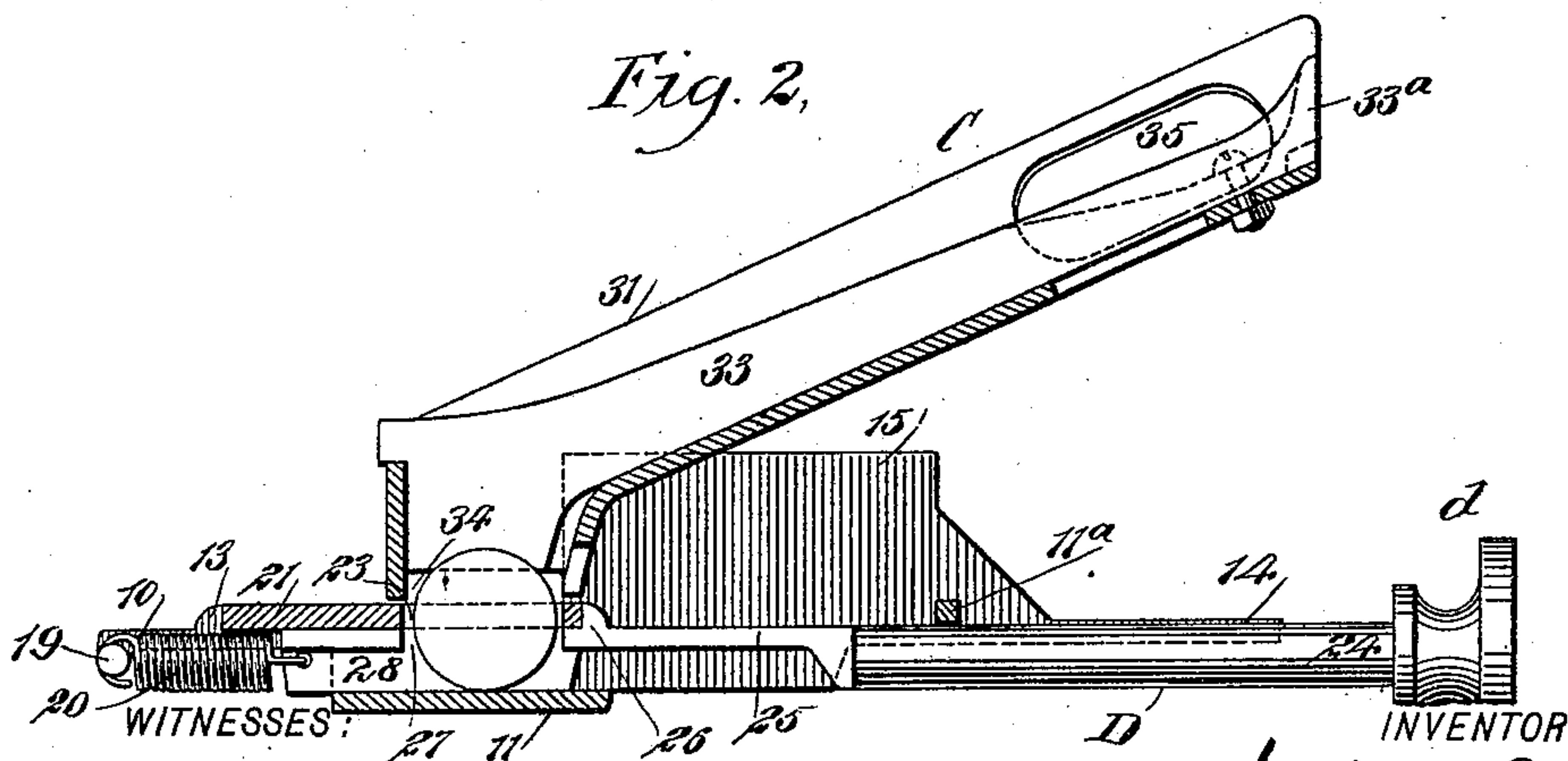


Fig. 2,



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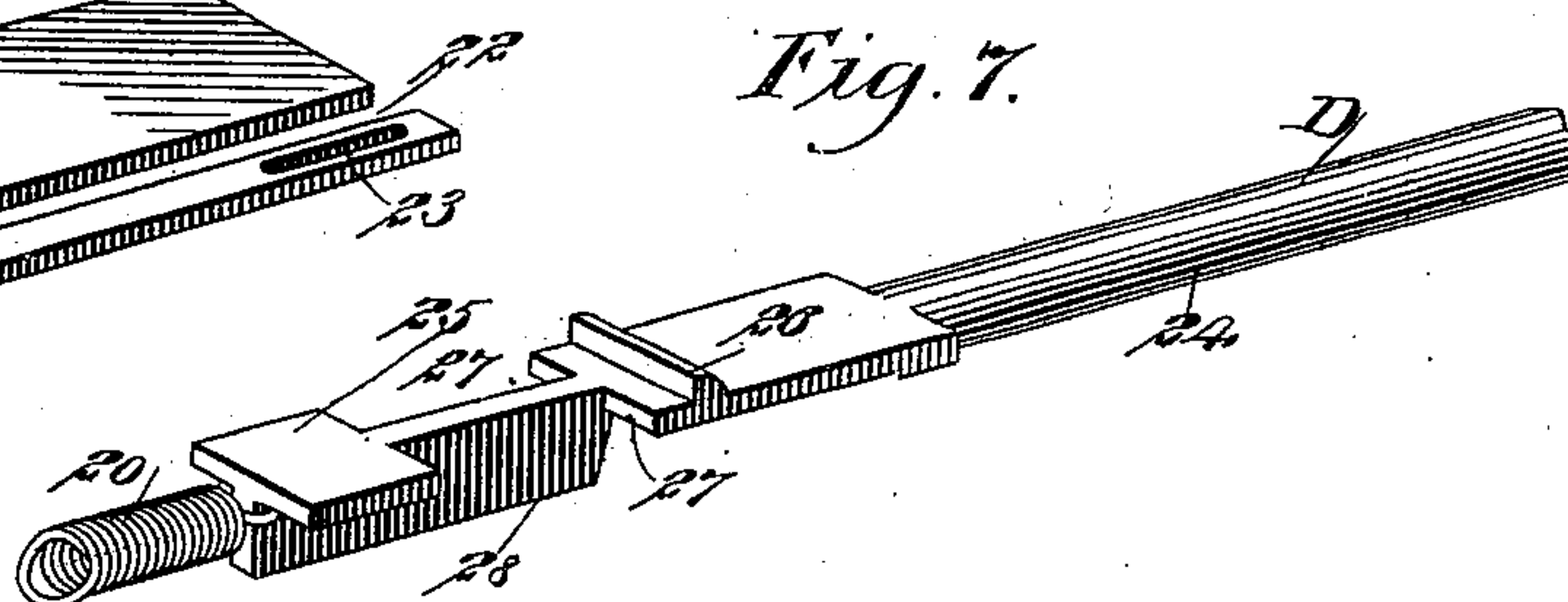
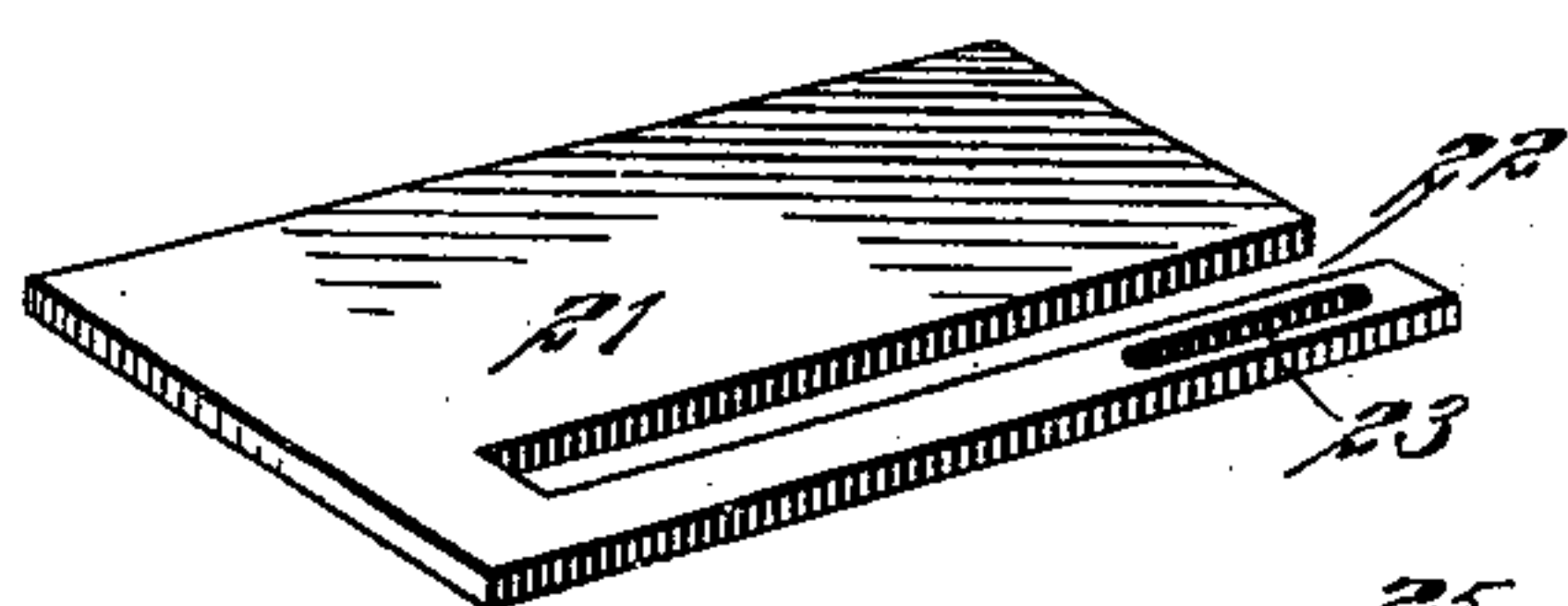
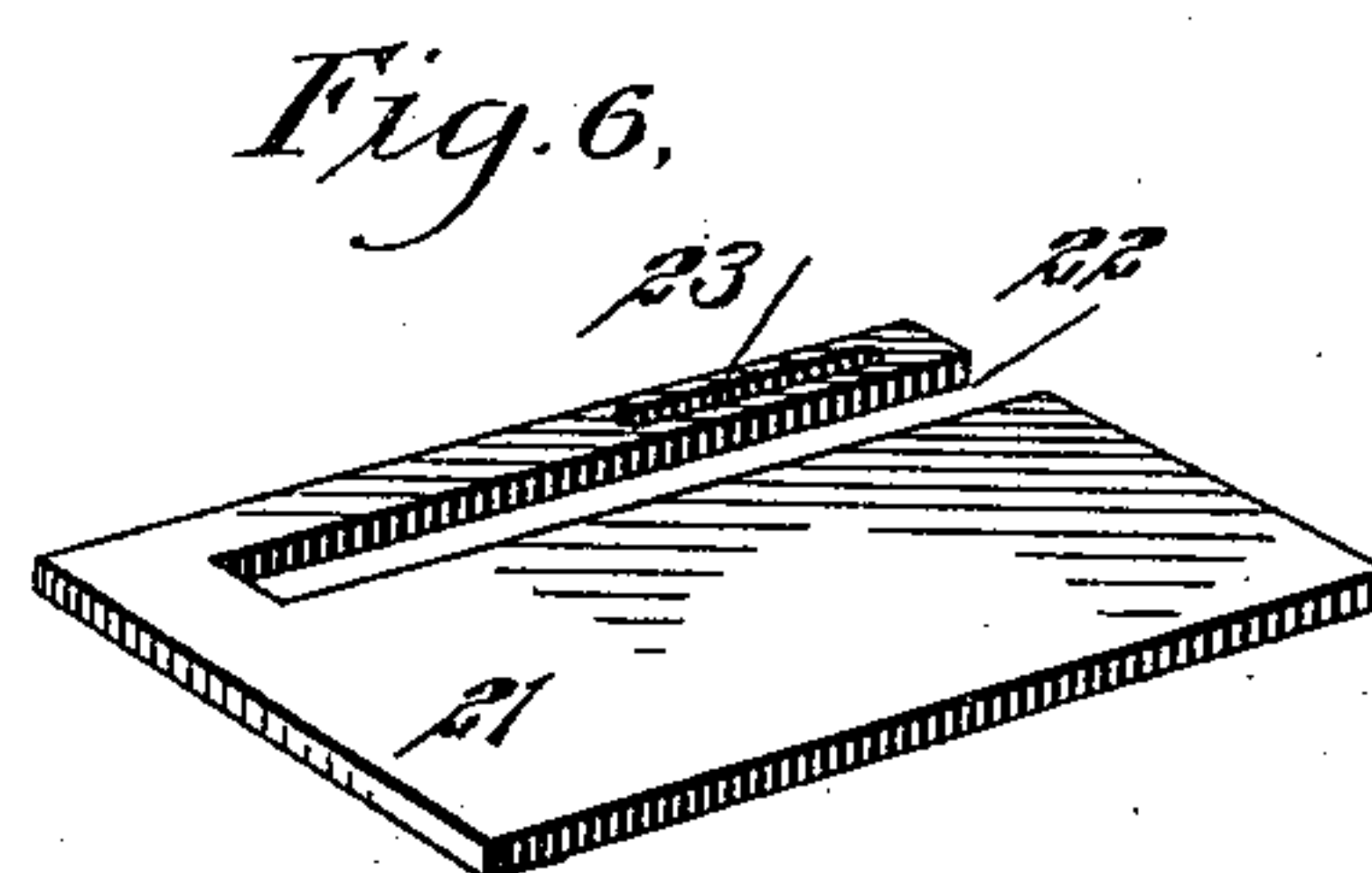
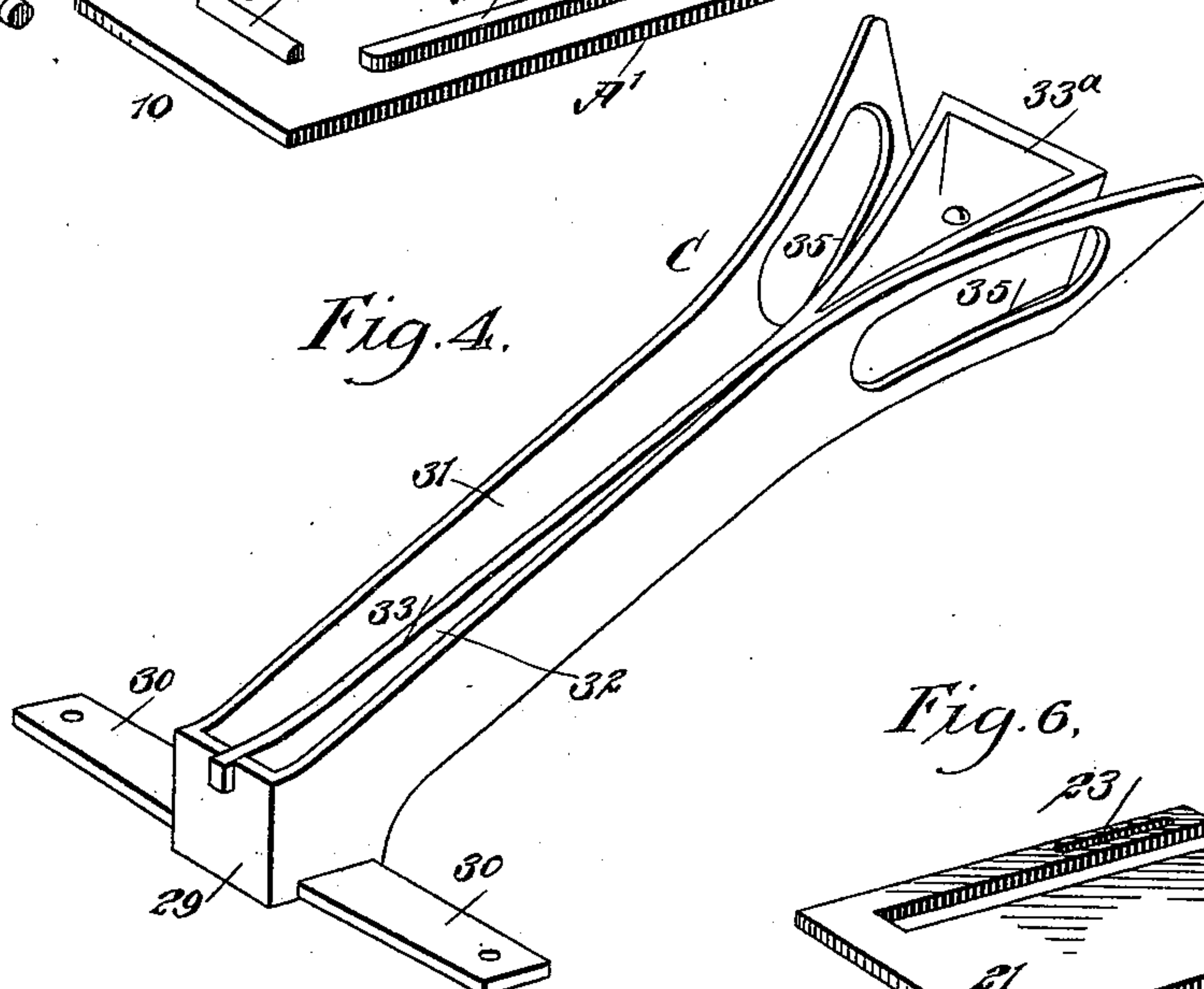
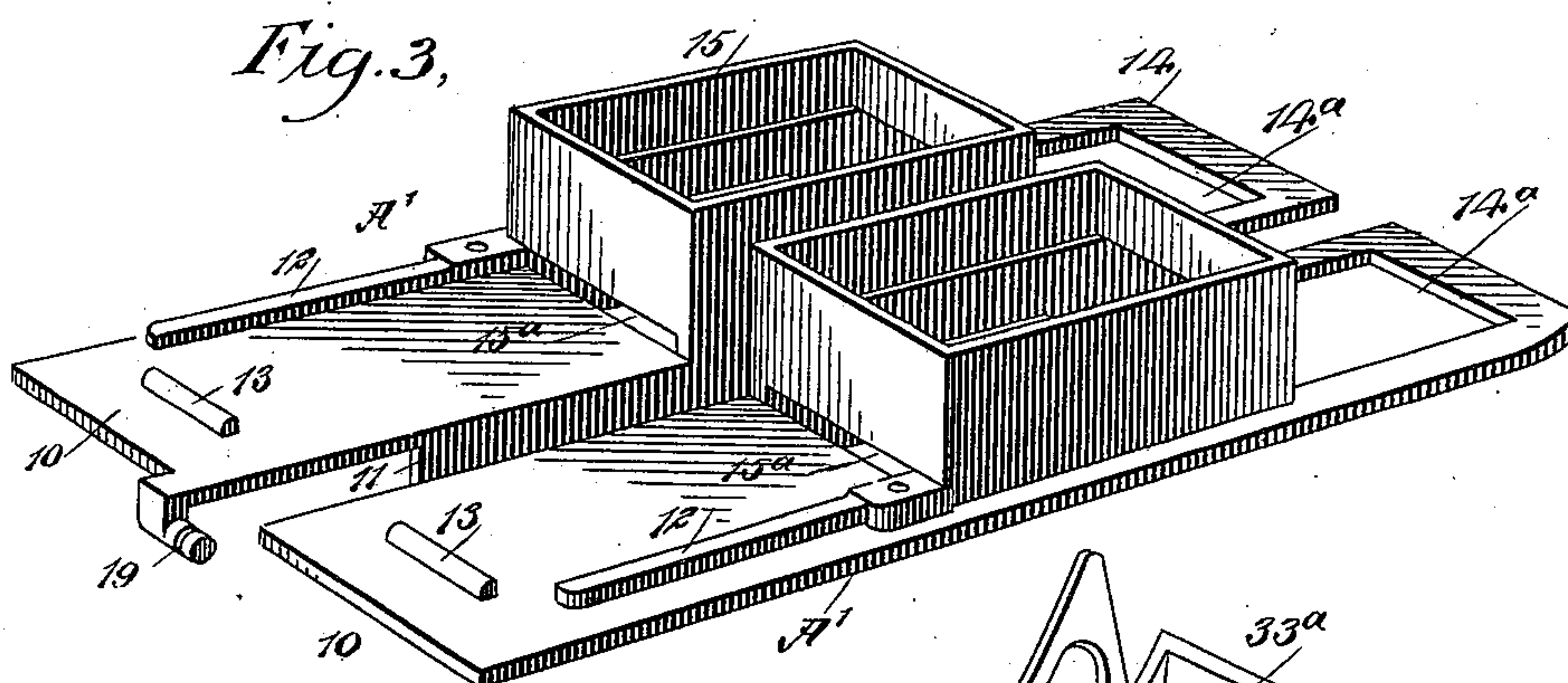
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WITNESSES;

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UNITED STATES PATENT OFFICE.

GUSTAVUS FULLER BROWN, OF NEW YORK, N. Y., ASSIGNOR TO HENRY J. CHAPIN, OF MONTCLAIR, NEW JERSEY.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 646,260, dated March 27, 1900.

Application filed December 12, 1899. Serial No. 740,033. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVUS FULLER BROWN, a citizen of the United States, residing at the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Vending-Machine, of which the following is a full, clear, and exact description.

One object of the invention is to provide a merchandise receiving and dispensing device which may be made of cast metal throughout and in which the merchandise is dispensed by a pulling or drawing action applied to a plunger instead of by the pushing action usually employed.

A further object of the invention is to so construct a machine of the character described that it will quickly respond to proper manipulation, be positive in its action, and comprise but few parts, each of which may be expeditiously and conveniently substituted by another part when it becomes worn or broken.

Another object of the invention is to so construct the parts of the mechanism that they may be quickly and accurately assembled by any person of average intelligence and so that a coin introduced into the machine will bring the plunger into action.

A further object of the invention is to provide a double coin-chute, each section of the chute having independent connection with adjoining dispensing mechanism.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a horizontal section through the casing of the machine, illustrating the dispensing mechanism thereof in plan view. Fig. 2 is a section taken practically on the line 2-2 of Fig. 1. Fig. 3 is a perspective view of a frame upon which is mounted a pair of receptacles for merchandise. Fig. 4 is a perspective view of the chute. Figs. 5 and 6 are perspective views of the plungers employed in connection with a pair of receptacles for

merchandise, and Fig. 7 is a perspective view of a pull-rod constructed to operate either one or the other of adjacent plungers.

A represents a casing of any desired construction, A' a frame carrying a pair of receptacles adapted to receive merchandise, and C a chute adapted to direct a coin in a manner to cause merchandise to be dispensed from either of the receptacles shown in Fig. 3 when the pull-rod D (shown in Fig. 7) is drawn outward.

Any desired number of merchandise-receptacles may be employed in the machine; but preferably the receptacles are arranged in pairs, as shown in Fig. 3, and each frame A', which carries a pair of receptacles for the reception of merchandise, consists of a rear table or platform 10, the two tables or platforms being spaced a certain distance apart or connected by a stirrup 11. Each table or platform 10 is provided at or near its outer edge with a guide-rib 12 and also with a transverse rib 13, located near the inner end of the table or platform, both of the ribs 12 and 13 being upon the upper surface of the platforms or tables. The platforms or tables are continued forward in the same horizontal plane in the shape of a skeleton structure 14, whereby openings 14^a are provided for the frame at its forward portion, and just forward of each table or platform 10 a receptacle 15 is made integral with each member of the frame A', the said receptacles being adapted to receive merchandise of any desired description, and the rear end wall of each receptacle 15 where the receptacle connects with the table or platform 10 is provided with a transverse slot or opening 15^a, as is best shown in Fig. 3. Each receptacle 15 is also provided with a bottom 16, and usually a space is formed between the front and the rear ends of the said receptacles of the bottom, the spaces being designated as 17 and 18, and the rear opening 15^a of each receptacle is duplicated at the front.

One of the platforms or tables 10 of each set is provided at the rear portion of its inner edge with a pin 19, to which a forwardly-extending spring 20 is attached, adapted for engagement with a pull-rod D, which operates

in the space B between the members of the frame A' and over the connecting-stirrup 11, as shown in Fig. 2. Each table or platform 10 carries a plunger 21 upon its upper face. 5 These plungers are in the form of plates, as illustrated in Figs. 5 and 6, and lie between the side ribs 12 and end ribs 13, and the forward ends of the plungers 21 enter the receptacles 15 for the merchandise at the rear 10 openings 15^a therein. Each plunger 21 is adapted to extend about half-way across the space B between the opposing tables or platforms and the opposing receptacles 15, and in order that the plungers 21 may be carried 15 forward and out through the front openings in the receptacles corresponding to the rear openings 15^a each plunger, as shown in Figs. 5 and 6, is provided near its inner edge with a slot 22, the distance between the outer wall 20 of the slot 22 and the outer edge of a plunger corresponding practically to the interior width of the bottom portion of a merchandise-receiving receptacle 15, and, further, each plunger 21 is provided in the tongue formed 25 by the slot 22 with an elongated opening 23, adapted to receive a coin from a coin-chute C, to be hereinafter described.

The handle-section 24 of the pull-rod D usually extends out through the casing A 30 and is provided with a knob *d* or its equivalent. A pull-rod D, as stated, is adapted to be located and to slide in each space B between pairs of tables 10 and pairs of merchandise-receiving receptacles 15, and it may be here 35 remarked that any desired number of pairs of merchandise-receiving receptacles may be used in connection with the machine, the various pairs being connected by stirrups 11^b and cross-bars 11^c, and the space between the 40 pairs above referred to is designated in the drawings as B'.

All the connected frames A' and parts carried directly thereby may be one casting, and in order to strengthen the connection between 45 the supporting members of a pair of merchandise-receiving receptacles cross-bars 11^a are employed, as shown in Fig. 2, corresponding to the cross-bars 11^c above referred to and illustrated in Fig. 1.

50 At the rear of the handle portion of a pull-rod D a flat or table section 25 is formed, of slightly-less width than the space B in which the plunger is to slide, and this flat or table section of a pull-rod is provided between its 55 center and its forward end with a cross-bar 26 upon its upper face and opposing and registering recesses 27 in its side edges, together with a web 28, which extends downward from the recessed portion of the flat section or table 60 of the pull-rod, the web 28 when the pull-rod is in position being adapted to rest upon a stirrup 11, as shown in Fig. 2. The spring 20, heretofore referred and used in connection with a pull-rod, is intended to return the rod 65 to its normal position after it has been drawn out, and therefore the spring 20 is secured in

any approved manner to the rear end of a pull-rod, as shown in Figs. 2 and 7.

As heretofore stated, a chute C, adapted to receive coin, is used in connection with each 70 pair of merchandise-receiving receptacles. The chute is shown in detail in Fig. 4 and is inclined upwardly, being open at its upper end and the lower end 29 being closed, and at this end of the chute horizontal legs 30 are 75 formed, adapted to extend from the rib 12 of the table 10 of one frame A' to the corresponding rib of the opposing table of the same frame, the chute being located over the pull-rod D and between a pair of merchandise-re- 80 ceiving receptacles 15. The chute C is divided into two longitudinal compartments 31 and 32 by means of a longitudinal partition 33, which is centrally located and which extends 85 from end to end of the chute, and the sides of the chute C at its upper end are flared outwardly or in opposite directions, and the upper end of the partition 33 is preferably provided with a triangular head 33^a, as shown in 90 Fig. 4, and the flaring portions of the chute C are also preferably provided with openings 35 sufficiently small to prevent a coin passing through them, as the intent of the openings 35 is simply to lighten the weight of the up- 95 per portion of the chute.

When a pull-rod D is placed in position, as has been described, the openings 23 in the plungers 21 will be immediately over the recesses 27 in the flat or table portion 25 of the pull-rod. At the lower portion of each divi- 100 sion of the chute C an opening 34 is made, and these openings 34 register with the openings 23 in the plungers 21 when the said plungers are in their normal position, as is shown in Fig. 2. The coin-chutes C at their upper 105 or outer edges are brought quite close to the inner face of the front of the casing A, as shown in Fig. 1, and slots 36 are made in the front of the casing which lead directly to the divisions in the said coin-chutes, as shown in 110 Fig. 1. One peculiarity of this machine consists in the fact that the plungers 21 are operated by drawing the rod D outward, and a further peculiarity consists in the fact that one coin-chute serves to conduct coin to the 115 plunger of either one of the merchandise-receiving receptacles, the coin serving as the medium through which the plunger is operated when the rod D is drawn outward.

In operation if a coin be placed in one com- 120 partment—for example, the right-hand compartment—of a chute the coin will roll down the chute and will pass out through the right-hand opening in the bottom of the chute, entering the slot 23 in the right-hand plunger 125 21 of a pair and likewise entering the right-hand recess 27 in the pull-rod D, the lower edge of the coin resting upon the stirrup 11, which connects the tables or platforms 10, provided for a pair of plungers, the coin be- 130 ing then in the position shown in Fig. 2. When the rod D is now drawn outward, the

coin will cause the right-hand plunger 21 to move outward with the rod, and the body of plunger will be carried forward in the bottom portion of the right-hand receptacle 15 for merchandise, forcing the lowermost piece of merchandise out from the receptacle, and when this is accomplished the coin will have been taken to the clear space between the skeleton portions 14^a of a frame A', and the coin will thereupon drop upon the bottom of the casing. The moment the pull-rod D is released the spring 20 attached thereto will return it to its normal position, and the plunger will then be in position to receive a coin, which may be placed in either one of the divisions of a chute C, since the rib 26 on the pull-rod will restore the plunger operated to its normal position as the said rod returns.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a vending-machine, two reservoirs for merchandise, plungers adapted to travel in said reservoirs, a pull-rod mounted to slide between the reservoirs, the said rod having recesses registering with openings in the plungers, and a chute for directing a coin to either one of said recesses and its alined opening, substantially as specified.

2. In a vending-machine, a pair of reservoirs for merchandise, supports for the said reservoirs, plungers mounted on the said supports and adapted to travel through the said reservoirs, and a pull-rod mounted to slide between the said reservoirs, the said rod be-

ing provided with recesses at opposite sides and the plungers with openings registering with the recesses, as described.

3. In a vending-machine, the combination, with a pair of reservoirs for merchandise, supports for the said reservoirs, plungers mounted to slide on the supports and enter the reservoirs, a pull-rod mounted to slide between the reservoirs, the pull-rod being provided with an offset upon its upper face, and recesses at each side at the rear of the offset and adapted to register with openings in the plungers, all combined for operation, substantially in the manner specified.

4. In a vending-machine, the combination, with a pair of reservoirs for merchandise, plungers mounted to travel in the said reservoirs, and a rod mounted to slide between the reservoirs, the said rod having openings registering with openings in the plungers, the registering openings being adapted to receive a coin, of a chute adapted to conduct coin, the said chute being constructed in two divisions, each division having an outlet in communication with registering openings in the plungers and rod when the plungers and rod are in their normal position, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GUSTAVUS FULLER BROWN.

Witnesses:

HENRY J. CHAPIN,

A. LANSING BAIRD.