

No. 697,661.

Patented Apr. 15, 1902.

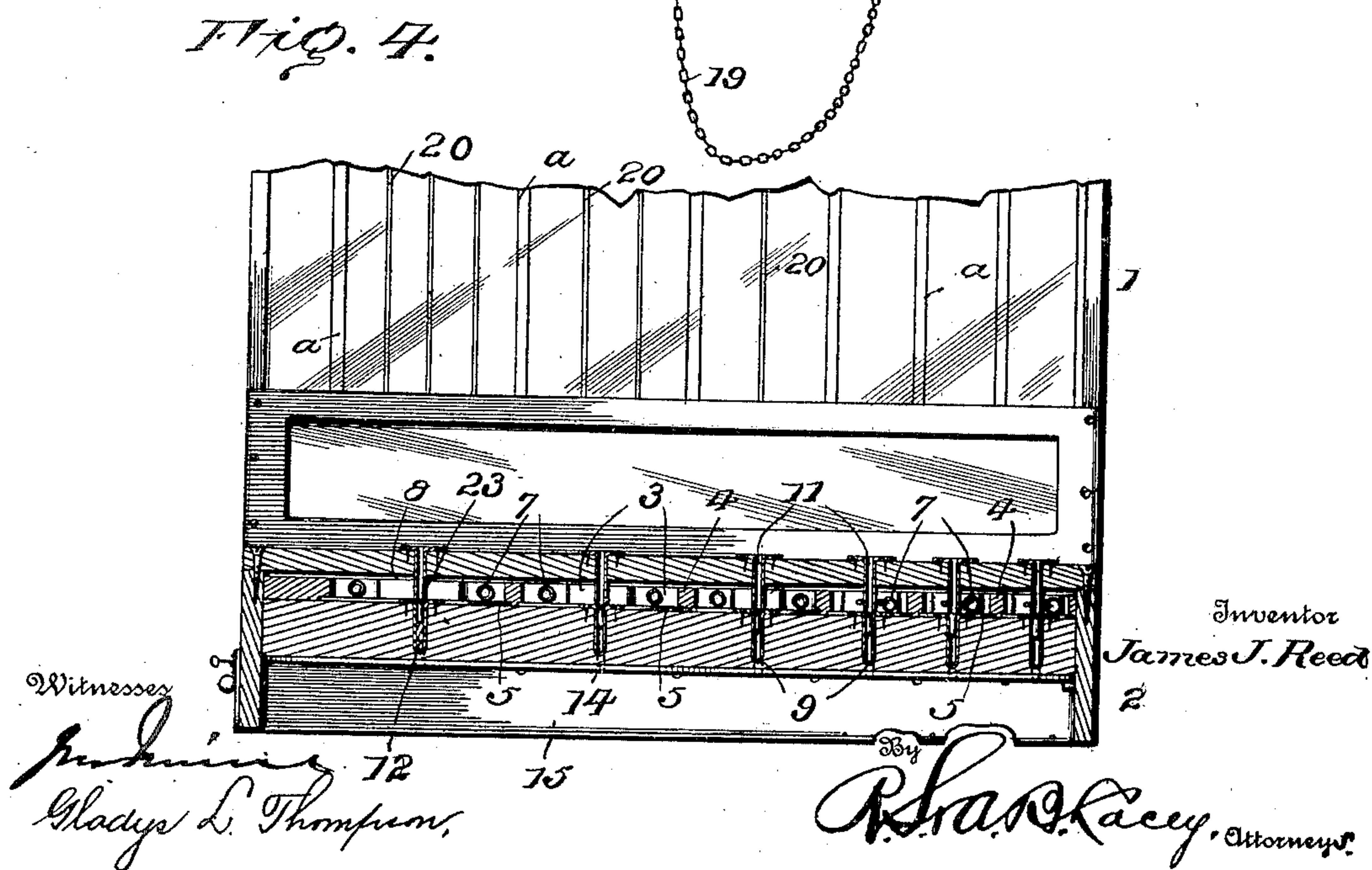
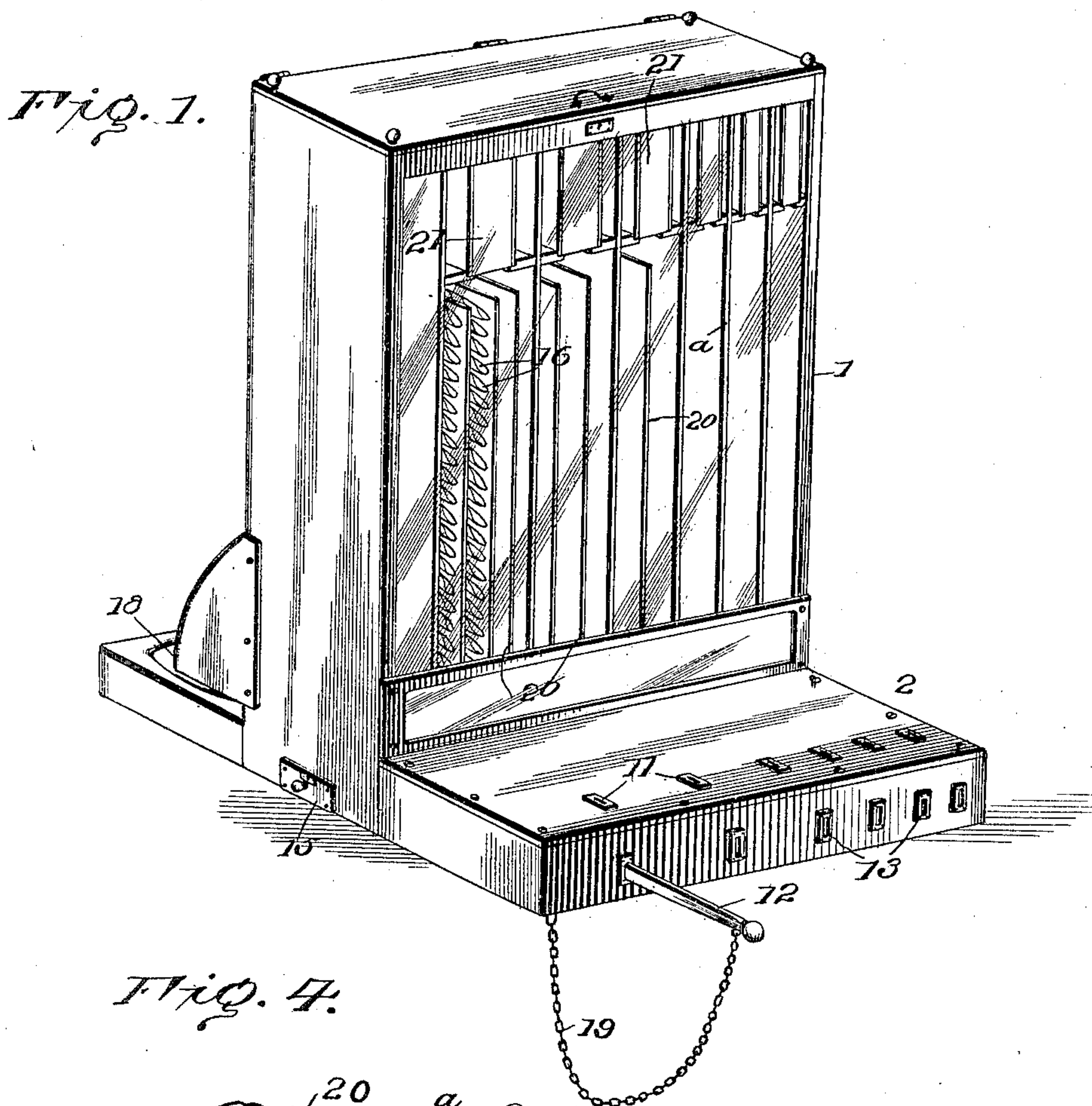
J. J. REED.

AUTOMATIC VENDING MACHINE.

(Application filed Apr. 13, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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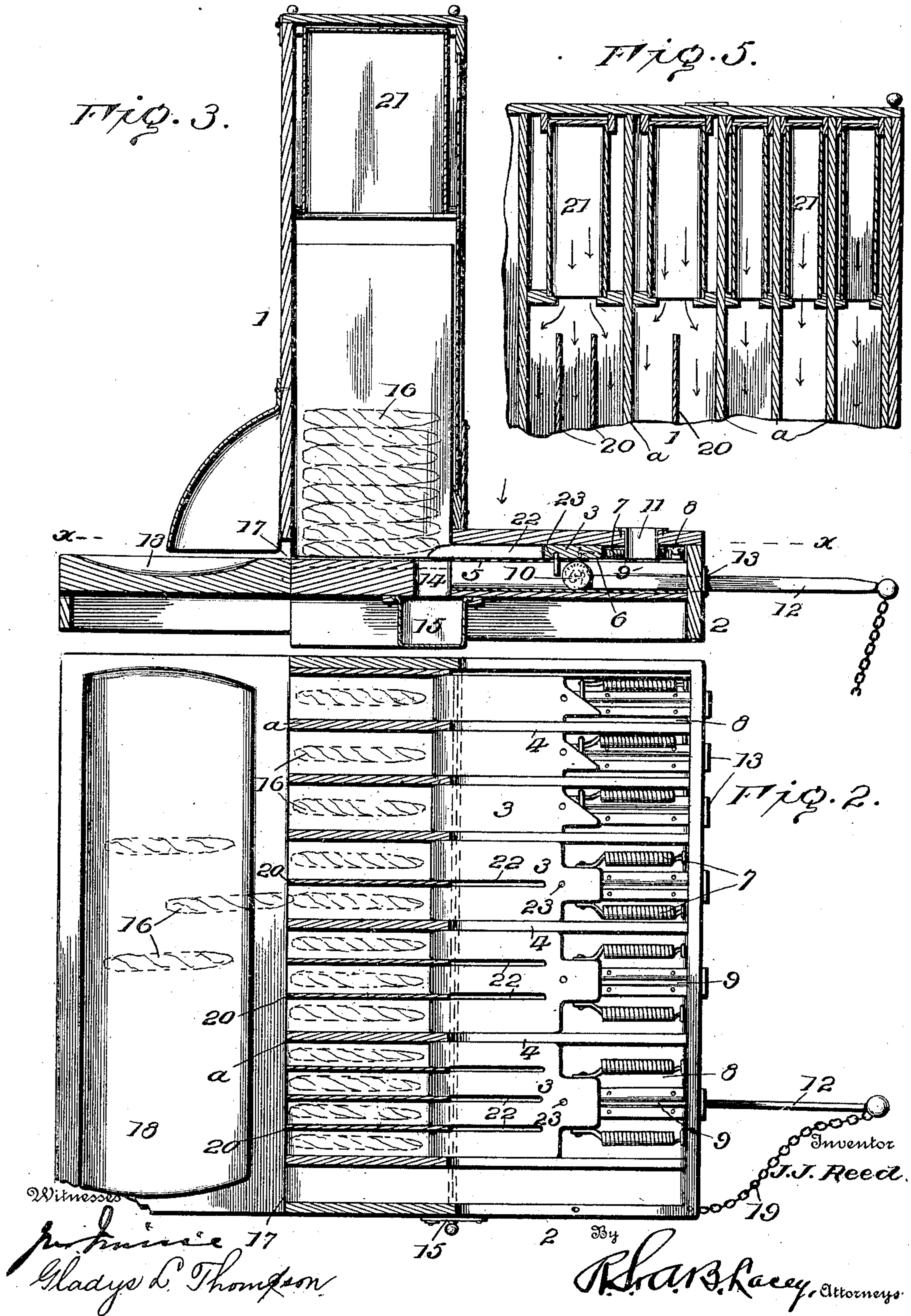
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UNITED STATES PATENT OFFICE.

JAMES J. REED, OF NEW PHILADELPHIA, OHIO.

AUTOMATIC VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 697,661, dated April 15, 1902.

Application filed April 13, 1901. Serial No. 55,733. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. REED, a citizen of the United States, residing at New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Automatic Vending-Machines; 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.

This invention relates to machines for vending goods, the operating mechanism being set by the deposition of a coin of determined value into a slot, so that upon moving a rod or bar inward the article placed for vendition is delivered. The machine is specially adapted for vending cigars and is for this reason illustrated in its adaptation to this article. However, it is contemplated for general application, the slight changes necessary for a particular article being within the purview of the invention and involving the skill of the mechanic only.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a vending-machine embodying the invention. Fig. 2 is a cross-section. Fig. 3 is a horizontal section. Fig. 4 is a section on the line Y Y of Fig. 3. Fig. 5 is a detail section of the upper portion of the cabinet.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The cabinet comprises a vertical portion 1 and a horizontal portion 2, the latter receiving the coin-actuated mechanism and the former containing the article or goods to be vended. The machine when constructed to deliver a single article or one kind and grade of goods will embody but one magazine and

one coin-actuated mechanism for effecting a delivery of the goods; but when designed for vending a number of different articles or the same class of goods in different grades the parts 1 and 2 will be subdivided, a vertical compartment or magazine being provided for each article or kind of goods and a coin-actuated mechanism being had for each magazine or vertical compartment.

The machine illustrated is designed for the vendition of different grades of cigars, and the vertical portion is subdivided by partitions *a* into a corresponding number of compartments and the latter further subdivided when desired by partitions 20 to separate the number of cigars to be delivered at one operation. The means for effecting an ejection or delivery of the cigars consists, essentially, of a spring-actuated plunger 3, mounted for reciprocation in the horizontal portion 2, each plunger being directed in its movements by guide-strips 4 and offstanding parts 5, the latter consisting of plates secured to the lower side of the plunger and projecting beyond opposite edges thereof and fitted into grooves 6 in the inner sides of the guide-strips 4. These offstanding parts 5 cooperate with the grooves 6 to prevent vertical displacement of the plunger and hold the latter down upon the base of the horizontal portion 2. Springs 7 serve to return the plunger to a normal position when released after being pressed forward to effect a delivery of the cigars or article to be dispensed. The upper forward end of the plunger is beveled or made rounding to prevent injurious contact with the cigars immediately above and adjacent those to be delivered the next time the plunger is moved forward, the beveled end causing the plunger to ride under the lowermost article but one.

The lower side 8 of the chamber in which the plunger operates is formed with a longitudinal groove 9, forming a coinway into which the coin 10 of determinate value drops when deposited in the slot 11. The operating bar or rod 12 is adapted to be moved into the groove 9 through an opening 13 in the end of the part 2 and is adapted to come in contact with the coin 10 and press it and the plunger forward, the coin forming an interlocking connection between the plunger and the part 12. When the plunger 3 reaches the

limit of its inward or forward movement, the coin 10 drops through an opening 14 in the part 8 into a box or receptacle 15, thereby releasing the plunger, which returns to a normal position under the action of the springs 7. When the plunger 3 is pressed forward by the rod or bar 12, it comes in contact with the cigars 16 or other article to be vended and pushes the same through a delivery-slot 17 in convenient position to be grasped by the operator or to drop into a receptacle 18, from which they may be removed by the purchaser. When the plunger returns to a normal position, the cigars or article immediately above the goods delivered drops into position in front of the plunger, to be delivered at the next actuation or forward movement of the said plunger. The rod or bar 12 may be used in connection with any one of the series of plungers or coin-actuated mechanisms and is secured to the machine by a chain or like connection 19, so as to prevent its loss or displacement.

The vertical compartment forming the magazine for the cigars or goods to be vended is in some instances subdivided by vertical partitions 20, so as to hold the cigars separated and insure their automatic feed without binding or packing in the magazine. There may be as many of these vertical partitions 20 as desired and according to the number of articles to be delivered at one time. In the case of cigars or like articles the box or package 21 has an end portion or side removed and is supported in the upper portion of the compartment in any suitable way, so as to permit of the cigars or articles automatically feeding into the spaces or subdivisions of the said compartment. When a box or package becomes empty, it is replaced by another, so as to prevent the machine from becoming empty. The plunger 3 has kerfs or slots 22 formed therein to receive the partitions 20

and admit of the forward movement of the plunger without interference.

A pin 23 is pendent from each of the plungers and enters the groove 9 and constitutes a stop against which the coin 10 is held by the rod or bar 12 when the plunger is pressed inward to effect vendition of the cigars or goods. The groove 9 is reinforced by a metal strip, which is bent intermediate of its longitudinal edges and has the upper portion of its wings bent outward to overlap the part 8 adjacent to the groove 9, to which the said bent edges are secured in any substantial manner. This pin or stop 23 is located intermediate of the edges of the plunger, so as to admit of a direct application of the pressure to the plunger, thereby obviating binding and enabling easy actuation of the said plunger.

Having thus described the invention, what is claimed as new is—

A vending-machine comprising a cabinet having a series of vertical magazines provided at their upper ends with means for supporting packages containing the articles to be vended, some of the magazines being vertically subdivided below the packages to separate the goods into groups, an independent coin-actuated mechanism for each compartment, comprising a plunger, certain of the plungers having spaced portions to correspond with the subdivisions of the respective compartments in which they work, and a single operating-rod for actuation of any selected coin-actuated mechanism to effect a delivery of the goods, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES J. REED. [L. S.]

Witnesses:

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