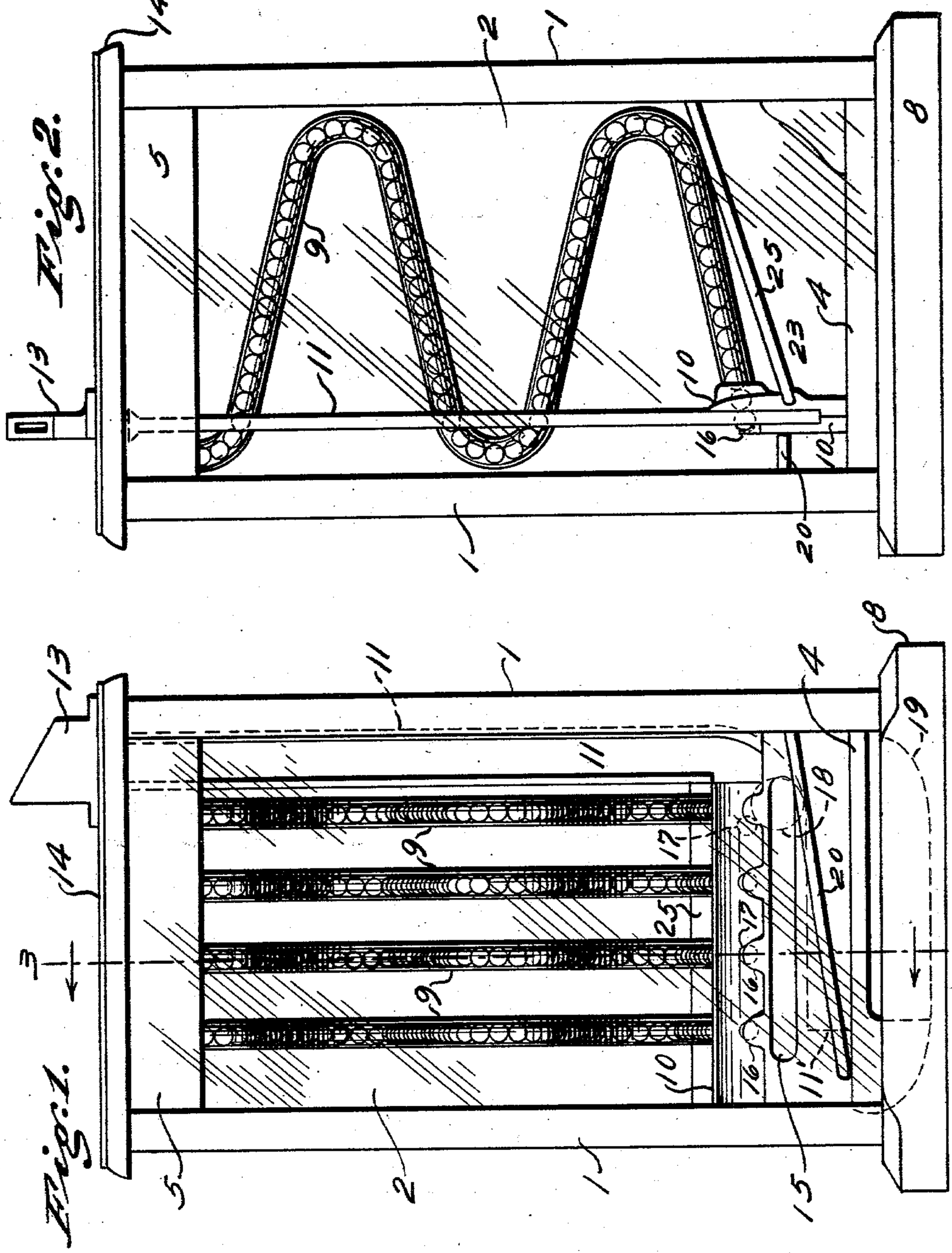
No. 745,707. PATENTED DEC. 1, 1903.

I. C. WOODWARD.

VENDING MACHINE.

APPLICATION FILED APR. 24, 1903.

NO MODEL. 2 SHEETS—SHEET 1.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

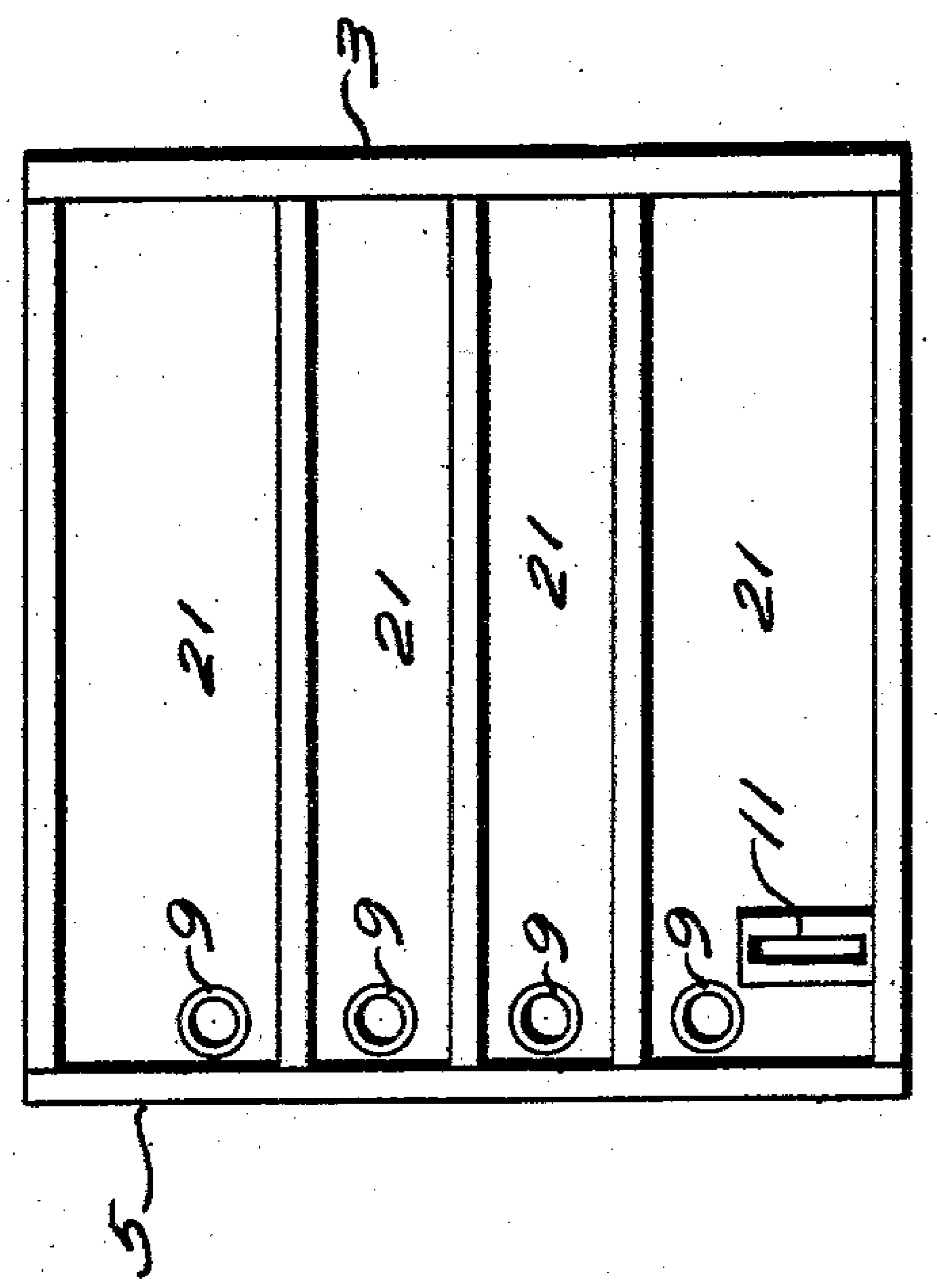
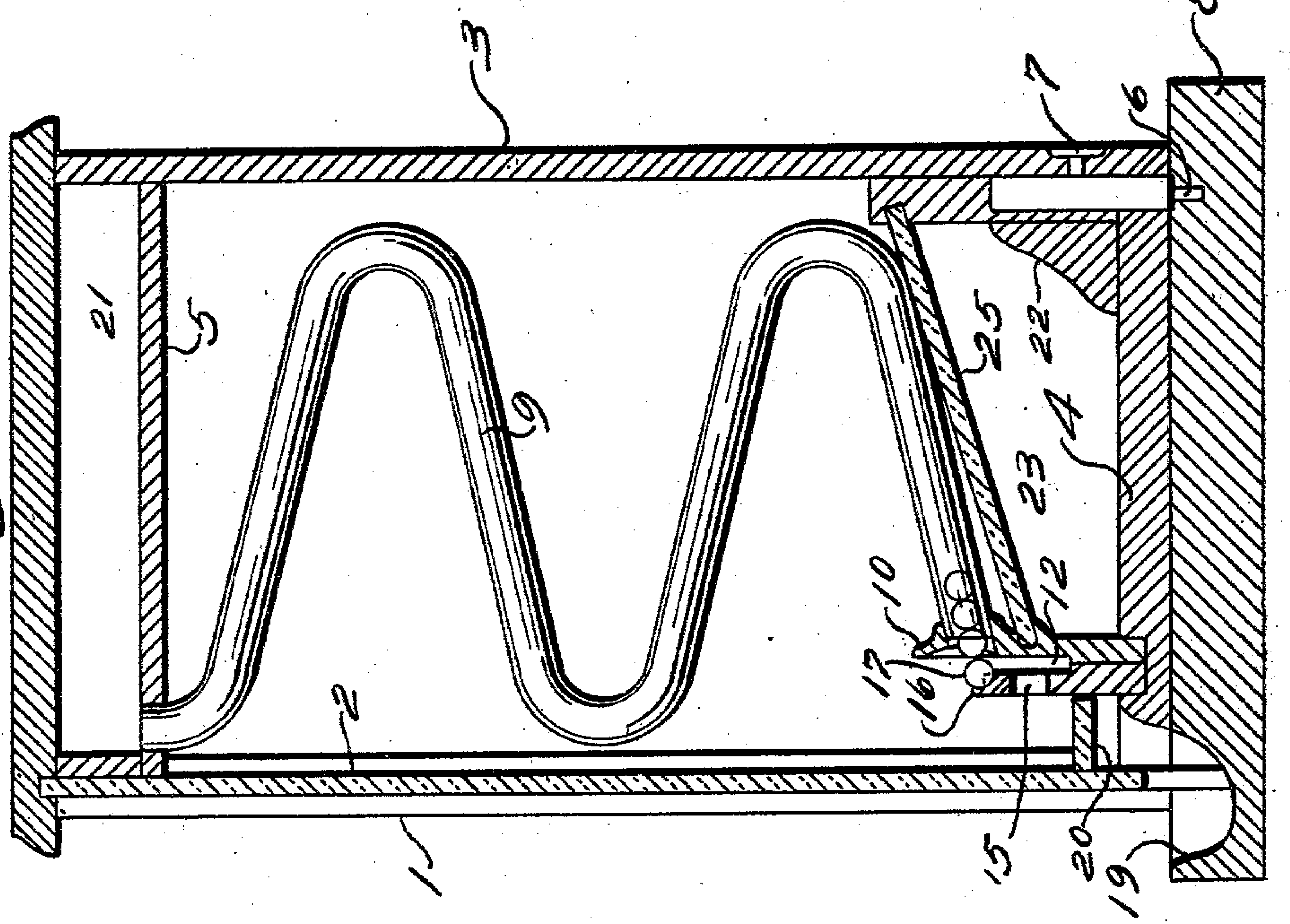


Fig. 3.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 745,707. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

IRVING C. WOODWARD, OF CHICAGO, ILLINOIS.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 745,707, dated December 1, 1903.

Application filed April 24, 1903. Serial No. 154,041. (No model.)

To all whom it may concern:

Be it known that I, IRVING C. WOODWARD, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

The main object of my invention is to provide a simple coin-operated vending-machine in which the coin when dropped into the coin-chute will through its gravity acquire sufficient impetus to cause same to force out a package from a suitable storage device.

A further object is to provide a coin-controlled device which may be made in such simple form as to avoid the necessity of using springs and levers and to rely mainly upon the gravity of the packages and the gravity of the coin for operating the machine.

I accomplish these objects by the structure shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a vending-machine constructed according to my invention. Fig. 2 is a side elevation of same. Fig. 3 is a section on the line 3 3 of Fig. 1, showing one of the storing devices or tubes in elevation. Fig. 4 is a top plan of the inner removable part of the casing, showing the compartments in which the pills or balls may be stored.

The casing consists of a frame 1, supporting glass-walls 2. An inner casing, including the back piece 3, bottom 4, and top part 5, is removable from the outer casing and supports therein the package-storing devices or tubes and the coin-chute. Said inner casing is locked in position by means of the bolt 6 of the lock 7, said bolt being seated in the base 8 when in locking position. The glass tubes 9 are secured to the top part 5 and the slotted member 10 of the inner case. The coin-chute 11 is likewise secured within said inner casing in suitable position to lead to the coin-slot 12 of the member 10. The upper end of the coin-chute 11 is arranged to register with the member 13, secured upon the top 14 of the outer casing, and forms the receiving end of the coin-chute. The member 10 has a front opening 15, the purpose of which is merely to show the coin as same moves along the lower horizontal part of the chute or slot 12. The stops 16 on the member 10 hold the pills or balls 17 in suitable position at the discharge end of the tubes 9, so that a coin 18, passing along the slot 12, will come in contact with the pills or packages 17 and raise same above the stops 16, so as to cause same to drop over the front and toward the side of said stops and be delivered into the trough 19 of the base-piece 8. The inclined partition 20 prevents tampering with the device, as by insertion of a wire under the front glass 2 and through the trough 19. The partition 25 serves partly as a support for the tubes 9 and is preferably made of glass, so as to show the coins in the compartment 23. Said partition 25 is extended entirely across the inner casing, so as to separate the coin-compartment from the upper parts. This partition may be entirely omitted without interfering with the operativeness of the device. The member 22 serves merely as a brace for the bottom and rear parts of the inner casing.

In operating the device the storage-tubes will first be filled from above by placing the pills in the compartments 21 and allowing same to feed into the upper ends of the tubes 9. The compartments 21 are filled when the inner casing secured to the back wall 3 is removed from the outer casing consisting of the parts rigidly secured to the base 8. When the tubes 9 are properly filled, the inner casing will be returned into the position shown in Figs. 1, 2, and 3 and will be locked in such position by means of the lock 7 and bolt 6. If a coin of the proper dimensions is now dropped into the member 13, such coin will fall down the vertical part of the chute 11 and then through the impetus received by its gravity will roll along the horizontal part of said chute, dropping out of the chute within the casing at the left end 11′ of the chute, as shown by dotted lines in Fig. 1. The coin then drops into the compartment 23, as shown in Figs. 2 and 3. The coin is shown in dotted lines in Fig. 1 as in the act of throwing out one of the pills 17. As the coin advances along said horizontal part the same throws out one pill from each of the storage-tubes. The pills roll along the partition 20 and then down behind the extension 24 of the front glass wall 2, rolling along the trough toward

its middle part, as shown in Fig. 1, where same can be readily removed by the operator.

It will be understood that some of the details of the device shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details, except as hereinafter limited in the claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A vending-machine comprising a package-storage device having an opening for delivering the packages, and a coin-chute discharging toward said packages, and so disposed as to impart sufficient impetus to the coin, solely through its own gravity, to impart a blow to one of said packages adapted to deliver said package through said opening, substantially as described.

2. A vending-machine comprising a package-storage device having an opening for delivering the packages, said storage device being arranged to automatically feed the packages toward said opening, and a coin-chute leading toward said opening, and adapted through the gravity of the coin, to carry the coin into contact with one of said packages with sufficient force to deliver same through said opening, substantially as described.

3. A vending-machine comprising a package-storage device having an opening for delivering the packages, a stop near said opening adapted to retard one of the packages in a position in which same projects partly through said opening, and a coin-chute leading downwardly and toward said opening, and adapted through the gravity of the coin, to carry said coin beyond said opening, in a path intercepted by said package, with sufficient force to deliver the package through said opening, substantially as described.

4. A vending-machine comprising a package-storage device having an opening for delivering packages and being arranged to automatically feed the packages toward said opening, a stop at said opening adapted to retain one of the packages in suitable position to be ejected through said opening, and a coin-chute adapted to roll a coin along a path extending through said opening, and intercepted by said package, in suitable manner to permit a sufficient contact of said coin with such package to cause the ejection of the package through said opening, substantially as described.

5. A vending-machine comprising a casing, a storage-tube leading from the upper part to the lower part of said casing and adapted to automatically convey pills or balls to the lower end of said tube, slotted means at the lower end of said tube arranged to stop one of said balls in a position extending across the slot, and a coin-chute communicating with said slot and adapted to roll a coin through said slot and into suitable contact with such ball to cause its discharge from said slotted means, substantially as described.

6. A vending-machine comprising a casing, a coin-chute leading from the upper part of said casing downwardly and thence in a substantially horizontal direction and adapted to carry a coin in suitable manner to roll same along said horizontal part, said coin-chute having an upper slot along said horizontal part arranged to permit the upper part of the coin to extend through said slot, and a plurality of storage-tubes leading toward said horizontal part and adapted to carry pills or balls toward same, stops adapted to retain one of the balls in each storage-tube in a position above said slot and intercepting the path of the coin in suitable manner to permit the discharge of said balls through contact with the coin, substantially as described.

Signed at Chicago this 13th day of April, 1903.

IRVING C. WOODWARD.

Witnesses:

RUDOW RUMMLER,

CHARLES T. BROWN.