Dec. 1, 1925. 1,563,366

I. C. HONEGGER

VENDING MACHINE

Filed June 1, 1923 3 Sheets-Sheet 1

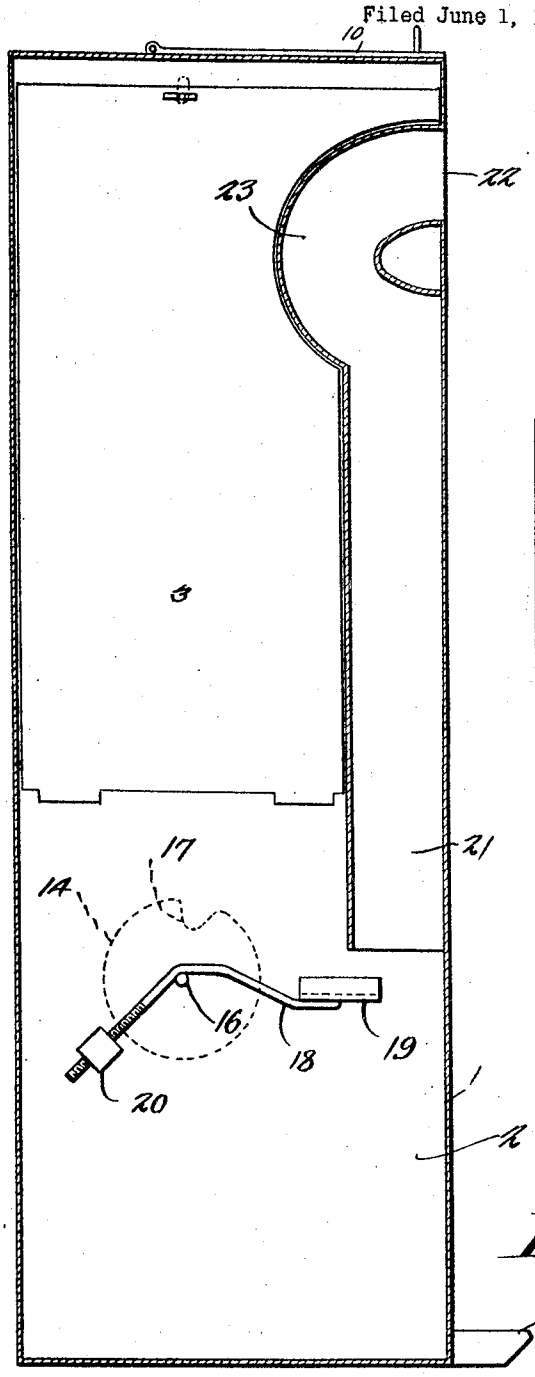


Fig. 1.

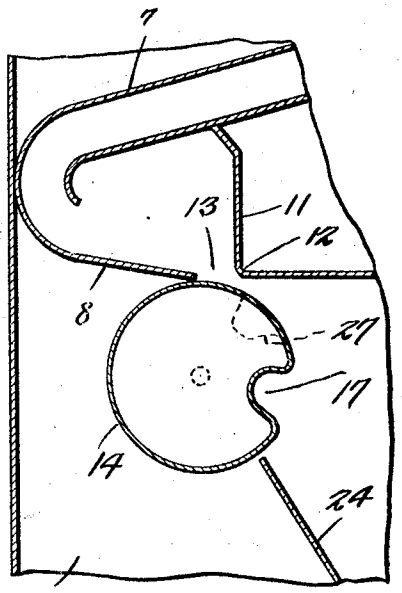


Fig. 4.

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VENDING MACHINE

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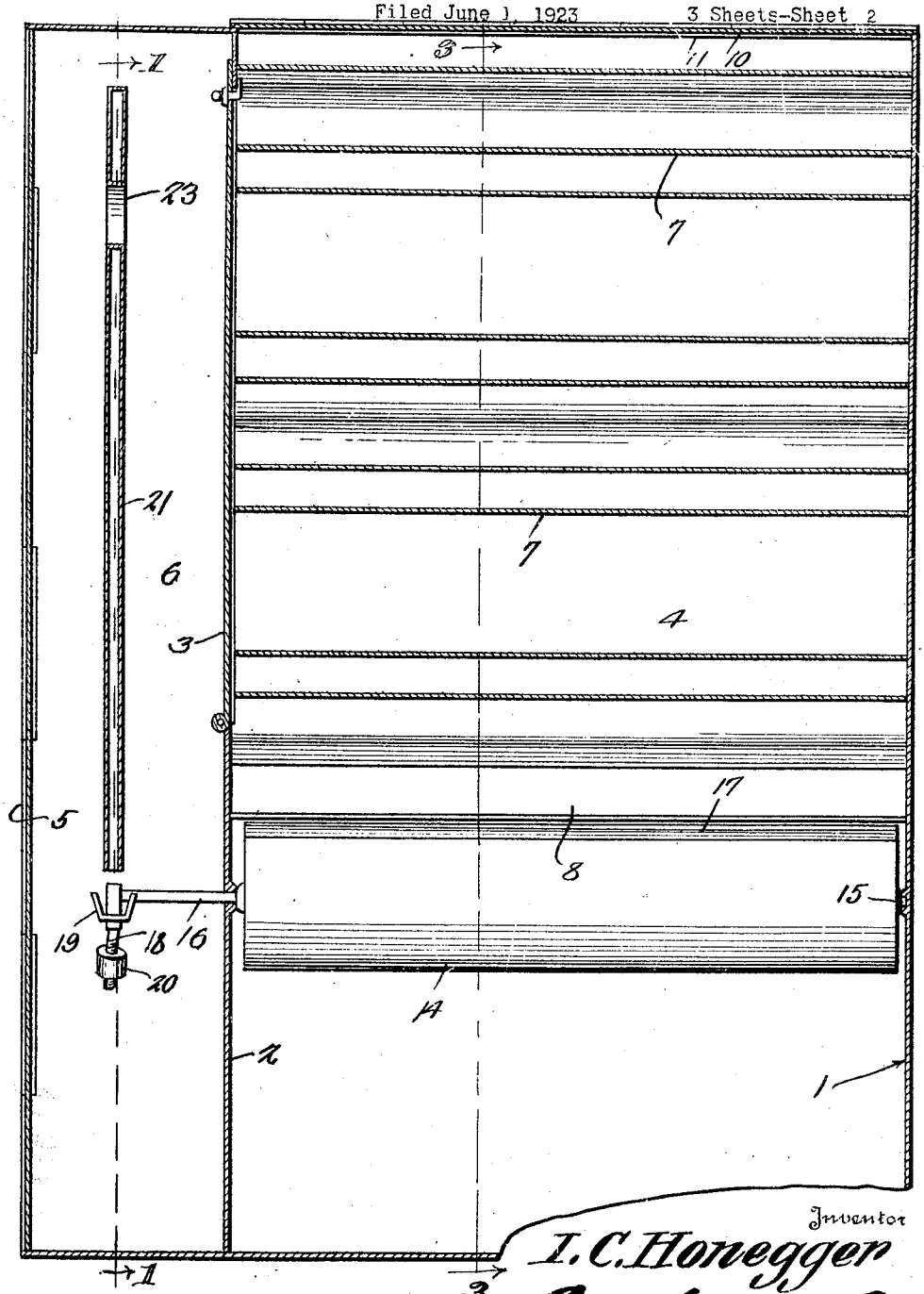


Fig. 2.

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VENDING MACHINE

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Fig. 3.

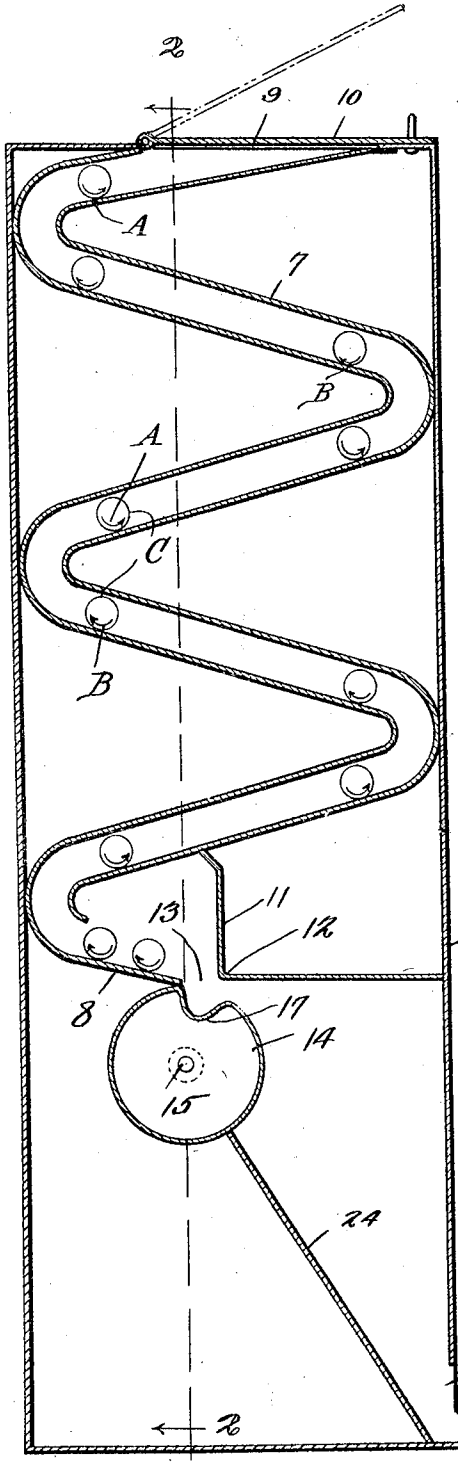
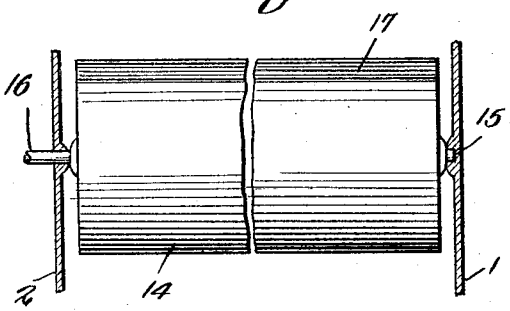


Fig. 5.



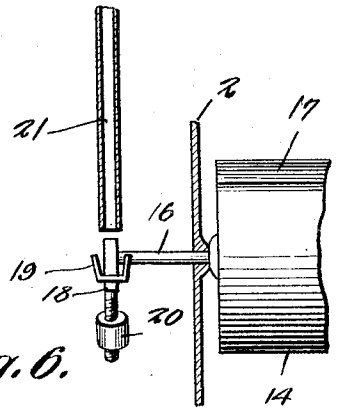


Fig. 6.

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UNITED STATES PATENT OFFICE.

IRVING C. HONEGGER, OF SAN ANTONIO, TEXAS.

VENDING MACHINE.

Application filed June 1, 1923. Serial No. 642,833.

To all whom it may concern:

Be it known that I, IRVING C. HONEGGER, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Vending Machine, of which the following is a specification.

This invention relates to vending machines and more particularly to check controlled means for releasing the articles of merchandise to be vended, one of the objects being to provide simple and efficient mechanism of this character that can be adjusted readily for actuation by a check or coin of predetermined weight and value.

Another object is to provide a dispensing mechanism so constructed that a coin or check of light weight can be utilized as a means for delivering a relatively heavy article of merchandise from the machine.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings

Figure 1 is a vertical section taken through one side portion of the machine from front to back thereof on line 1—1 Fig. 2.

Fig. 2 is a vertical transverse section through the machine said section being taken on the line 2—2 Fig. 3.

Fig. 3 is a section on line 3—3 Fig. 2.

Fig. 4 is an enlarged section through the dispensing cylinder and adjacent parts, said cylinder being shown by dotted and full lines in two of its three positions.

Fig. 5 is a front elevation of the dispensing cylinder parts being broken away.

Fig. 6 is a front elevation of the coin actuated balance lever and adjacent parts.

Referring to the figures by characters of reference 1 designates a casing of any suitable proportions provided, near one side, with a partition 2 extending from front to rear and top to bottom, this partition being formed with a door 3 which, when opened gives access to the magazine compartment 4 formed in the housing or casing 1. Another door 5 is provided in one side wall of the housing or casing and gives access to the compartment 6 in which coin operated mechanism is located.

A sinuous conduit or container 7 is provided within the compartment 4 and extends from the top of the housing or casing 1 down to a delivery apron 8 located within the lower portion of the housing or casing. This conduit or container extends throughout the width of the compartment 4 and is closed at one side by the door 3 while the other side is closed at all times by one side wall of the housing or casing. A filling opening 9 is provided in the top of the housing or casing 1 and communicates with the upper end of the conduit or container 7. This opening is extended throughout the width of the conduit or container and has a closure 10 that can be locked in shut position by any suitable means provided for that purpose. By raising the closure, as shown by dotted lines in Fig. 3, articles of merchandise can be placed readily in the conduit or container 7.

A transverse angular partition 11 is provided under the conduit or container, the angle portion 12 of this partition being spaced a sufficient distance from the apron 8 to provide an outlet slot 13 through which articles of merchandise can gravitate.

Mounted for rotation below the apron 8 and the slot 13 is a delivering cylinder 14 having trunnions 15 and 16 journaled respectively in one side wall of the housing or casing 1 and in the partition 2. This cylinder is provided in its periphery with a longitudinal channel 17 so proportioned as to receive and hold a single article of merchandise at one time. This channel is normally positioned directly under the slot 13 as shown in Fig. 3 and is held in such position by a balance lever 18 fixedly connected to trunnion 16. One end of this lever carries a coin tray 19 while the other end is adjustably engaged by a weight 20.

Mounted within the compartment 6 is a coin chute 21 extending downwardly from a coin receiving slot 22 formed in the front of the housing or casing 1, the upper portion of the chute being preferably curved or crooked as shown at 23 so that a coin can be pushed backwardly through the slot 22 and will then gravitate along curved lines to the lower straight portion of the chute. The lower outlet end of the chute overhangs

the tray 19 and that portion of the compartment 6 below the tray constitutes a coin container or receiver.

Extending downwardly and forwardly from the cylinder 14 is a deflecting plate 24 leading to an outlet opening 25 in the bottom portion of the front wall of casing or housing 1, there being a receiving tray 26 in front of this slot into which articles of merchandise will be delivered by the machine.

The apparatus herein described can be used for vending different kinds of merchandise, such as pencils, sticks of candy and the like, the said articles being placed in the apparatus through the top opening 9 so as to partly or entirely fill the conduit or container 7. Obviously the lowermost article will gravitate through slot 13 into channel 17. The weight 20 is so proportioned and adjusted that when one of the articles of merchandise is seated in channel 17 the said weight will be slightly overbalanced so as to allow cylinder 14 to rotate a short distance sufficient to remove the channel 17 from under the slot 13 without, however, allowing the article of merchandise to drop out of the channel. This intermediate position of the channel has been indicated by dotted lines at 27 in Fig. 4. With the parts thus located the articles of merchandise remaining in the conduit or container are held against further downward movement until cylinder 14 has been returned to its initial position. With the parts set as described, a coin of proper value, when inserted through the slot 22, will gravitate onto the tray 19 and cause cylinder 14 to further rotate until channel 17 is brought to the position indicated by full lines in Fig. 4. The article of merchandise in said channel will thus be free to drop onto the deflecting plate 24 and gravitate to the tray 26.

As soon as the coin passes the tray it will drop into the lower portion of compartment 6 and the weight 20 will return to tray and the cylinder to their normal positions. When the channel 17 arrives under the slot 13 another article of merchandise will gravitate into the channel, cylinder 14 will shift to its intermediate position, and the parts will be thus reset ready for another coin to be deposited.

An important feature of this invention is the fact that, because of the sinuous form of the conduit or container 7 the articles of merchandise will be momentarily checked in their downward movement each time one of the articles is deposited in the channel 17, this checking action being sufficient to relieve the cylinder 14 of excessive pressure when it starts to move under the weight of the article deposited in its channel 17. By referring particularly to Fig. 3, it will be seen that articles of merchandise traveling along the downwardly and rearwardly inclined portions of the conduit or container 7 will rotate as indicated by the arrows at A. When, however, these articles travel along the downwardly and forwardly inclined portions of the conduit or container, they will rotate in the opposite direction as indicated by the arrows B. Thus each time an article of merchandise, indicated generally at C moves from one incline to another its direction of rotation will be abruptly reversed and this action, supplementing the frictional contact set up between the rotating contacting articles, will be sufficient to produce the desired slight retardation of the merchandise necessary to allow free rotation of the cylinder 14 under the weight of the article deposited thereon.

In constructing this machine it is essential that the rear wall of the channel 17 be positioned vertically above the axis of rotation of the cylinder when said cylinder is in normal position. Thus any merchandise, however light, that may be discharged into the channel will be supported in advance of the center of gravity and, therefore, tend to rotate the cylinder to move the channel from under the outlet opening or slot 13.

What is claimed is:—

In a vending machine the combination with a freely rotatable cylinder having a longitudinal article receiving recess in its periphery, and a container closed at its lower end by the cylinder for feeding articles successively to the recess, of a counterbalanced member movable with the cylinder and having a tray at one end and an adjustable weight at its other end, said cylinder being rotatable to an intermediate position against the action of the weight when subjected to the weight of an article in the recess, and means for directing an object by gravity against the tray to rotate the cylinder past its intermediate position and release the article carried by the cylinder.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature

IRVING C. HONEGGER.