

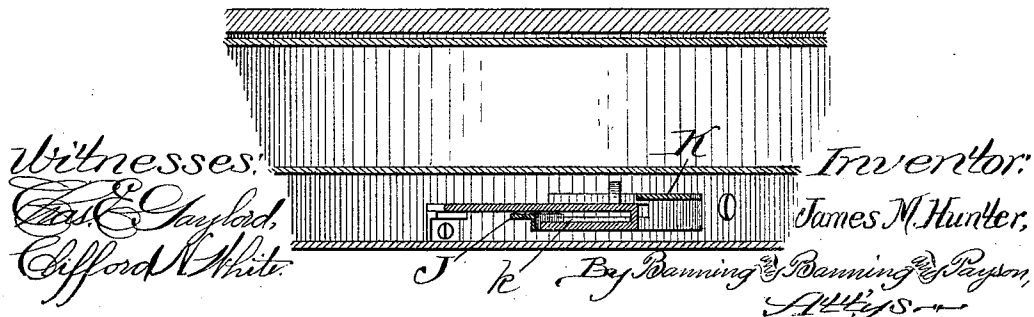
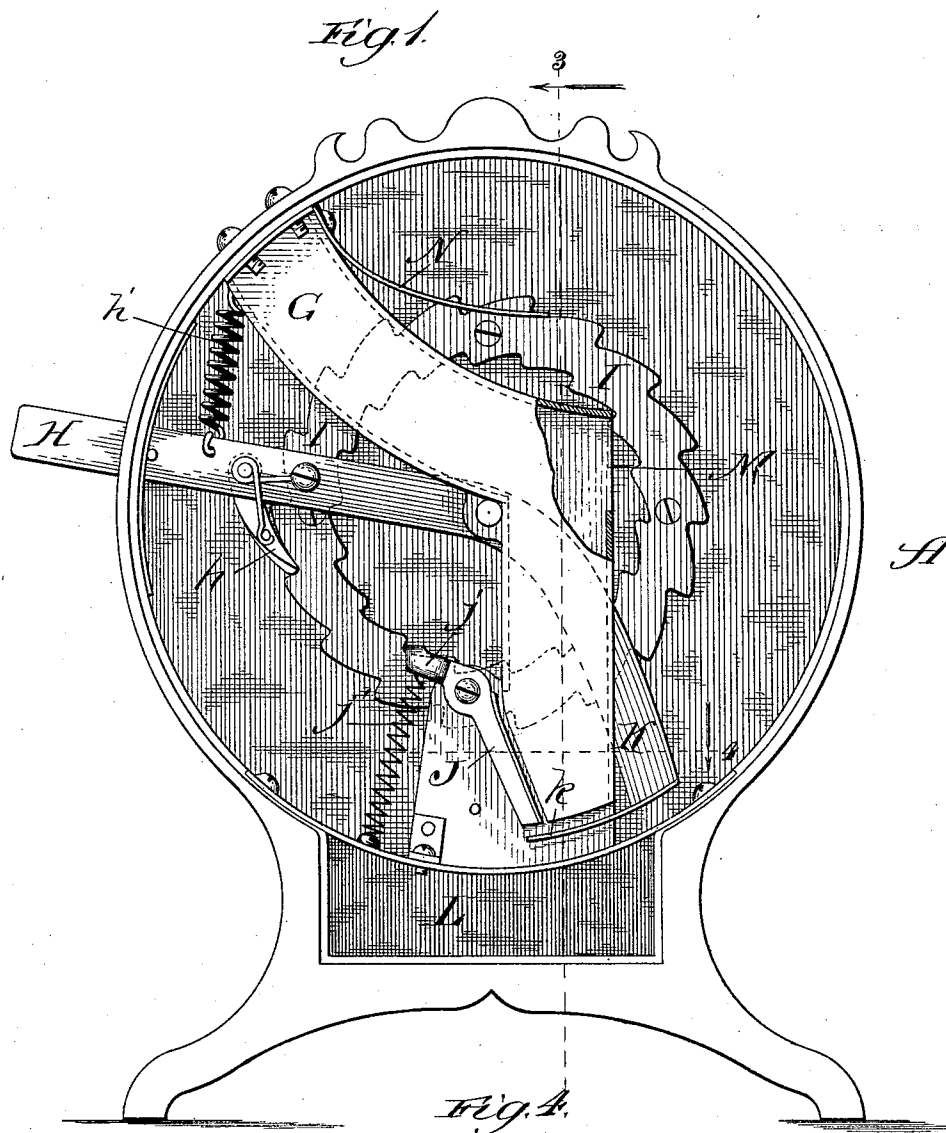
(No Model.)

2 Sheets—Sheet 1.

J. M. HUNTER.
COIN OPERATED VENDING MACHINE.

No. 469,636.

Patented Feb. 23, 1892.



Witnesses:
C. E. Gaylord,
Clifford White.

Inventor:
James M. Hunter,
By Banning & Banning
Attys.

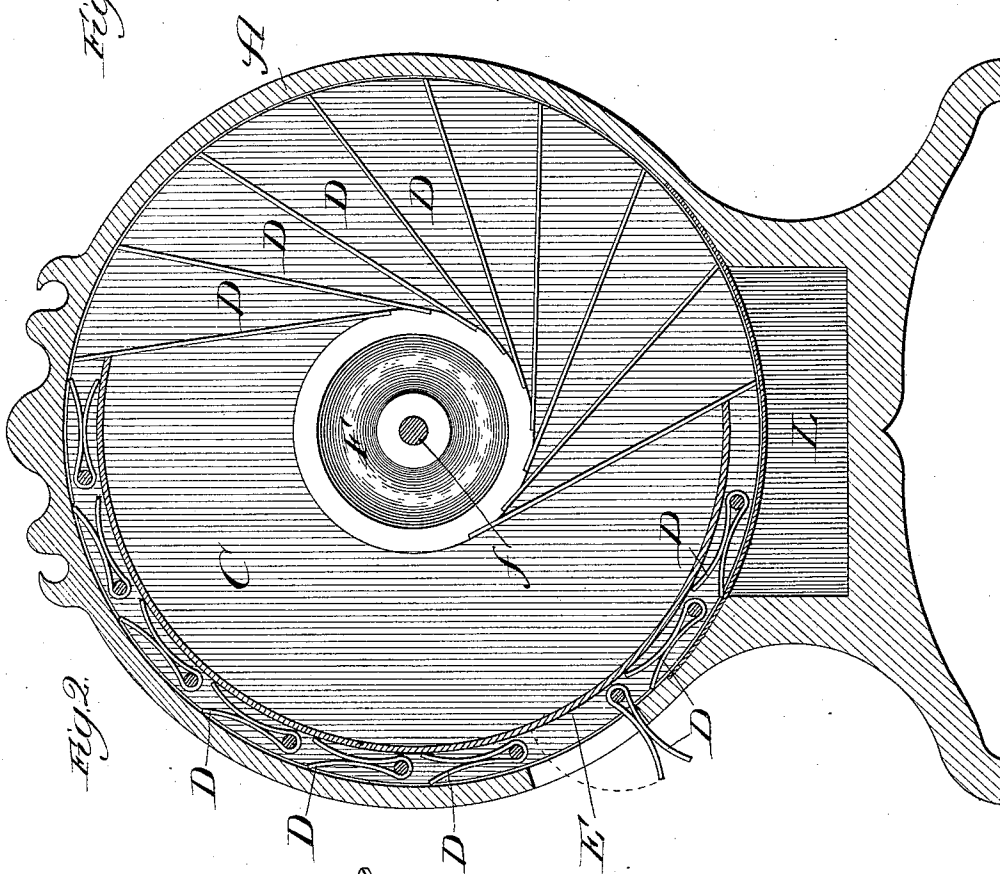
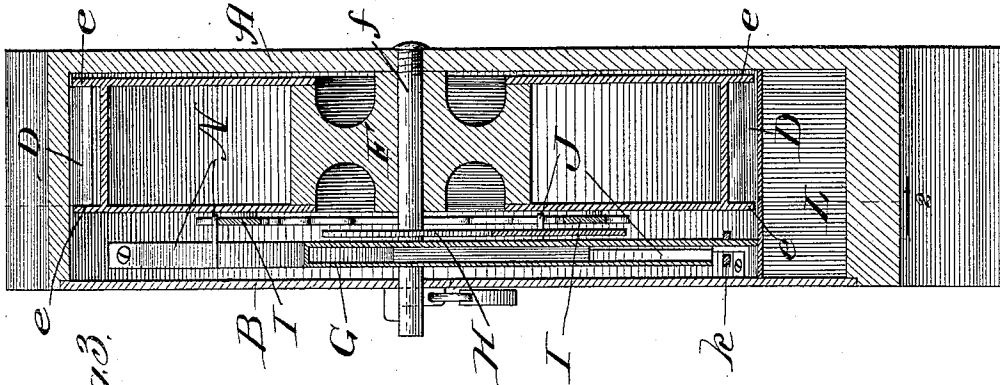
(No Model.)

2 Sheets—Sheet 2.

J. M. HUNTER.
COIN OPERATED VENDING MACHINE.

No. 469,636.

Patented Feb. 23, 1892.



Witnesses:
Edw. C. Gaylord,
Clifford M. White.

Inventor:
James M. Hunter.
By Benjamin J. Benjamin & Payson
Attys.

UNITED STATES PATENT OFFICE.

JAMES M. HUNTER, OF CHICAGO, ILLINOIS.

COIN-OPERATED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 469,636, dated February 23, 1892.

Application filed August 17, 1891. Serial No. 402,862. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HUNTER, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Coin-Operated Machines, of which the following is a specification.

The object of my invention is to make a machine that can be operated after inserting a coin of the desired denomination, so that articles may be delivered from the machine to the purchaser; and it consists in the features and details of construction hereinafter described and claimed.

Figure 1 is a side elevation of my coin-operated machine with the side plate removed to show the operative parts. Fig. 2 is a side elevation of a longitudinal section of the machine, taken at the point indicated by line 2 in Fig. 3, looking in the direction of the arrow. Fig. 3 is an elevation of a vertical transverse section taken in the line 3 of Fig. 1, looking in the direction of the arrow. Fig. 4 is a plan view of a section of the machine, taken in the line 4 of Fig. 1, looking in the direction of the arrow; and Fig. 5 is a perspective view of one of the parts hereinafter described.

In making my improved coin-operated machine I make an inclosing case A, in which the operative parts are intended to be arranged. The inclosing case may be of any suitable size or shape and provided with such ornamentation as may be desired. I preferably make it of cast metal, although it may be made in other ways, if desired. The inclosing case, before receiving the operating parts, is open at one side, and to close it when the parts are in place I make a plate B of the desired size and shape, which may be applied in place and fastened as preferred.

I make what may be termed a "storage" or "delivery" wheel C of appropriate size to be placed within the case A and turned or rotated therein. This storage-wheel is provided with a number of pockets or receptacles D, in which the articles intended to be sold are arranged or stored. These receptacles or pockets may be made of different shapes to suit the articles intended to be sold, or they may be made in different ways to accommodate the same article. I have shown in Fig.

2 two ways of making these pockets or receptacles. One of these consists in pivoting a number of clamps or holders around the periphery of the wheel and in a channel E, arranged in the surface of the periphery to accommodate the articles intended to be stored. In this case the pins for the clamps or holders are passed through the flanges *e*. (Shown particularly in Fig. 2.) They fold against the surface of the wheel, so as not to interfere with its turning or rotating in its case. When up, they hold the article intended to be sold; but when the wheel is rotated, so that the clamp comes opposite to the delivery-orifice, it will fall down to deliver the article, as shown in Fig. 2. As the wheel turns or rotates, after the article has been delivered, the clamp or holder will again be folded into its place and pass around within the inclosing case. The other pockets or receptacles that I have shown consist of a number of recesses extending in from the periphery of the wheel as deep as desired to accommodate the article intended to be sold. When these recesses, which are preferably tangential, come around to the delivery-aperture, the lower surface will incline downward, so that the articles will be delivered with facility to the purchaser. I will say, however, that as the pockets or receptacles D may be made in various ways, of which I have illustrated two forms, I do not desire to limit myself to any particular form of pocket or receptacle in the storage-wheel, except so far as I specifically mention such form in my claims. The wheel is mounted on a hub F, which is held in place by a pin or shaft *f*, on which it may rotate.

In order to put the machine into condition to be operated by a coin of the desired denomination, I arrange a way or chute G, opening out through the inclosing case, into which a coin of appropriate size may be dropped. This chute or way is shown particularly in Fig. 1. It extends backward and inward a desired distance and preferably beyond the center of the storage-wheel, when it is turned and carried downward in substantially a vertical direction. On the shaft *f* I mount a lever H, extending out through an appropriate slot in the inclosing case, so that it may be taken hold of and operated by the purchaser. I make a double-ratchet ring I, containing op-

positely-arranged ratchet-teeth on its inner and outer surfaces. I attach or fasten this ratchet-ring by screws or other appropriate means to the side of the storage-wheel, so that it will be fast thereto and turn or rotate the wheel as it is moved. I attach a pawl *h* to the lever *H*, engaging with the ratchet-teeth on the outside of the ring and held in contact with the surface of the ring by means of a spring or other appropriate means, so that as the lever *H* is moved downward by a purchaser it will move the ratchet-ring and storage-wheel the extent of one tooth. Every such movement is intended to bring one of the pockets or receptacles into proper position to the delivering-aperture to deliver the article contained in it to the purchaser. A spring *h'* restores the lever again to its proper place as soon as the pressure on its end is removed. As it is released and moves up again to place it will bring the pawl *h* into position to engage with the next succeeding tooth on the outside of the ratchet-ring.

To prevent the lever from being operated, so as to turn the ratchet-ring and the storage-wheel around, as above described, until a coin of the predetermined denomination has prepared the parts for such operation, I arrange a lever *J* adjacent to the inner or lower end of the chute *G*. This lever is provided with a dog *j*, engaging one of the teeth on the inner side of the ratchet-ring. It is pivoted as shown in Fig. 1, and the dog is preferably held in engagement with the teeth of the inner ratchet by a light spring *j'* until moved out by the pressure of a coin. I provide the lever *H* with an extension *K*, which has a flange or lip *k* extending immediately under the inner or lower end of the chute *G*, so that as a coin passes down such chute it will strike against and rest upon the lip or flange *k*. When the coin is admitted into the chute *G*, it passes in and down along such chute until it rests upon the flange *k* and bears against the end of the lever *J*, which raises the dog *j* out of engagement with the inner ratchet-teeth on the ratchet-ring *I*. This permits the lever *H* to be depressed and the extension *K* to be thrown back or up, so as to permit the coin to drop on down into the coin-receptacle *L*. As soon as the coin has passed, the lever *J* assumes its normal position, with its dog in engagement with one of the inner teeth of the ratchet, so that the lever *H* cannot be again operated or the storage-wheel turned until another coin has been introduced.

To prevent the machine from being operated by coins of too small a denomination, I provide the chute or way *G* with an opening *M* at the point in its course where it turns downwardly, so that if the coin be of a smaller denomination than intended to operate the machine it will run out through such opening *M* and fall down into the coin-receptacle. In case, however, it should pass or fail to go through the opening *M*, I arrange the lip or flange *k* a sufficient distance from the side of

the chute to enable the coin to slip or pass through into the coin-receptacle without operating the lever *J*. This space is of course not sufficient to enable a coin of the denomination intended to operate the machine to pass through, but only coins which are of less thickness than the predetermined or desired size.

To prevent the storage-wheel from being turned in an improper or reverse direction, I prefer to arrange a spring-catch *N* to engage the teeth and always prevent the improper reverse rotation of the storage-wheel. Of course it will be understood that after the parts are arranged in place and ready for operation, the face or plate *B* will be arranged and secured in place, and that proper facilities will be employed to gain access to the coin-receptacle when it is desired to remove the coin and keep it locked at other times.

What I regard as new, and desire to secure by Letters Patent, is—

1. In a coin-operated machine, the combination of a storage-wheel, a ratchet-ring turning the storage-wheel as it is rotated, means for holding the ratchet-ring and storage-wheel from rotating until released by a coin, means for rotating the ratchet-ring and storage-wheel when released, and an inclosing case in which the storage-wheel is arranged, provided with a delivery-orifice in its circumference below a horizontal line through the axis of the wheel, whereby an article will be delivered from the storage-wheel by gravity, substantially as described.

2. In a coin-operated machine, the combination of a storage-wheel, a ratchet-ring provided with oppositely-arranged sets of ratchet-teeth, means engaging with one of the sets of ratchet-teeth for holding the ratchet-ring and storage-wheel from rotation until released by a coin, means engaging the opposite set of ratchet-teeth for rotating the ring and storage-wheel when released, and an inclosing case in which the storage-wheel is arranged, provided with a delivery-orifice in its circumference below a horizontal line through the axis of the wheel, whereby an article will be delivered from the storage-wheel by gravity, substantially as described.

3. In a coin-operated machine, the combination of a storage-wheel, a ratchet-ring turning the storage-wheel as it is rotated, a pawl for holding the ratchet-ring and storage-wheel from rotation until released by a coin, a coin-chute carrying a coin into position to raise the pawl to release the ratchet-ring and storage-wheel, a pawl for rotating the ratchet-ring and storage-wheel when released, and an inclosing case in which the storage-wheel is arranged, provided with a delivery-orifice in its circumference below a horizontal line through the axis of the wheel, whereby an article will be delivered from the storage-wheel by gravity, substantially as described.

4. In a coin-operated machine, the combination of a storage-wheel, a ratchet-ring turn-

ing the storage-wheel as it is rotated, a pawl
for holding the ratchet-ring and storage-wheel
from rotation until released by a coin, a coin-
chute carrying a coin into position to raise
5 the pawl to release the ratchet-ring and stor-
age-wheel, a lip or flange holding the coin in
position to release the pawl, a pawl for rotat-
ing the ratchet-ring and storage-wheel when
released, and an inclosing case in which the
10 storage-wheel is arranged, provided with a de-
livery-orifice in its circumference below a hori-
zontal line through the axis of the wheel,
whereby an article will be delivered from the
storage-wheel by gravity, substantially as de-
15 scribed.

5. In a coin-operated machine, the combi-
nation of a storage-wheel, a ratchet-ring turn-
ing the storage-wheel as it is rotated, a coin-
chute of elbow form carrying a coin of the
right denomination into the desired position 20
and provided with an opening at the elbow
for the escape of a coin of less than the pre-
determined size without operating the mech-
anism, and a pawl for rotating the ratchet-
ring and storage-wheel when released, sub- 25
stantially as described.

JAMES M. HUNTER.

Witnesses:

SAMUEL E. HIBBEN,
JULIUS MOSES.