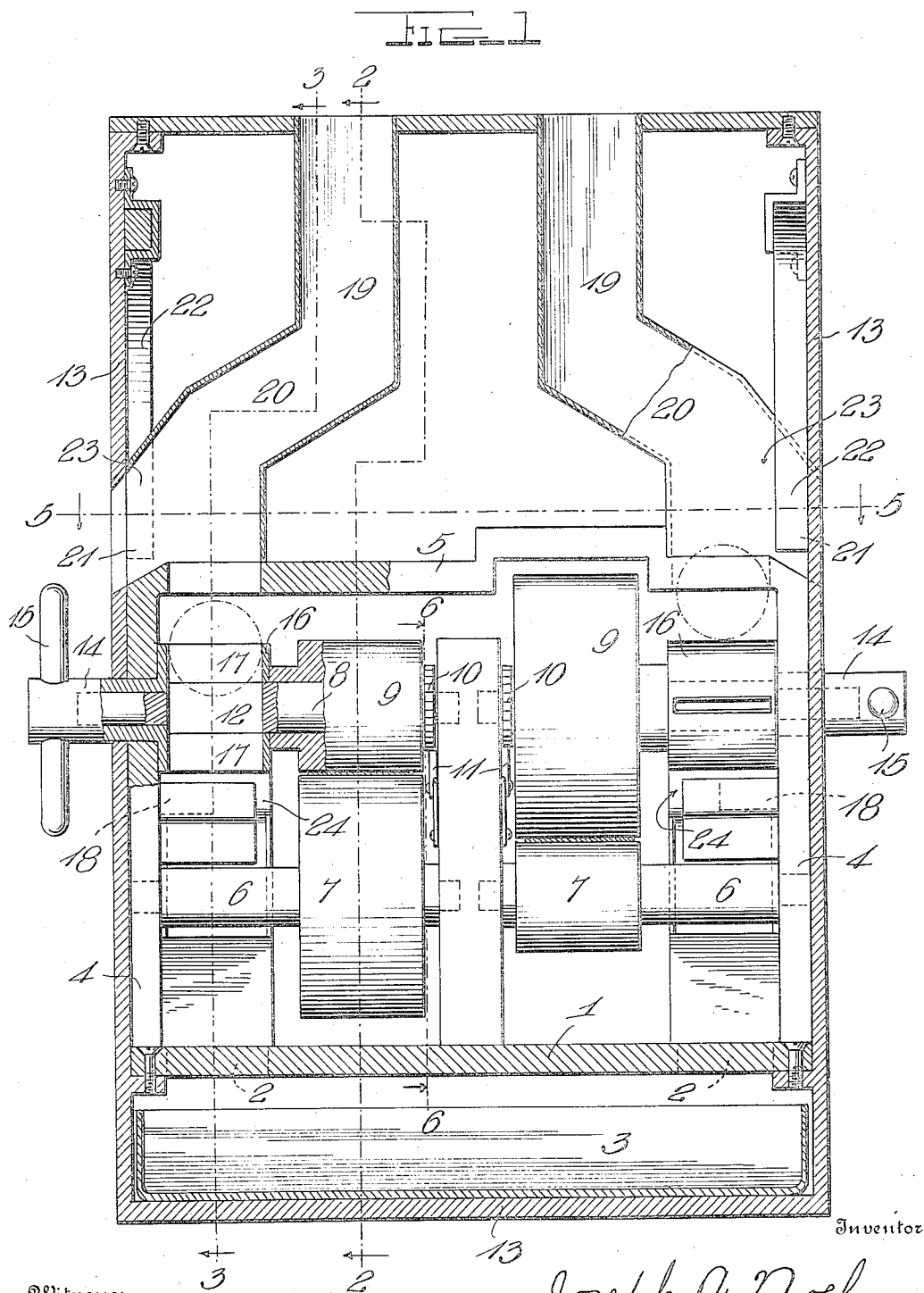


J. A. NOEL.
 VENDING MACHINE.
 APPLICATION FILED JUNE 9, 1911.

1,042,254.

Patented Oct. 22, 1912.

3 SHEETS—SHEET 1.



Witnesses

E. Gardner
J. K. Gardner

By

Joseph A. Noel.
William W. Deane
 his Attorney

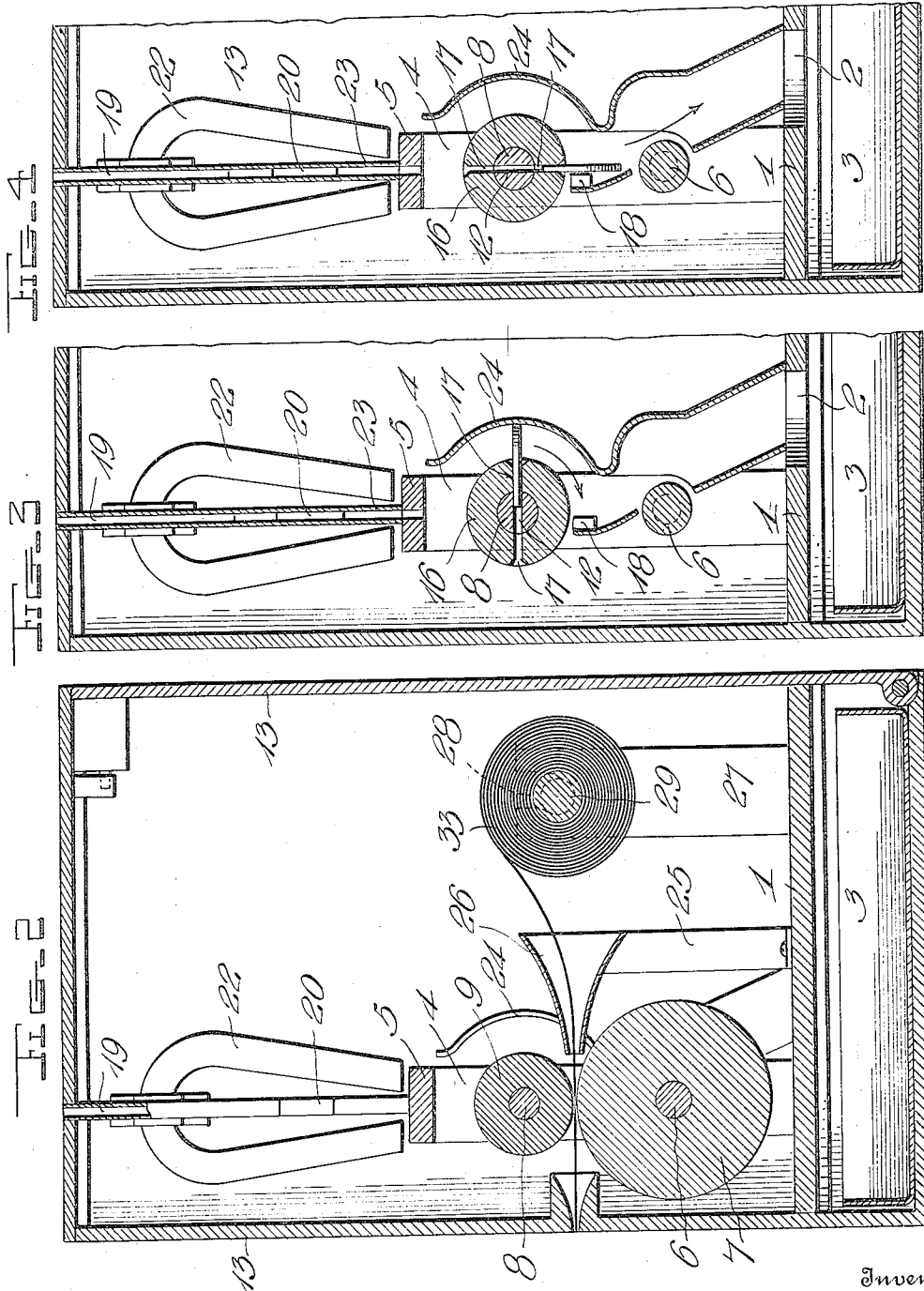
Inventor

1,042,254.

J. A. NOEL.
VENDING MACHINE.
APPLICATION FILED JUNE 9, 1911.

Patented Oct. 22, 1912.

3 SHEETS—SHEET 2.



Witnesses

Witnesses
V. K. Gardner,

Joseph A. Noel.
By *William W. Deane.*
his Attorney

J. A. NOEL.
 VENDING MACHINE.
 APPLICATION FILED JUNE 9, 1911.

1,042,254.

Patented Oct. 22, 1912.

3 SHEETS—SHEET 3.

FIG. 5

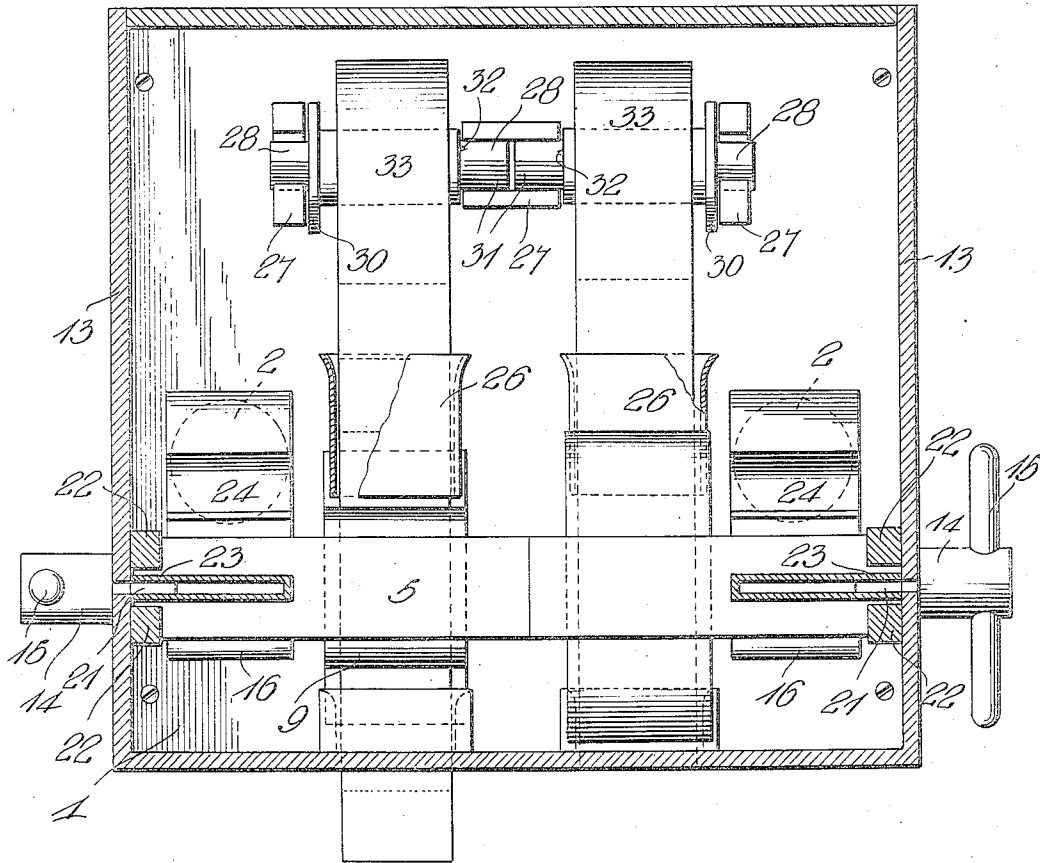


FIG. 7

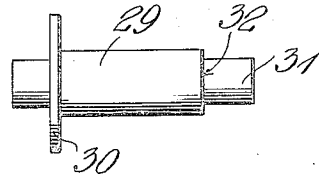
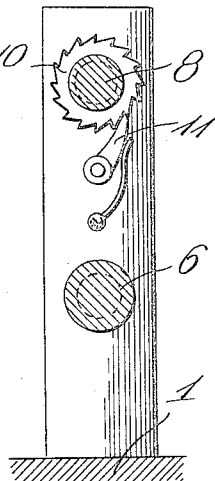


FIG. 6

Witnesses

E. J. Gardner
J. K. Gardner



Inventor
Joseph A. Noel.
 By *William W. Deane.*
 his Attorney

UNITED STATES PATENT OFFICE.

JOSEPH A. NOEL, OF LOGANSFORT, INDIANA.

VENDING-MACHINE.

1,042,254.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed June 9, 1911. Serial No. 632,286.

To all whom it may concern:

Be it known that I, JOSEPH A. NOEL, a citizen of the United States, residing at Logansport, in the county of Cass and State of Indiana, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to vending machines, and has for its object to provide a simple and accurate mechanism for dispensing stamps and similar articles which may be placed in the machine in the form of rolls and which are taken from the same in sections.

The machine is of the coin operated type, that is to say, a coin of proper denomination is adapted to coöperate with the operating parts of the machine to effect the delivery of the stamps, and after the coin has performed its function in this respect it is released from the coöperating parts of the machine and is permitted to gravitate into a receptacle provided for its reception.

The machine is provided with fraud detecting and fraud preventing features which will be explained in detail hereinafter.

With these objects in view the machine includes a coin chute of prescribed dimensions adapted to snugly receive the proper coin or coin of predetermined denomination. This chute will permit coins smaller than the proper coin to pass through the same and out of the machine without operating the same when the improper coins are susceptible to the action of a magnet, but if the said coins do not possess this quality they pass down into the machine and deposit in the coin receptacle without operating the machine. As has been intimated a magnet is located adjacent an outlet provided in the coin chute and slugs or coins which are affected by the magnet are drawn out of the chute through the said opening and are thereby prevented from coming in contact with the stamp delivery mechanism of the machine.

The stamp delivery mechanism includes rolls between which the tape or strip of stamps is trained and the shaft of one of these rolls is provided with a slot which is adapted to snugly receive the coin of proper denomination, and a handle operated roller receives the slotted portion of the said shaft and in turn is provided with a slot adapted to snugly receive the coin of proper denomi-

nation from the coin chute. When the slots of the shaft and the roller come into register the coin enters the slots of both of these parts, whereby the said parts are rendered fixed with relation to each other and the rotation of the roller will cause the shaft to rotate whereby the strip of stamps is moved between the rolls to a predetermined extent. Means is provided for preventing reverse rotation of the roll and other means is provided for holding the coin within the slot during the proper degree of rotation of the shaft of the actuating roll. After this has been accomplished the coin is permitted to drop into the coin receptacle as hereinbefore stated.

The strip or tape of stamps when placed in the machine is in the form of a roll and mounted upon a journaled spindle within the casing of the machine and which is threaded through a guide prior to being passed between the said rolls.

In the accompanying drawings:—Figure 1 is a vertical transverse section, taken on a line with the coin chutes; Fig. 2 is a longitudinal vertical section on the line 2—2 of Fig. 1; Fig. 3 is a similar view, taken on the line 3—3 of Fig. 1, with the parts in operative positions; Fig. 4 is a similar view, showing the coin about to be discharged into the receptacle; Fig. 5 is a horizontal section on the line 5—5 of Fig. 1; Fig. 6 is a detail vertical section on the line 6—6 of Fig. 1; and Fig. 7 is a detail view of one of the tape receiving rollers.

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

The operating mechanism of the machine is mounted upon a base 1 which is provided with a coin opening 2 and below which is located a coin receptacle 3. In the present instance the stamp delivery mechanism is in duplicate, but with the exception that the rolls thereof differ in diameter they are both alike and consequently a description of one will answer for both.

Standards 4 are mounted upon the base 1 and a cross bar 5 connects the outermost standards 4 together. A shaft 6 is journaled between two of the adjacent standards 4 and is provided with a fixed roll 7. The shaft 6 is journaled in the lower portions of the said standards. A shaft 8 is jour-

naled between the upper portions of the said standards and is provided with a fixed roll 9, the lower portion of the periphery of which is in close contact with the upper portion of the periphery of the roll 7. A ratchet wheel 10 is fixed to the inner end of the shaft 8 and a spring-backed pawl 11 is pivoted upon the intermediate standard 4 and engages the teeth of the ratchet wheel 10 and holds the same together with its attached shaft against reverse rotation. The shaft 8 is provided at its outer portion with a coin slot 12 which extends diametrically through the said shaft. The stamp delivery mechanism and the stamp roll supporting mechanism are disposed within a casing 13 which may be of any suitable design or pattern.

A stub shaft 14 is journaled in the outermost standards 4 and projects through the side of the casing 13 and is provided at its outer end with a handle 15. At its inner end and within the adjacent outermost standard 4 the stub shaft 14 is provided with a roller 16 having in its opposite sides slots 17 which are adapted to register at times with the slot 12 provided in the shaft 8. This roller 16 is hollow and is journaled upon the outer end portion of the shaft 8. The distance from the periphery of the solid portion of the roller 16 to the cross bar 5 is less than the diameter of a five cent piece generally referred to as a nickel but is greater than the diameter of a one cent piece or smaller coin. A coin abutment 18 is attached to the inner surface of the adjacent outermost standard 4 and is located between the shafts 6 and 8 at a point above the coin opening 2 in the base 1. A coin chute 19 is mounted upon the cross bar 5 and at its upper end opens through the top of the casing 13. The delivery end of the coin chute 19 is located directly above the roller 16 and when one of the slots 17 of the said roller is positioned directly below the delivery end of the chute 19, the said slot may receive a coin from the said chute. The chute 19 is provided with a downwardly and outwardly inclined intermediate section 20 which is provided at its lower end and in alinement with its longitudinal dimension with an outlet opening 21. A magnet 22 is located within the casing 13 adjacent the opening 21 but the said opening is surrounded by a chute 23 which passes through the side of the said casing.

It has been hereinbefore stated that the slots 12 and 17 snugly receive a coin of proper denomination when they are in register, but the said slots are not of sufficient length to permit such a coin to pass through the same but the coin may lodge in them so that the shaft 8 and the stub shaft 14 are temporarily fixed with relation to each

other. A coin guide 24 Figs. 2-5 is mounted upon the base 1 and is spaced at a proper interval from the periphery of the roller 16, and when a coin is received within the slots 12 and 17 as above indicated the said guide will hold the coin therein while it is being turned in a downward direction until the shaft 8 has described one-half of a revolution. When this occurs the coin will either drop out of the slots 12 and 17 and pass through the opening 2 in the base or will come in contact with the coin abutment 18 and check the rotation of the shaft 8 and stub shaft 14. The force of impact between the coin and the said abutment will be sufficient to dislodge the coin from the said slots and the coin will drop down through the opening 2 in the base 1 into the receptacle 3. This coin is first introduced in the upper end of the coin chute 19 and inasmuch as it is composed of nickel it is not influenced or affected by the magnet 22, but will roll down along the inclined section 20 of the chute 19 and pass through the lower portion of the said chute and fall with its lower portion resting upon the periphery of the roller 16. Then as the said roller is turned by one manipulating the handle 15 the coin will fall through one of the slots 17 when it is brought below the lower edge of the coin and the lower portion of the coin will project into the slot 12 in the shaft 8. The opposite edge portions of the coin will come in contact with the ends of the slot 17, whereby the upper portion of the coin is held projected beyond the periphery of the roller 16 but will fall below the lower surface of the cross bar 5. It is this projecting edge portion of the coin that comes in contact with the coin guide 24 which holds the coin in position in the slot as hereinbefore described during the time that the shafts 8 and 14 rotate in unison.

Standards 25 are mounted upon the base 1 and support at their upper ends strip or tape guides 26. These guides have their delivery ends disposed between the meeting edge portions of the rolls 7 and 9. Standards 27 are also mounted upon the base 1 and are provided at their upper ends with open bearings 28. A shaft 29 is loosely journaled in the bearings 28 and is provided at one end portion with a collar 30 which is adapted to bear against the side of one of the standards and restrain the said shaft against longitudinal movement in one direction. At its other end the shaft 29 is reduced diametrically as at 31 forming a shoulder 32 which bears against the side of the other standard and restrains the said shaft against longitudinal movement in the opposite direction. The stamps in the form of a strip or tape are rolled and slipped upon the shaft 29 as at 33, then the end of

the said strip or tape is threaded through the guides 26 and is passed between the meeting peripheral portions of the rolls 7 and 9.

5 The arrangement of the parts of the machine as shown is such as to deliver stamps of two denominations, namely ones and twos, and the relative diameters of the rolls 7 and 9 which deliver the ones is such that
10 four stamps will be passed out of the casing 13 when a nickel has been placed in the machine and the stub shaft 14 has been operated as indicated. Thus the machine makes a profit of one cent. The relative
15 diameters of the rolls which deliver the two cent stamps is such that two of the said stamps will be passed out of the machine when a nickel has been deposited therein and the stub shaft operated, thus making a
20 profit of one cent on this transaction. When the stamps are passed out of the casing they are torn off from the strip or tape at the opening in the casing through which they pass, thus leaving the end portion of
25 the said strip or tape in the said opening in the casing, whereby the said strip remains threaded in the said opening and may readily pass through the same at the next operation. Therefore it will be seen that
30 a simple and an effective machine is provided for dispensing stamps of different denominations and that the said machine is protected against fraudulent practices and

the arrangement of parts is such that a compact assemblage is effected.

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

In a coin-operated vending machine, the combination of a shaft having a diametrical slot therethrough adapted to receive a part
40 of a coin, a hollow roller loosely surrounding the slotted portion of said shaft and having at diametrically opposite points longitudinal slots of a less length than the diameter of a predetermined coin; said slots
45 of the hollow roller being adapted to be put in registration with the slot of the shaft, the slots when in registration being adapted to receive and hold the coin with a portion thereof projecting beyond the periphery of
50 the roller, a coin chute the discharge end of which is disposed above the vertical center of the slotted shaft and hollow and slotted roller, a stationary coin guide curved conformably to the periphery of the slotted and
55 hollow roller, and a coin abutment located below the hollow and slotted roller and in the path of movement of the projecting portion of the coin.

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

JOSEPH A. NOEL.

Witnesses:

B. F. LONG,
P. M. SOUDER.