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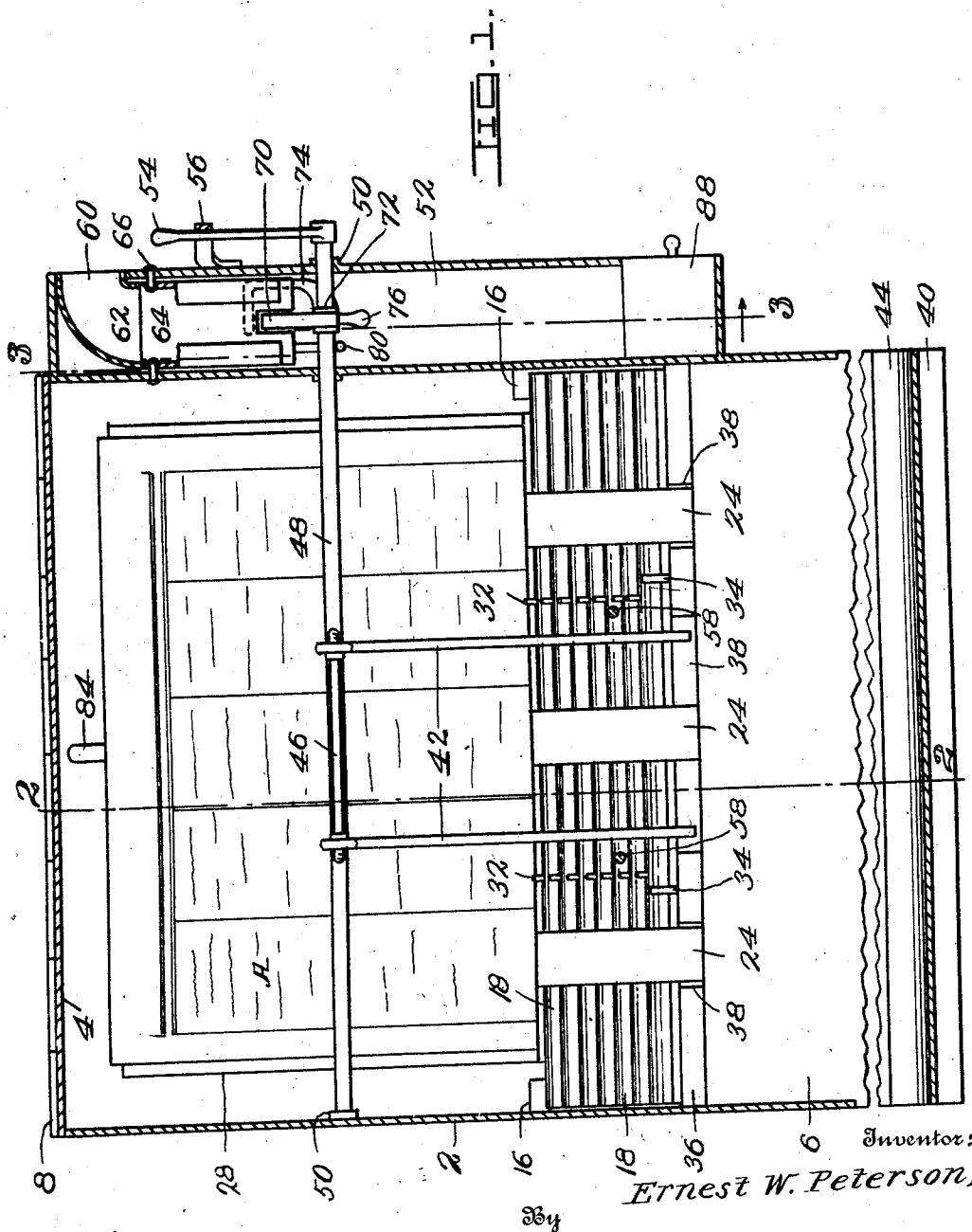
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E. W. PETERSON

VENDING MACHINE

Filed Feb. 5, 1927

2 Sheets-Sheet 1



Witness:
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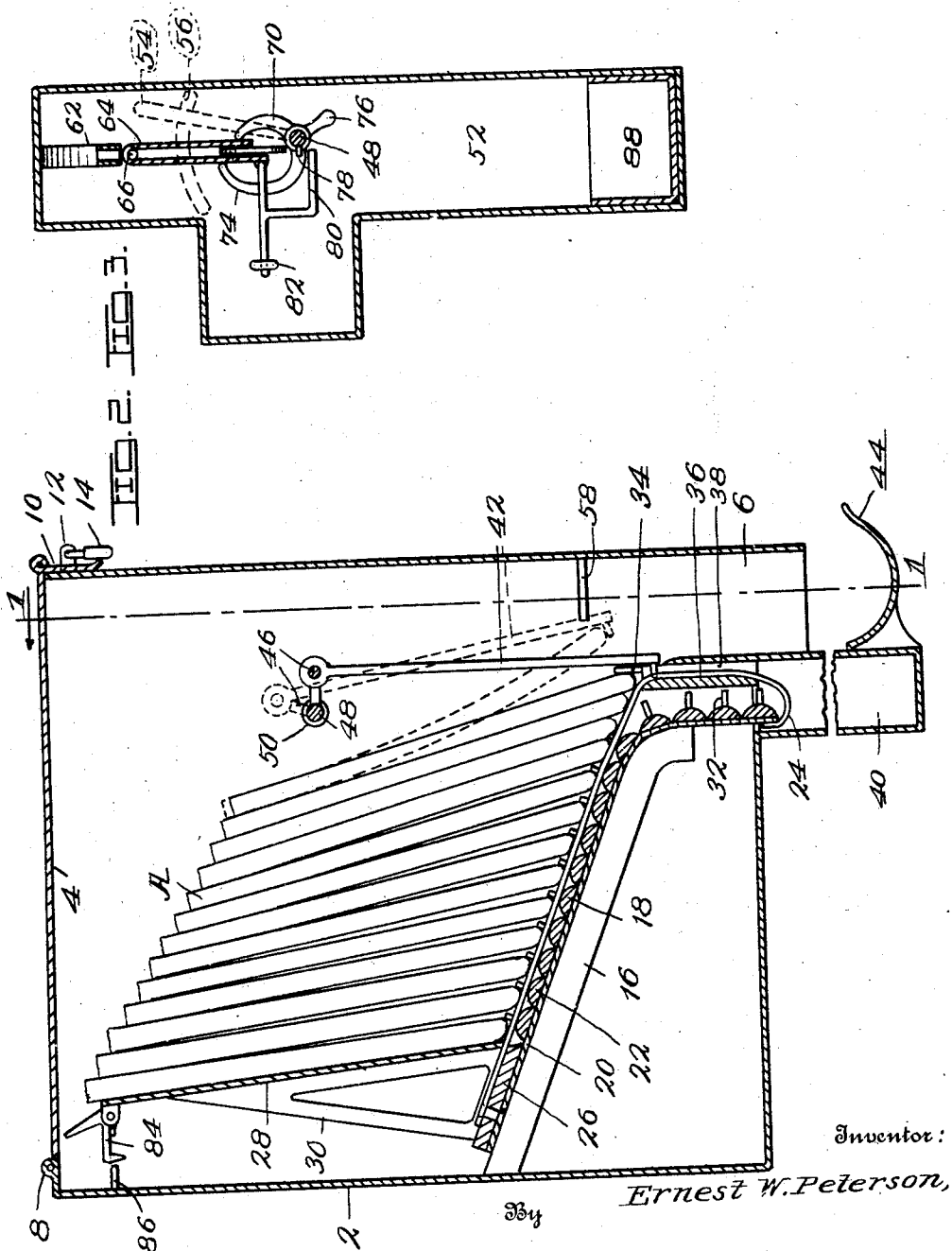
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UNITED STATES PATENT OFFICE.

ERNEST W. PETERSON, OF KANSAS CITY, MISSOURI.

VENDING MACHINE.

Application filed February 5, 1927. Serial No. 166,161.

My invention relates more particularly to machines for vending newspapers, magazines, and like articles of merchandise, and my object is to provide a relatively simple and inexpensive machine of this character which is positive in operation and not likely to get out of order.

One feature of the invention resides in a conveyer which operates by the force of gravity in successively carrying the articles in position for delivery, thereby avoiding the necessity of springs or other mechanisms for actuating said conveyer.

Other features will hereinafter appear and in order that the invention may be fully understood reference will now be had to the accompanying drawings, in which:

Fig. 1 is a broken vertical section of the machine on line 1—1 of Fig. 2, with some of the newspapers removed.

Fig. 2 is a broken vertical cross section of the machine on line 2—2 of Fig. 1.

Fig. 3 is an irregular vertical section on line 3—3 of Fig. 1 showing a portion of the coin controlled mechanism.

In carrying out the invention, I employ a case 2 provided at its upper portion with a lid 4 and at its lower forward portion with a delivery chute 6. The lid 4 is operably connected at its rear portion to the case 2 by a hinge 8 and provided at its forward portion with a hasp 10 adapted to be secured in position over a staple 12 by suitable means such as a padlock 14.

16 designates a pair of rails which are secured to the inner side walls of the case 2 and inclined forwardly and downwardly towards the delivery chute 6.

18 designates a conveyer adapted to travel downwardly upon the rails 16 by the force of gravity and carry the newspapers A toward the delivery chute 6. The conveyer 18 consists of an apron 20, a series of wooden or other suitable slats 22 secured to said apron 20, and straps 24 secured at their lower ends to the lower end of the apron 20. The upper ends of the apron 20 and the straps 24 are secured to the transverse portion 26 of a follower 28 embodying one or more brackets 30 which add rigidity to said follower. Each slat 22 is provided with pins 32, which project above the upper surfaces of the straps 24 and prevent the newspapers A from accidentally sliding towards the delivery chute 6.

Abutments 34, preferably in the form of

two pins, coact with the pins 32 in preventing the newspapers from accidentally slipping downwardly upon the straps 24. The pins 34 project vertically from the top of a guide 36 extending across the lower portion of the case 2 and located at the rear of the delivery chute 6 and in front of the pins 32. The guide 36 lifts the lower portions of the straps 24, together with the successive newspapers A above the pins 32, and has vertical channels 38 through which said straps 24 pass downwardly into a pocket 40, which depends from the lower front portion of the case 2 for the reception of the conveyer 18 as the same moves downwardly.

42 designates a pair of lifting members for raising the newspapers A one by one above the abutment 34 and dropping them into the delivery chute 6 where they descend upon a tray 44 fixed to the lower forward portion of the pocket 40. The lifting members 42 are pivotally suspended from a crank 46, which is fixed to a rock-shaft 48 journaled in bearings 50 and having one end extending through a compartment 52 fixed to one side of the case 2. The outer end of the rock-shaft 48 is provided with and actuated by a handle 54, the movement of which is limited by a segment 56 secured to the adjacent side of the compartment 52.

58 designates releasing elements preferably in the form of pins projecting rearwardly from the inner portion of the front wall of the case 2 for the purpose of pushing each paper from the lifting members 42.

The compartment 52 is provided at its upper portion with a coin slot 60 which communicates with a stationary upper section 62 of a coin chute including said stationary section 62 and a swingable lower section 64, which latter is mounted upon pivots 66 and extends downwardly in the rear of a front arm 70 fixedly mounted upon a hub 72 provided with a rear arm 74 and a counterweight 76.

The rock-shaft 48 is provided with a stop 78 adapted to coact with a lock 80 pivotally connected at one end to the rear portion of the coin chute section 64 and slidably mounted at its opposite end in a guide 82.

In the practical operation of the machine the conveyer 18 is secured in its uppermost position by means of a fastening device 84, which is engaged in a loop 86 projecting in-

wardly from the rear wall of the case 2. The conveyer 18 is then loaded with newspapers, after which the fastening device 84 is released and the lid 4 is secured in closed position by means of the padlock 14. When a customer desires a newspaper, he inserts the proper coin such as B in the slot 60, from which it passes downwardly through the coin chute sections 62 and 64 and comes to rest upon the hub 72. The customer then grasps and pushes the handle 54 backwardly, which operation carries the front arm 70 into engagement with the coin B, and through the intermediary of the latter swings the lower section 54 of the coin chute rearwardly. As the lower section 54 swings rearwardly, it carries the lock 80 out of the path of the stop 78, permitting the shaft 48 to be rotated by the handle 54 until the lifting members 42 carry the adjacent newspaper upwardly over the abutment 34 and forwardly against the releasing elements 58, which cause the newspaper to fall through the chute 6 and onto the tray 44 where it is accessible to the customer, who then releases the handle 54. As the handle is released the weight of the lifting members 42, the crank 46, and the counterweight 76 restores the rock-shaft 48 and the handle 54 to initial position. As the arms 70 and 74 are restored to normal position by the shaft 48 the arm 70 releases its pressure upon the coin B which then drops into a cash drawer 86 at the lower portion of the compartment 52, and the arm 74 restores the swingable section 64 and the lock 80 to normal position.

When a newspaper is removed from the conveyer 18, as above stated, said conveyer moves downwardly by the force of gravity and carries the following newspaper against the abutment 34. The foregoing operation may be repeated upon insertion of proper coins until all of the newspapers have been sold.

From the foregoing description it will be understood that I have provided a vending machine embodying the advantages above pointed out, and while I have shown a pre-

ferred embodiment of the invention I reserve all rights to such changes and modifications as properly fall within the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

1. In a vending machine, a case having a delivery opening, a flexible inclined conveyer arranged to carry articles of merchandise downwardly towards said opening, and a pocket in the lower forward portion of the case for receiving the conveyer.

2. In a vending machine, a case having a delivery opening, an apron arranged to travel downwardly towards said opening, a series of slats secured to said apron, straps extending over said slats and secured to the upper and lower portions of the apron, pins projecting from said slats for holding articles of merchandise upon said slats and the straps, and guide means for causing the lower portions of the straps to carry the lowermost articles free of said pins.

3. In a vending machine, a case having a delivery opening, an inclined conveyer arranged to carry newspapers downwardly towards said opening, an abutment near the lower portion of said conveyer for checking the downward movement of the newspapers, and means for lifting the newspapers one at a time over said abutment, and pins supported by the front wall of the case for releasing the newspapers from said lifting means.

4. In a vending machine, a case having a delivery chute, a flexible inclined conveyer arranged to carry newspapers downwardly towards said chute, an abutment located near the chute for checking the downward movement of the newspapers, means for lifting the newspapers one by one over said abutment, and stationary releasing means for disengaging each newspaper from said lifting means so that it may enter the delivery chute.

In testimony whereof I affix my signature.
ERNEST W. PETERSON.