P. WESSER.

COIN OPERATED NEWSPAPER VENDING MACHINE.

APPLICATION FILED AUG. 20, 1909.

953,451. **Patented Mar. 29, 1910.**

3 SHEETS—SHEET 1.

Fig: 1.

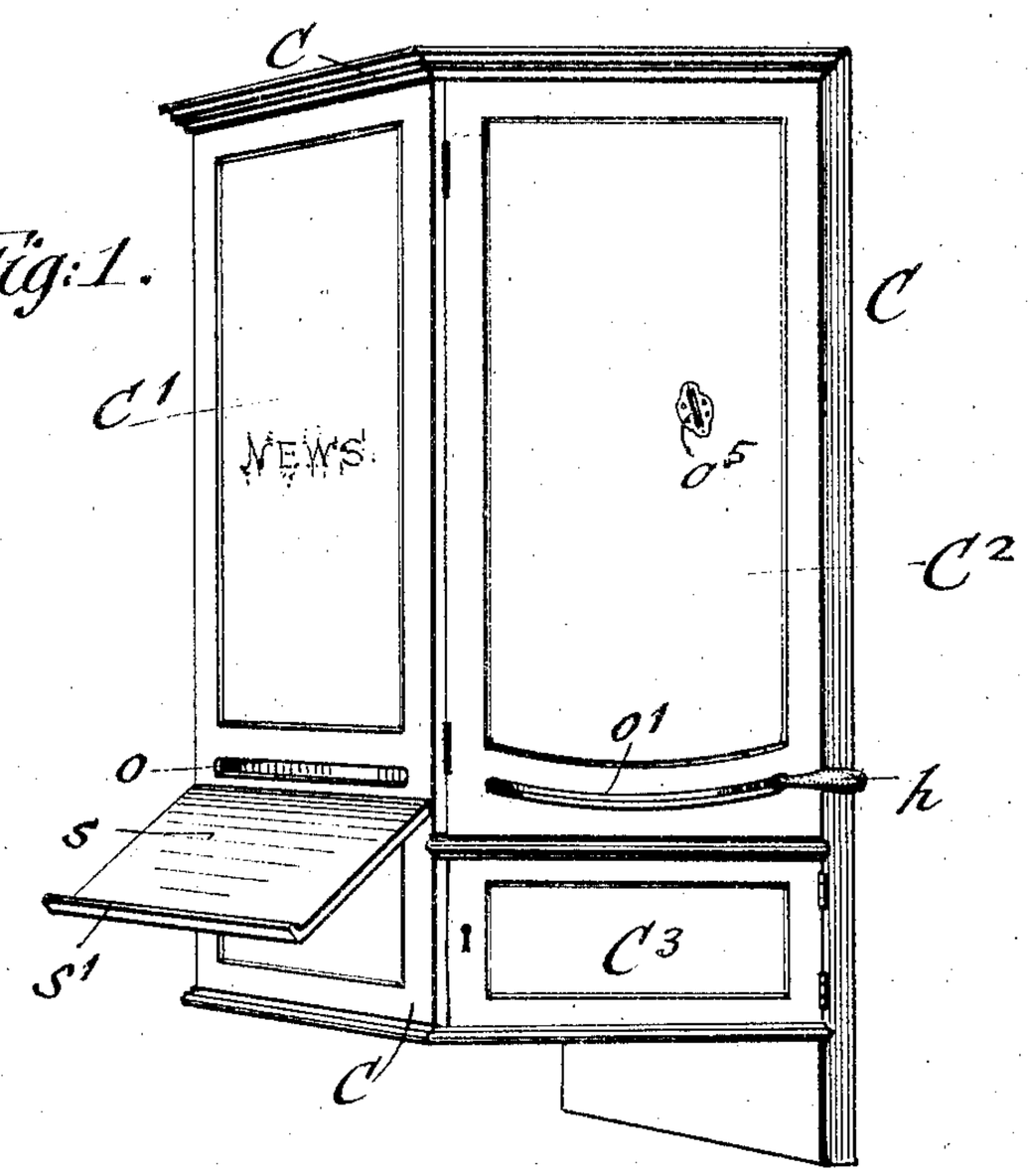
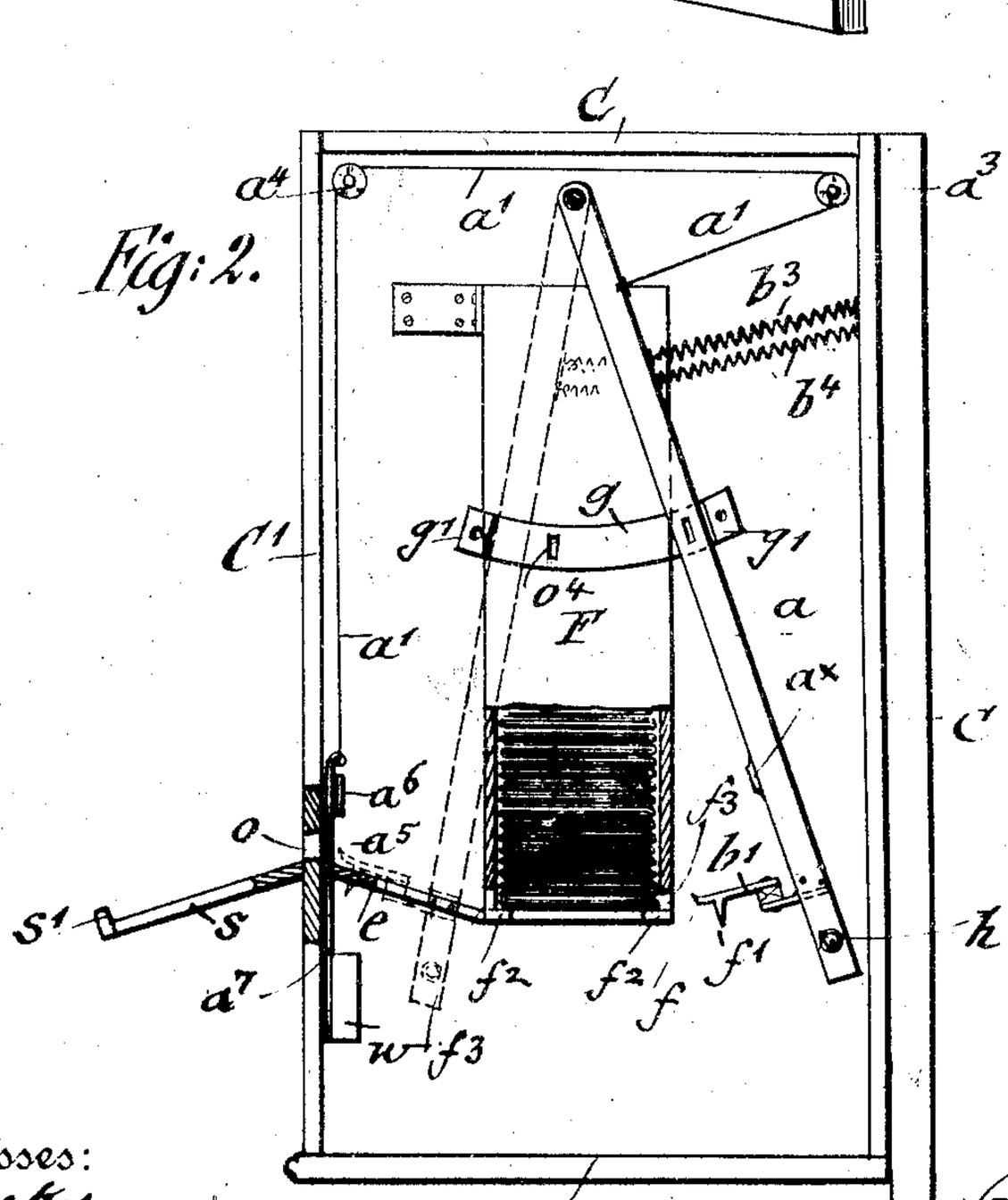


Fig: 2.



Witnesses:
S. Duckes.
J. A. Cook

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3 SHEETS—SHEET 2

Fig: 3.

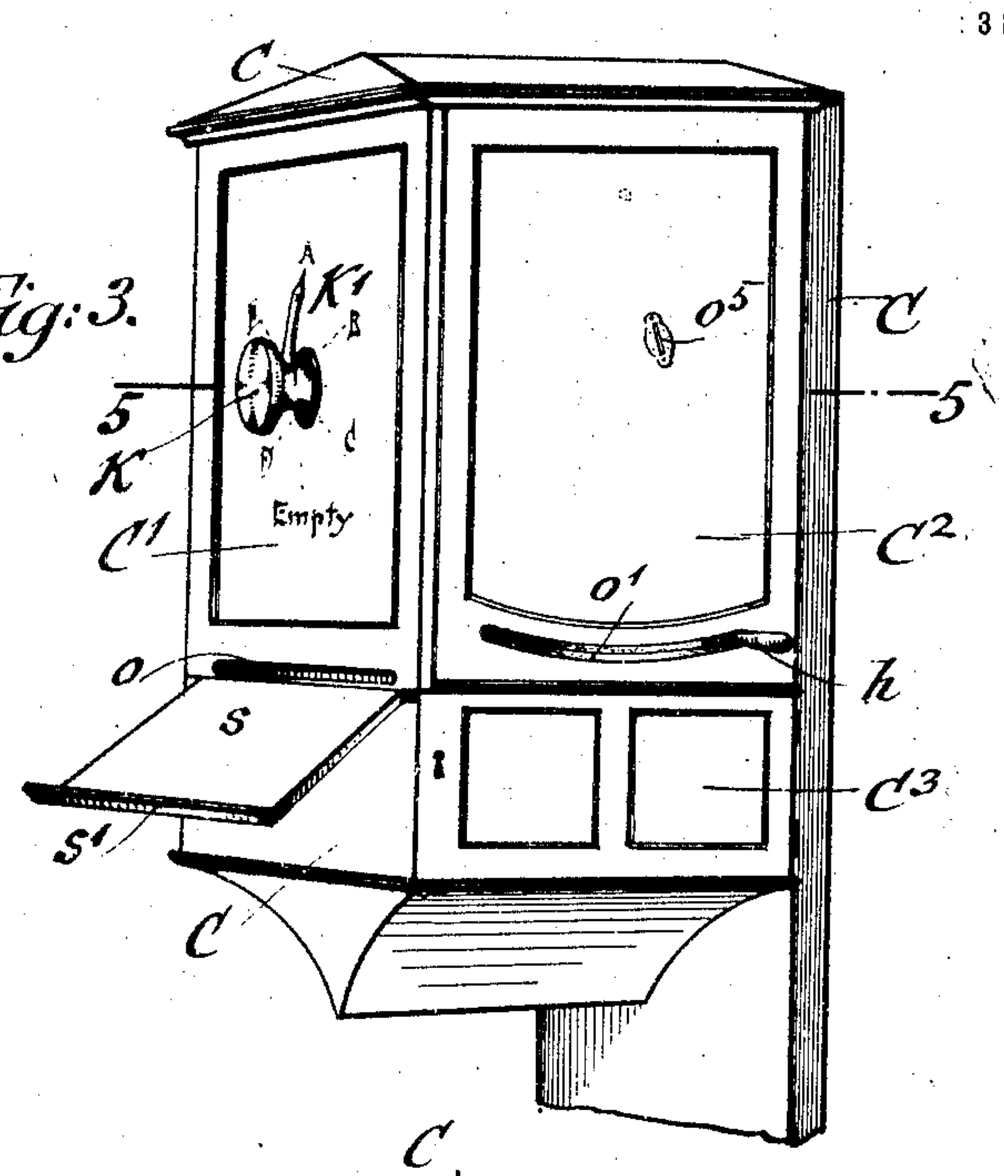
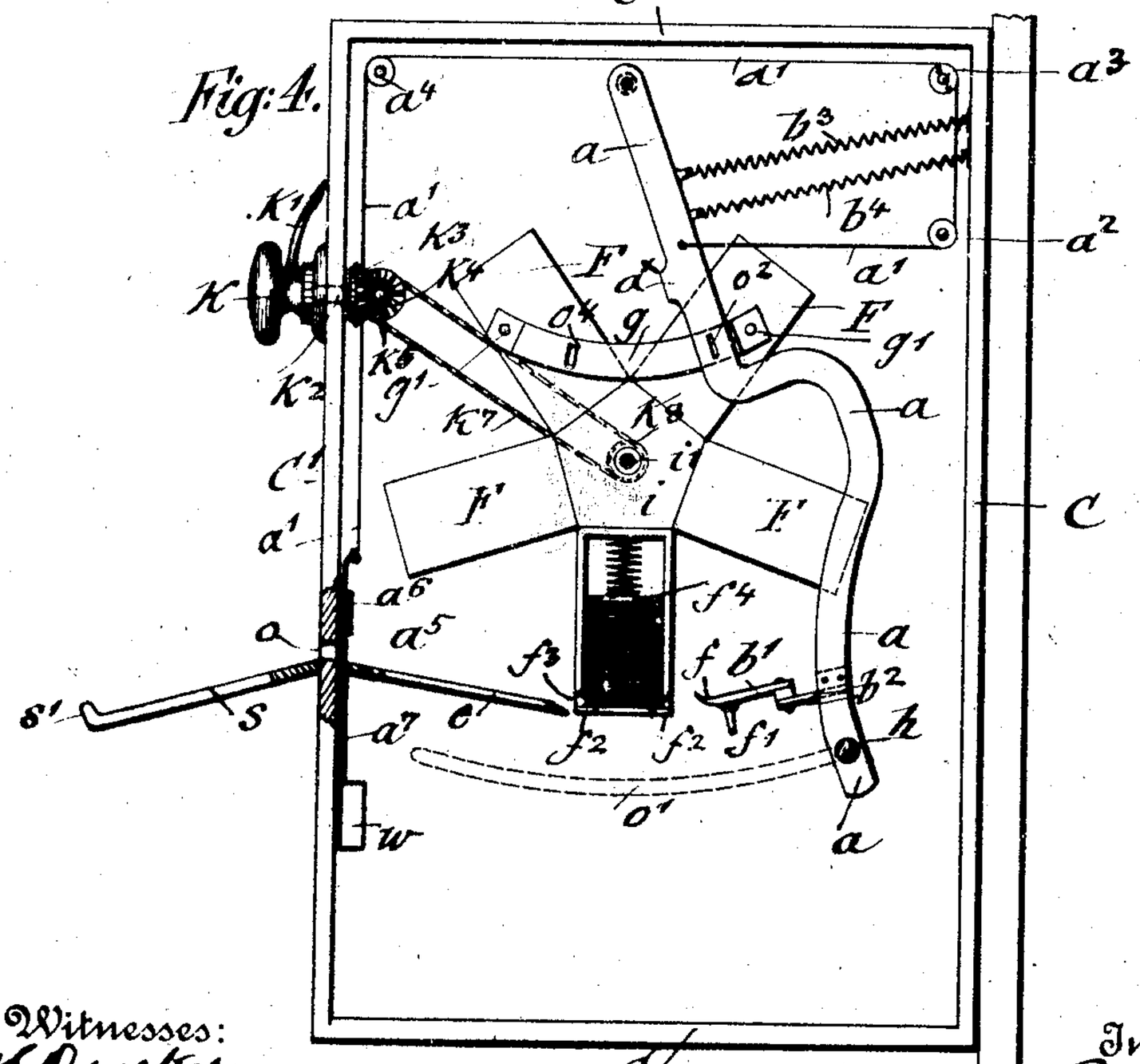


Fig: 4.



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3 SHEETS—SHEET 3.

Fig: 5.

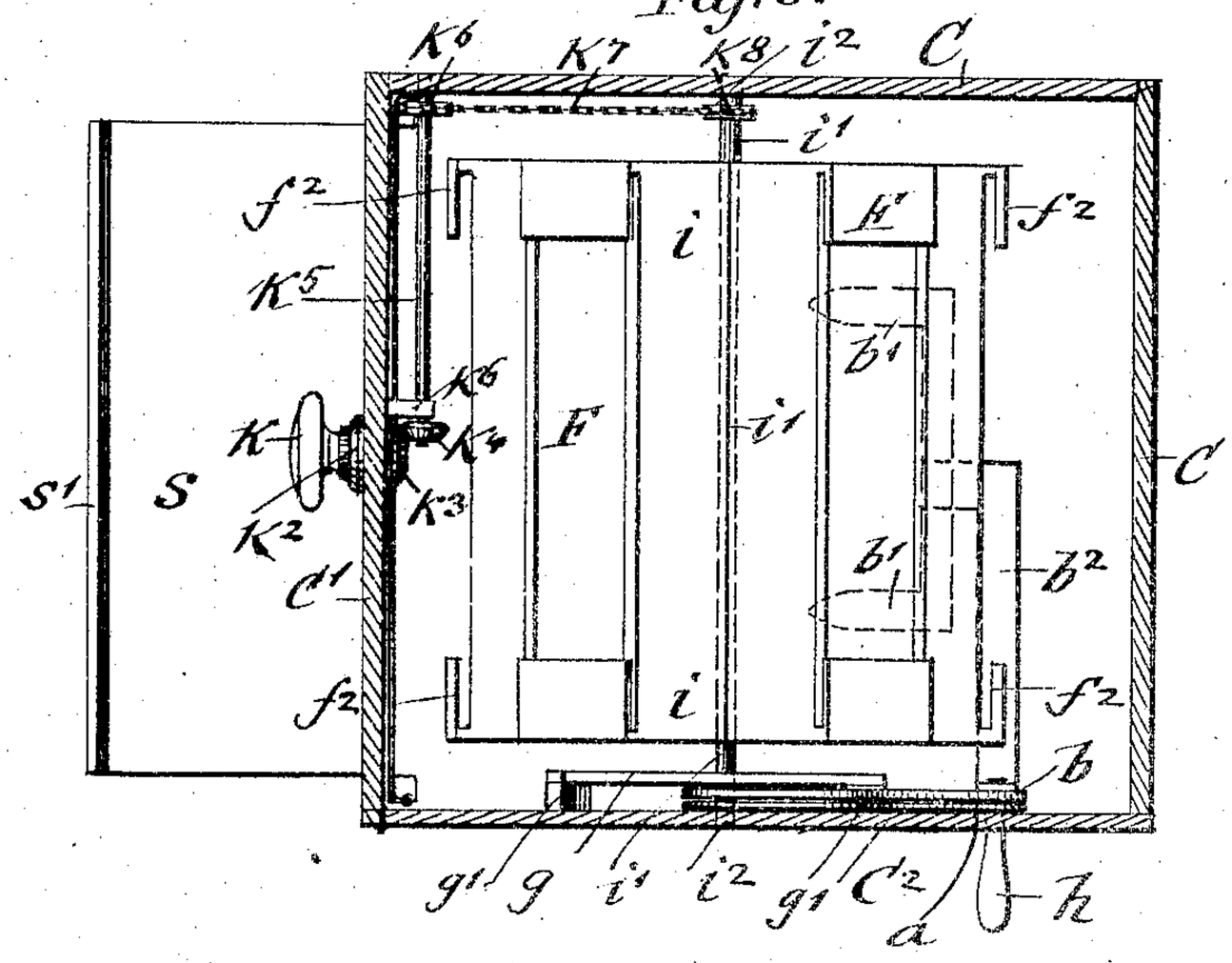

Fig: 6.

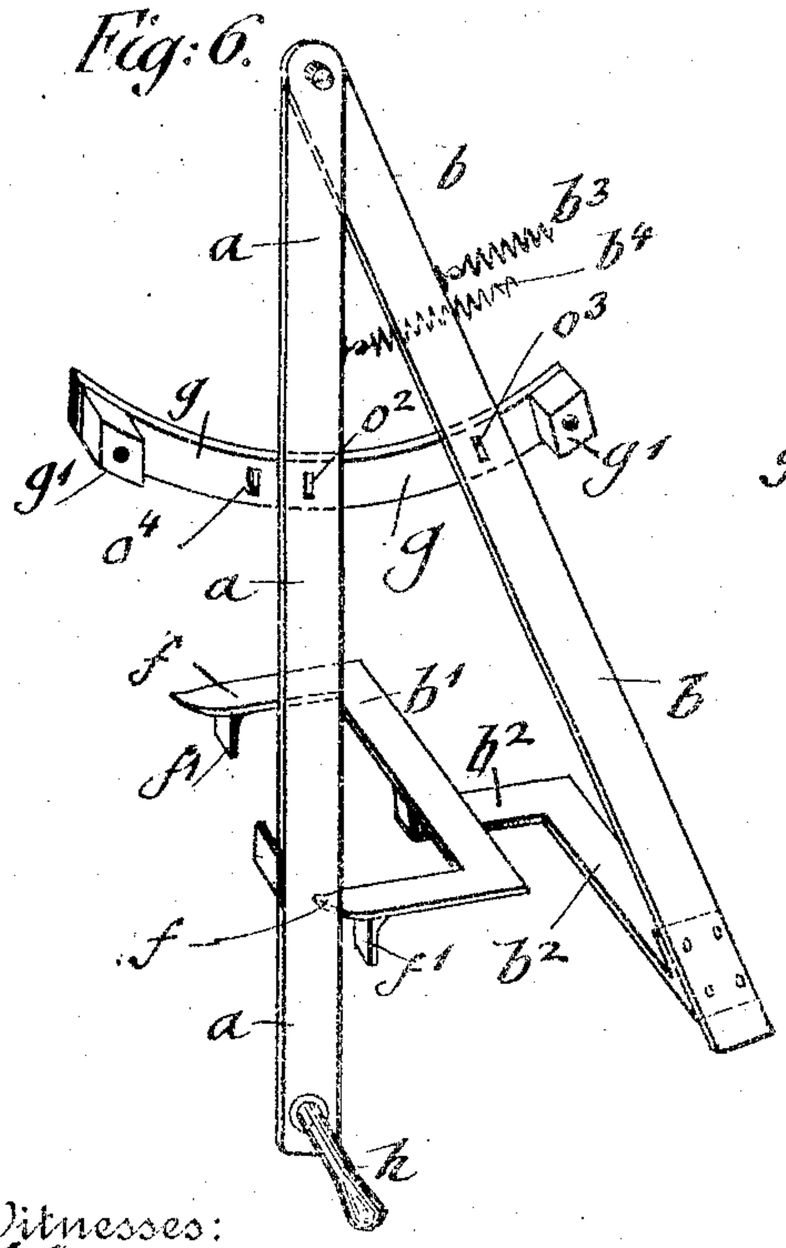

Fig: 7.

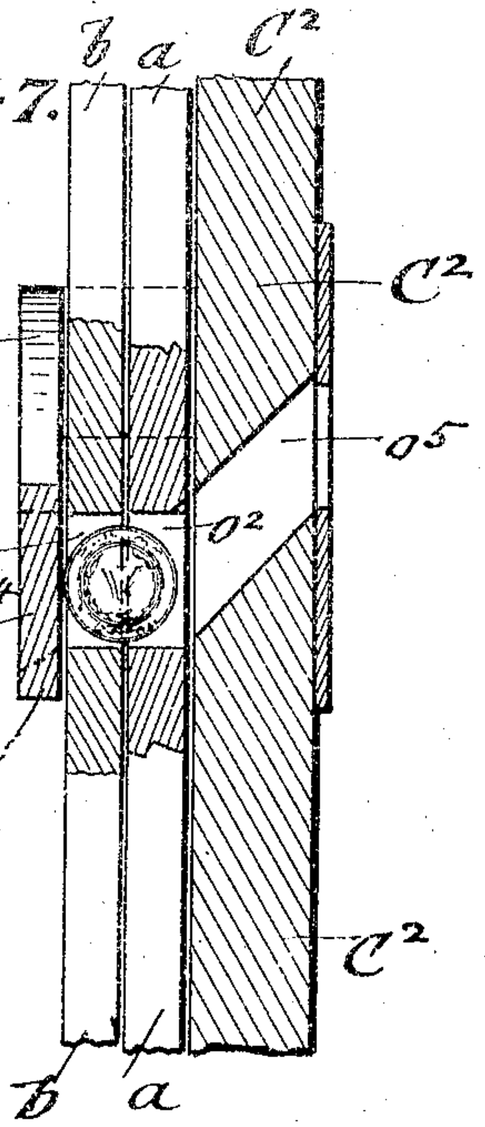

Fig: 8.

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UNITED STATES PATENT OFFICE.

PAUL WESSER, OF NEW YORK, N. Y.

COIN-OPERATED NEWSPAPER-VENDING MACHINE.

953,451. Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed August 20, 1909. Serial No. 513,736.

To all whom it may concern:

Be it known that I, PAUL WESSER, a citizen of the Empire of Germany, residing in New York, in the borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Coin-Operated Newspaper-Vending Machines, of which the following is a specification.

This invention relates to an improved machine for automatically vending and delivering newspapers by throwing a coin of the required denomination into a slot, according as the daily or Sunday edition of a newspaper is to be sold; and for this purpose the invention consists of a coin-operated newspaper-vending machine which comprises a casing provided with a delivery-slot in its front-wall, a delivery-shelf in front of the delivery-slot, a weighted slide-plate adjacent to the slot, a push-lever, means connecting the slide-plate with the push-lever for operating the same, a guide-box for receiving the papers in folded condition, a guide-shelf between the lower end of the guide-box and the delivery-slot in the front-wall of the casing, an oscillating pusher having a finger for separating the lowermost newspaper from the superposed pile above the same, pushing the lowermost newspaper toward the delivery-opening, a hand-lever pivoted to the same pivot as the push-lever and adapted to be moved backward in an arc-shaped slot in the side-wall of the casing, said hand-lever and push-lever being guided by a suitable stationary guide-piece and provided with registering slots for being locked together by the coin dropped into a slot in the side-wall registering with the slots in the hand-lever and the push-lever, so that both levers can be moved forward for delivering the newspaper over the guide-shelf to the delivery-slot and the outside of the casing.

The invention consists further of arranging a plurality of guide-boxes in a radial position on a central core or block, to which rotary motion can be imparted from an indicator-knob on the front-wall of the casing so as to bring each individual guide-box in the proper position relatively to the push-lever and delivery-slot, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of my improved coin-operated newspaper-vending machine arranged for the sale of one newspaper, Fig. 2 is a side-elevation of the same, drawn on a larger scale and with the side-wall removed, for showing the interior parts, Fig. 3 is a perspective view of a newspaper-vending machine arranged for selling different papers, Fig. 4 is a side-elevation, partly in section, of the interior mechanism, the side-wall of the casing being likewise removed, for showing the interior arrangement of the operative parts, Fig. 5 is a horizontal section on line 5, 5, Fig. 3, Fig. 6 is a detail perspective view showing the operating lever and push mechanism of the machine in their normal position of rest, Fig. 7 is a detail vertical section through the coin-receiving mechanism, showing it in position for locking the operating hand-lever and push-lever together for action, and Fig. 8 is a detail cross-section of the coin-slot in the guide-piece for the operating and push levers.

Similar letters of reference indicate corresponding parts throughout the several views.

Referring to the drawings, C represents a casing of rectangular cross-section, which is supported on suitable brackets or otherwise on the wall of a building or on a suitable stand. The casing C is provided in the lower part of its front-wall with a transverse delivery-opening o of sufficient size for permitting the passage of a folded newspaper, and in front of the same with a downwardly-inclined delivery-shelf s having a transverse ledge s^1 at its front-end for receiving and holding the newspaper delivered from the casing. The upper edge of the shelf s is in line with the lower edge of the opening o, as shown clearly in Figs. 2 and 4. In the side-wall C^2 of the casing C is arranged an arc-shaped slot o^1 in which is guided the handle h of a push-lever a, which is pivoted at its upper end to the upper inside portion of the side-wall of the casing, said lever being connected by a cord a^1 which passes over suitable guide-pulleys a^2, a^3, a^4 arranged at the inside of the opposite side-wall and upper part of the casing C, to a weighted slide-plate a^5, which is guided in a suitable keeper a^6 adjacent to the delivery-opening o in the front-wall of

the casing. The slide-plate a^5 is provided with downwardly-extending arms a^7 to the lower ends of which is attached a weight w that tends to move the slide-plate a^5 in downward direction as soon as the operating lever a is moved from its forward position at the front-end of its guide-slot o^1 into normal position at the rear-end of the same. The forward motion of the operating lever a by the handle h operates by the intermediate cord and pulley connection the slide-plate a^5 so as to move it into raised position for clearing the delivery-opening o, while by the backward motion of the lever a the slide-plate is moved into lowered position so as to close the same, as shown respectively in full and dotted lines in Fig. 2. The slide-plate a^5 serves for closing the delivery-opening and preventing the insertion of wires for abstracting or "hooking" a newspaper without inserting a coin into the coin-slot of the machine.

To the inner surface of the side-wall C^2 of the casing is attached an arc-shaped guide-piece g, which is applied to blocks g^1 on the side-wall, and which serves for guiding the operating lever a, as well as a push-lever b. The push-lever b is pivoted at its upper end to the pivot of the operating lever a, and provided at its lower end with a U-shaped push device b^1 which is supported on an angular arm b^2 that extends inwardly from the lower end of the push-lever b, as shown clearly in Fig. 5. The operating lever a is provided about midway of its length with a lug a^x for engaging the push-lever b and taking it along into backward or initial position. The push-lever b is connected by a helical spring b^3 with the rear-wall of the casing C, so as to abut against the rear-block g^1 of the guide-piece g until it is moved in forward direction together with the operating lever a, which is also connected by a helical spring b^4 with the rear-wall of the casing C. By the motion of the levers a and b both helical springs b^3 and b^4 are set to tension so as to return the push-lever b and operating hand-lever a immediately into their normal position against the rear-block g^1 as soon as the pressure of the hand on the handle of the operating lever a is released. The U-shaped push device b^1 is provided with two horizontal fingers f at each end of the U-shaped portion, and below the same with fingers f^1 at right angles thereto, the horizontal finger serving to separate the lowermost newspaper of a pile which is placed in folded position into a vertical guide-box F from the superposed portion of the pile, while the fingers f^1 serve for pushing the newspaper away from the lower end of the guide-box over an inclined shelf e toward and by the forward motion of the push-lever b through the delivery-opening o to the outside of the casing. The shelf e extends from the lower end of the guide-box F to the lower edge of the delivery-opening o, said shelf being made of less width than the width of the guide-box F so that the fingers f, f^1 can pass it at both ends and push the newspaper onto the shelf e and through the delivery-opening o. The guide-box F is provided at the open end with inwardly-projecting fingers f^2 for holding the pile of newspapers in position, and with recesses f^3 above the same for permitting the forward pushing of the lowermost paper by the push-fingers f, f^1. At the inner and upper end of the guide-box is arranged a spring-actuated follower f^4 that presses the pile in downward direction on the supporting fingers f^2, after one paper after another is delivered.

The operating lever a and the push-lever b are provided with coin-receiving slots o^2, o^3 which register with each other and are located adjacent to a coin-receiving slot o^4 in the arc-shaped guide-piece g, when the levers a and b are moved forward until they abut against the front-block g^1. A coin-receiving slot o^5 is arranged in the side-wall C^2 of the casing C in line with the slots o^2, o^3 of the operating and push levers a and b, when the latter are in their initial position. The slot o^2 of the operating lever a is in register with the slots o^3 of the push-lever b and the slot o^5 of the casing C when the levers are in their backward direction, as shown in Figs. 2 and 4. The levers a and b and their registering slots are then in position for receiving the coin, which may be one cent for the daily one-cent newspapers. When Sunday papers at five cents per copy are to be sold, an additional set of slots is arranged in the levers a and b and the side-wall of the casing, of larger size, so as to permit the dropping in of a nickel. A second guide-piece g is then arranged below the guide-piece g. As the guide-piece g is likewise provided with a slot o^4, which registers with the slots o^2, o^3 when the two levers are moved together in forward direction so as to push by the fingers f, f^1 the lowermost newspaper over the shelf e through the opening o, the coin is dropped through the slot o^4 when it arrives in line with the same into the bottom-part of the casing, the slot o^4 being for this purpose inclined at its lower ends, as shown in Figs. 7 and 8. The coins are removed from time to time when the casing is resupplied with newspapers, by opening a hinged door C^3 below the side-wall C^2, which door is provided with a lock for opening and closing the same. As soon as the coin is dropped, the levers a and b are returned by the tension of their springs to their normal position at the rear-part of the casing, ready for the next operation of the machine. In place of a separate guide-piece g for the dropping of nickels for five-

and Sunday newspapers, the slots o^2, o^3, o^4, o^5 can be made of sufficient size to permit the dropping of one-cent and five-cent pieces, in which case the apparatus can be used for selling one-cent and five-cent papers.

When the apparatus is to be arranged for selling different newspapers, a plurality of guide-boxes F is arranged radially on a block i, having as many sides as there are different kinds of papers to be sold. The block i is provided with a center-shaft i^1 which turns in bearings i^2 applied to the inner surfaces of the side-walls of the casing C. When it is desired to buy any one of the newspapers in the casing, the block i is first rotated on its axis by means of a knob k provided with an indicator k^1 turning on a spindle k^2 in the front-wall of the casing C. The end of the spindle carries a bevel-wheel k^3 which meshes with a bevel-wheel k^4 on a shaft k^5 turning in suitable bearings of the front and side wall of the casing C. The shaft k^5 is provided at its opposite end with a sprocket-wheel k^6 from which motion is transmitted to a sprocket-chain k^7 and to a sprocket-wheel k^8 on the shaft of the block i, as shown in Fig. 5. By turning the knob k until the indicator k^1 arrives on one of the graduations for the names of the newspapers in the guide-boxes F, the block i is turned on its axis by the intermediate mechanism, so that the guide-box for the special newspaper desired arrives in vertical downward position, as shown in Fig. 4. The pushing and delivery mechanism is the same as before described for a single newspaper-vending machine, with the difference, however, that the operating and push levers a and b are provided below the guide-piece with a bent or crook-shaped middle portion so as to permit the forward motion of the levers a and b without abutting against the transverse shaft i^1, as indicated in Fig. 4. When the papers are sold and the guide-boxes are empty, the indicator is moved in downward position toward the word "Empty," which is arranged below the knob on the front-wall of the casing. The guide-boxes are filled from their lower ends by opening the front-wall and turning one guide-box after the other toward the front for conveniently placing the new piles of folded papers in the same.

The operation of my improved newspaper-vending machine is as follows: The folded newspapers are inserted with their folds toward the front-wall of the casing in the guide-box so as to fill the same, the spring-actuated follower between the upper closed end of the guide-box and the pile of newspapers serving to press them in downward direction into contact with the retaining fingers at the lower end of the guide-box. The side-wall is then closed. When buying a newspaper, a coin is inserted through the coin-slot in the side-wall. The handle of the operating lever is taken hold of and moved in forward direction until it arrives at the forward-end of the side-slot o^1. The push-lever is simultaneously operated owing to the locking connection produced between operating and push levers by the coin retained in the coin-slots. The fingers of the push device engage and push the lowermost newspaper of the pile in forward direction over the interior shelf and through the front-opening on the outside delivery-shelf. Simultaneously with the forward motion of the operating lever the closing slide-plate is raised so as to open the delivery-opening and permit the passage of the newspaper through the same, ready to be taken away by the purchaser. During the forward motion of the operating and push levers the coin-slots in the same register with the slot in the guide-piece and drop the coin to the bottom of the casing. This releases the push-lever, which is then automatically returned with the operating lever, by the action of their springs, into its rearward position of rest, while the slide-plate is returned by the action of its weight so as to close the delivery-opening in the front-wall of the casing, the apparatus being then ready for the next operation.

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

1. In a newspaper-vending machine, the combination of a casing provided with a delivery-opening, a guide-box open at the bottom arranged therein, a push-lever pivoted to said casing at a point above said guide-box and extending under the bottom of the guide-box, forwardly-projecting horizontal push-fingers at the lower end of said push-lever and provided near their forward ends with downwardly-projecting fingers, means for operating the push-lever, and means for conducting papers from the bottom of the guide-box to said delivery-opening.

2. In a newspaper-vending machine, the combination of a casing provided with a delivery-opening, a guide-box open at the bottom arranged therein, a push-lever pivoted to said casing at a point above said guide-box and extending under the bottom of the guide-box, forwardly-projecting horizontal push-fingers at the lower end of said push-lever and provided near their forward ends with downwardly-projecting fingers, means for operating the push-lever, means for conducting papers from the bottom of the guide-box to said delivery-opening, a slide-plate for the delivery-opening, and mechanism connecting the slide-plate with the push-lever for raising the slide-plate.

3. A newspaper-vending machine comprising a casing the front-wall of which is provided with a delivery-opening, a guide-

box in the same having fingers at the lower end, a guide-shelf extending from the lower end of the guide-box to the delivery-opening, an operating lever pivoted to the side-wall of the casing, a handle on the lower end of the operating lever extending through an arc-shaped slot in the side-wall to the outside, a spring-actuated push-lever pivoted at its upper end and provided with a push device at its lower end, a fixed guide-piece for the operating and push levers.

4. In a newspaper-vending machine, the combination of a casing provided with a delivery-opening in its front-wall, a delivery shelf below said opening, a guide-box in the casing having fingers at the lower end, an arc-shaped guide-piece attached to the side-wall of the casing, an arc-shaped slot concentric with the guide-piece in the lower part of the side-wall, a spring-actuated operating lever pivoted at its upper end to the side-wall and provided with a handle at its lower end that extends through the slot to the outside of the casing, a spring-actuated push-lever pivoted to the side-wall and provided at its lower end with a push device for engaging the lowermost newspaper of the pile, and a guide-shelf between the lower end of the guide-box and the delivery-opening for guiding the newspaper to the delivery-opening.

5. In a newspaper-vending machine, the combination of a casing provided in its front-wall with a delivery-opening, a horizontal shaft across said casing, a plurality of outwardly-opening radially-arranged guide-boxes on said shaft, means extending to the outside of the casing for revolving said boxes, a spring-actuated push-lever pivoted above said shaft and bent at its lower end to extend under the lowermost of said boxes, forwardly-projecting horizontal push-fingers carried at the lower end of said push-lever and provided near their forward-end with downwardly-projecting fingers for engaging the lowermost paper in said lowermost box, means for operating said push-lever, and means for conducting papers from said lowermost box to said delivery-opening.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

PAUL WESSER.

Witnesses:
PAUL GOEPEL,
FANNIE FISK.