

(No Model.)

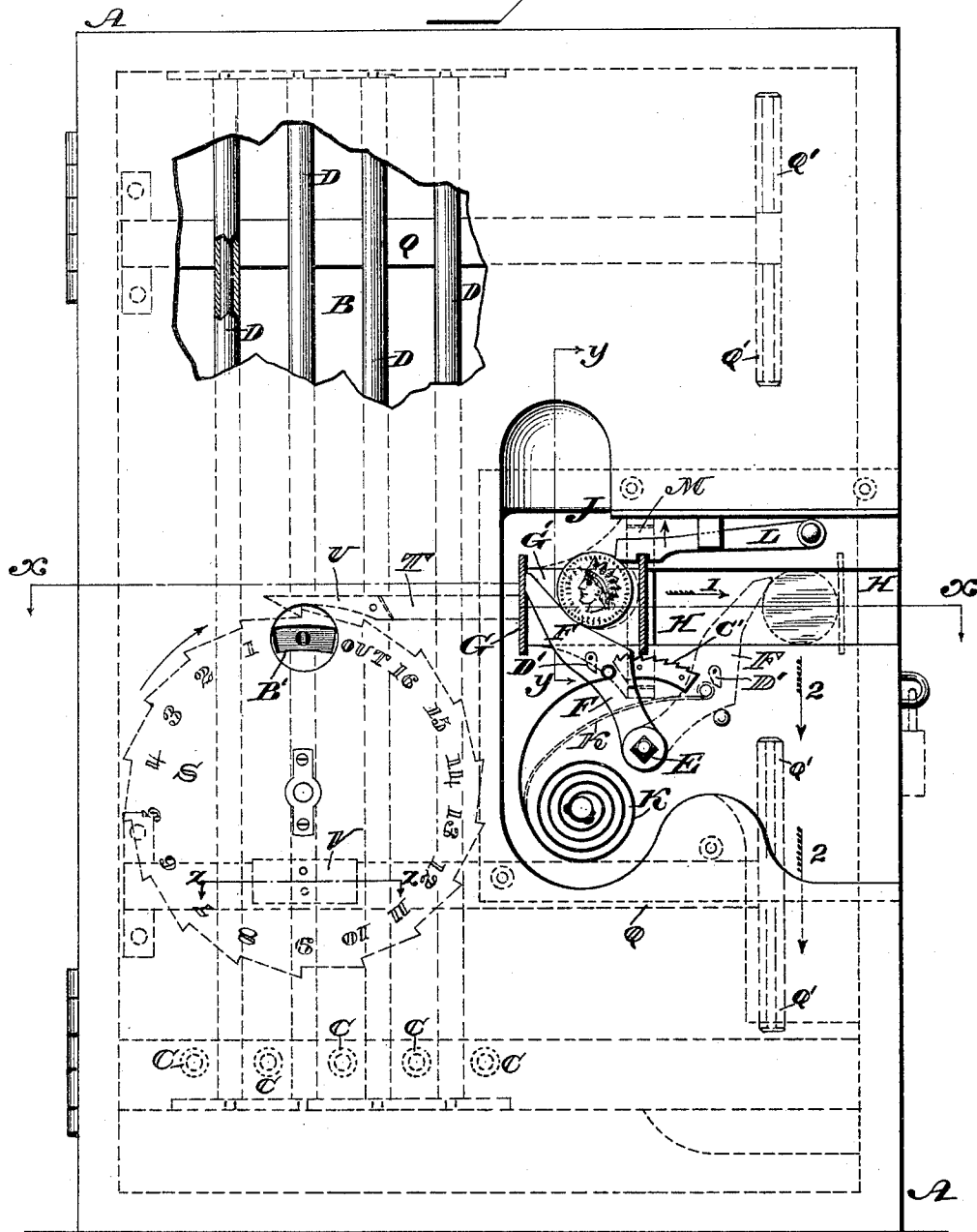
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J. S. FORD, Jr. & G. H. LOCKHART.
COIN CONTROLLED PAPER SUPPLYING DEVICE.

No. 467,893.

Patented Jan. 26, 1892.

Fig. 1



WITNESSES:

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INVENTORS:

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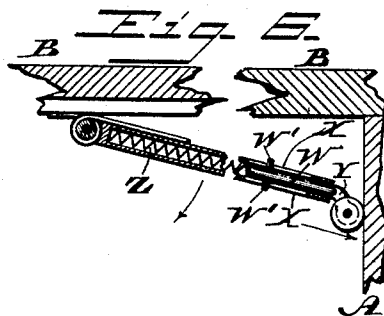
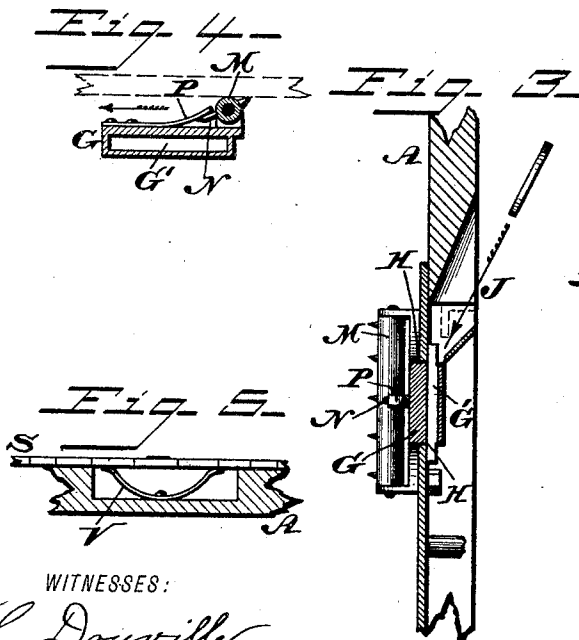
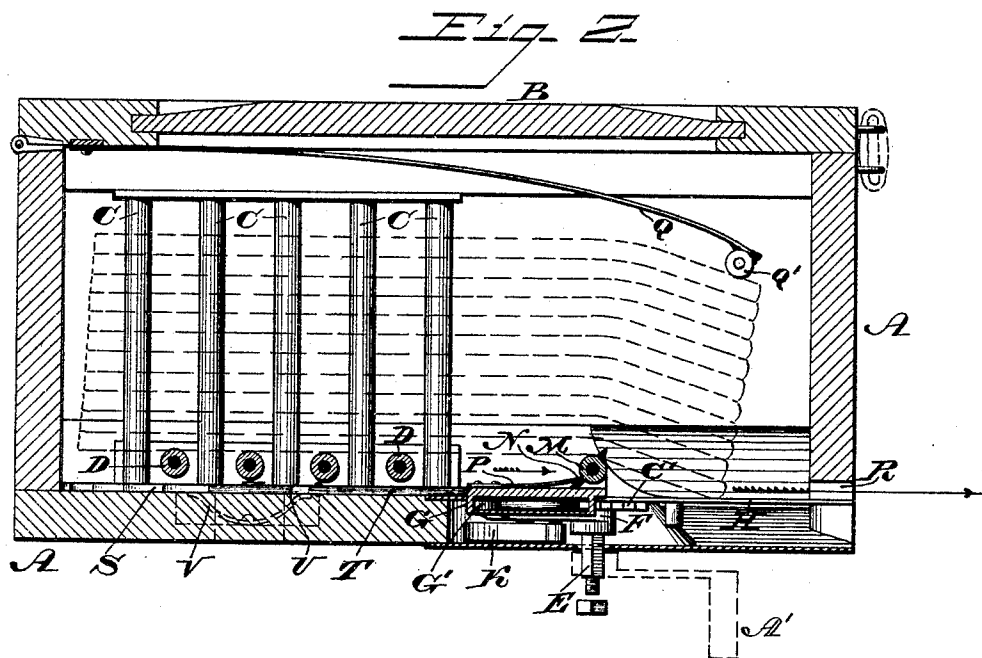
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UNITED STATES PATENT OFFICE.

JOSEPH S. FORD, JR., AND GEORGE H. LOCKHART, OF PHILADELPHIA,
PENNSYLVANIA; SAID FORD ASSIGNOR, BY MESNE ASSIGNMENTS, TO
GEORGE W. JOHNSON, OF SAME PLACE.

COIN-CONTROLLED PAPER-SUPPLYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 467,893, dated January 26, 1892.

Application filed April 6, 1891. Serial No. 387,843. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH S. FORD, JR., and GEORGE H. LOCKHART, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Coin-Controlled Paper-Supplying Devices, which improvement is fully set forth in the following specification and accompanying drawings.

Our invention relates to vending apparatus, more especially that class employed for delivering newspapers and analogous articles by insertion of a coin in the device; and it consists of the construction and arrangement of the parts, as will be hereinafter set forth.

Figure 1 represents a front view of a device embodying our invention, the front plate being removed and a portion of the casing broken away to show the interior thereof. Fig. 2 represents a horizontal section on line $x x$, Fig. 1. Fig. 3 represents a vertical section on line $y y$, Fig. 1. Fig. 4 represents a horizontal section of a detail portion of the device. Fig. 5 represents a horizontal section on line $z z$, Fig. 1. Fig. 6 represents a longitudinal section of a modification of a portion of the device.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a casing, and B a door therein. Within the casing and journaled in the walls thereof are the horizontal set of rollers C and the vertical set D, the said horizontal set being at or near the bottom of the device and the vertical set being on the front inner side thereof. Mounted on a stud E, secured in the front wall of the casing, is an arm F, the upper end of which works in a pocket G' of a carriage G, said carriage being fitted and working in a horizontally-extended slot H in the front wall of the casing. The said pocket G, when the carriage is in the position shown in Fig. 1, communicates at its top with an inclined slot J in the front wall of the casing, so as to admit a coin therein, and the upper end of the arm F, which enters said pocket G,

is so formed as to receive said coin between it and one of the side walls of the pocket until the carriage is moved to the position shown in dotted lines, Fig. 1, when the coin will drop from the pocket.

Attached to the wall of the casing and to the arm F is a coil-spring K, which normally keeps the said arm F in position. (Shown in Fig. 1.) Pivoted to the casing is a gravity latch or lock L, consisting of a bar with a notch in its under side adapted to engage the carriage and hold the same in place until the said lock is raised. Within the casing A and journaled in ears on the carriage G is a serrated or toothed roller M, having an arm N, against which bears a spring P, fastened to the said carriage.

Q designates spring-arms, each of which is secured at one end to the door B and having on its other end a bar or roller Q', adapted to bear against the paper which is to be delivered from the device through a discharge-opening R in one end of the casing.

A register S, consisting of a numbered disk provided with ratchet-teeth, is journaled in the casing A and is operated by means of an arm T, connected with the carriage G and carrying a pawl U, adapted to engage said ratchet-teeth. A spring V serves to keep said disk from undue movement when operated by the pawl.

In Fig. 6 is shown a modification of the spring-arms Q, the same having tubular portions, with rods W and spring Z therein, said rods having pins W', movable in slots X in said tubular portions and having bearing-bars Y attached thereto, the said construction permitting the extension of the bars, so as to keep the same near the ends of the paper at all times.

The operation of the device is as follows: A coin of the proper character being inserted in the opening J drops in the pocket G' and on the arm F, which latter, being operated by means of a crank or handle A' on the stud E, is enabled by means of the said coin to move the carriage G in the direction of the arrow 1, Fig. 1, the coin raising the latch L, against

which it bears, so that the carriage is free to move. The movement of the carriage causes the toothed bar or roller M, connected therewith, to engage the folded sheet or paper which is adjacent thereto, so as to move the same toward and through the slot R, when it may be grasped by the hand and removed from the casing. When the carriage has been moved to the position shown in dotted lines, Fig. 1, the coin will no longer be supported by the arm F, but will drop in the direction of the arrows 2, falling into a drawer or other suitable receptacle at the bottom of the casing. As the carriage is moved to the right, or as described, the arm T with the pawl U operates the register-wheel S, so that when the same is rotated the space of one tooth, it will bring the proper figure to the opening B' in the casing. When the handle A' is released, the arm F, owing to the tension of the spring K, returns the carriage to its normal position, the bar M riding freely over the paper without its teeth engaging the same and the pawl U riding over the teeth of the register-wheel without operating it. To prevent the return of the carriage before the coin leaves the same, a series of ratchet-teeth C' is secured to the casing, and a pawl D', pivoted to the arm F, said pawl engaging said ratchet-teeth during its forward movement, thereby locking the arm until the pawl has passed over the entire series of ratchet-teeth, when, owing to the pawl then presenting to the teeth a rounded side, the arm with the pawl can be returned to its first position, carrying the carriage to its normal place.

The modification shown in Fig. 6, owing to the springs and rods therein, permits the bearing-bars thereon to remain near the edge of the folded sheets as the same decrease in number in the casing. When the carriage has returned to its normal position, the latch automatically engages therewith, so as to hold the same in fixed position until the insertion of another coin.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A device for the purpose named, having a sliding carriage with a spurred roller attached thereto for advancing a sheet of paper, substantially as described.

2. A casing, a sliding carriage with a spurred roller attached thereto for advancing a folded sheet of paper, and a spring-actuated arm adapted to operate said carriage by the insertion of a proper coin in a pocket in said carriage, said parts being combined substantially as described.

3. A sliding carriage with a spurred roller for grasping and moving a sheet of paper, and a spring-actuated arm having an end in a pocket in said carriage and adapted to move the latter on the insertion of a proper coin in said pocket, said parts being combined substantially as described.

4. A casing, a carriage with a toothed bar connected therewith, an oscillating arm in a pocket in said carriage, and a latch for locking said carriage, said parts being combined substantially as described.

5. A casing, a sliding carriage with a toothed bar connected therewith, and vertical and horizontal guide-rollers, said parts being combined substantially as described.

6. A casing, a sliding carriage with a toothed bar connected therewith, rollers, and spring-arms with bearing-bars to rest on the articles to be vended and direct them toward the feed, said parts being combined substantially as described.

7. A casing, a carriage with a toothed bar connected therewith, an oscillating arm having a connected pawl, and a series of ratchet-teeth secured to said casing, said parts being combined substantially as described.

8. A casing, a carriage with a toothed bar connected therewith, an oscillating arm mounted on a stud on the casing and having an end working in a pocket in said carriage, a spring secured to said arm and casing, a latch pivoted to the casing and engaging the said carriage, and rollers, said parts being combined substantially as described.

9. A casing with a discharge-opening at one end thereof, vertical and horizontal rollers therein, spring-arms with bearing-bars or rollers thereon, a carriage, and an arm mounted on a stud having an end inserted in a pocket in said carriage for operating the same on the insertion of a proper coin in said pocket, said parts being combined substantially as described.

10. A casing having a discharge-opening therein, vertical and horizontal rollers connected therewith for guiding a sheet of paper, &c., toward said discharge-opening, a sliding carriage having a spurred roller attached thereto for advancing said sheet of paper, and a spring-actuated arm adapted to operate said carriage, substantially as described.

11. A casing with a discharge-opening therein, spring-arms with bearing-bars, a carriage with means, substantially as described, for advancing a sheet of paper, against which said bars bear, and an arm for operating said carriage, said parts being combined substantially as described.

12. In a device of the character described, a sliding carriage with an arm having a pawl, a register-wheel with ratchet-teeth, and a clamping-spring bearing against said wheel, said parts being combined substantially as described.

13. A casing provided with a slot, a spurred carrier and rollers for advancing newspapers and a pawl for normally locking the same, said pawl being adapted to be engaged by a coin introduced into the casing of the device, whereby the unlocking may be accomplished, the carrier advanced, and the newspaper di-

rected to a discharge-opening, substantially as described.

14. A coin-controlled paper-supplying device having a casing with a slot, and a spurred roller for the paper normally retracted, said roller being adapted to be engaged by a coin directed to the same, whereby it may be un-

locked and advanced to a discharge-opening, substantially as described.

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