

(No Model.)

W. B. & J. S. NORRIS.
NEWSPAPER VENDING MACHINE.

No. 553,761.

Patented Jan. 28, 1896.

Fig. 1.

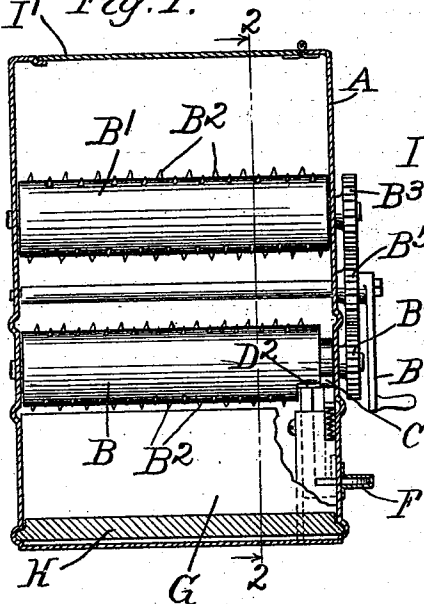


Fig. 2.

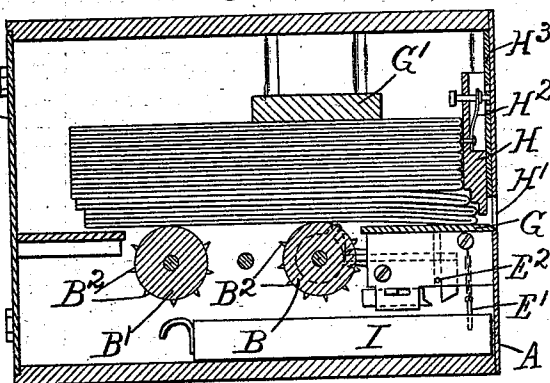


Fig. 5.

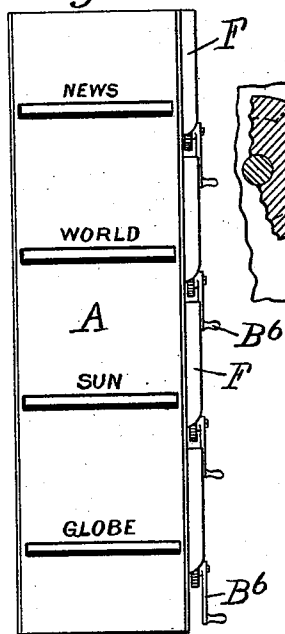


Fig. 6.

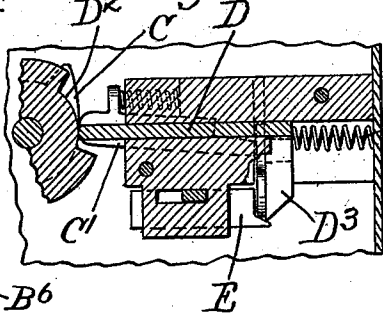


Fig. 3.

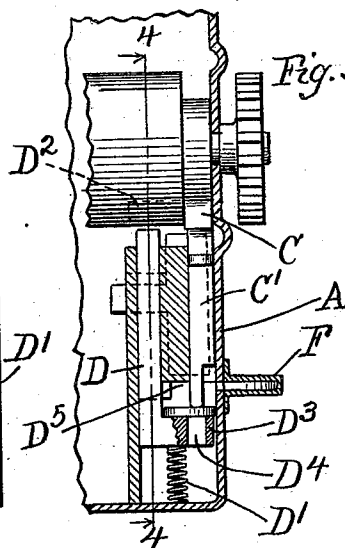
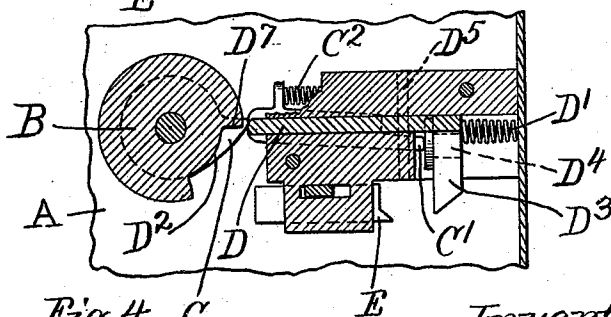


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM B. NORRIS AND JOSEPH S. NORRIS, OF CHICAGO, ILLINOIS.

NEWSPAPER-VENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 553,761, dated January 28, 1896.

Application filed February 23, 1895. Serial No. 539,341. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM B. NORRIS and JOSEPH S. NORRIS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Newspaper-Vending Machines, of which the following is a specification.

Our invention relates to coin-operated devices, and has for its object the production of a new and improved coin-operated mechanism that may be used for any of the purposes such devices are now ordinarily employed for.

A further object of our invention is to combine such coin-operated mechanism with other suitable mechanism so as to form a coin-operated newspaper-vending machine.

Our invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a sectional plan view. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is an enlarged detail of the coin-operated mechanism. Fig. 4 is a section on line 4 4 of Fig. 3 with parts broken away. Fig. 5 is a view of a number of machines arranged for delivering a series of papers. Fig. 6 is a view similar to Fig. 4 with the parts differently disposed.

Like letters refer to like parts throughout the several figures.

The operating mechanism and the material to be delivered are placed within the case A. Journaled in the sides of this case are the rollers B and B', the peripheries of which are provided with the pins B² B². The rollers B and B' are provided with the gears or pinions B³ B⁴, which are connected by the intermediate gear, B⁵, to which is fastened the handle B⁶. These gear-wheels would in practice be placed within the case A, so as to be concealed and sheltered thereby. By this arrangement the rollers B and B' will both rotate in the same direction. It is of course evident that these rollers may be connected together in a different manner from that shown and that they may be operated by other means than the crank or handle B⁶.

The roller B is provided with a cam C. A reciprocating bar C' is located so as to be engaged by said cam when the roller B is revolved. Said bar is kept in contact with the roller by the spring C². A second reciprocating

bar, D, is pressed toward the roller B by the spring D', so that its end normally rests in the notch D² on said roller, and thereby locks said roller against rotation by coming in contact with the upper edge D⁷ of said notch. The outer end D³ of the bar D projects across the path of the bar C' and is provided with a hole D⁴, into which the bar C' may pass when moved forward. A hole D⁵ is located so that it will be between the end of the bar C' and the end D³ of the bar D when the parts are in their normal position. This hole is of such size that when the coin for which the machine is set—a nickel, for example—reaches a position opposite the end of the bar C' it can go no farther, but remains in that position until the crank B⁶ is moved. When the coin is in this position it covers the hole D⁴ in the end D³ of bar D. A movable slide E is located beneath the coin-opening D⁵, so that its end may be moved out beneath such opening. A pin E' is adapted to close the coin-opening D⁵ when inserted in the hole E².

The operating-coin is placed in the slide or chute F. The papers to be delivered are supported upon the rollers B and B' and the platform G. The papers are preferably pressed tightly against the roller B by the weight G', which works loosely in guides in the sides of the case A, so as to move downwardly as the papers are removed. A movable plate or slide H is placed just back of the opening H', through which the papers are delivered, so that the size of the opening through which the papers are to pass can be regulated to correspond with the thickness of the paper. The slide H may be controlled in any convenient manner. As shown in the drawings it is provided with a spring-catch H², provided with a point adapted to enter holes in the piece H³. The slide H is preferably provided at its lower end with grooves, as shown, so as to allow the papers to be gradually moved up to the opening. A tray I is placed at the bottom of the case A, so as to receive the coins that are placed in the machines. Said case A is provided at its rear with the door I'. It will also be noticed that a portion of the surface of each of the rollers B B' is not provided with pins.

Fig. 5 shows an arrangement for delivering

any desired paper of a series and consists of a number of machines placed one above the other, the whole preferably being made in one case. The names of the different papers will be placed near the several coin-chutes, one near each chute, so that the purchaser will know which opening to put his coin in in order to receive the desired paper.

The device when made for actual service will take some such form as shown in Fig. 5.

K is the coin by which the device is operated.

We have described the several parts of our device in detail, but it is evident that we may greatly modify them in form, construction and arrangement, without departing from the spirit of our invention. We therefore do not wish to be limited to the construction shown.

The use and operation of our invention are as follows: When the several parts are in the positions shown in Fig. 2 the machine is ready for operation. If now the crank B⁶ is turned the cam C forces the bar C' forward, the end of said bar passing through the hole D⁴, Fig. 4, in the end D³ of bar D. The motion of said roller is stopped by the upper edge D⁷ of the notch D² coming in contact with the bar D, and hence the machine cannot be operated. If now a coin is placed in the coin-chute it passes along said chute until it comes opposite the hole D⁴ in the end D³ of the bar D, and then it stops. If now the crank B⁶ is turned the bar C, when forced forward by cam C, instead of passing through the hole D⁴, strikes the coin K and moves said coin and the bar D forward, (see Fig. 4,) so that it will be out of the way of the edge D⁷, and hence said roller is left free to rotate. As the crank is rotated the pins B² B² on said rollers engage the lower paper and force it out of the opening G. After the edge D⁷ of notch D² has passed the end of bar D the cam C releases the bar C' and the cam drops down into the tray I. D' now forces bar D against the periphery of the roller B', and when the notch D² comes opposite said bar it is forced into said notch and again locks the machine. The rollers B' B' will generally be of such size that one revolution will not be sufficient to force the entire paper out of the opening H', and hence that portion of the roller B upon which the papers normally rest is free from pins, so that the paper can be pulled out after having been forced through the opening H' by one revolution of said roller. A copper cent, being smaller than a nickel, will pass through the opening D⁵ into the tray below, and will not operate the machine. If, however, it is desired to have the machine operate when a cent is placed in the coin-chute, the pin E' is placed in the hole E². The cent then rests on said pin and the machine will operate in the manner described above. If it is desired to have the machine operate when two pennies are placed in the slot, the slide E is moved out beneath the opening D⁵. The first penny passes down the chute until it strikes

the end of said slide and is there stopped. Its upper edge is below the opening D³, (see Fig. 6,) and hence the bar C' is free to pass through said opening, and the machine cannot be operated. If now a second penny is placed in the chute, it passes down until it strikes the first penny and there stops. This second penny now covers the opening D⁴, and hence when the crank B⁶ is turned the machine will be operated and a paper will be delivered. It will thus be seen that by this arrangement we can easily and quickly set the machine for a nickel, a cent, or a two-cent paper. This allows the same machine to be used for a cent or a two-cent paper on six days of the week and a five-cent paper on Sundays. The opening through which the paper is delivered can be varied by moving the slide H.

We claim—

1. A paper-vending machine comprising a case containing the papers a roller upon which the papers are normally supported, a locking-bar associated with said roller so as to normally prevent its rotation and provided at one end with an opening, a movable bar having its end opposite said opening and adapted to be moved by a device associated with the roller said latter bar being normally moved through said opening so as to move independent of said locking-bar but adapted to be connected by the operating-coin with said locking-bar so as to move said locking-bar and free the roller.
2. A paper-vending machine comprising a case containing the papers, a roller upon which the papers normally rest, said roller provided with pins adapted when the roller is rotated to engage the lower paper and move it forward through an opening in the case, a reciprocating locking-bar associated with said roller so as to prevent its rotation but still allow it to be moved or rocked a short distance, a reciprocating bar adapted to be moved by a cam on said roller, said reciprocating bar being normally moved independently of said locking-bar, but adapted to be connected by the operating-coin with said locking-bar so as to move said latter bar and free the roller.
3. A paper-vending machine comprising a case containing the papers, a roller upon which the papers normally rest, said roller provided with pins adapted when the roller is rotated to engage the lower paper and move it forward through an opening in the case, a locking-bar associated with said roller so as to prevent its rotation but still allow it to be moved or rocked a short distance and provided with a projecting end at an angle to the main portion of the bar, and opening in said projecting end, a reciprocating bar located at the side of the locking-bar with its end opposite the opening in the projecting end of said locking-bar and adapted to be moved by a cam on said roller, said reciprocating bar being normally moved independently of said locking-bar and through the opening in the

end thereof, but adapted to be connected by the operating-coin with said locking-bar so as to move said latter bar and free the roller, and means without said case by which said roller
5 may be moved so as to force one of the papers through the case.

4. A paper-vending machine comprising a case containing the papers, a roller upon which the papers normally rest, said roller
10 provided with pins adapted when the roller is rotated to engage the lower paper and move it forward through an opening in the case, a locking-bar associated with said roller, so as to prevent its rotation but still allow it to be
15 moved or rocked a short distance, a reciprocating bar adapted to be moved by a cam on

said roller, said reciprocating bar being normally moved independently of said locking-bar, but adapted to be connected by the operating-coin with said locking-bar so as to
20 move said latter bar and free the roller, and means associated with said reciprocating bar and locking-bar by which the device may be easily arranged to deliver papers of different prices.

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