H. L. SULTZBAUGH.

VENDING MACHINE.

APPLICATION FILED AUG. 7, 1911.

1,131,015.

Patented Mar. 9, 1915.

3 SHEETS—SHEET 1.

Fig. 2.

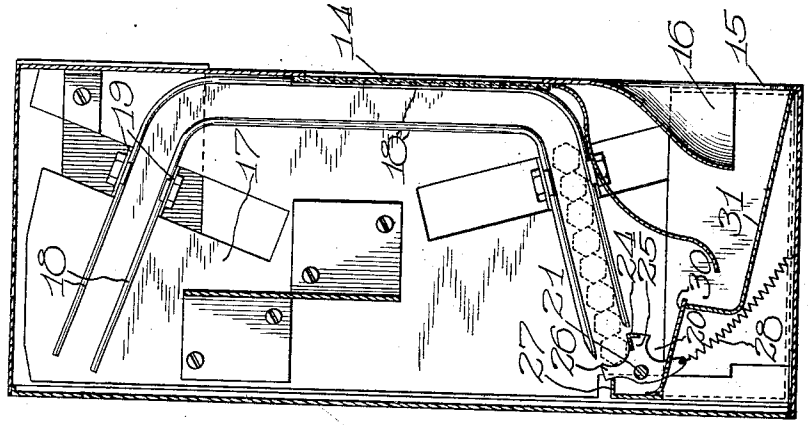
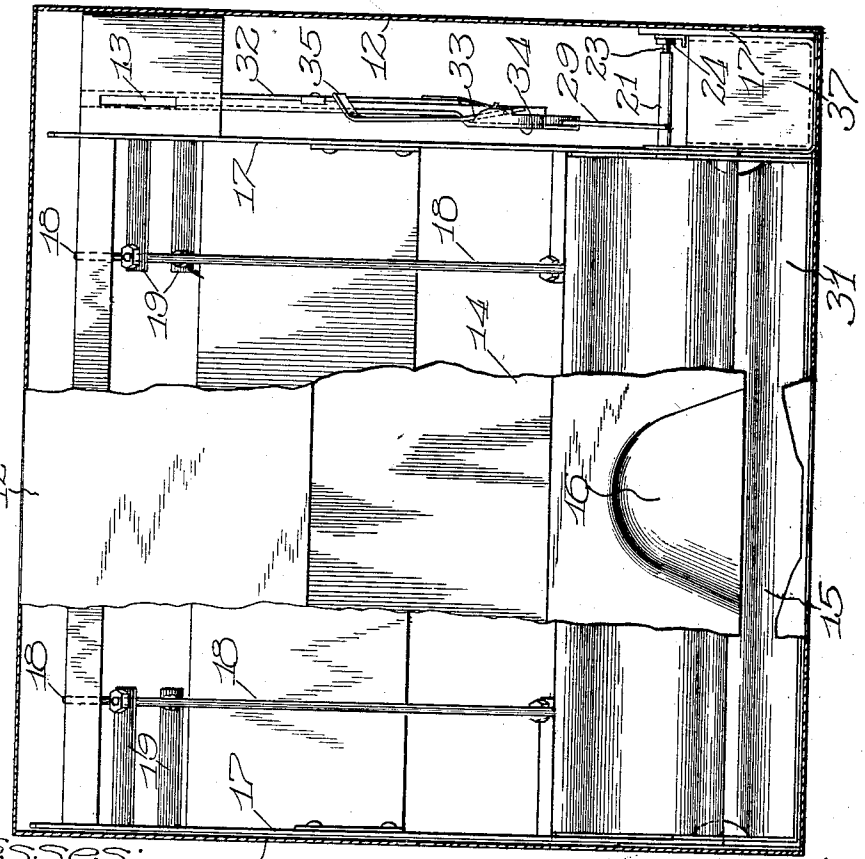


Fig. 1.



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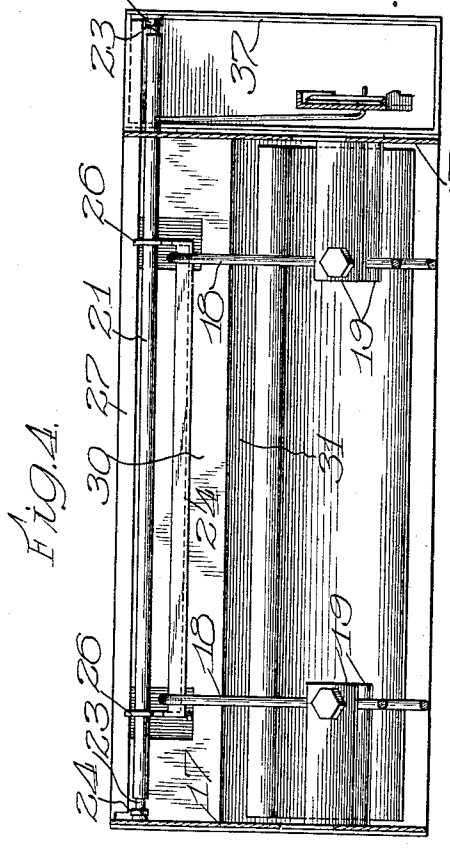


Fig. 4.

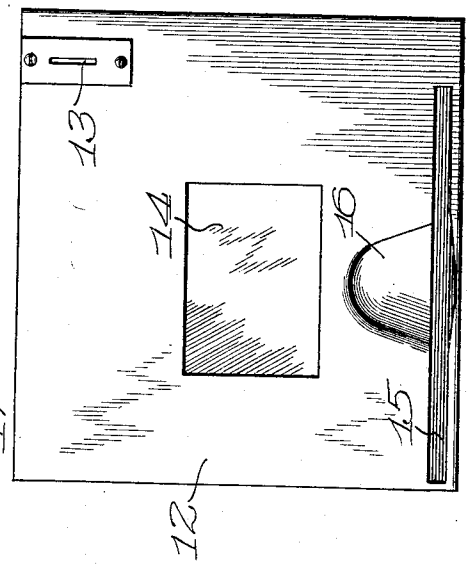


Fig. 3.

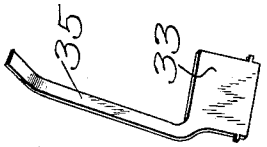


Fig. 8.

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3 SHEETS—SHEET 3.

Fig. 5.

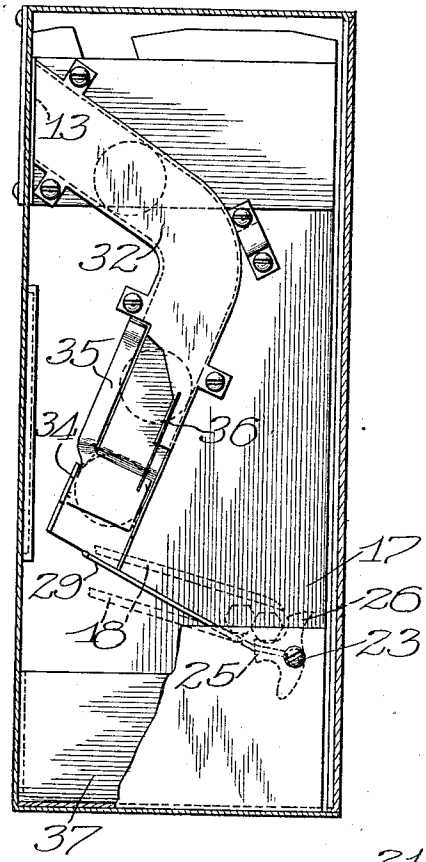


Fig. 7.

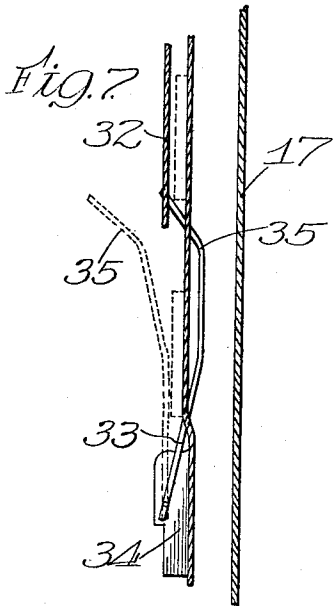


Fig. 6.

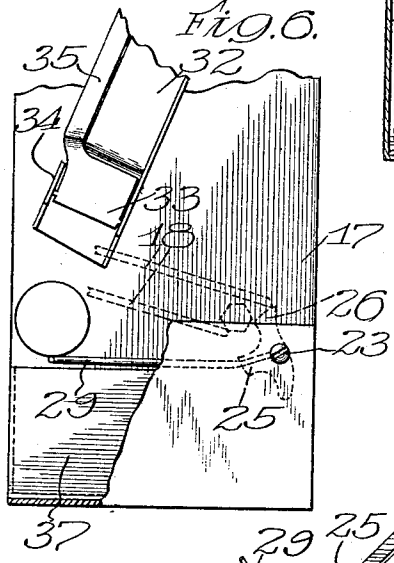
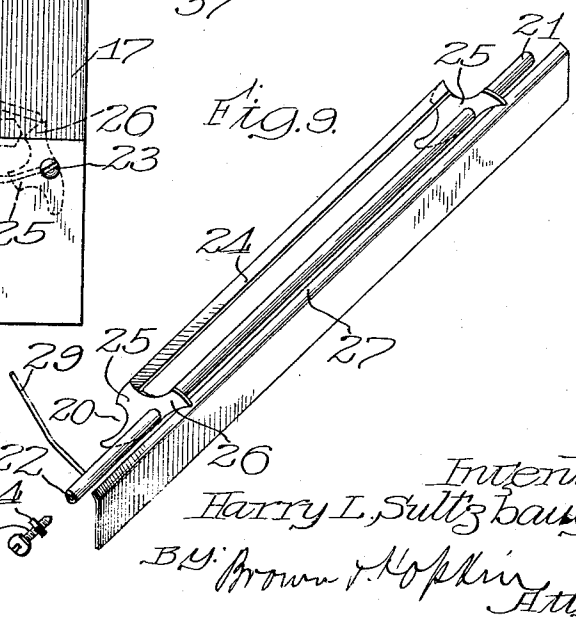


Fig. 9.



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UNITED STATES PATENT OFFICE.

HARRY L. SULTZBAUGH, OF CHICAGO, ILLINOIS, ASSIGNOR TO UNIVERSAL PENCIL COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ARIZONA.

VENDING-MACHINE.

1,131,015. Specification of Letters Patent. **Patented Mar. 9, 1915.**

Application filed August 7, 1911. Serial No. 642,854.

To all whom it may concern:

Be it known that I, HARRY L. SULTZBAUGH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to a vending machine and more particularly to that class of vending machines known as check control machines, and the principal object of the invention is to produce a simple, strong, cheap apparatus of the class described, which will be positive and reliable in action and effective and efficient in operation.

Another object of the invention is to provide an improved check selective means.

A further object is to provide improved reservoir facilities and means for discharging articles from the said reservoir.

For the attainment of these ends and the accomplishment of other new and useful objects, as will appear, my invention consists in the features of novelty in the construction, combination and arrangement of the several parts shown in the accompanying drawings and described in the specification, but more particularly pointed out in the appended claim.

In the accompanying drawings Figure 1 is a view in elevation and partly in section of the preferred embodiment of my invention, such as would be employed in a pencil vending machine; Fig. 2 is a cross sectional view of same; Fig. 3 is a view of a face plate of the casing of the pencil vending machine; Fig. 4 is a sectional plan view of the machine; Fig. 5 is a view showing the check controlling mechanism, with the vending device in position to be operated upon; Fig. 6 is a detail view of the vending device when operated by a selected check; Fig. 7 is a cross sectional detail view of the check selecting mechanism; Fig. 8 is a detail perspective view of the check selecting member; Fig. 9 is a view of the vending rocker.

Because of their very nature, vending machines must be entirely automatic and perfectly reliable in operation. They must also be provided with means for detecting imperfect or undersized checks, and must be provided with means for disposing of the same. The present invention is described more particularly as a pencil vending machine, although the principles embodied in the construction of the machine may readily be applied to machines for vending other articles. In pencil vending machines it has previously been the difficulty that the ends of the pencils rubbing or brushing against the end walls of the containing vessel or reservoir, causes the pencils to be unevenly advanced; in other words, they lodge crosswise in the containing vessel. This invention provides means whereby this difficulty is obviated and the pencil reservoir is so disposed that the lowermost pencils, or the ones next to be advanced, are not subjected to any undue strain because of the bulk of pencils above them.

Referring now more particularly to the drawings, a containing case 12 is formed with a check receiving slot 13, an indicating window 14, and a discharging slot 15. Adjacent the slot 15, and preferably disposed along the upper edge thereof, is an indented portion 16, which is adapted to facilitate the removal of articles from within the case through the slot 15. The present exemplification of my invention being described as a pencil vending machine, the indentation adjacent the discharge slot is specially adapted to facilitate the removal of pencils therefrom.

Suitably supported within the case 12 is a pencil reservoir comprising parallel guide ways spaced apart and composed of bent guide wires 18, which are also suitably spaced apart and secured in said spaced position. The frame work is preferably composed of sheet metal, which is adapted to provide a light and strong construction, and in the present embodiment of the invention strips 19 of the metal are slit and bent in such a way as to provide supports for the guide wires 18. These guide wires 18 are inclined at the ends so that pencils inserted therein are suitably held to feed downwardly, the lower inclined portion being so disposed that the pencils above do not exert a great downward pressure upon the pencils held thereby. The space for containing pencils

in the guideways is slightly greater in width than the length of pencil, so that the pencil will pass freely within the guideways without undue engagement with the walls of the case or the frame 17.

Arranged adjacent the lower extremities of the guideway is a vending device or rocker 20. This rocker comprises a shaft 21 provided at the ends with beveled apertures 22, and is mounted in a frame 17 by means of pivotal screws 23, which are secured in the frame, and which may be adjusted by means of a nut 24 to vary the pressure of the pivotal screw against the shaft 21. Supported by the shaft 21 is a shelf or receiver 24 which has connection at the ends with projecting members 25 which are secured to the shaft. These members 25 are irregular in form, with a projection 26 which engages a detent or stop 27 formed from the frame 17. The shelf 24 is normally in position at the end of the guideway and is adapted to receive an article or articles to be vended thereon. When the vending rocker is rotated a projection 26 takes the place of the article contained on the shelf and prevents the articles descending from the guideway. These end members 25 are provided with a resilient device or spring 28, secured at the other end to a fixed point in the case and adapted to return the rocker after an article has been vended, to the normal position, whereby another article to be vended will by gravity assume a position upon the vending rocker 20. Extending from the shaft 21 is an operating finger or arm 29. When this arm is guided or pressed downwardly the rocker 20 is rotated or tilted and an article held thereby is discharged from the rocker.

In the base of the case disposed below the vending rocker are platforms 30 and 31, which are inclined toward the front or discharging opening 15 of the case. It is evident that when the articles to be vended are discharged from the vending rocker they will pass along these platforms until they are in position to be reached from the slot 15 or from the indented portion 16 adjacent thereto.

Communicating with the check receiving opening 13 in the case is a check chute 32 secured to the frame 17, which is substantially of dimensions to admit a check of the proper size to pass therein. This check chute is formed with a bend therein, the chute being inclined to the receiving opening 13, so that the discharging end of the chute will not be in line with the receiving opening 13. Disposed into the lower end of the said chute 32 is a check selecting device comprising a selecting member 33, pivoted inside projection 34 and formed with a bent finger 35. This member 33 is disposed diagonally across the chute in its normal position, the finger 35 extending along one side of the chute with its outer bent end disposed diagonally across the chute 32 in a direction opposite to the other portion of the member 33. It will be noted that the finger 35 is disposed at the side of the chute and is preferably on the side adjacent the inner edge of the curved portion of the chute. Thus the finger is in such a position that an undersized check will be allowed to pass in the chute without engaging the finger 35, and when it strikes the diagonal portion of the member 33 it will be deflected from the chute. When, however, a check of the proper size is inserted in the chute the finger 35 is engaged, and the finger and member 33 are raised to permit the check to pass on down the chute. Thus it will be seen that the selective device is operative automatically to select checks of the proper size to pass on down the chute and to eject undersized checks from the chute. To retain the member 33 in its normal position after a check has issued from the chute, a resilient member 36 is secured to the chute 32, or some other suitable fixed portion which presses the said member into normal position.

The arm 29 is preferably disposed beneath the chute 32 so that a selected check will engage the arm, causing it to be moved and the vending member to be tilted. The checks deflected by the selective device are thrown clear of the said arm 29 and do not cause it to be engaged. In the base of the containing case, disposed beneath the selective device, is a slidable receptacle 37, into which the checks drop, and which is readily removable from the case.

This apparatus may be readily employed to vend any desired or suitable articles, but as it is herein disclosed it is particularly adapted to vend pencils and the like.

While I have thus described the preferred construction, combination and arrangement of the several parts which comprise my invention, it is evident that those skilled in the art to which this relates may make various changes therein without departing from the spirit and scope of the invention.

What I claim as new is:

In a check controlled vending machine, the combination of check selective means comprising a curved check chute, a check selective member pivoted in the sides of the chute and having a diagonal portion extending diagonally across the chute and provided with a selective finger extending along the edge adjacent the inside of the curve and with the end portion thereof extending diagonally across the chute in a direction opposite to the other diagonal portion, the said selective finger being effective to

engage a check of proper size whereby the member is raised and the check allowed to slip under the member and to permit an undersized check to slip by the said finger unengaged and to be ejected from the chute by said first mentioned diagonal portion.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 7th day of July A. D. 1911.

HARRY L. SULTZBAUGH.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."