No. 726,067. PATENTED APR. 21, 1903.

C. W. JOHNSON.

COIN COUNTING MACHINE.

APPLICATION FILED JULY 22, 1901.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

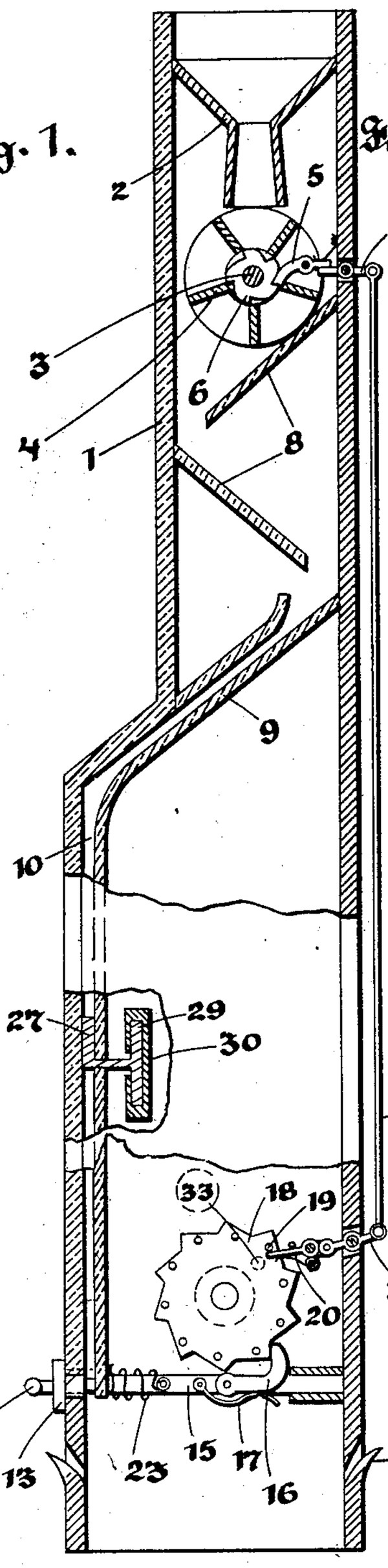
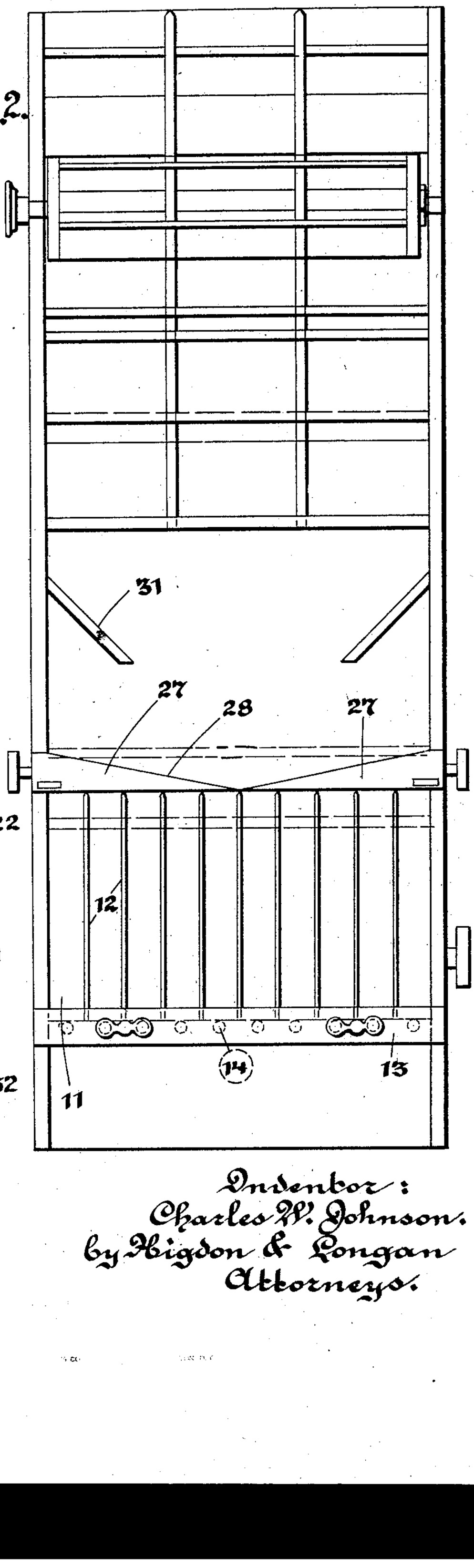


Fig. 2.



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COIN COUNTING MACHINE.

APPLICATION FILED JULY 22, 1901. 2 SHEETS—SHEET 2.

NO MODEL.

Fig. 3.

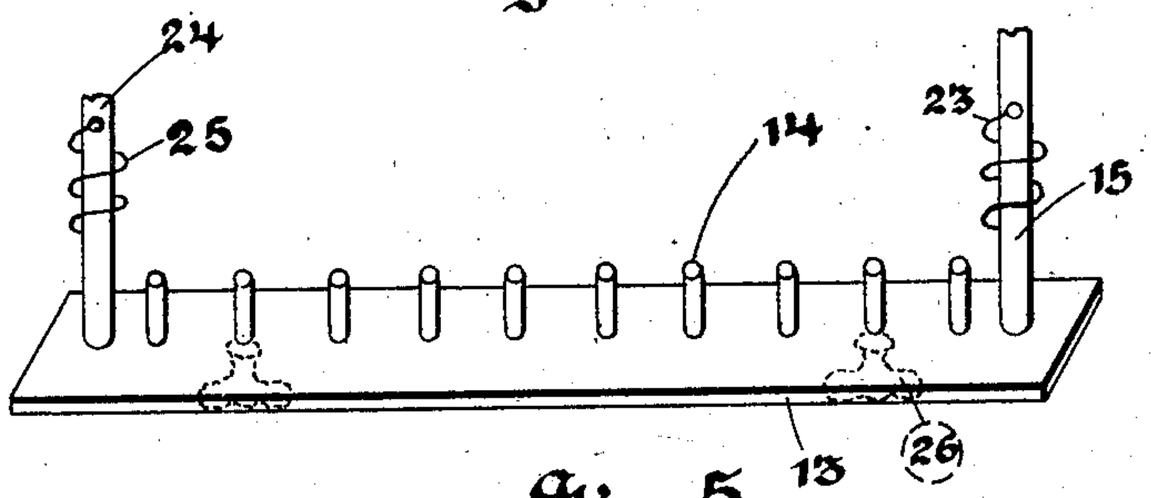


Fig. 4.

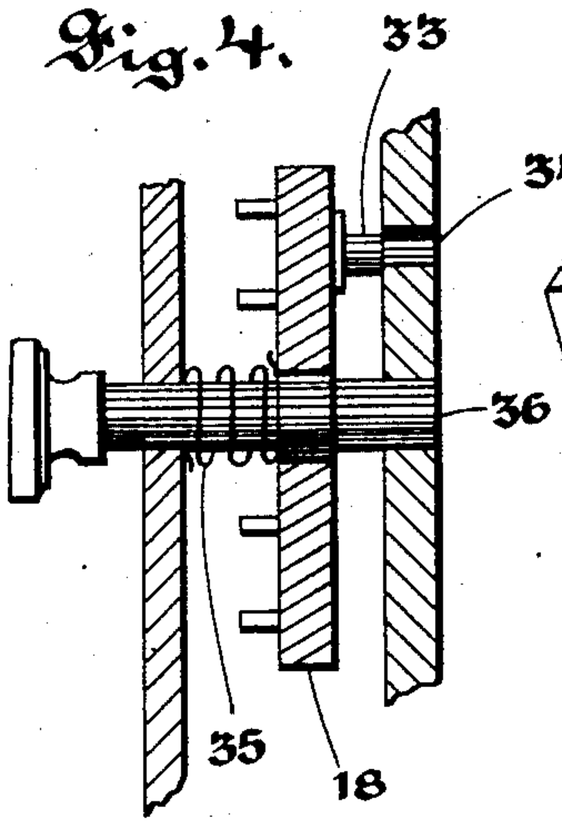


Fig. 5.

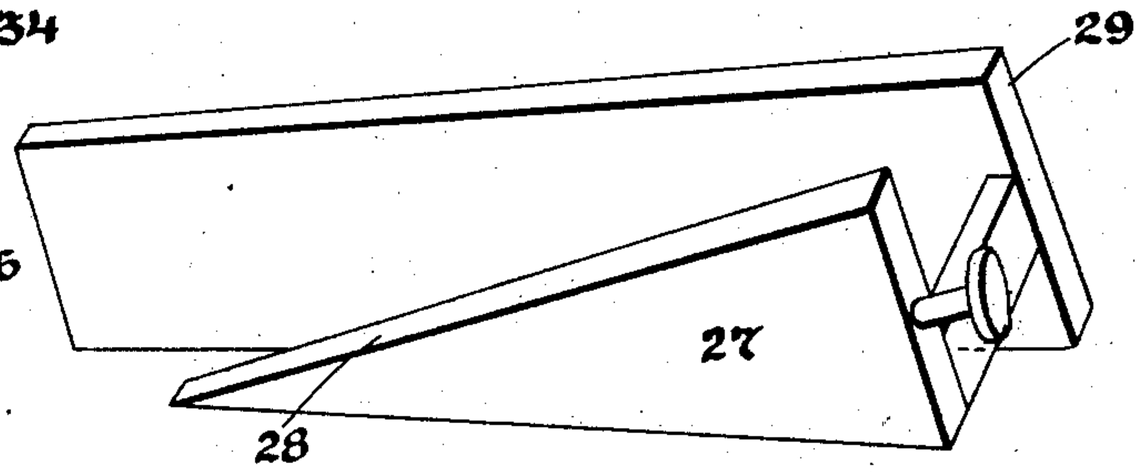
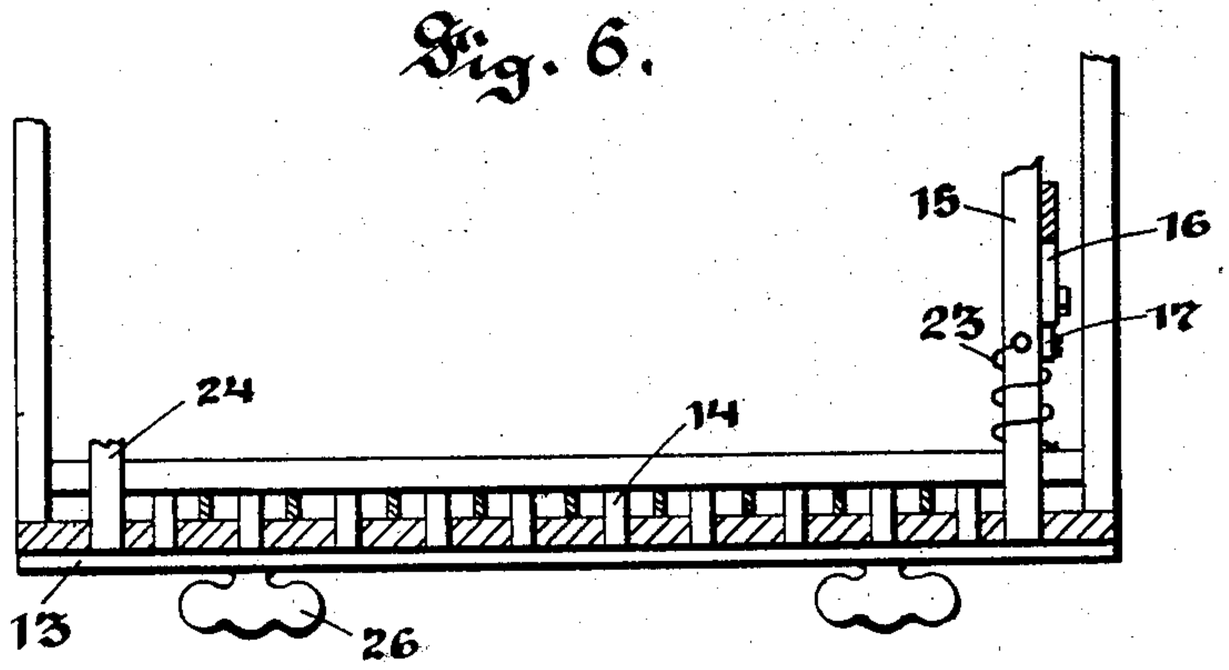


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES WADE JOHNSON, OF ST. LOUIS, MISSOURI.

COIN-COUNTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 726,067, dated April 21, 1903.

Application filed July 22, 1901. Serial No. 69,275. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WADE JOHNSON, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Coin-Counting Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to coin-counting machines; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a vertical section of my improved coin-counting machine. Fig. 2 is a front view. Fig. 3 is a perspective view of the supporting-pins by which the coins are upheld within the machine. Fig. 4 is a detail view showing the device by which the machine will be locked after a certain number of coins have been passed therethrough. Fig. 5 is a perspective view of one of the movable strips by which the passage of the coin from the machine is controlled. Fig. 6 is a cross-section of the front of the machine.

My improved machine consists of the vertical case 1 of any suitable height and divided into any number of compartments, through which the coins are passed to the counting devices. In the form shown the upper end of the case 1 is divided into three compartments, and within each compartment is a hopper or guide 2, into which the coins are placed. A shaft 3 is supported within the case 1 below the lower ends of the hoppers or guides 2, and the said shaft carries a number of radial strips 4, forming troughs, within which the coins are retained until delivered therefrom by the rotation of the shaft. As the coins are dropped through the hoppers or guides 2 they are received within the troughs formed by the radial strips 4 and are upheld thereby until the troughs are rotated to permit the coins to drop by gravity. An operating-pawl 5 is supported by one side of the case 1 and operates on the ratchet-wheel 6, fixed upon the shaft 3. A small lever 7 is supported within an opening in the rear side of the case, and the inner end of the said lever is underneath the rear end of the pawl 5 and affords means for raising the free end of the pawl to rotate the shaft 3 and deliver the coins into the troughs formed by the strips 4. Inclined guides 8 are supported at intervals within the case 1, and they serve to deliver the coins onto the inclined bottom 9, from which they slide to the coin-compartments. The said inclined bottom 9 continues downwardly near the front side of the case and forms a narrow passage-way 10 of substantially equal thickness with the coins which are to be passed through the machine. The lower part of the passage-way 10 is subdivided into a number of compartments 11 by the vertical partitions 12, and the distance between the said partitions is equal to the diameter of the coins which are to be passed through the machine, so that when the coins pass into the compartments 11 from the passage-way 10 they will be held one upon the other therein, each compartment being adapted to contain a definite number of coins.

13 indicates a horizontal strip which is supported in front of the case 1, adjacent to the lower end thereof, and fixed to the said strip 13 are a number of pins 14, which extend through openings in said case 1 and close the lower ends of the compartments 11, thereby upholding the coins within the said compartments until the pins are withdrawn. Connected to one end of the strip 13 is a small rod 15, which extends through the front of the case and through the vertical extension of the bottom 9 and carries on the rear end thereof a hooked pawl 16, the said pawl being upheld by means of the spring 17.

A ratchet-wheel 18 is supported within the case 1, and the said pawl 16 rides upon the periphery of the said ratchet-wheel and rotates the same when the strip 13 is drawn forwardly to permit the coins to pass from the compartments 11. A series of pins 19 project from one side of the wheel 18, and a lever 20 is pivotally supported within the case and has its forward end extending into the path of travel of the said pins. From this it follows that at each movement of the wheel 18 the lever 20 will be operated. A second lever 21, which is supported within an opening in the rear side of the case, is pivotally connected to the rear end of the lever 20, and a rod 22 connects the rear end of the lever 21 with the lever 7, thereby operating the said lever 7 and the pawl 5 each time the ratchet-wheel 18 is moved. A spring 23 encircles

the rod 15 and operates the same rearwardly, thereby holding the strip 13 in place against the front of the case and the pins 14 in position to close the lower ends of the compartments 11. A rod 24 projects into the case from the opposite end of the strip 13, and a spring 25 encircles the said rod and assists the spring 23 in holding the strip 13 in position. A knob 26 affords means for withdrawing the strip 13 from the front of the case and the pins 14 from the openings in the compartments 11 to permit the coins to pass therefrom.

Above the upper ends of the partitions 12 are located two strips 27, which operate within the passage 10 and through slots formed in the sides of the case 1. The said strips 27 have their upper surfaces 28 inclined, so that they may be forced inwardly when the passage 10 and the compartments 11 are filled with coins to raise all the coins above the upper ends of the partitions 12, and thereby separate a definite number of coins within each of the compartments 11. The coins may then be delivered from the compartments 11 by withdrawing the pins 14 from the lower ends thereof. Each of the strips 27 is connected to a retaining-strip 29, which operates within a guide 30, located within the case behind the vertical portion of the bottom 9. The guides 31 are located within the passage 10 above the strips 27 and serve to deflect the coins toward the center of the machine.

32 indicates hooks which are rigid with the case 1, near the lower end thereof, for upholding the bag or other receptacle to receive the coins as they are delivered from the compartments 11, as described.

In operation the coins are passed into the hoppers or guides 2, from which they drop into the troughs formed by the radial strips 4. When any trough has become filled with coins, the rod 15 is drawn outwardly, which rotates the wheel 18 and operates the connecting-rod 22. This forces the forward end of the pawl 5 downwardly, thereby rotating the shaft 3 and the troughs carried thereby and delivering the coins from the said troughs onto the inclined guides 8, from which they pass onto the inclined bottom 9 into the passage 10 and are upheld by the strips 27. The coins are then permitted to pass into the compartments 11 by withdrawing the strips 27, and an equal number of the coins will enter into each compartment. After the compartments have become filled the strips 27 are forced inwardly toward each other, which raises the surplus coins and leaves an equal number in each compartment. The strip 13 is then drawn outwardly, removing the pins 14 from the lower ends of the compartments 11 and allowing the coins to pass into the receptacle, which may be supported by the projections 32. The compartments 11 may be made in different sizes to accommodate coins of different denominations.

Means for locking the machine when it has become filled is provided, which consists of a pin 33, rigid with the inner face of the wheel 18, and an opening 34, into which the said pin passes after it has completed a revolution. The wheel 18 is actuated inwardly by a spring 35, mounted on a shaft 36, which supports the said wheel 18.

I claim—

1. A coin-counting machine, consisting of a suitable case having a number of uniform compartments, adapted to contain coins, a rotary receiver provided with horizontal troughs for delivering coins into said compartments, and means for receiving the coins therefrom, substantially as specified.

2. A coin-counting machine, consisting of a suitable case, a number of rotary troughs for receiving and delivering the coins into said case, and means located in the case for separating the coins into equal amounts.

3. A coin-counting machine, consisting of a suitable case having a series of compartments, stops for closing said compartments, a receiver, means for operating said receiver, and means for delivering an equal number of coins into each compartment.

4. A coin-counting machine, consisting of a case having a number of compartments formed therein, a rotary receiver above said compartments, means for passing the coins into said receiver, means for delivering the coins from the receiver into the case, and means for delivering an equal number of coins into each compartment within the case.

5. A coin-counting machine, consisting of a suitable case having a series of compartments formed therein, a rotary receiver for receiving and delivering the coins into said compartments, slides for separating the coins and for delivering an equal number into each of said compartments, and means for removing the coins from the compartments.

6. A coin-counting machine, consisting of a suitable case, a passage-way formed within the case and having a series of compartments formed therein, a rotary receiver adapted to receive the coins, means for operating said receiver to deliver the coins into said passage-way and into said compartments, means for inclosing the coins within said compartments, and means for delivering them therefrom, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES WADE JOHNSON.

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