

(No Model.)

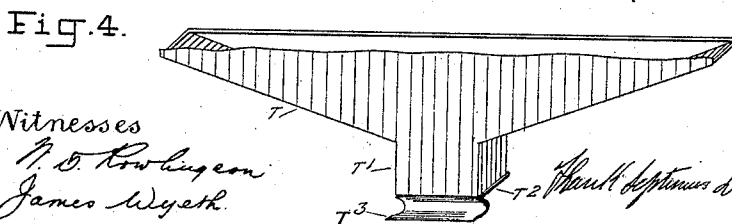
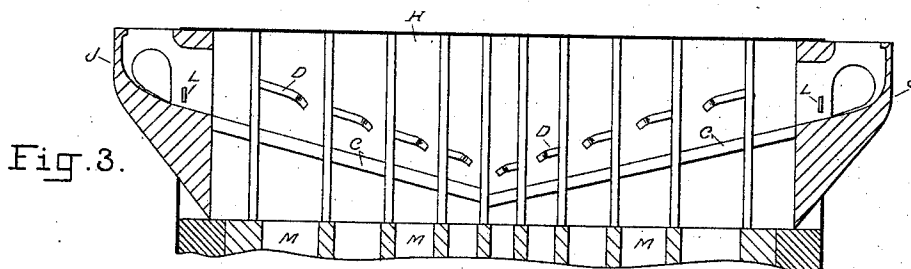
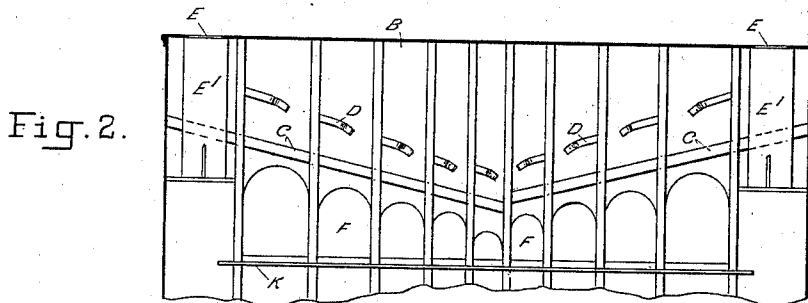
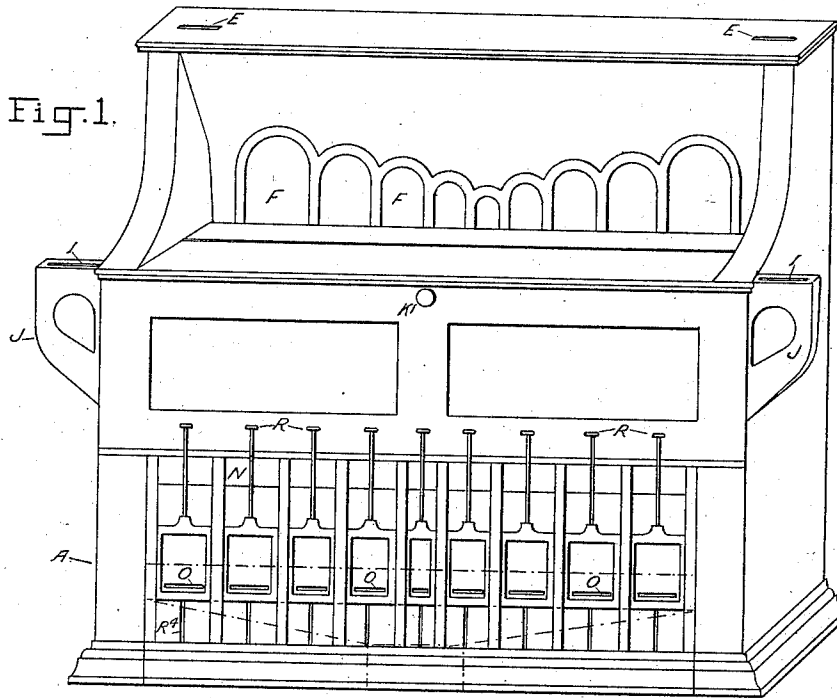
2 Sheets—Sheet 1.

F. S. D. SCOTT.

COMBINED COIN ASSORTING AND EJECTING APPARATUS.

No. 585,633.

Patented June 29, 1897.



Witnesses
N. B. Rowledge
James W. York

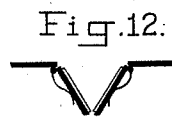
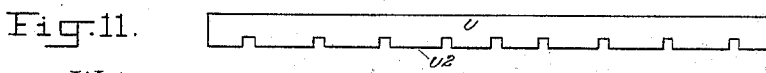
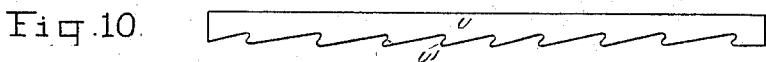
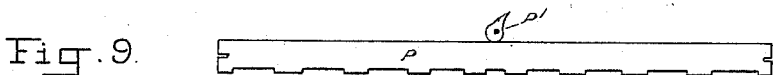
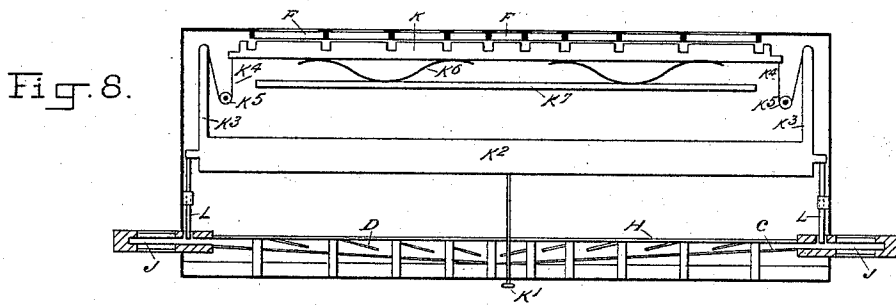
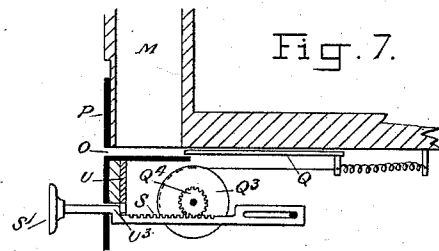
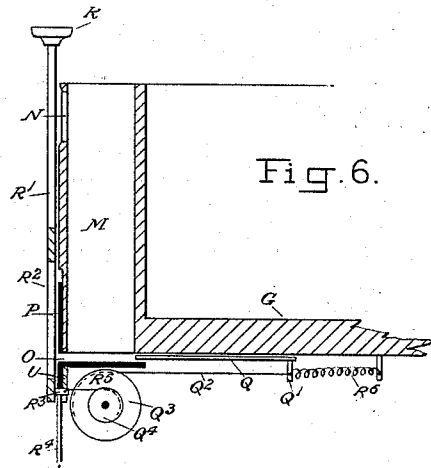
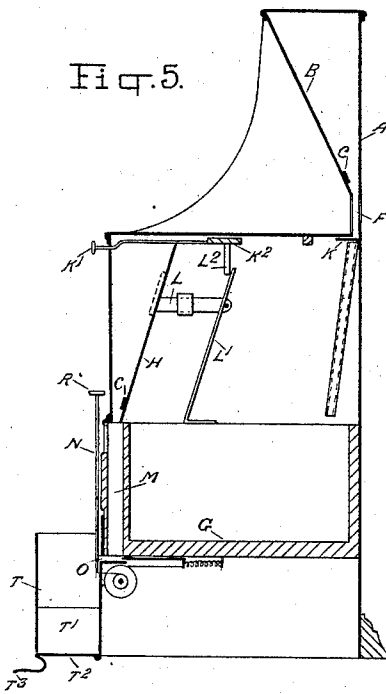
Inventor
Frank Stephens Devitt
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COMBINED COIN ASSORTING AND EJECTING APPARATUS.

No. 585,633.

Patented June 29, 1897.



Witnesses
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Frank S. D. Scott.

UNITED STATES PATENT OFFICE.

FRANK SEPTIMUS DEVONTEAUX SCOTT, OF LONDON, ENGLAND, ASSIGNOR
TO THE GLOBE CASHIER, (BRITISH AND FOREIGN,) LIMITED, OF SAME
PLACE.

COMBINED COIN ASSORTING AND EJECTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 585,633, dated June 29, 1897.

Application filed November 13, 1896. Serial No. 612,040. (No model.)

To all whom it may concern:

Be it known that I, FRANK SEPTIMUS DEVONTEAUX SCOTT, a subject of the Queen of Great Britain and Ireland, and a resident of
25 Upper Bedford Place, London, England,
have invented certain new and useful Improvements in a Combined Coin Assorting and Ejecting Apparatus, of which the following is a specification.

10 This invention relates to combined coin assorting and ejecting apparatus; and it consists of certain improvements in the construction of the apparatus.

Referring to the drawings which form a
15 part of this specification, Figure 1 is a perspective of a combined coin assorting and ejecting apparatus. Fig. 2 is a view of the upper coin-assorter with the case in section and looking from the opposite side of the apparatus to that shown in Fig. 1. Fig. 3 is a
20 view of the lower assorter, looking from the same side as Fig. 1. Fig. 4 is a perspective view of a detachable change-trough. Fig. 5 is a transverse section of the apparatus. Fig.
25 6 is an enlarged sectional view illustrating one set of the coin-ejecting mechanism operated by vertical press-knobs. Fig. 7 is a similar view to the last-named figure, but shows horizontal push-knobs. Fig. 8 is a sectional plan
30 illustrating the coin-releasing mechanism. Fig. 9 is a view of the bar for adjusting the size of the coin-slots. Fig. 10 is the locking-bar for the vertical press-knobs. Fig. 11 is the locking-bar for the horizontal push-knobs,
35 and Fig. 12 is an enlarged sectional view of the coin-cleaning device.

In constructing an apparatus according to my invention I form a suitably-shaped casing A, in the upper part of which is a coin-assorter B, which consists, essentially, of a vertically and horizontally inclined chute C, having a series of diverting-strips similar to D, corresponding to the sizes of the coins to be separated and so arranged that the largest coin
45 is first "turned off." This assorter is used for the "takings" which are dropped through slots E and E' in the top of the casing. Extending from these slots are inclosed channels E'' and E', which direct the coins onto the
50 inclined chute leading to the separator. In

order to prevent the apparatus from getting blocked should two or more coins be put through one of said slots side by side and get lodged in the channel, spring-binges are formed, preferably, at the bottom of each
55 channel-case, so that either of them can be slightly opened by a suitable device to allow the offending coin to drop down and pass into a drawer below. After the coins have been separated they fall into glass-paneled compartments similar to F and are visible from
60 both sides of the apparatus. From these compartments they are subsequently released by suitable mechanism hereinafter described and fall into the drawer G below.

Another assorter H, similar to the one previously mentioned, is placed just above the front portion of the drawer G. This assorter is used for the "change"—that is, when, say, as an example, a dollar has been tendered
70 over the counter in the purchase of a half-dollar article the coin tendered is dropped through a slot I into one of the small indicator-compartments J at the sides of the casing, and can be seen through a small glass
75 window from both the back and also the front of the apparatus, so as to save any dispute with regard to the value of the coin. Two half-dollars are then obtained from the till by simply pressing suitable knobs herein-
80 after explained, and the half-dollar for the article purchased is placed through a slot E in the top of the apparatus and can be seen in its proper compartment, while the half-dollar change is given to the customer, so
85 that the actual coin tendered and also the coin for the amount of purchase are visible from both sides of the apparatus.

A sliding shutter K is arranged in the bottom of the compartments F in the takings-assorter, and is operated from the back of the apparatus by a push-knob K', which is fastened to a longitudinal bar K'', having projecting arms K³. Cords K⁴ and K⁴, passing over pulleys K⁵ and K⁵, are connected with
95 said arms and also the end portions of the shutter K. Suitable springs K⁶, attached to the rail K⁷, retain said shutter in position. Sliding pins L, arranged at both ends of the apparatus in front of the change-indicator
100

compartments to prevent the coins from rolling into the separator until the mechanism is operated, connect with springs L' , which are engaged by the pieces L^2 on the bar K^2 , so that by pushing in the knob K' the sliding shutter K is drawn back and allows the coins in the compartments to fall into the drawer G . At the same time the coin in the change-indicator compartment is simultaneously released and allowed to pass into the assorter and finally enter a cavity, similar to M , corresponding to its size and denomination, in the front portion of said drawer. The cavities M are arranged beneath the assorter H and correspond in number to the variety of coins to be separated, so that each denomination of coin has its particular cavity. A strip of glass N is secured in the front of the drawer at the upper portion of the cavities in order that the operator can see when any or all of the cavities are full. Slots similar to O are made in the front portion of said drawer, communicating with the bottom of the cavities, so as to allow the bottom coin in each cavity to be ejected. A metallic strip P , extending the whole width of the drawer, is arranged above the slots O to regulate the width of said slots, so that only one coin can pass through each time its respective ejector is operated; but should a bent coin be in one of the cavities and unable to pass through the limited opening the metallic strip can be raised by suitable springs at both sides of the drawer, so as to increase the size of the openings and allow the coin to be easily ejected, after which the strip is readjusted to its usual position by a cam-lever, such as P' , or equivalent device.

Each of the cavities M aforesaid is provided with a separate coin-ejector, which consists of a sliding bar Q , arranged in suitable guides opposite the slot O and level with the bottom of the cavity, so that when the sliding bar is brought forward it pushes the bottom coin in the cavity through the slot. A stud Q' is projected from said bar and connects with one end of a cord Q^2 or other suitable substance, while the other end is fastened to a wheel Q^3 . This wheel is mounted upon a spindle upon which is also fixed another wheel Q^4 , of a smaller diameter, hereinafter mentioned. When it is desired to operate the ejectors by means of vertical press-knobs, such as R , the stems R' , supporting said knobs, are fastened to or form part of suitably-shaped slides similar to R^2 , capable of moving vertically between guide-bars on the front of the drawer. A pin R^3 projects from each of said slides through a vertical aperture R^4 in the lower portion of the drawer and is connected with a cord R^5 or the like, which also connects with the wheel Q^4 , before mentioned, so that by simply pressing in the knob, say, 1.55 centimeters, or thereabout, said wheel Q^4 is correspondingly revolved, while the larger wheel Q^3 , which connects with the sliding bar Q , is of such a circumference that this movement

is sufficient to draw said sliding bar forward the required distance. When the knob is released, a spiral spring R^6 , which connects with the sliding bar Q , causes said bar to return to its original position, ready to be operated again.

Horizontal push-knobs can be used instead of the vertical press-knobs, as shown in Fig. 7, in which case a suitably-supported horizontal stem S is extended from each knob S' and is provided with teeth to engage with the wheel Q^4 , before mentioned, but in this instance said wheel is toothed to correspond with the rack. The wheel Q^3 and the sliding bar Q are connected in a manner similar to that before explained.

A trough T for receiving the coins which are ejected from the cavities is formed at the lower portion of the drawer G and shown by dotted lines in Fig. 1 and in section in Fig. 5, or it may be detachable, as in Fig. 4. This trough has a suitable gradient from each side to the center of the drawer and terminates at a receptacle T' for the change. One or more reserve drawers are arranged to communicate with said receptacle, so that when it is desired to reduce the number of coins in the cavities to make space for others these drawers are used to receive the coins.

The change-receptacle aforesaid is provided with a hinged bottom T^2 , which is retained in the closed position by a suitable spring. A lip or hook T^3 is projected from the free end of this hinged bottom, so that the operator can with one hand open said hinged bottom and obtain the change.

A locking-bar U , having suitably-shaped notches U' , as shown in Fig. 10, is arranged to engage the pins R^3 on the vertical slides before mentioned. In the case of the horizontal push-knobs the bar shown in Fig. 11 is used, the projecting parts U^2 engage the shoulders U^3 on the stems S , so that when said bar is slid forward to the locked position by a suitable key the knobs cannot be moved and the machine is inoperative.

The slots through which the coins are put into the apparatus are V-shaped, Fig. 12, and are coated with felt or other suitable substance, the free ends being kept close together by light springs, so that the coins can be cleaned before entering the apparatus.

The operation of the apparatus is as follows: The coin tendered in the purchase of an article is dropped through one of the slots I —that is to say, through the slot at the right-hand side, if a silver or nickel coin, and at the left if a gold or copper coin. It then falls into its compartment J and can be seen through the inspection-window in said compartment. A corresponding sum to that tendered is now abstracted from the apparatus by pressing down one or more knobs R , corresponding to the value of the amount required. This action causes the sliding bars Q , connected with said knobs, to force the desired coins through the slots O , so that they

will fall into the trough T. The exact amount of the purchase is then placed through one of the slots E in the top of the apparatus, the right-hand side being for the silver and nickel and the left for gold and copper coins, and the change is handed to the purchaser. The coins representing the amount of the purchase fall through the inclosed channel E' onto the inclined chute C of the assorter D, and as they roll down said chute are turned off by the strips D, according to their size and denomination, and fall into their respective compartments F, in which they can be seen, so that the actual coin tendered and the coins amounting to the purchase are both on view in the apparatus and may be examined and compared with the change, thereby preventing fraud and dishonesty on the part of the employee in charge. Both the coin tendered and the amount of purchase are simultaneously released from their respective compartments by pressing in knob K', which causes the sliding shutter K to be drawn back and allow the coins in the compartments F to fall into the drawer G below, and also causes the sliding pins L of the compartments J to be pushed back clear of the openings through which the coins pass when released, in which case the said tendered coin rolls down the inclined chute of the assorter H until it is turned off by a diverting-strip similar to D and falls into one of the receptacles M corresponding to its denomination and size. Thus it will be noticed that an equivalent sum to the amount abstracted from the apparatus is returned thereto, while the takings are in a separate drawer G, accessible only to the proprietor or other authorized person.

The advantage in the use of the trough T is that the operator can obtain change with great rapidity, as several different coins may be abstracted from the apparatus in one operation by pressing down the corresponding knobs to the coins required with one hand and with, say, the side of the other lower the spring-bottom T², and the desired sum will slide into the hand.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a combined coin assorting and ejecting apparatus, the combination of the upper and lower sorters B and H, the glass-paneled compartments F, the compartments J and J at the ends of the apparatus each hav-

ing inspection-windows, the mechanism operated by press or push knobs for ejecting the coins from the cavities M, the trough T for receiving such coins and the mechanism for releasing the coins simultaneously from the compartments F and the compartments J, substantially as herein set forth and as illustrated.

2. In a combined coin assorting and ejecting apparatus, the combination of the upper and lower sorters B and H, the compartments such as F and J, the sliding shutter K and sliding pins L operated by a push-knob K' for releasing the coins in said compartments F and J simultaneously; the longitudinal bar K² connected with said shutter K by cords K⁴ passing over pulleys K⁵, the rail K⁷ and spring or springs K⁶, the springs L' connected with pins L and engaged by the longitudinal bar K², substantially as herein set forth and as illustrated.

3. In a combined coin assorting and ejecting apparatus, the combination of the assorter H, drawer G having cavities M and slots O; the sliding bars Q for pushing the bottom coins out of the cavities operated by suitable press or push knobs, the wheels similar to Q³ and Q⁴ and cords Q², the cords R⁵ or equivalent means, connected with said push or press knobs and wheels Q⁴; and the springs R⁶, substantially as herein set forth and as illustrated.

4. In a combined coin assorting and ejecting apparatus, the combination of the cavities M and the coin-ejecting mechanism, with the trough T having a receptacle T', a spring-hinged bottom T² on said receptacle and a lip or hook T³ on said hinged bottom, substantially as and for the purposes herein set forth and as illustrated.

5. In an apparatus such as described, the combination of the coin-assorters having vertically and horizontally inclined chutes; with the V-shaped coin-slots coated with felt or other suitable substance, the sides forming said slots provided with spring-hinges capable of keeping the free ends of said sides suitably together, substantially as and for the purposes herein set forth and as illustrated.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

FRANK SEPTIMUS DEVONTEAUX SCOTT.

Witnesses:

HARRY PETER VENN,
GEO. P. S. KELSEY.