(No Model.) 3 Sheets—Sheet 1.

P. G. WAGNER.

COIN DISCHARGING AND DELIVERING DEVICE.

No. 520,623. Patented May 29, 1894.

Fig. 1.

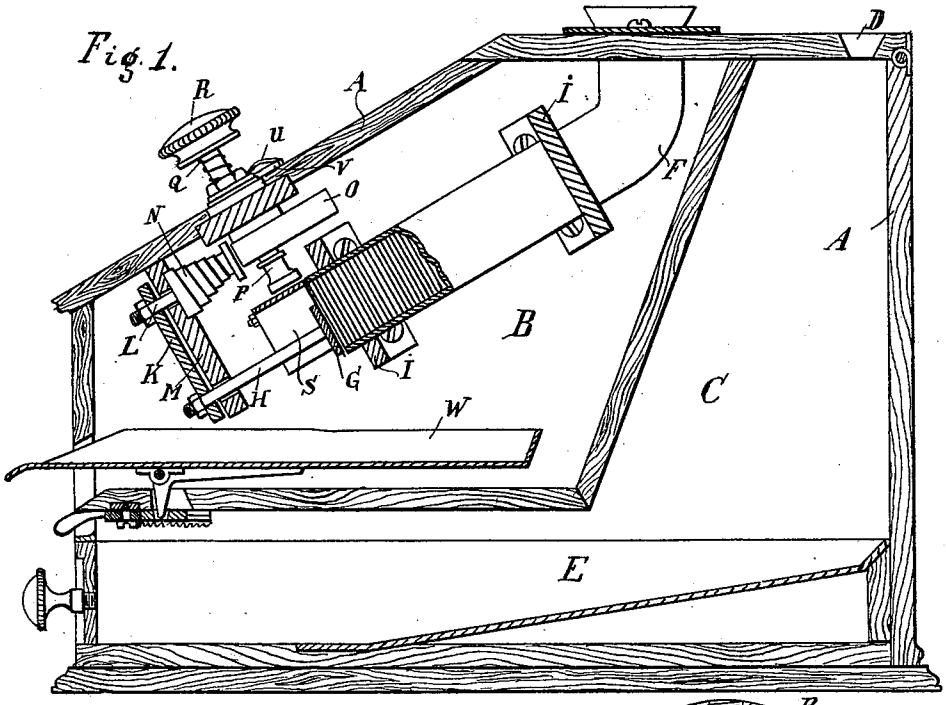


Fig. 2.

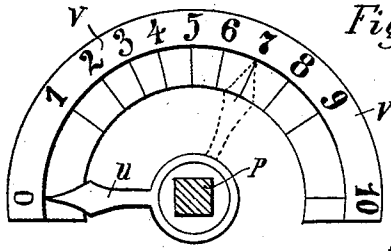
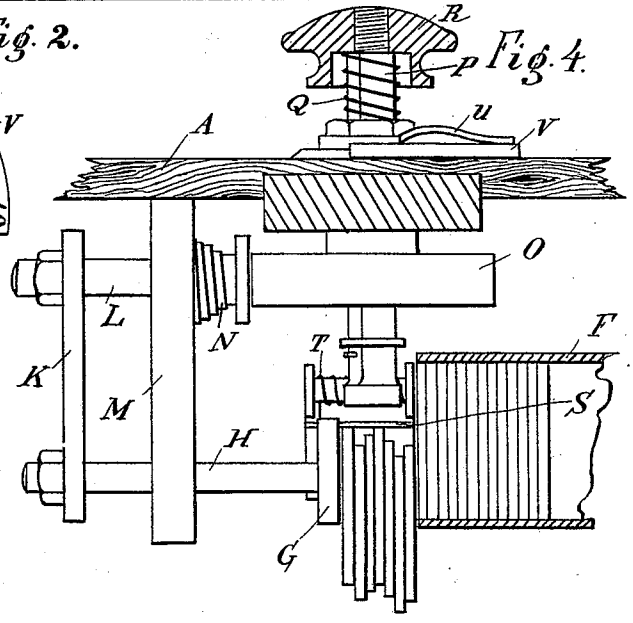


Fig. 4.



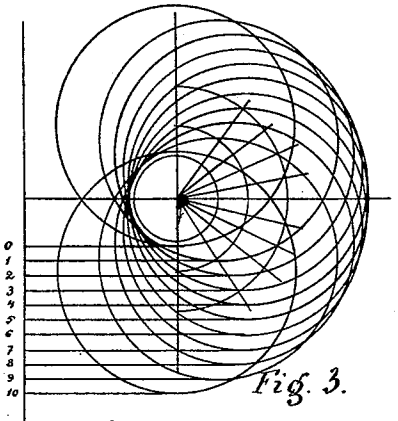


Fig. 3.

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Fig. 5.

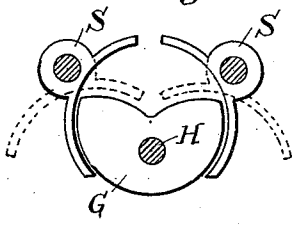


Fig. 6.

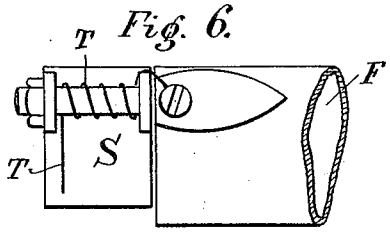
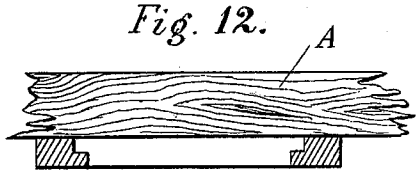


Fig. 12.



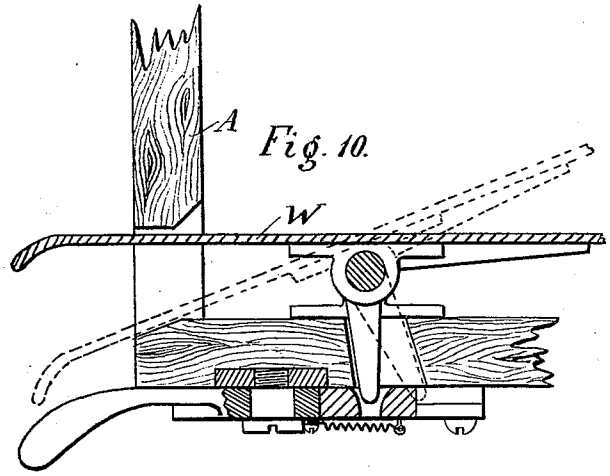


Fig. 10.

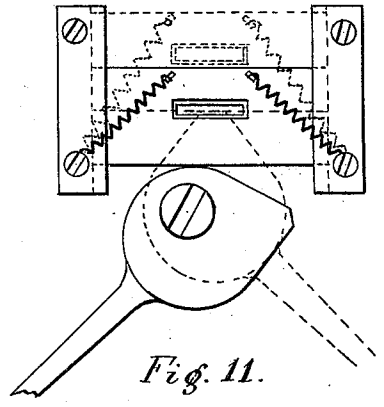


Fig. 11.

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COIN DISCHARGING AND DELIVERING DEVICE.

No. 520,623. Patented May 29, 1894.

Fig. 9.

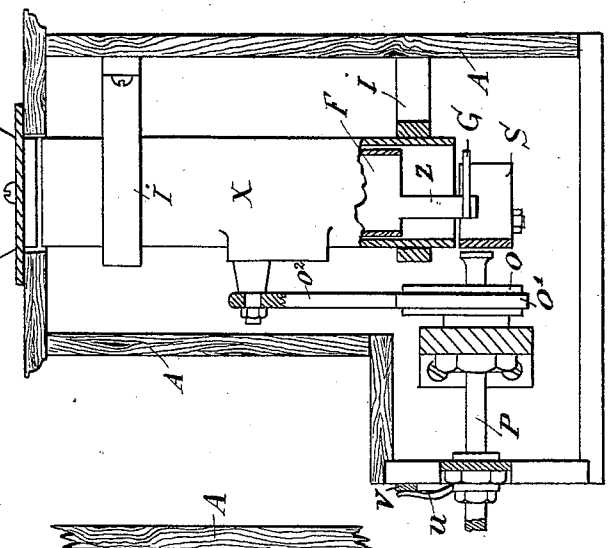


Fig. 8.

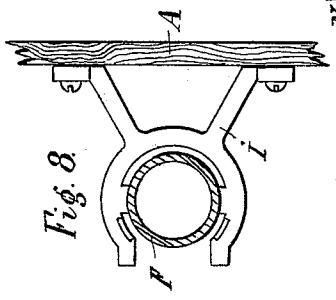
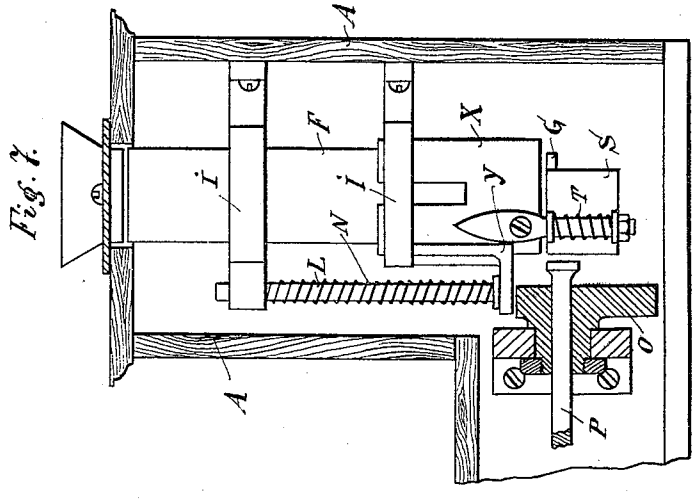


Fig. 7.



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UNITED STATES PATENT OFFICE.

PHILIPP GOTTLIEB WAGNER, OF DARMSTADT, GERMANY.

COIN DISCHARGING AND DELIVERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 520,623, dated May 29, 1894.

Application filed February 10, 1893. Serial No. 461,786. (No model.)

To all whom it may concern:

Be it known that I, PHILIPP GOTTLIEB WAGNER, a subject of the German Emperor, residing at Darmstadt, Germany, have invented certain new and useful Improvements in Apparatus for Changing and Counting Money, of which the following is a description.

My invention relates to an apparatus designed to facilitate cash transactions and to effect them mechanically as regards the delivery and counting of change and at the same time to serve as a cash box.

My newly designed apparatus presents above all the advantage, that within certain easily established limits, any desirable number of coins can be simultaneously delivered, and I attain this purpose, without making the apparatus complicated or very bulky or expensive, as is the case with most of the hitherto known apparatus.

A special advantage presented by my new apparatus is its very simple manipulation, as, when it is used for delivering money and more especially for counting money, only a simple manipulation is required, so that the apparatus can be handled by anybody, without any previous exercise, whereby errors are entirely excluded.

The new apparatus may be constructed in several distinct manners, in accordance with the special purpose for which it is adapted. Some of the most important forms of construction are illustrated in the annexed drawings, which form a part of this specification, and wherein like parts are designated by like letters of reference, throughout the several views. The apparatus shown in the drawings are adapted to deliver from one to ten coins simultaneously.

Figure 1, shows a vertical section of a box containing my apparatus. Fig. 2, shows the indicating scale and pointer employed. Fig. 3, illustrates the manner of constructing the scale. Figs. 4, 5 and 6, show parts of the apparatus on an enlarged scale. Fig. 7, shows a modified form of the new apparatus. Fig. 8, shows the manner of securing the coin tube in the box. Fig. 9, shows another modified construction of the apparatus. Figs. 10, 11 and 12, show details of the sliding board whereupon the coins are deposited.

Fig. 1 shows the apparatus arranged in a box A, that is divided in two compartments B and C. The apparatus proper is located in the compartment B while the compartment C serves for the reception of the coins still unsorted, which are introduced through a slot D and drop in the sliding receptacle E.

The delivery and counting apparatus proper, which, as stated before, is located in the compartment B, consists essentially of a coin tube F, corresponding in diameter exactly to the coin to be handled and arranged in an oblique direction, which tube is closed at its lower end by a removable coin-supporting-plate G, and carries at its upper end a funnel to facilitate the introduction of the coins. The coin tube F is secured in its position by means of the two transverse pieces I, and the coins of a certain description are piled up in said tube. The coin-supporting-plate G, closing the coin tube at its lower end, is connected by means of the rod H to one end of the transverse rod K, which is equipped at its other extremity with the rod L. Both rods H, and L, are passed through and guided by the transverse piece M, and are acted upon by the spring N, that is arranged on the rod L and pushes the same against an eccentric or cam O and also the coin-supporting-plate G against the coin tube F. The eccentric or cam O is suitably arranged in the cover of the compartment A, so as to allow of a rotary motion, and is provided with an angular aperture through which passes the sliding rod P. This rod P is equipped with a pressure knob R and is acted upon by a spring Q which tends to raise the rod. If the rod P is pushed downward it will open with its lower end the two jaws S, arranged on the coin tube F, which jaws are kept closed by springs T. By rotating the rod P the eccentric or cam O is moved and will thus compress the spring N, which will cause the coin-supporting-plate G to be more or less removed from the end of the coin tube F. The turning of the eccentric and the ensuing removal of the coin-supporting-plate G from the coin tube F is indicated by means of a pointer U on a scale V. This scale is constructed after a diagram, as shown in Fig. 3, and is so arranged that the removal of the coin-supporting-plate G from the coin tube F will be effected to a number of thicknesses of the coin

handled corresponding to the number indicated by the pointer U on the scale V.

The apparatus operates in the following manner: Assuming that it is desired to take seven coins from the apparatus, I turn the pressure knob R until the pointer U indicates 7 (see the dotted position in Fig. 2.) The eccentric or cam O is now rotated correspondingly and consequently the coin-supporting-plate G is now removed from the coin tube F for a distance corresponding to the thickness of seven coins. Consequently seven coins issue from the coin tube F and enter into the jaws S, still closed at this period. Now I push the knob R down, whereupon the jaws S will be opened (see dotted position in Fig. 5) and the seven coins drop upon the board W, whereby the lower end of the rod P will at the same time prevent other coins from issuing from the coin tube F. If it is desired to obtain the same number of coins several times, it is sufficient to push down a corresponding number of times the pressure knob R, and at every manipulation a like number of coins will be released. If it is desired to obtain another number of coins, it is only necessary to turn the pointer U on the desired number, and this can be done directly, *i. e.*, without first bringing back the pointer to zero. By then pushing down the pressure knob R, the desired number of coins is again released and drop upon the board W. The money is then removed from the board, either directly with the hand, or the board is brought in an inclined position by means of an eccentric mechanism, as shown in an enlarged scale in Figs. 10 to 12, so that the coins will slide directly into the hand.

The modified construction shown in Fig. 7 differs from the other only in so far as concerns the arrangement of the coin tube F, which in this construction is placed vertically, the arrangement of the coin-supporting-plate G being of course also correspondingly changed. The coin tube F is also in this construction secured by the transverse pieces I. The upper-transverse piece serves also as a guide for the rod L, and the lower one serves for the same purpose for a tube X sliding upon the coin tube F. The coin-supporting-plate G is fixed at a certain distance from the coin tube F. The rod L is fixed to an arm Y provided on the sliding tube X and this arm Y is held against the eccentric O by means of the spring N. The operation of this modified construction is like the one hereinbefore described, with the only difference that now the tube X slides, while the coin-supporting-plate G is stationary.

The modified construction, illustrated in Fig. 9, is essentially similar to the one shown in Fig. 7, inasmuch as the coin-supporting-plate G, which is movable in the construction shown in Fig. 1, is now rigidly connected by means of the arm Z to the coin tube F, and is kept at a certain distance from the lower end of said coin tube. The ensuing opening is closed by a second tube X arranged on the coin tube F. The coin tube F is lowered by means of the eccentric O, connected to the arm Y fixed to coin tube F by the medium of the strap O′ and the link O^2, so that by pushing on the rod P, the jaws S, which in this case are located on the tube X, will release the number of coins issued from the coin tube. Consequently it will be seen that in this construction, the coin tube F, which was stationary in the two constructions hereinbefore described, slides down with the coin-supporting-plate G, while the jaws S and the tube X are fixed. It is obvious that the same purpose may be attained by a simultaneous shifting of the coin tube F and the coin-supporting-plate G.

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

1. In a coin changing and counting apparatus, the combination with a casing of a tube in which the coins are placed, a coin-supporting-plate, jaws or valves at the end of the tube, a scale, and a pointer in connection therewith, and means for operating said parts so that a predetermined number of coins is released by setting the pointer on the corresponding number of the scale and then opening the jaws or valves at the end of the tube, substantially as shown and described.

2. In a coin counting and changing apparatus, the combination with a tube for holding the coins, of movable jaws or valves forming a continuation of the coin tube, at the discharge end thereof, a stop normally closing the end of the coin tube but adapted to be moved back in the jaws so as to allow the entrance into the same of any required number of coins, means for actuating the stop, an indicating device connected therewith, and means for actuating the jaws or valves so as to release the coins, therein, substantially as shown and described.

3. In a coin counting and changing apparatus, the combination with a suitable support, of a tube for holding the coins down which the same move by gravity, movable jaws or valves located at the lower end of the tube and forming a continuation thereof, a stop normally closing the end of the coin tube, but adapted to be moved back into the jaws or valves so as to allow any desired number of coins to enter the same, a knob connected with the stop, in such manner as to move the same back into the jaws when rotated, and a reciprocating rod or plunger connected with the knob, and adapted to open the jaws so as to release the coins therein, when the knob is depressed, substantially as shown and described.

4. In a coin counting and changing apparatus, the combination with a suitable support, of a slanting tube for holding the coins, movable jaws or valves S located at the lower end of the tube and forming a continuation thereof, a stop G normally closing the end of

the coin tube and adapted to pass back into the jaws S, a spring N for normally keeping the stop in a forward position, a knob R, a reciprocating rod or plunger P, secured to the knob, mechanism connected with the knob R, and actuated by the rotation thereof by which the stop G is actuated, and an indicating device, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PHILIPP GOTTLIEB WAGNER.

Witnesses:
FRANZ HASSLACHER,
FRIEDRICH OUEHL.