(No Model.)

A. L. PRATT.

MONEY CHANGER.

No. 315,544. Patented Apr. 14, 1885.

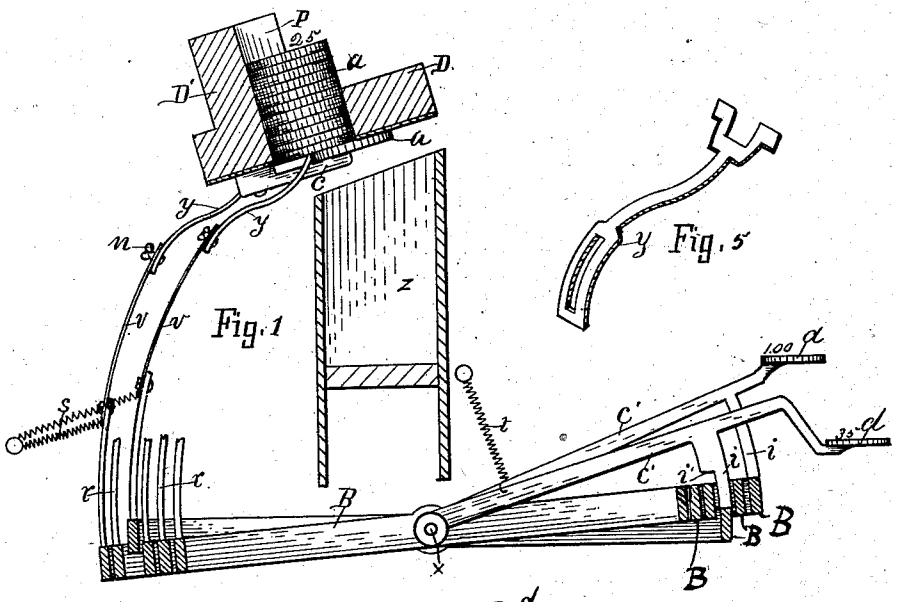


Fig. 1

Fig. 5

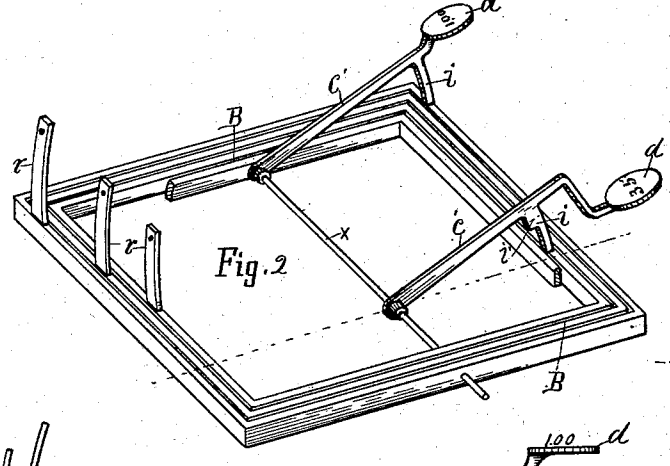


Fig. 2

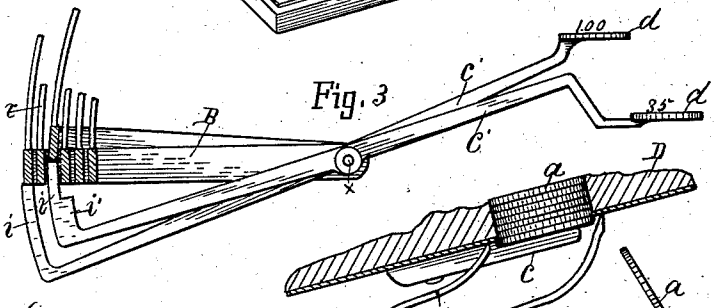


Fig. 3

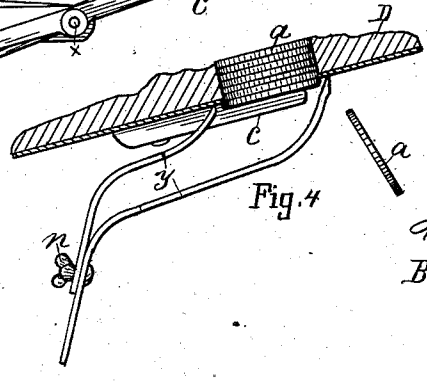


Fig. 4

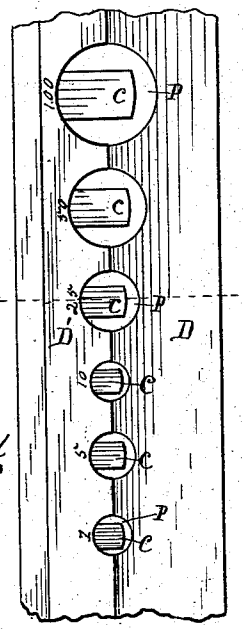


Fig. 6

Witnesses.
John C. Perkins.
John S. Chase.

Inventor
Arthur L. Pratt.
By Lucius C. West.
Atty.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR L. PRATT, OF KALAMAZOO, MICHIGAN.

MONEY-CHANGER.

SPECIFICATION forming part of Letters Patent No. 315,544, dated April 14, 1885.

Application filed October 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. PRATT, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Money-Changer, of which the following is a specification.

This invention relates to that class of money-changers in which coins of the same or of different denominations may be removed from their respective holders or pockets simultaneously, and discharged together through a common delivery, forming a combination of coins representing a given amount of change.

The object of this invention is to construct an improved device for the above-named purpose, to obviate danger of breaking and getting out of order, to effect greater mechanical simplicity, and to facilitate the operation.

A prominent feature in this invention is that the coins are pushed out of the coin-pockets by a direct leverage-power without the intervention between the "finger-keys" and the "coin-slides" (push-forks in the present construction) of connecting means liable to stretch, break, and otherwise get out of order.

In the drawings forming a part of this specification, Figure 1 illustrates a plan of the construction, the case-inclosure not being shown, parts in said figure being in section on the dotted lines in Figs. 2 and 6 and parts being left full; Fig. 2, a perspective view of a portion of Fig. 1; Fig. 3, a detail of parts in Fig. 1, showing an equivalent modification in construction; Fig. 4, an enlarged detail of parts in Fig. 1, showing a double push-fork and its use, hereinafter described; Fig. 5, an enlarged detail in perspective, and Fig. 6 a broken top plan view of the coin-pockets.

The coin-pockets P may consist of any desired number, preferably six, of sizes to contain one, five, ten, twenty-five, fifty, and one hundred cent pieces, Fig. 6. They may be made by boring them through a block of timber, D′, or otherwise formed, as desired. I prefer to construct the coin-pockets as shown in Figs. 1 and 6, in which the block D′ is provided with a shelf, D, lower than the height of the pockets, and bounding the lower front side of the same, thus leaving the upper portion of the pockets semicircular in form, which leaves portions of the coins therein exposed. This facilitates filling the pockets, as the operator, sitting in front, can toss the coins to place, and also in the removal of the coins from the pockets they can mostly be taken out from the top, which is frequently desirable when closing business for the night. The under side of the block D′ is faced with a metal plate when said block is not composed of metal. This pocket-block D′ is set at an angle to conform sufficiently accurate to the line described by the sweep of the push-forks *y*, as said forks come in contact with the under side of said block in their operation of pushing out the coins *a a*.

Tongues or coin-rests *c*, of a width narrower than the diameter of the coin-pockets P, are secured under each pocket, Figs. 1 and 6, a space being left between said rest *c* and the under side of the block D′, of a size corresponding to the thickness of the particular coins in the pocket.

When the coin-pockets P are filled with coins, the latter rest on the coin-rests *c*. Thus when a push-fork, *y*, is carried forward it straddles the coin-rest *c* and pushes against the bottom coin, forcing the latter out, when it falls into a spout and slides by its own gravity to a delivery-opening in the case, said delivery-opening not here shown.

In Fig. 1 an incline spout, *z*, is shown, into which the coins from any and all of the pockets P fall, this spout being here shown in cross-section, looking against its upper incline side, the walls each side of said spout being in vertical section. As this feature has been thoroughly illustrated in the prior state of the art, no further description is deemed necessary.

Such a number of finger-keys *d d* are employed as will correspond to the several combinations of change desired, a sufficient number being herein shown simply to show the mechanical construction and operation. These keys *d d* terminate the key-levers *c′ c′*, the inner ends of which levers are pivotally connected with a rod, *x*, the latter being at the lower side of the case, (case not shown,) approximately central and horizontally parallel with the pocket-block D′.

As a means of imparting to the push-forks *y* the movement given the keys *d d* by pressing

down upon them, I employ teeter-levers B, one placed within the other and centrally fulcrumed to the rod *x*. As many levers B are employed as there are money-pockets—six in the drawings. In Fig. 1 the whole number are shown in cross-section. In Fig. 2 some of the teeter-levers are left out and some broken away. These levers in Fig. 2 represent rectangular frames having four sides—viz., front and rear bars and side bars—one frame within the other, and fulcrumed to the rod *x* approximately centrally in the lower part of the case. These levers B at the back side are connected with the push-forks *y*, the bars *r v* simply amounting to an extension or handle of the push-forks. The part *v* is elastic metal, and the fork *y* is adjustably connected therewith by set-screw *n*. The elasticity of the push-fork handles obviates danger of undue friction of the forks with the under side of the pocket-block D'. In lieu of this the fork-handles *r* might be hinged to the levers B and the elasticity be imparted by connecting-springs S; but the fork-handles may be made, if desired, non-elastic and non-adjustable. The office of the springs S in this construction is to obviate danger of the push-forks *y* not being drawn back after having pushed out a coin by the descent of the back part of the teeter-levers B. It is designed to make said portion of the levers B heavier than the forward portions, so that they will automatically fall and pull back the push-forks. This is usually done by locating the fulcrum *x* a little forward of the center. Thus the springs S may or may not be used, as desired.

The key-levers *c'* are provided with downward projections *i*, adapted to press down the forward bars of the teeter-levers B when the keys *d d* are pushed down. The projection *i* of a given key-lever, *c'*, upon the key *d* of which a certain sum is marked, operates the particular teeter-lever B with which the push-fork is connected, which is to push out a coin representing said sum. To illustrate: The one-dollar key operates the outside or first teeter-lever, and to the rear bar of said lever the one-dollar push-fork is connected, said fork of course operating beneath the one-dollar coin-pocket. This arrangement is followed in regard to the other key-levers and projections; but when the key *d* is marked with such a sum as to require two or more pieces of coin of different denominations to compose the sum, the projection *i* is provided with prongs or shoulders adapted to press upon all the levers B with which such forks are connected as are necessary to push out the said two or more pieces of coin. To illustrate, referring to key marked 35: To obtain this amount from the case requires a twenty-five-cent coin from the twenty-five-cent pocket, and a ten-cent coin from the ten-cent pocket. Observe that the projection *i* has a shoulder, *i'*, adapted to press down on the lever B with which the ten-cent push-fork is connected. Thus the downward movement of the thirty-five-cent key operates both the twenty-five-cent and the ten-cent levers and push-forks, pushing both coins out at the same time. They are pushed out at the same time, because the distance from the foot of the projection *i* to the shoulder *i'* corresponds to the difference in the distance which each coin has to be moved before it will drop from its rest *c*, one of the coins being larger than the other.

As an equivalent to the shouldered projection, a key-lever may be provided with a forked projection, or with more than one projection, adapted to press upon any combination of levers, B, desired. To illustrate: A one-dollar-and-fifteen-cent key-lever could have a projection for operating the one-dollar lever B, one for the ten-cent lever B, and another for the five-cent. Thus the mechanism may be arranged and constructed to deliver any coin or combinations of coins desirable and practicable, a mention of each conceivable combination not being deemed herein necessary.

Springs *t* are connected with the key-levers *c'*, to bring them up again after having been pressed down.

In Fig. 3 an equivalent illustration of the principles of my invention appears. It consists in levers composed of side bars in the rear of the fulcrum *x*, and rear bars connecting the rear ends of said side bars, representing halves of square frames, one within the other, and in extending the levers *c'* rearwardly beyond their fulcrum *x* beneath the rear bars of the levers B, where they are provided with projections adapted to lift up on said rear bars of the levers B in the same manner of pressing down on the front bars of said levers B in Fig. 2. To obviate the necessity of having a coin-pocket for two-cent coins, and in the absence of twenty-cent coins, I make the push-forks for the cent and ten-cent pockets double—that is, I locate one fork in the rear of another, with a little greater distance between them than the diameter of the coins—that is to say, such a distance that one coin will be pushed out and the coin above will have settled down on the rest *c* by the time the rear fork is ready to push out said latter coin, Fig. 4. In this figure the forward push-fork has pushed out a cent or a ten-cent coin, as the case may be, and the rear fork secured to the same handle is ready to push out the second coin, which is effected by a further downward movement of the key. In this case the projections *i* of the two-cent and twenty-cent key-levers will be twice as long as they would be if but a single coin were required from the cent and ten-cent pockets; but as there are no two-cent and twenty-cent pockets P there need not be any two-cent and twenty-cent keys, and preferably so by simply making the projections *i* of the two-cent and ten-cent key-levers of double length, then when a single coin is desired the key will be pressed down half the distance, as when two coins are desired.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a money-changer, the combination of a series of coin-pockets adapted for the bottom coin to be pushed from beneath the coins above, a series of push-forks for pushing out the coins, a series of levers fulcrumed in the lower side of the case and having rear bars connecting with the push-forks, and a series of key-levers provided with suitable projections for operating the levers, which connect with the push-forks, substantially as set forth.

2. In a money-changer, the combination of a series of coin-pockets provided at the open bottom with the coin-rests, a series of rectangular frame-levers, one within the other, and fulcrumed substantially at their center in the lower part of the case, push-forks having flexible handles connecting with the rear bars of the rectangular frame-levers, and a series of key-levers provided with projections for pressing upon one or more of the frame-levers at a single movement, substantially as set forth.

3. In a money-changer, the combination of the coin-pockets having the narrow coin-rests below the open bottom of the pockets, the push-forks adapted to engage the under face of the coin-pocket block and to straddle the coin-rests during the sweep of said push-forks in pushing out the coins, and suitable levers for pushing said forks, substantially as set forth.

4. In a money-changer, the combination of a series of coin-pockets, a series of push-forks having downwardly-extended handles, a series of levers fulcrumed in the lower portion of the case, and having rear bars connecting with the fork-handles, springs for assisting the rear part of the fulcrumed levers to fall to place in pulling back the push-fork, and key-levers having the projections for pressing on the fulcrumed lever, all substantially as set forth.

5. In a money-changer, the combination of a coin-pocket provided at the bottom with the narrow coin-rests, a lever fulcrumed at the lower side of the case and having a rear bar parallel with said fulcrum, a double push-fork the handle thereof connecting with said rear bar, and a key-lever provided with a projection of suitable length for pressing on the fulcrumed lever to give the double push-fork a sufficient sweep to push two coins out of the coin-pockets, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

ARTHUR L. PRATT.

Witnesses:
JOHN H. CHASE,
I. L. WEST.