(No Model.) 2 Sheets—Sheet 1.

W. H. STAATS.

MONEY CHANGER.

No. 422,258. Patented Feb. 25, 1890.

Fig. 1.

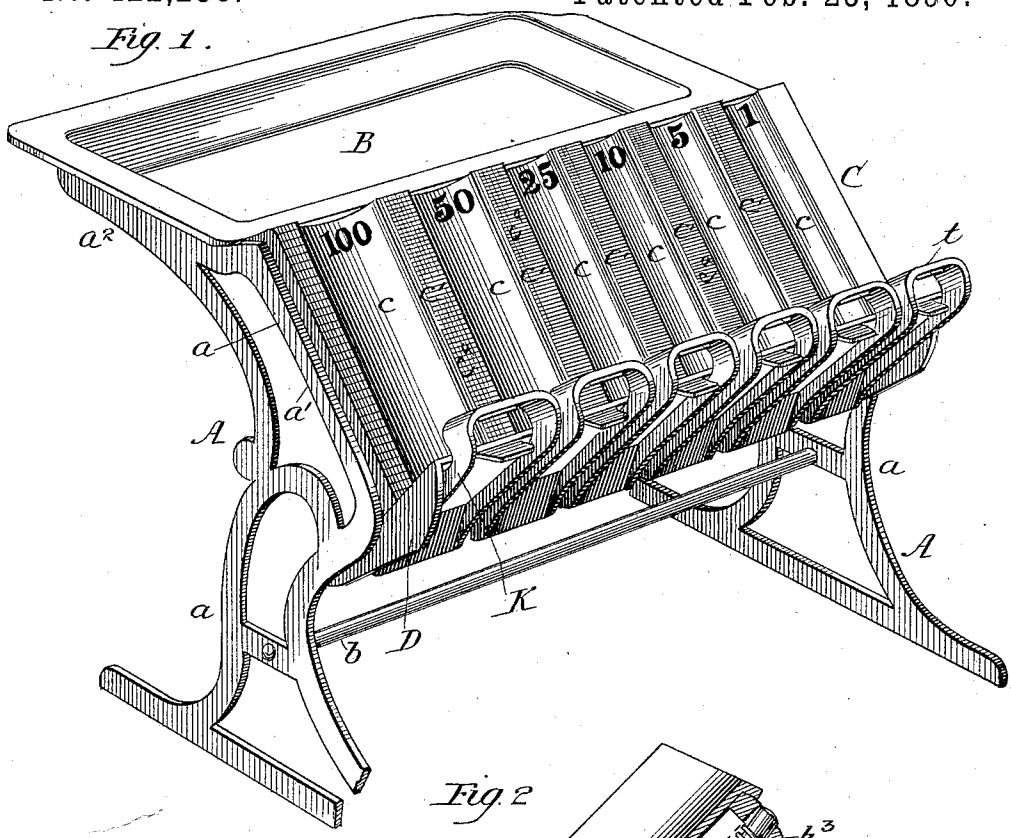
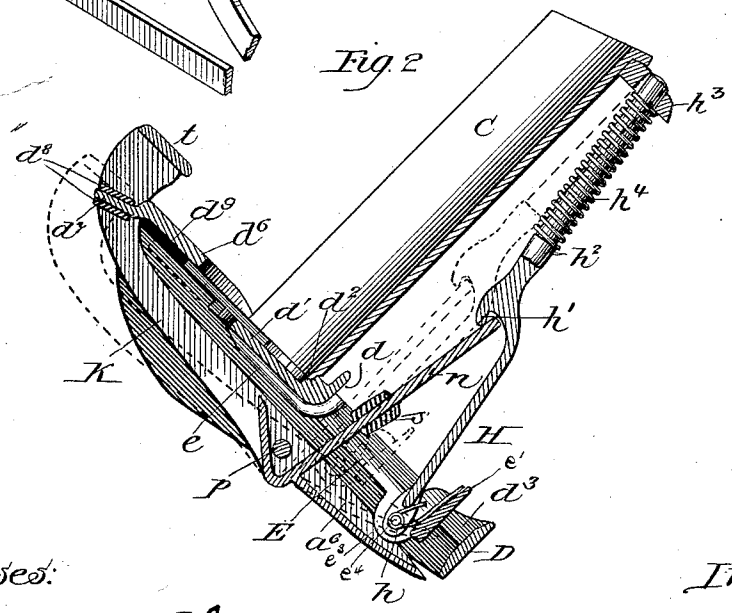


Fig. 2



Witnesses:

Frederick Steers.

E. L. Staats

Inventor:

William H. Staats

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

(No Model.) 2 Sheets—Sheet 2.

W. H. STAATS.

MONEY CHANGER.

No. 422,258. Patented Feb. 25, 1890.

Fig. 3.

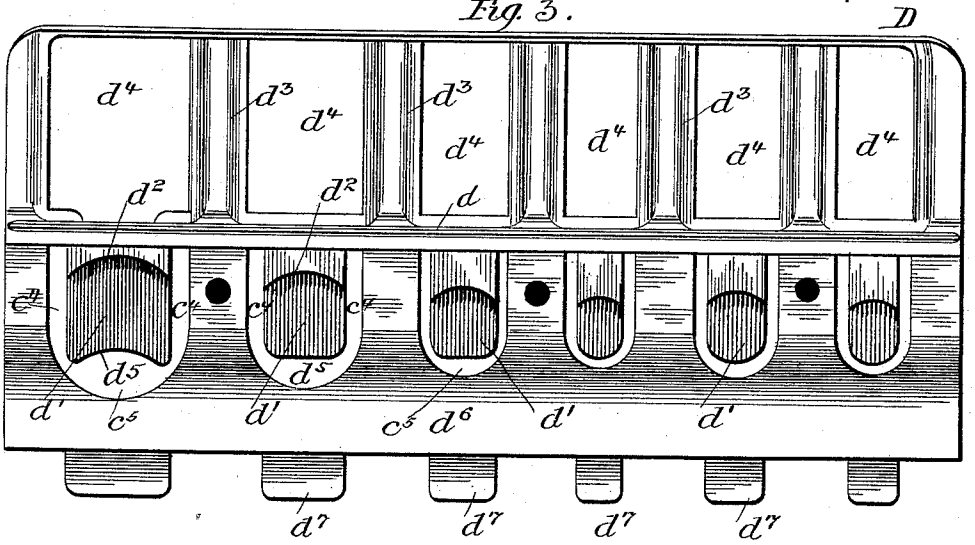


Fig. 4.

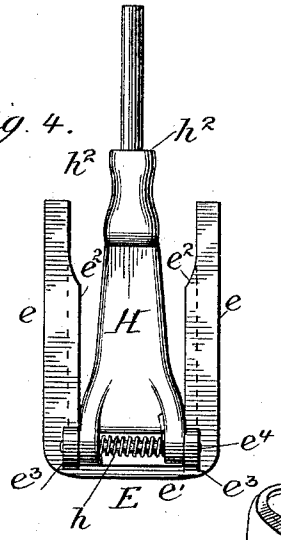
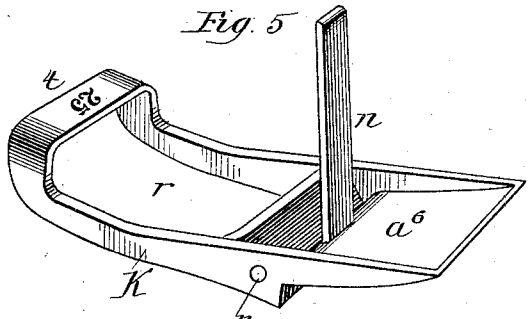


Fig. 5



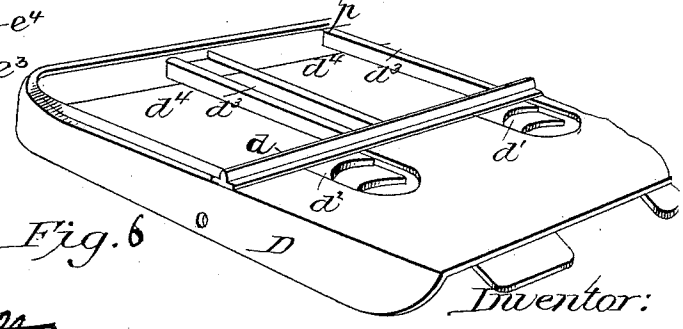


Fig. 6

Witnesses:
Frederick Steere.
E. L. Staats

Inventor:
William H. Staats

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

UNITED STATES PATENT OFFICE.

WILLIAM H. STAATS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO JAMES F. GRIFFIN, OF SAME PLACE.

MONEY-CHANGER.

SPECIFICATION forming part of Letters Patent No. 422,258, dated February 25, 1890.

Application filed September 13, 1889. Serial No. 323,815. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. STAATS, 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 Money-Changers, of which the following is a specification, to wit:

My invention relates to improvements in money-changers; and it consists in the particular construction and arrangement of the same, as will be hereinafter fully described, and pointed out in the claims.

To enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe my improvements, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my money-changer ready for use. Fig. 2 is a vertical sectional view through one of the coin-receptacles. Fig. 3 is a plan view of the frame for supporting the coin-holder. Fig. 4 is a detail view showing lever, spring, and ejector-slide; and Fig. 5 is a detail view of the key-lever and connection. Fig. 6 is a view in perspective of one end of the frame D.

Similar letters refer to like parts throughout the several views.

A is the supporting-frame, consisting, preferably, of the legs a a, connected together by the brace-rod b. These legs have the inclinations a' a' and tray-supporting arms a^2 a^2, as shown in Fig. 1 of the drawings. I prefer to make the supporting-frame of the form or shape as shown in the drawings, each side preferably in one piece; but it may be made of any other suitable form or shape, as desired. Upon the arms a^2 a^2 rests the tray B for holding loose coin or any matter.

C is the coin-holder, consisting of a single casting and provided with a series of coin-receptacles c, of semicircular form, backwardly inclined, the receptacle being simply depressions in the casting of a depth about one-half of the diameter of the coin and graduated to the size of the respective coins to be held, the receptacles being separated by raised ledges c', each ledge having a graduated scale c^9 to determine the amount of coin in each receptacle, if desired. This coin-holder C is hung or suspended on the legs a a, preferably suspended or connected at the top by hooks, lugs, or in any suitable manner. At the bottom the coin-holder is firmly secured to the frame D, which carries all the operating devices.

The frame D is all in one piece of cast metal, and preferably made of the shape as shown in Figs. 3 and 6 of the drawings. It has the strengthening-flange d running from side to side at or near the center, cast with which are the coin seats or rests d', corresponding with the number of the coin-receptacles c c, being below the bottom surface of the coin-holders a distance equal the thickness of the coin, having in the rear the raised portions d^2, flush with the bottom of the coin-holder. Running from the flange d to the rear of the frame D are guide-braces d^3 d^3, corresponding with the number of the coin-receptacles, leaving suitable spaces d^4 d^4 for the reception of the lever and pushing devices, as presently explained. In front of the flange d, and opposite and corresponding with the spaces d^4, are openings d^5, of sufficient size to leave side spaces c^4 c^4 and front spaces c^5 c^5 around the coin-seats d'. The front portion d^6 of the frame D is raised flush with the bottom of the coin-holder. This arrangement is such that the coin-seat d', being below, will allow one coin only at a time to pass out and retain the second coin until the first is being pushed out. d^7 d^7 are lugs on the front of the frame D, corresponding in number with the coin-receptacles, around which lugs are placed rubber bands or cushions d^8, to deaden the noise in operating the pushing or sliding devices. Between the lugs d^7, on the bottom of the frame D, I provide also rubber cushions d^9. The arms of the key-lever in the normal position rest against the cushion d^9. When the key-lever is returned to its normal position, the arms of the same strike against the cushion, which will deaden the sound and avoid any noise by said striking.

E is what I call an "ejector-slide," which consists of two parallel or forked arms e e, at suitable distance apart, connected at one end by a brace e', the opposite ends being open. The inner tops of the arms e e are formed with raised ledges or flanges e^2 e^2, which move through the spaces c^4 c^4, the main body of the

arms e e sliding on the braces d^3 d^3. The ledges e^2 e^2 prevent any lateral movement and keep the ejector moving in a positive direct line. The outer ends of the arms e e are cut out circularly to correspond to the size of the coin, so that the coin will be pushed off or ejected from its seat or resting-place. On the bottom of the arms e e, at the back end, are lugs e^3 e^3, through which passes a pivot or rod e^4, upon which is hinged an upright lever H, bifurcated at its lower end, and having a spring h, preferably a spiral spring, on the rod e^4, one end of the spring having bearing on one of the bifurcated ends of the lever, and the other end of the spring extending and bearing against e'. At about the center of the lever H, on its front surface, is formed a lip or bearing h', for a purpose presently explained. The upper portion of the upright bifurcated lever H is rod-shaped, having shoulders h^2 h^2, the rod ends of the lever playing freely through a hole in a lug h^3 on the back of the coin-holder near its top. Around this rod end of the lever H is a spring h^4, which has a bearing against the lug h^3 and the shoulder h^2 h^2, as seen in Fig. 4 of the drawings.

K is a key-lever, made, preferably, in the shape and form as shown in Fig. 5 of the drawings. It has the thumb t and openings r, and projecting upward from the rear surface is a standard n, whose upper end rests loosely in the lip h' of lever H. On this standard n is placed a rubber band, as shown in Fig. 2 by letter s, as a cushion. When the lever K is pressed down, standard n will be forced forward and rubber band against rib d. The key-lever K is pivoted or hinged on a rod p, which passes underneath and through the frame D and through holes in the sides of the key-lever. The rear end of the key-lever is preferably formed with a projecting pan, guard, or shield a^6, upon which the lower end of lever H moves to and fro and prevents the fingers of the operator from coming in contact with the levers. It will be noticed that lever H and standard n and their manner of connection are similar to a toggle-joint.

There will be as many levers H, key-levers K, and ejector-slides and connections as there are coin-receptacles. The description just given as to one set applies to all. I prefer to make all the parts of my device of cast metal; but the same may be made of any other suitable material, as may be desired.

The manner of operation is as follows: All the parts being together in their respective positions, as shown in Fig. 2, and the coins having been placed in their respective coin-receptacles, each pile resting on its respective seat, desiring to remove a coin, the operator places his hand open underneath the coin to be removed, with the thumb resting on the key t. The key is then pressed down, which will force up the standard n, carrying with it lever H, as shown in Fig. 2. The lever H, being connected with the ejector-slide E, will be forced forward the proper distance to remove the lower coin resting on the seat, the ends of the ejector fitting and bearing against the outer edges of the coin. While the first coin is being pushed the succeeding coin rests upon the flanges e^2 e^2 until the moment the first is completely ejected out. Then the succeeding coin will press the flanges e^2 e^2 down until the same become flush with the seat, and the coin will then rest upon the seat. This position of the parts will remain until the pressure is taken from the key. The pressure being released, the key-lever will be forced up by the action of the spring h^4, which at the same time carries back the ejector past the coin. The spring h will then raise the ejector and all the parts will be in normal position, ready for the removal of another coin, and the operation can be repeated as often as desired.

At the position of the parts as shown by dotted lines in Fig. 2 the springs h and h^4 will be compressed to the desired limit, the two members of the toggle being then in or nearly a straight line. When the pressure is removed from the key-lever, as stated, both of the springs h and h^4—one assisting the other—will act to raise the end t of the key-lever, which will bring all the parts to their normal position and the operation can be repeated.

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

1. In a money-changer, the combination of an upright lever having a lip and a rod end, a spiral spring on the rod end, an ejector-slide hinged to the lever, a key-lever having an upright standard, and a coin-holder having a rear lug, substantially as shown and described, and for the purpose set forth.

2. In a money-changer, an ejector-slide having flanged arms, curved ends, and a spring, in combination with an upright lever and a frame having coin seats and openings, whereby the coin is ejected and the slide returned to its normal position and the lever operated, substantially as shown and described.

3. In a money-changer, the frame D, having coin-seats d', spaces d^4 d^5 c^4, flange d, raised surface d^2, guide-braces d^3, and lugs d^7, all in one piece, substantially as shown and described.

4. In a money-changer, the ejector-slide E, having the forked arms e e, brace e', and raised ledges e^2 e^2 and spring h, the ends of the arms cut out circularly, substantially as shown and described.

5. In a money-changer, the key-lever K, having the shield a^6, opening r, standard n, having rubber cushion s, and thumb-key t, substantially as shown and described, and for the purpose set forth.

6. In a money-changer, the combination of the coin-holder C, having perforated lug h^3,

the frame D, having coin seats and openings, the key-lever K, the ejector-slide E, the lever H, and springs h and h^4, all constructed, arranged, and operating substantially as shown and described.

7. In a money-changer, the frame D, having coin-seats d', spaces d^4 d^5 c^4, flange d, raised surfaces d^2, guide-braces d^3, and lugs d^7, all in one piece, in combination with cushions d^9, located between the lugs d^7, substantially as shown and described.

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

WILLIAM H. STAATS.

Witnesses:
H. HARRISON,
JOHN D. STORER.