May 6, 1924. 1,493,252

G. DUKEHART

CURRENCY HOLDER AND HANDLER

Filed April 5, 1922 2 Sheets-Sheet 1

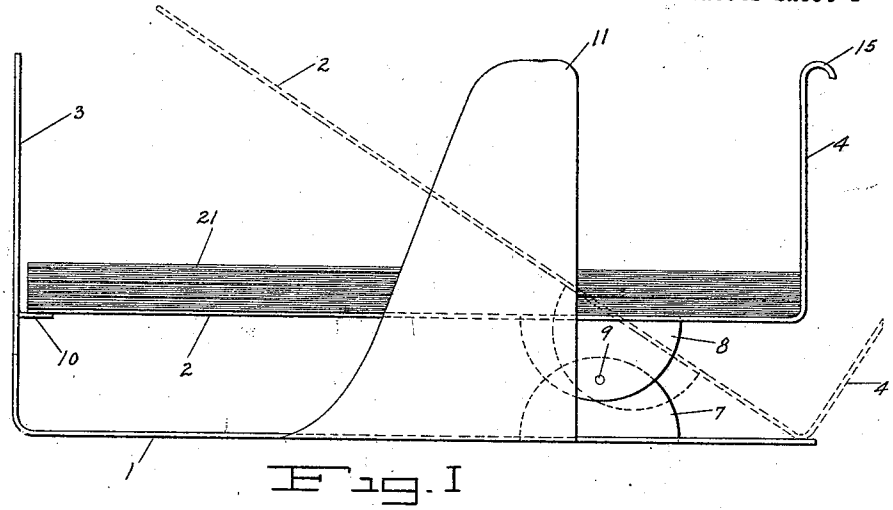


Fig. I

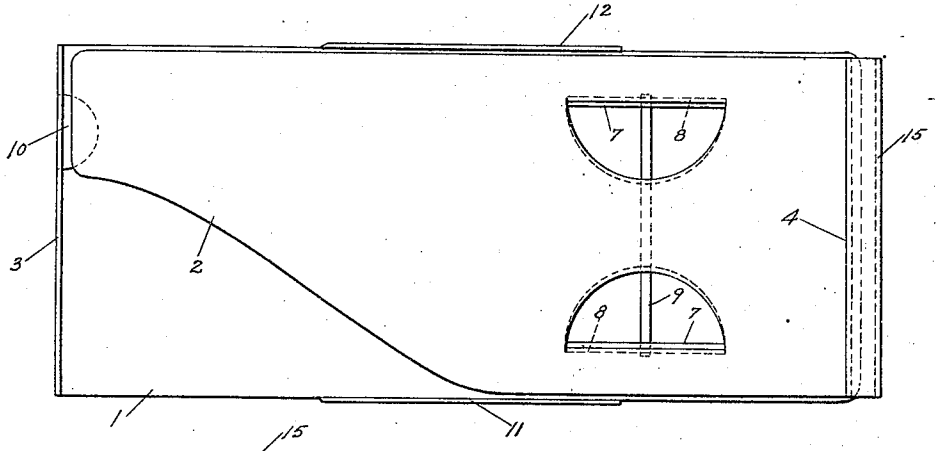


Fig. II

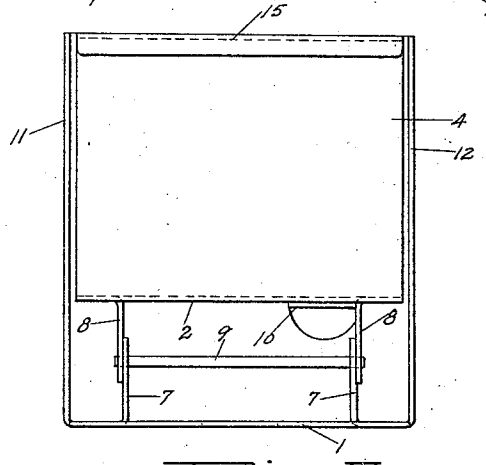


Fig. III

INVENTOR:
Graham Dukehart,
BY
Atkins & Atkins,
ATTORNEYS.

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Filed April 5, 1922 **2 Sheets-Sheet 2**

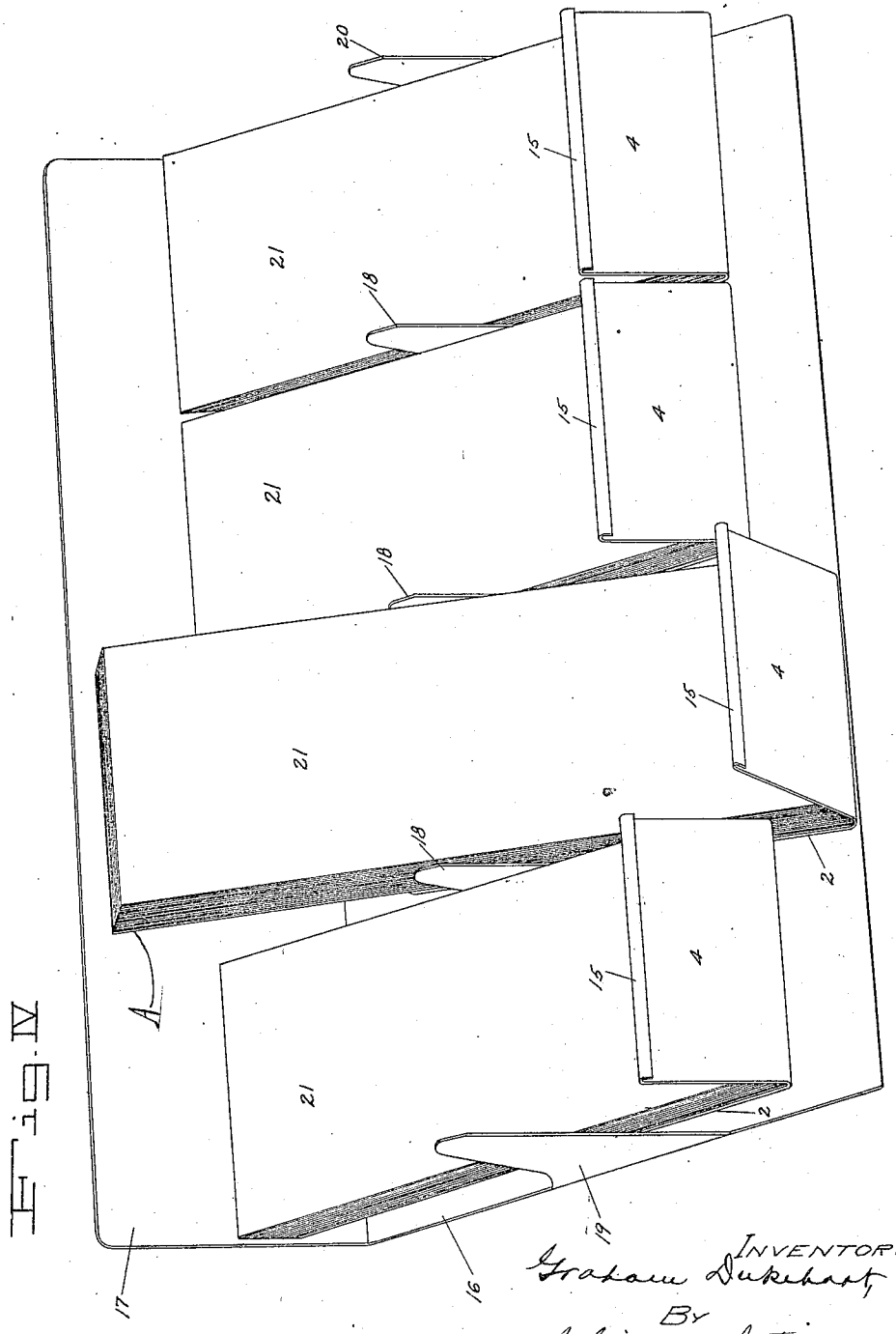


Fig. IV

INVENTOR.
Graham Dukehart,
By
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Patented May 6, 1924. 1,493,252

UNITED STATES PATENT OFFICE.

GRAHAM DUKEHART, OF PORTLAND, OREGON.

CURRENCY HOLDER AND HANDLER.

Application filed April 5, 1922. Serial No. 549,687.

To all whom it may concern:

Be it known that I, GRAHAM DUKEHART, a citizen of the United States of America, and resident of Portland, in the county of Multnomah, in the State of Oregon, have invented a certain new and useful Currency Holder and Handler, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to office equipment for banks, counting houses, and the like, and has for its main object the production of a mechanical device that is adapted to hold, within the smallest compass, and to exhibit to a teller, for example, stacks of paper currency in orderly denominational assemblage and in such manner as to render any stack available to manipulation with facility, dispatch, and least chance of error in counting out currency therefrom.

A utility of large importance belonging to my invention grows out of the conditions which control the practical employment of my device. Among those conditions, the foremost to be considered are the speed and accuracy required to be at least at the command of a teller or handler of money. That is to say, in large banks, for instance, a teller, particularly a paying teller, is called upon at times every day and often many times a day to count currency with great rapidity and always with unerring accuracy, his rating as a teller being largely determined by his capacity for rapid and accurate work. Rapidity of execution depends in no small measure upon the degree of elimination of physical strain and of lost motion in the discharge of his routine duties.

Besides the necessities above mentioned, there is another consideration, closely related to those already mentioned, that must be taken into account, namely, that of available counting room space. It is important to limit the dimensions of each teller's cage therein to the last degree that is practicable, because every excess foot of floor space which is saved in a bank's counting room makes for economy in the construction of the entire building which it occupies.

By my invention, the floor dimensions, and particularly the counter space, of a teller's cage may be reduced, substantially to a minimum. At the same time, also, the labor of the teller, in mind and body, is minimized and thereby, as well as otherwise, chance of error is eliminated.

What constitutes my invention will be hereinafter specified in detail and succinctly set forth in the appended claims.

In the accompanying drawings,

Figure I is a side elevation of one of my individual currency holders, showing in full lines the bill lifter in normal position, and in dotted lines showing it uptilted so as to present to an operator its contents for withdrawal.

Figure II is a top plan view of an empty holder as shown in full lines in Figure I.

Figure III is an end elevation of the subject matter of Figure I looking from right to left.

Figure IV is a perspective view of a battery of four of my individual holders incorporated, with economy of space, into a single structure, and representative of a battery of any number of individual holders that may be desired.

Referring to the numerals on the drawings, 1 indicates the bottom plate of the stationary element of my currency holder, and 2 the bottom plate of its movable element that is combined therewith. The bottom plate 1 is provided with a vertical head plate 3, and the bottom plate 2 with a foot plate 4 that is correlative to and normally parallel with the head plate 3. The dimensions of the bottom plate 2 are such as to conform to those of a piece of paper currency, herein for convenience otherwise termed a bill, such as the holder is designed to accommodate, the width of the former being preferably slightly in excess of that of the latter, and the normal space between the head plate 3 and the foot plate 4 being likewise in excess of that of the length of said bill. The bottom plate 2 with its foot plate constitutes a bill lifter and is normally supported in a horizontal plane above and parallel to the bottom plate 1. The said bottom plates are movably united one to the other by such means as will enable pressure from above applied by an operator to an actuating member to cause the bottom plate 2 to lift and present its contents of bills to the hand of the operator for his convenient manipulation, the flat end of the plate 2 being cut away, as shown in Fig. II, to offer its contents to the free grasp of the hand.

It will be noted that the sides of the lifter

are open and unobstructed and the bottom plate adjacent the plate 3 is also open to permit ready access to the bills upon the lifter. This is particularly desirable when the lifter is depressed so that the end 2 is raised to the dotted line position indicated in Figure 1. When the lifter is moved to this position the hand of the teller may engage the bills beneath the plate 2 due to the cut-away portion of the latter, and also because the sides of the support and lifter are open.

The means aforesaid which I prefer to employ for the purpose specified consists of a pair of upstanding lugs 7 on the bottom plate 1, a correspondingly disposed pair of lugs 8 depending from the bottom plate 2, and an axial rod 9 pivotally uniting said respective pairs of lugs. The height of the bottom plate 2 above the bottom plate 1 is determined by the relative heights of the lugs 7 and 8 and should preferably be such, as to present the uplifted end of the bottom plate 2 well above and sufficiently removed from the head plate 3 to admit the free insertion of a hand into the space underneath the said uplifted end of the bottom plate. The rod 9 is so located as to compel the bottom plate 2 normally to assume by gravity the horizontal position, as shown in full lines in Figure I, a stop-piece 10 upon the head-plate 3, for example, being provided to limit its pivotal movement in one direction. The bottom plate 1 is provided on its opposite sides with vertical members 11 and 12 that act as cheek plates to the bottom plate 2, and which coact with the head-plate 3 and foot plate 4 to form a compartment of dimensions suitable for accommodation of the stack of bills it is intended to hold. Each foot plate 4, if employed as an actuating member to the bottom 2 or movable element, is preferably provided with a handle bar or roll 15.

The mechanism already described may be made of any suitable and preferred material, but it may be for some uses constructed throughout to advantage of sheet metal, and, for economy's sake, I prefer that construction whenever it is available, all things considered. In such construction, the lugs 7 may be cut out of and struck up from the bottom plate 1, and the lugs 8 may be formed in like manner from the bottom plate 2, the stop-piece 10 being cut out and struck up from a portion of the stationary element, for example, from the head plate 3.

In Figure IV, I show what I term a battery of holders, by which term I designate a plurality of individual holders incorporated into a single structure so far as relates to the stationary element of the machine.

In such a battery I provide one bottom plate 16 having one head plate 17 for as many individual holders as are embodied therewith. Instead of employing two check plates for each holder as is the case when separate individual holders are used side by side, I provide the battery with a single cheek plate 18 for each pair of juxtaposed bottom plates 2, and provide, also outside cheek plates 19 and 20 on opposite sides of the bottom plate 16.

In assembling my holders into batteries as many holders may be appropriated to one bottom plate as may be convenient, it being borne in mind in making such assemblage that a single row or series of holders must be limited to a space convenient to the reach of a manipulator. If a greater number of holders be desired than such space will accommodate, they may be provided for by joining two or more batteries end to end or by accommodating one bottom plate to two series of holders assembled in both side to side and end to end arrangement.

In using a holder or any assemblage of holders, the method of operation employed may be described as follows. The holder or holders, there being ordinarily a plurality of them, are set upon a flat-topped support, for example, a table or the bottom of a drawer, the roll or rolls 15 being convenient to manipulation by the right hand of an operator. Each holder is provided with its complement of bills designated where illustrated in the drawings by the numeral 21, each stack of bills in one holder being of the same denomination, and subject to replenishment from time to time as they are reduced by being paid out over the counter or as the making of change, for example, may necessitate.

Assuming now that a teller has before him a table properly equipped with my apparatus as, for example that shown in Figure IV, various denominations of bills that are in active circulation will lie exposed face up before him. To make payment therefrom, he touches, say with a finger of the right hand, the roll 15 of one holder at a time thereby depressing it to the position of holder A illustrated in said figure. Thereupon he takes in his left hand the complement of bills, grasping it by its uplifted end, and removing it from its holder. Then he counts out the number of bills desired in the usual way. When the number of bills desired is counted out, they are laid on the counter and the remainder is returned to the holder whence they came, which is immediately upon its release restored by gravity to the horizontal position ready to receive them.

It should be observed in respect to the utility of my device that in the horizontal position each holder is independent of its neighbor, and is secured by its head and foot plates respectively and cheek plates against that accidental lateral displacement

of its contents to which stacking of bills in the ordinary way is liable.

Also, in respect to the facility it affords for handling of currency, the contents of each holder is presented, without necessity for any adjustment, in proper position to the eye of the teller, with both serial numbers of each bill legibly displayed before it.

What I claim is:

1. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and being open at its other end, a bill lifter tiltably mounted upon said base and spaced above the counter-engaging portion thereof, whereby the lifter may be tilted, said lifter having a supporting surface and an upstanding end wall at the open end of said base, the lifter end wall constituting means for depressing the lifter as well as bill-confining means, and at least one side of the lifter and said base adjacent the end wall of the latter being open in and above substantially the horizontal plane of the raised end of said lifter when the latter is tilted, thereby to permit ready manipulation of the bills thereon.

2. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and being open at its other end, a bill lifter tiltably mounted upon said base and spaced above the counter-engaging portion thereof, whereby the lifter may be tilted, said lifter having a supporting surface and an upstanding end wall at the open end of said base, the lifter being open at its opposite end and the lifter end wall constituting means for depressing the lifter as well as bill-confining means, and at least one side of the lifter and said base adjacent the end wall of the latter being open in and above substantially the horizontal plane of the raised end of said lifter when the latter is tilted, thereby to permit ready manipulation of the bills thereon.

3. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and being open at its other end, a bill lifter tiltably mounted on said base and spaced upon the counter engaging portion thereof, whereby the lifter may be tilted, said bill lifter having a supporting surface and an upstanding end wall at the open end of said base, the bill lifter being open at its other end, and relatively narrow upstanding side strips closing a relatively small portion of the sides of said lifter, said lifter end wall constituting means for depressing the lifter as well as a bill confining means in conjunction with said base end wall.

4. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and being open at its other end, a bill lifter tiltably mounted on said base and spaced above the counter engaging portion thereof whereby the lifter may be tilted, said bill lifter having a supporting surface and an upstanding end wall at the open end of said base, the bill lifter being open at its other end, and relatively narrow upstanding side strips on said base closing a relatively small portion of the sides of said lifter, said lifter end wall constituting means for depressing the lifter as well as a bill confining means in conjunction with said base end wall.

5. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding wall and being open at its other end, a bill lifter tiltably mounted on said base and spaced above the counter engaging portion thereof whereby the lifter may be tilted, said lifter having a supporting surface normally positioned in a substantially horizontal plane, and having an upstanding end wall at the open end of said base, side strips on said base extending above the supporting surface at the sides thereof and closing a relatively narrow small portion of the sides of said lifter, said lifter end wall constituting means for depressing the lifter as well as a bill confining means in conjunction with said base end wall.

6. A currency holder adapted to be readily transported to be placed upon a table, comprising a substantially L-shaped stationary member having cheek plates projecting upwardly from the sides of its horizontal portion, said member having only one end wall, and lugs extending upwardly from the body of said horizontal portion, a substantially L-shaped bill lifter with its vertical wall at the open end of said member provided with depending lugs pivotally connected to the lugs on said stationary member, a stop projecting from the vertical portion of said stationary member for normally maintaining the bill lifter in a substantially horizontal position.

7. A bill holder comprising a substantially L-shaped stationary base adapted to rest upon a counter, relatively narrow side strips projecting upwardly from the base, the remainder of the sides of the base being substantially open, and a substantially L-shaped bill lifter open at its sides pivotally mounted upon said base above the counter engaging portion thereof whereby the lifter may be tilted, said lifter having its vertical wall adjacent the open end of said stationary base, said side strips extending above said lifter and forming closures for relatively small portions of the sides of the latter.

8. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and the other end of the base being open, a plurality of bill lifters tiltably mounted on said base side by side and spaced upon the counter-engaging por-

tion of the base, whereby they may be tilted, each lifter having a substantially horizontal supporting surface, and an upstanding end wall at the open end of said base, the lifters being independently tiltable upon the base, and the sides of all of said lifters in and above substantially the horizontal plane of the raised ends thereof when they are operated being open and unobstructed to permit ready manipulation of the bills thereon.

9. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and the other end of the same being open, and a battery of bill lifters independently and tiltably mounted side by side upon said base above the counter engaging portion thereof whereby they may be tilted, each holder comprising a substantially horizontal supporting surface and an upstanding end wall at the open end of said base, the holders being open at their other ends, said lifter end walls constituting means for depressing the lifters, as well as bill confining means in conjunction with said base end wall.

10. A currency tray adapted to be readily transported comprising a base having an upstanding end wall, said base being open at its other end, lugs extending upwardly from said base, side strips on said base extending upwardly therefrom, a bill lifter having a horizontal supporting surface and an upstanding end wall at the open end of said base, lugs depending from the lifter and pivotally connected to said base lugs, said base side plates being positioned above the sides of said lifter supporting surface and constituting the sides for said lifter, the side strips serving to close only a portion of the sides of the lifter, and means for normally maintaining said lifter in a horizontal position.

11. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and the other end thereof being open, a battery of bill lifters independently and tiltably mounted side by side upon said base above the counter engaging portion of the base whereby the lifters may be tilted, each of said lifters comprising a substantially horizontal supporting surface, and an upstanding end wall at the open end of said base, the other end of each of said holders being open, relatively narrow side plates extending upwardly from said base between the lifters and above the supporting surfaces thereof, said side plates closing only relatively small portions of the sides of said lifters, said lifter end walls constituting means for depressing the lifters as well as bill confining means in conjunction with said base and wall.

12. A bill holder comprising a base adapted to rest upon a counter, said base having the greater portion of its sides open and being open at one end, an upstanding end wall at the other end of said base, a bill lifter tiltably mounted upon said base and spaced above the counter-engaging portion thereof, whereby the lifter may be tilted, the greater portion of the sides of said lifter being open, an upstanding end wall on said lifter at the open end of said base, and relatively narrow side strips extending above the supporting surface of said lifter at the sides thereof and closing only a relatively small portion of the sides of said lifter, the lifter end wall constituting means for depressing the lifter as well as a bill confining means.

13. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and being open at its other end, a bill lifter tiltably mounted upon said base and spaced above the counter-engaging portion thereof, whereby the lifter may be tilted, said lifter having a supporting surface and an upstanding end wall at the open end of said base, the lifter end wall constituting means for depressing the lifter as well as bill-confining means, a portion of said supporting surface being cut away adjacent the upstanding end wall of said base to permit engagement of the bills from beneath the supporting surface, and at least one side of said lifter and the base adjacent the end wall of the latter being open in and above substantially the horizontal plane of the raised end of said lifter when the latter is tilted.

14. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and being open at its other end, a bill lifter tiltably mounted upon said base and spaced above the counter-engaging portion thereof, whereby the lifter may be tilted, said lifter having a supporting surface and an upstanding end wall at the open end of said base, the lifter being open at its opposite end and the lifter end wall constituting means for depressing the lifter as well as bill-confining means, a portion of said supporting surface being cut away adjacent the upstanding end wall of said base to permit engagement of the bills from beneath the supporting surface, and at least one side of said lifter and the base adjacent the end wall, the base being open in and above substantially the horizontal plane of the raised end of said lifter when the latter is tilted, thereby to permit ready manipulation of the bills thereon.

15. A bill holder comprising a base adapted to rest upon a counter, said base having an upstanding end wall and the other end of the base being open, a plurality of bill lifters tiltably mounted on said base side by side and spaced upon the counter-engaging portion of the base, whereby they may be tilted, each lifter having a substantially horizontal

supporting surface, and an upstanding end wall at the open end of said base, the lifters being independently tiltable upon the base, a portion of said supporting surface being cut away adjacent the upstanding end wall of said base to permit engagement of the bills from beneath the supporting surface, and the sides of all of said lifters in and above substantially the horizontal plane of the raised ends thereof when they are operated being open and unobstructed to permit ready manipulation of the bills thereon.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

GRAHAM DUKEHART.

Witnesses:
JOSEPH F. ATKINS,
LEICESTER B. ATKINS.