W. A. CONWAY.

CURRENCY TRAY.

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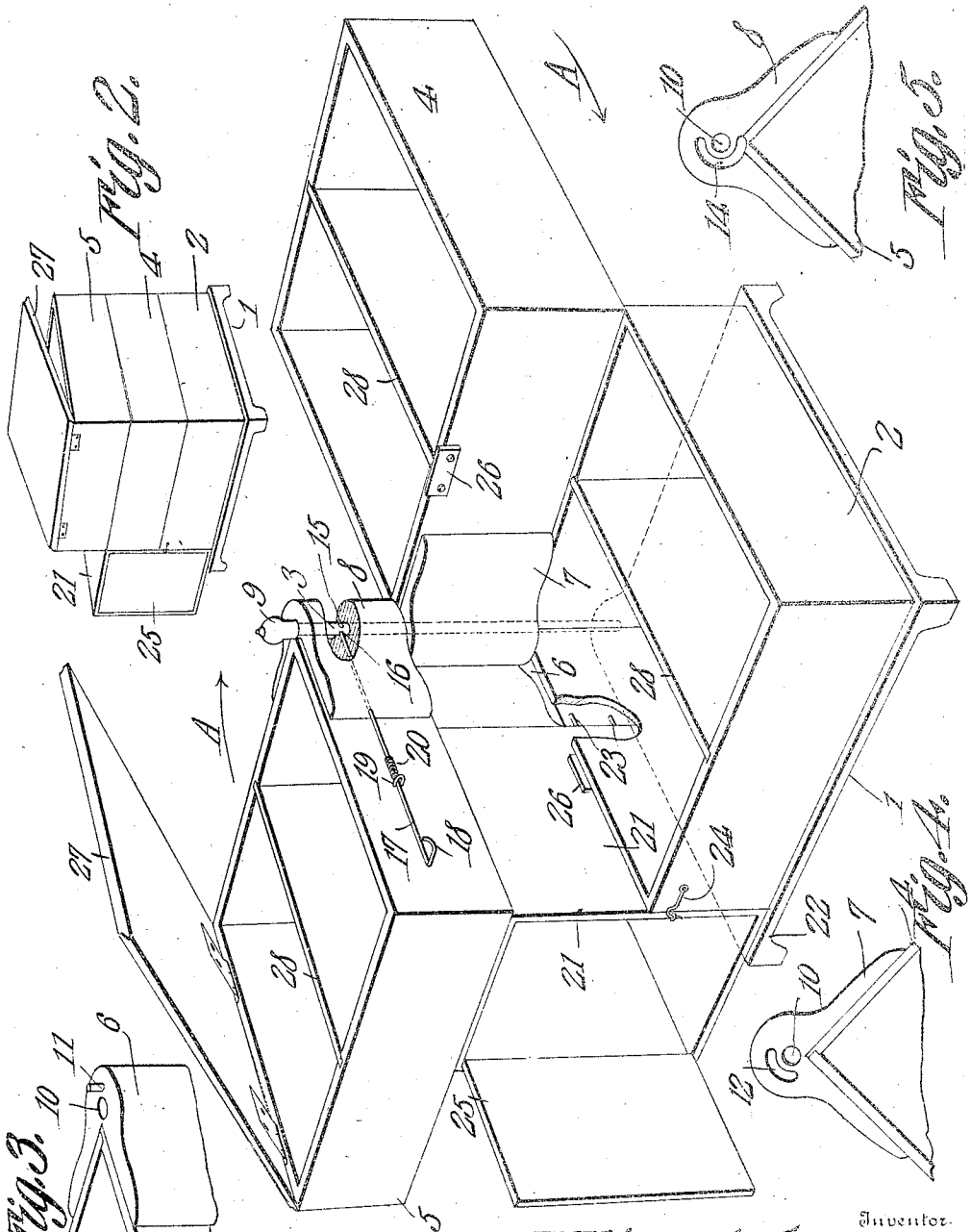

Fig. 1.

Fig. 2.

Fig. 5.

Fig. 3.

Fig. 4.

Witnesses

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CURRENCY-TRAY.

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To all whom it may concern:

Be it known that I, WILLIAM A. CONWAY, a citizen of the United States, residing at Conway, in the county of Taylor and State of Iowa, have invented a new and useful Currency-Tray, of which the following is a specification.

The objects of the invention, are, generally, the provision in a merchantable form, of a device of the class above specified which shall be inexpensive to manufacture, simple in operation and devoid of complicated parts; specifically, the provision of a series of trays adapted to be superposed upon each other for horizontal rotation into alinement with and out of alinement with each other; of novel means for actuating the trays to their horizontal rotation; and of novel means for limiting the rotation of the trays and for locking them in position; other and further objects being made manifest hereinafter as the description of the invention progresses.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for such distinctive and peculiar features of the device, it being understood that within the scope of what hereinafter is thus claimed, divers changes in the form, proportion, size and minor details of construction may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings,—Figure 1 shows my invention in perspective, the several trays being swung horizontally out of alinement with one another; Fig. 2 is a perspective showing the several trays swung into alinement with one another; Fig. 3 is a detail perspective showing the upper surfaces of the bearings which are assembled with the lowest and middle trays; Fig. 4 is a bottom plan of the bearing which is carried by the middle tray; and, Fig. 5 is a bottom plan of the bearing which is carried by the upper tray.

In the following description I shall use the term "backward" to indicate the direction of rotation of the trays when they are moved from the position shown in Fig. 1 to that shown in Fig. 2, the direction of said rotation being indicated by the arrow A; rotation in the opposite direction, that is, from the closed position shown in Fig. 2 to the open position shown in Fig. 1, will be denominated "forward" rotation.

In carrying out my invention, I provide primarily a base plate 1. This base plate 1 in order to lower the center of gravity of the structure may be fashioned from iron and be made somewhat heavy relative to the other parts of the device. Mounted upon the base plate 1 and rigidly attached thereto is a base tray 2. Rising from one corner of the base plate 2 is the standard 3 upon which are journaled for horizontal rotation a middle tray 4 and upper tray 5. Each of the trays 1, 4 and 5 is provided with a bearing designed to receive the standard, the bearing of the lower tray being denoted by the numeral 6, the bearing of the middle tray by the numeral 7 and the bearing of the upper tray by the numeral 8, the several bearings being provided with an aperture 10 to receive the standard 3 and the standard in its turn, being threaded at its upper end to receive a knob 9 whereby the several trays may be retained upon the standard, the said knob 9 being arranged to engage the upper face of the bearing 8. The upper faces of the bearings 6 and 7 are identical and Fig. 3 serves to illustrate both of them. It will there be seen that a pintle 11 rises from the upper face of the bearings 6 and 7, being disposed eccentric with respect to the aperture 10 in the said bearings. Referring to Fig. 4, it will be seen that the lower face of the bearing 7 of the middle tray 4 is provided with a quadrantal slot 12 adapted to receive the pintle 11 which upstands from the upper face of the bearing 6. Referring to Fig. 5 it will be seen that the lower tray of the bearings 8 which is carried by the upper face is provided with a semi-circular slot 14 designed to receive the pintle 11 which upstands from the upper face of the bearing 7 which is carried by the middle tray.

The relations between the pintle 11 and the slots 12 and 14 are as follows:—Supposing the device to be assembled in the form shown in Fig. 2, when the upper tray 5 is rotated forward the pintle 11 which is carried by the upper face of the bearing 7 moving in the semi-circular slot 14 in the bottom of the bearing 8, will allow the upper tray 5 to move independently through one-hundred and eighty degrees. When one-hundred and

eighty degrees have been covered the pintle will engage the end of the slot 14 and slide the middle tray 7 in forward rotation. The pintle 11 which is carried by the bearing 6 of the lower tray, moving in the quadrantal slot 12 of the bearing 7 will allow the middle tray 7 to move through an arc of ninety degrees. The upper tray 5, during this quadrantal rotation of the middle tray 4, will have passed through ninety degrees more of arc arriving in the position shown in Fig. 1. When the several trays by their rotation have reached the position shown in Fig. 1 the several pintles will have engaged the terminals of the slots 12 and 14 whereby further forward rotation will be prevented.

When it is desired to close the device, that is to move the parts from the position shown in Fig. 1 to those shown in Fig. 2 the upper tray 5 may be rotated backward through an arc of one-hundred and eighty degrees represented by the semi-circular slot 14. The pintle 11 in the upper face of the bearing 7 will then have reached the extremity of the slot 14, whereupon the pintle 11 which is disposed in the upper face of the bearing 6 will move through the ninety degrees represented by the slot 12, the middle tray 4 being actuated in its rearward movement by the rotation of the upper tray 5. When the several trays have been brought into the position of alinement shown in Fig. 2 the several pintles will be at the ends of the slots with which they coöperate, limiting the backward movement of the trays to the position of alinement shown in Fig. 2. Although the pintles 11 coöperating with the slots 12 and 14 will ordinarily be sufficient to operate the trays and to limit their rearward movement, stops 26, may if desired be mounted upon the upper edges of the base tray 2 and the middle tray 4, as shown in Fig. 1, each of said stops 26 being arranged to project a short distance above the edge of the tray upon which it is mounted.

The bearing 8 of the upper tray is longitudinally channeled, as indicated in dotted lines in Fig. 1, and slidably mounted in this channel and disposed on the face of the tray is a rod 17 terminally bent at 18 to provide a suitable finger hold. The standard 3 is provided with apertures 15 and 16 arranged to receive the mouth of the rod 17. These apertures 15 and 16 are located ninety degrees remote from each other and are so positioned upon the standard 3 that when the end of the rod 17 enters the aperture 16 the trays will be locked in the position shown in Fig. 1, and when the terminal of the rod enters the aperture 15, the trays will be locked in the position shown in Fig. 2. It is obvious from the extent of the slots 12 and 14 that when the trays are in the position shown in Fig. 1, the middle tray 4 has no movement independently of the upper tray 5, and therefore, when the upper tray 5 is locked by means of the rod 17 in the position shown in Fig. 1, the middle tray 4 will likewise be located in the position there shown.

Any suitable means may be provided for actuating the rod 17 to move toward and into the apertures 15 and 16. In the present instance, I have mounted upon the face of the upper tray 5 a staple 19 between the arms of which the rod 17 is arranged to slide. A coiled spring 20 is disposed about the rod 17 and rigidly attached thereto at one end, the other end thereof being in abutment with the staple 19 whereby, when the rod 17 is withdrawn from either of the apertures 15 and 16, the spring 20 will when the hold of the hand upon the rod 17 is released, tend to force the rod 17 toward the standard 3.

In addition to the features herein before described, the device may be provided with an auxiliary compartment 21 designed to be removably assembled with the other parts of the device. The method for attaching this auxiliary compartment 21 may be varied. In the present instance and in order to provide a concrete embodiment I have extended the base plate 1 at one edge, as noted by the numeral 22. Upon this extended portion of the base 22 the auxiliary compartment 21 may rest, rising into contact with the lower surface of the upper tray 5, when the said upper tray 5 is swung into the position shown in Fig. 1. The base of the auxiliary compartment 21 is adjacent to the base tray 2 and may be provided with lugs 23 adapted to register in suitable seats provided in the bearing 6 of the base tray and the base tray is designed to be attached to the opposite end of the auxiliary compartment which may be assembled with the base tray by means of a simple hook and eye device 24. The auxiliary compartment 21 which is open at one end may be provided with a door 25 and the upper tray 5 may be closed by a hinged lid 27, partitions 28 being disposed in the several trays in any manner dictated by the exigencies of the proposed use.

It will be seen that when the device is swung open into the form shown in Fig. 1, the base tray 2 may be disposed directly in front of the operator, the middle tray 4 being swung forward into a convenient position upon his right hand, and the upper tray 5 being disposed directly in front of him and to the rear of the base tray 2. Coins or bills of the denomination most frequently used may be deposited in the trays 2 and 4, those which are less frequently used being deposited into the upper tray 5, the lid 27 of which may be closed downward upon them or thrown backward away from the operator. Bills of extremely large denominations and choses in action for which there is an occasional demand only, may be housed in the

auxiliary compartment 21 and, if desired, hid from view by means of the door 25.

It is to be understood that the device is a complete and operative structure when the auxiliary compartment 21 is removed and that the construction of the device is such that the several trays may be rigidly upheld even when filled with coins, the auxiliary compartment 21 being absent. This auxiliary compartment may, however, be attached at will and I have so constructed it that, when it is attached to the rear side of the device it will serve to sustain the upper tray 5 which rests upon it.

The knob 9 may be removed from the standard 3 and the several trays separated from each other so that, if desired, each tray may be housed for safe keeping in a separate safe or upon different shelves in the same safe. When it is desired to resume mercantile operations, the several trays may quickly be slipped into place upon the standard 3.

The device although simple in construction presents a plurality of coin holding elements adapted quickly to be assembled in position convenient for operation and there locked. The several trays with equal facility may be brought into the compact form shown in Fig. 2 and there locked. The parts of the device may be readily assembled and disassociated and a large amount of cash, suitably sorted may be housed within the structure.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:—

1. A device of the class described comprising a series of superposed trays, having rotary, horizontal, forward movement into positions out of alinement with one another, the trays being provided with interlocking elements arranged to restrain a lower tray against independent movement; and a positive means for locking the upper tray against rotation.

2. A device of the class described comprising a series of superposed trays having rotary, horizontal, forward movement into positions out of alinement with one another, the trays being provided with interlocking elements arranged to rotate a lower tray upon the rotation of an upper tray, and to restrain a lower tray against independent backward movement; and a positive means for locking the upper tray against rotation.

3. A device of the class described comprising a standard; superposed trays journaled for forward, horizontal rotation out of alinement with one another upon the standard, and being provided with interlocking elements arranged to restrain a lower tray against independent backward rotation; and means carried by the upper tray by engaging the standard to lock the upper tray against rotation.

4. A device of the class described comprising a standard; superposed trays journaled for forward, horizontal rotation out of alinement with one another upon the standard, the trays being provided with interlocking elements arranged to rotate a lower tray upon the rotation of an upper tray, and to restrain a lower tray against independent backward movement; and means carried by the upper tray for engaging the standard to lock the upper tray against rotation.

5. A device of the class described comprising an apertured standard; superposed trays journaled for forward, horizontal rotation out of alinement with one another upon the standard, and being provided with interlocking elements arranged to restrain a lower tray against independent backward rotation; and a rod slidably carried by the upper tray and arranged to engage the apertures in the standard to lock the upper tray against rotation.

6. A device of the class described comprising an apertured standard; superposed trays journaled for forward, horizontal rotation out of alinement with one another upon the standard, the trays being provided with interlocking elements arranged to rotate a lower tray upon the rotation of an upper tray, and to restrain a lower tray against independent backward movement; and a rod slidably carried by the upper tray and arranged to engage the apertures in the standard to lock the upper tray against rotation.

7. In a device of the class described, a base plate; a standard rising from the base plate; a base tray rigidly mounted upon the base plate; other superposed trays journaled for rotation upon the standard above the base tray; and a laterally projecting compartment removably connected with the base tray and being arranged to form a support for one of the rotatable trays.

8. In a device of the class described, a base plate; a standard rising from the base plate; superposed trays journaled for rotation upon the standard; and a laterally projecting compartment removably mounted upon the base plate and being arranged to form a support for one of the rotatable trays.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM A. CONWAY.

Witnesses:
G. H. Chiles,
Oliver Anderson.