Feb. 23, 1926. 1,574,427

J. KOMOROUS

BANK

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Fig. 1.

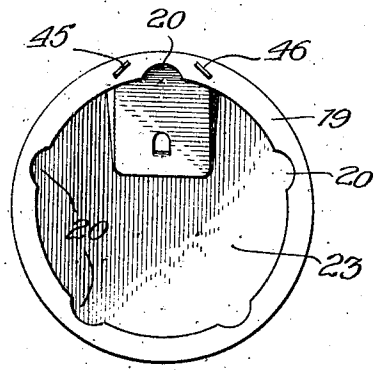


Fig. 3.

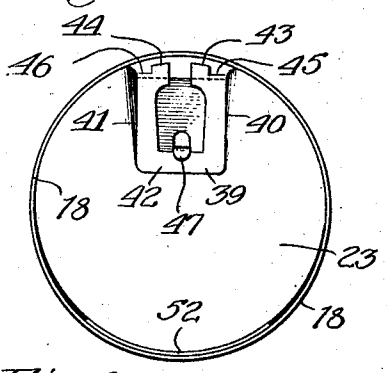


Fig. 2.

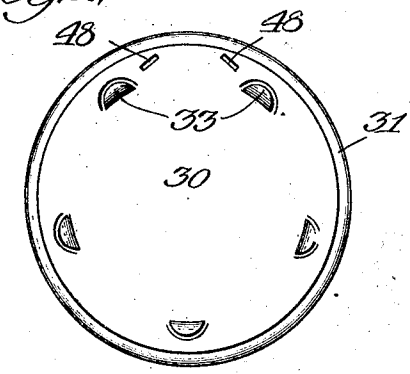


Fig. 4.

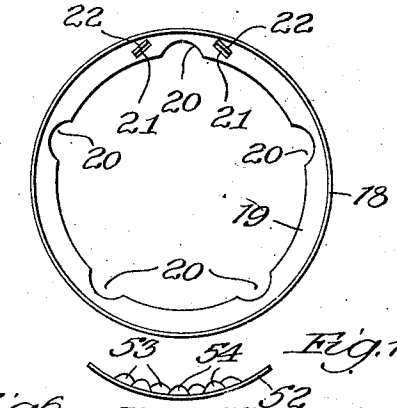


Fig. 10.

Fig. 5.

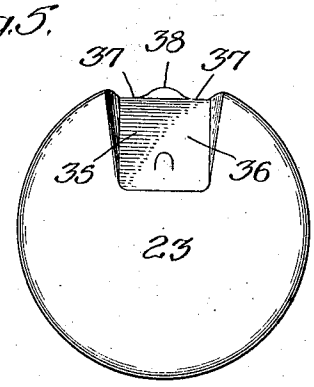


Fig. 6.

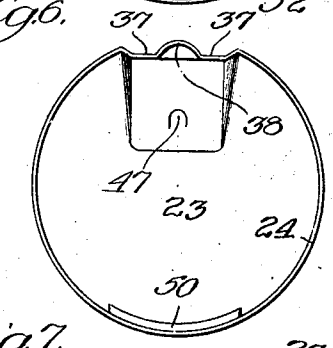


Fig. 8.

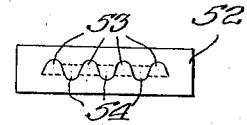


Fig. 9.

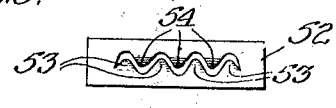
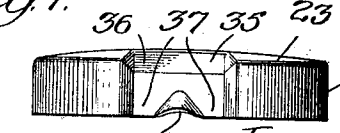


Fig. 7.



Inventor:
Joseph Komorous,
By Dyrenforth, Lee, Christy & Wiles,
Attys.

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J. KOMOROUS

BANK

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Fig. 11.

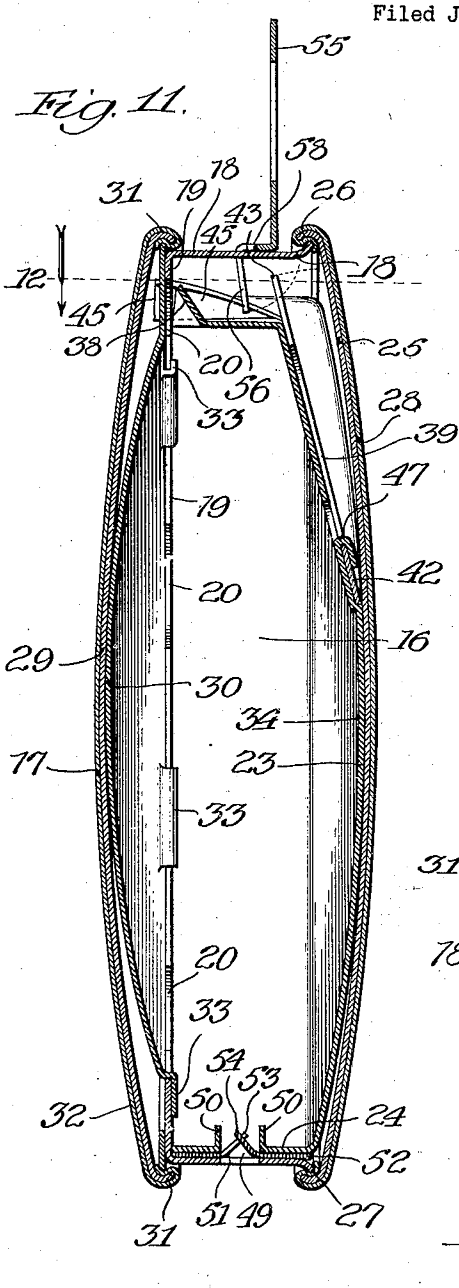


Fig. 12.

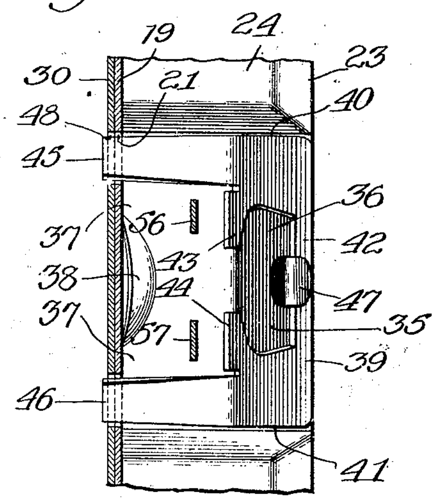


Fig. 13.

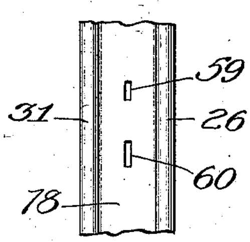


Fig. 14.

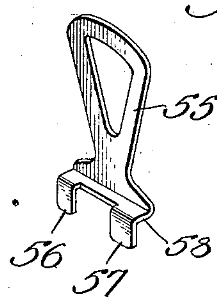
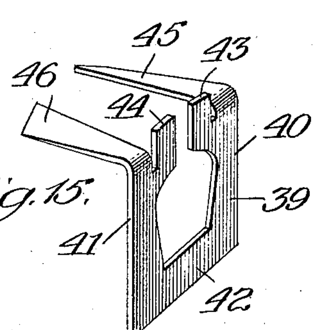


Fig. 15.



Inventor.
Joseph Komorous,
By Dyrenforth, Lee, Chritton & Wiles,
Att'ys.

Patented Feb. 23, 1926. 1,574,427

UNITED STATES PATENT OFFICE.

JOSEPH KOMOROUS, OF RIVERSIDE, ILLINOIS, ASSIGNOR TO PARISIAN NOVELTY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BANK.

Application filed June 6, 1924. Serial No. 718,284.

To all whom it may concern:

Be it known that I, JOSEPH KOMOROUS, a citizen of the United States, residing at Riverside, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Banks, of which the following is a specification.

My invention relates more particularly to improvements in savings banks of the small portable type preferably adapted to be carried about in a person's pocket and into which coins may be readily inserted and be withdrawable therefrom only upon opening the bank through the medium of a tool especially designed for this purpose, this type of bank being commonly employed by savings bank institutions for distribution among its customers.

My primary object, generally stated, is to provide improvements in banks of the type above referred to, to the end that they may be manufactured more economically, the parts may be readily assembled, and the structure function in an improved manner.

More specifically, certain of my objects are to provide a construction of bank, more particularly of the type in which the locking means are deflectible, through the medium of a special tool, by which the coins introduced into the bank are prevented from contacting, or otherwise interfering with the locking means and the tool when positioned in the bank to actuate the locking means, whereby danger of the coins interfering with the opening of the bank is prevented; to provide a simple and economical construction of locking means for the bank; and to provide a novel, simple and inexpensive construction of guard for the coin slot.

Referring to the accompanying drawings:

Figure 1 is a face view of the body portion of the bank, with the celluloid-covered end-plate thereof removed. Figure 2 is an inside face view of the cover-section of the bank. Figure 3 is a view of the opposite face of the structure shown in Fig. 1. Figure 4 is an inside face view of one of the body-forming sections of the structure of Fig. 1. Figure 5 is an outside face view of the other of the body-forming sections of Fig. 1. Figure 6 is an inside face view of the structure shown in Fig. 5. Figure 7 is an edge view of the structure of Figs. 5 and 6. Figure 8 is a face view of the blank from which the coin-guard of the bank is made, showing it as slit preparatory to forming the guard lips. Figure 9 is a similar view of the blank of Fig. 8, with the lips thereof deflected into the desired relative positions for forming the guard. Figure 10 is a plan view of the guard of Fig. 9. Figure 11 is an enlarged sectional view of the complete bank structure, showing the tool, through the medium of which the locking means of the bank are released, applied to position on the bank preparatory to its operation for releasing the lock. Figure 12 is a broken plan view taken at the line 12 on Fig. 11 and viewed in the direction of the arrow. Figure 13 is a broken edge view of the bank at the portion thereof containing the tool-receiving slots. Figure 14 is a perspective view of the tool for releasing the locking mechanism; and Figure 15, a perspective view of one of the elements forming the locking means for the bank.

The bank, generally stated, and which in the construction shown is circular, consists of a body-section 16 and a cover-section 17, these parts being relatively rotatable, and means, hereinafter described, for releasably locking the cover-section 17, against removal, on the body-section 16.

In the particular construction shown the body-section 16 is formed of a band 18, constituting the circular side wall of the structure and provided at one edge with an annular, inwardly-projecting, flange 19 shown as containing a series of recesses 20 opening toward the center of the ring, and a pair of slots 21 which converge toward the outer periphery of the ring, these slots being shown as located at opposite sides of one of the recesses 20 and formed by partially severing the metal of the flange 19 and bending such partially-severed portions outwardly, the portions just referred to, and which form lugs, being represented at 22. The body-section 16 also comprises a member 23 of general cup-shape, the side wall of which, represented at 24, is circular throughout the greater portion of its extent and at which portion the member 23 is telescoped with the ring 18. The body-section 16 also comprises an end-plate 25 in the form of a disk provided about its circumferential edge with a continuous flange 26 which is interlocked with the outwardly-flared portion 27 of the band 18. The end-plate 25 is shown

as covered at its outer surfaces with sheathing material, as, for example, celluloid, represented at 28, the edges of the sheathing 28 being folded about the flange 26 and interposed between this flange and the flared end-portion 27 of the band.

The cover-section 17 is, in the particular construction illustrated, formed of two sheet-metal disks 29 and 30 shown as connected together by crimping the peripheral edge of the disk 29 about the peripheral edge of the disk 30, as represented at 31, with the inner edge portion of a celluloid sheet 32 extending over the exterior surfaces of the plate 29 interposed between the crimped portion 31 of the disk 29 and the peripheral edge of the disk 30. The cover 17 is provided on its rear face with offset, outwardly-projecting, angular lugs 33, preferably stamped from the disk 30 and arranged in a circular series, as represented in Fig. 2, these lugs being so disposed on the cover-section that when the latter is applied to the body-section 16 of the bank, to a certain position thereon, they will register with the recesses 20, permitting the lugs to be passed therethrough and extend inwardly beyond the plane of the flange 19 as shown in Fig. 11, in which position the disk 30 bears at its outer face against the outer face of the flange 19, at which flatwise-abutting surfaces the cover-section 17 and the body-section 16 are relatively rotatable on each other to cause the lugs 33 to interlock with the flange 19, it being understood from the drawings that this is possible because the bases of the angular lugs 33 lie within a circle of slightly less diameter than the diameter of the opening presented by the inner edge of the continuous flange 19.

It will be understood from the foregoing that it is necessary, before the cover-section 17 can be removed from the body-section 16 to open the bank, that the cover occupy such a position on the body-section that the lugs 33 register with the recesses 20, and to prevent the movement of the cover to a position in which the lugs 33 are in such position of registration, excepting by one using the proper tool, the following described mechanism is provided.

The disk-like end portion 34 of the member 23, shown as crowned, presents at one side of its center the radially-disposed, in-struck, portion 35, thereby forming a recess 36 in the surface of the member 23 which opposes the disk 25, the flange 24 of the member 23 being also in-struck in registration with the recess 36, as represented at 37, to cause this flange portion to be of the form shown and present the hump-shaped portion 38. The mechanism also comprises the member shown in detail in Fig. 15 and represented at 39, this member, shown as formed from a single sheet of material which should be of a springy character, as, for example, springy brass, comprising a pair of angle-shaped fingers 40 and 41 joined together at one end by a connecting portion 42, the fingers 40 and 41 being provided with lug-extension 43 and 44, respectively, shown as extending substantially at right angles to the planes occupied by the outer, angularly-disposed, extremities 45 and 46 of the arms 40 and 41. The locking member 39 is located in the recess 36 in the member 34, the member 39 fitting flatwise against the bottom wall of these recesses and the free portions 45 and 46 of the arms 40 and 41 extending through the slots 21 in the flange 19, the member 39 being held in place by means of a tongue 47 cut from the metal of the bottom wall of the recess 36 and bent around, and in overlapping relation to, the cross-piece 42. The member 39 is thus located in the space provided between the member 16 and that part of the structure comprising the disk 25 and the ring 18, and by securing the member 39, as stated, its arm portions 40 and 41 are rendered separately deflectible to the right in Fig. 11, for a purpose hereinafter described and when actuated by means of a suitable tool engaging the lugs 43 and 44 which project radially outward beyond the in-struck portions 37.

The marginal edge of the plate 30, shown as spaced from the plate 29, contains a pair of slots 48 spaced apart a distance equal to the distance between the slots 21 in the flange of the ring 18 and correspondingly converging, the slots 48 being located in such position that when the parts of the bank are assembled to the position shown in Fig. 11 the slots 48 will register with the slots 21 and thus with the extremities of the free portions 45 and 46 of the spring arms which latter, in the normal, locking, position thereof extend through these slots, as represented, and prevent rotation of the cover-section 17 on the body-section 16.

The slot in the bank, through which the coins are introduced therein, is located in the side wall of the bank, and is represented at 49, this slot extending through both the ring 18 and the annular flange 24 which latter is preferably provided with the inwardly-extending, substantially parallel, flange portions 50 flanking the opening 49 and formed preferably by slitting the metal of the flange 24 to form partially-severed sections and thereupon turning these sections inwardly to provide the flange portions 50. The slot 49 is provided with a coin-guard represented generally at 51 and shown as constructed from a single plate 52 (Fig. 8) of spring metal, as, for example, spring brass, this plate being slitted between its edges along the convoluted full line as shown in this figure, to provide the teeth 53 and 54 arranged in staggered and laterally-

overlapped relation, these teeth being bent to set them in the positions shown in Figs. 10 and 11. The plate 52 is also curved, as represented in Fig. 10, and is held in operative position at the coin-slot 49, with the teeth 53 and 54 converging inwardly by inserting it to the position shown in Fig. 11, between the ring 18 and the flange 24.

To assemble the cover-section 17 and the body-section 16, the cover-section is applied to the body-section in such position that its lugs 33 register with the recesses 20. The operator, while pressing the cover-section and body-section together with sufficient pressure to overcome the resistance of the spring arms 45 and 46 and permit the marginal edge-portion of the disk 30 to flatwise contact with the flange 19, rotates the cover-section on the body-section to move the extremities of the lugs 33 beneath the flange 19, to a position in which the slots 48 on the cover-section register with the extremities of the spring arms 40 and 41, whereupon the latter immediately spring outwardly into the slots 48 and lock the cover-section and body-section against relative rotation, in which position of the parts the lugs 33 are out of registration with the recesses 20.

Any suitable tool may be employed for withdrawing the extremities of the arms 40 and 41 from the slots 48. Such a tool is represented in Fig. 14 and comprises a body-portion 55 of angle-shape in cross-section from which spaced-apart lugs 56 and 57, of different widths, project, these lugs extending at an angle to the portion 58 of the tool. The ring 18 contains a pair of tool-receiving slots 59 and 60 located closely adjacent to the lugs 43 and 44, respectively, these slots, which are adapted to receive the lug-portions 56 and 57, respectively, of the tool, being of different lengths whereby the tool can be introduced through the ring 18 only when the tool occupies a certain predetermined position.

To withdraw the locking arms 40 and 41 from the openings 48, to permit of the separation of the sections 16 and 17, the operator inserts the lugs 56 and 57 of the tool through the slots 59 and 60, respectively, to cause them to extend into the space afforded by the ring 18, in which position they extend directly opposite, and in overlapped relation to, the lugs 43 and 44, and then by swinging the tool at its upper end in Fig. 11 to the left in this figure, the tool fulcruming on the walls of the slots 59 and 60, withdraws the spring arms 40 and 41 from the slots 48.

It will be understood from the foregoing that a bank involving my invention may be comparatively economically constructed, and is strong and durable. Futhermore, as will be noted, the bank presents one compartment for the coins and a separate compartment for the locking mechanism, and thus possibility of the withdrawing of the locking mechanism by the pressure of coins against it, or the interference, by the coins, with the operation of the locking means, to release the cover-section, is avoided.

The coin-guard provided, as stated, is not only of simple and economical construction, but is not liable to impairment in use.

The provision of the locking mechanism in a compartment separate from the coin-compartment is also of advantage inasmuch as it greatly reduces the possibility of tampering with the locking mechanism by the insertion of objects through the coin-slot 49.

The flanges 50 flanking the coin-slot 49 are of advantage in that they afford obstruction to the bending of the teeth 53 and 54 to a set position wherein they are sufficiently widely spaced apart to permit the coins to discharge therethrough from the bank.

The arrangement of the parts as shown also affords the advantage of presenting great rigidity of structure especially at the portions where the end-plate 25 is crimped upon the ring 18, inasmuch as this ring surrounds the relatively rigid cup-shaped member 23, the use of the members 23 greatly expediting the operation of assembling the parts of the structure.

The bank constructed as shown insures the interlocking of both legs 40 and 41 with the cover 29 at the slots 48 therein, in the application of the cover to the body portion, due to the divergent, non-radial, arrangement of these slots and the similar arrangement of the extremities 45 and 46 of the legs.

While I have illustrated and described a particular construction embodying my invention, I do not wish to be understood as intending to limit it thereto, as the same may be variously modified and altered without departing from the spirit of the invention.

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

1. A bank structure formed of a hollow body comprising a ring, a plate-member extending crosswise of said ring adjacent one edge thereof, and an end-plate flatwise opposing said plate-member, said plate-member having a deflected portion spaced from said end-plate and ring and affording therewith a compartment at the marginal edge of the bank, the bank also having a coin compartment, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn therefrom, a closure for said opening, and releasable locking means for said closure comprising an element in said first-referred-to compartment.

2. A bank structure formed of a hollow

body comprising a ring, a plate-member extending crosswise of said ring adjacent one edge thereof, and an end-plate flatwise opposing said plate-member, said plate-member having a deflected portion spaced from said end-plate and ring and affording therewith a compartment at the marginal edge of the bank, the bank also having a coin compartment, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn therefrom, a closure for said opening, and releasable locking means for said closure comprising a member secured in position at said deflected portion of said plate-member with its free end forming a locking tongue.

3. A bank structure formed of a hollow body comprising a ring, a plate-member extending crosswise of said ring adjacent one edge thereof, and an end-plate flatwise opposing said plate-member, said plate-member having a deflected portion spaced from said end-plate and ring and affording therewith a compartment at the marginal edge of the bank, the bank also having a coin compartment, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn therefrom, a closure for said opening, and releasable locking means for said closure comprising a plate-like member located within said first-referred-to compartment and flatwise opposing said deflected portion of said plate-member, with its free end forming a locking tongue.

4. A bank structure formed of a hollow body comprising a ring, a cup-shaped member telescoped at its side wall with said ring and an end-plate, portions of the end wall and side wall of said cup-shaped member being spaced from said ring and said end-plate whereby two separate compartments are presented, one for receiving coins and the other for locking means, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn, a closure for said opening, and releasable locking means for said closure comprising an element in said second-referred-to compartment.

5. A bank comprising a hollow body portion formed of a ring, a member of general cup-shape with its side wall telescoping within said ring, and a plate extending across the bottom of said member and clampingly engaging said ring, a removable cover for the open end of said body portion, and means releasably holding said cover in place.

6. A bank comprising a hollow body-portion formed of a ring, a member of general cup-shape with its side wall telescoping within said ring, and a plate extending across the bottom of said member and clampingly engaging said ring, a removable cover for the open end of said body-portion, and means formed of interengaging portions on said cover and ring for releasably holding said cover in place.

7. A bank comprising a hollow body portion for receiving the coins and containing an opening through which the coins may be withdrawn, a closure for said opening, and locking means for securing said closure on said body-portion comprising a spring tongue secured to the body-portion of the bank at its inner end, the extremity of the outer end portion of said tongue being angularly disposed relative to its inner portion, and a lug on said tongue disposed radially of the center of the bank and extending at an angle to the free extremity of the tongue.

8. A bank structure formed of a hollow body comprising a ring, a cup-shaped member telescoped at its side wall with said ring and an end-plate, portions of the end wall and side wall of said cup-shaped member being spaced from said ring and said end plate whereby two separate compartments are presented, one for receiving coins and the other for locking means, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn, a closure for said opening, releasable locking means for said closure comprising a yoke-shaped member fitting flatwise against the outer surface of said deflected portion, the outer extremities of said yoke-member extending angularly relative to the body-portion of said member and being adapted to interlock with said closure, said yoke member having portions adapted to be separately engaged by a tool introduced into said second-referred-to compartment for withdrawing the ends of said yoke-member from engagement with said cover, said ring being slotted to receive said tool, and means securing said yoke-member in position on said cup-shaped member.

9. A bank comprising telescoped members containing a coin-insertion slot through which coins are introduced into the bank, and a coin-guard located at said slot and interposed between the telescoped portions of said members and held in place thereby.

10. A bank comprising members each formed with a continuous side-wall-forming portion at which portions said members are telescoped and with portions extending angularly thereto, said side-wall-forming portions containing registering openings forming a coin-insertion slot through which coins are introduced into the bank, and a coin-guard located at said slot and interposed between the side-wall-forming portions of said members and held in place thereby.

11. A bank comprising telescoped members containing a coin-insertion slot through

which coins are introduced into the bank, and a coin-guard located at said slot and interposed between the telescoped portions of said members and held in place thereby, said coin-guard presenting a slot equipped with inwardly-converging guard-teeth projecting inwardly beyond the inner one of said telescoped members.

12. A bank comprising telescoped members containing a coin-insertion slot through which coins are introduced into the bank, and a coin-guard located at said slot and interposed between the telescoped portions of said members, said coin-guard presenting a slot equipped with inwardly-converging guard-teeth projecting inwardly beyond the inner one of said telescoped members, said last-referred-to member being provided with inwardly-extending flanges flanking said coin-insertion slot, for the purpose set forth.

13. A bank comprising a hollow body containing an opening through which coins deposited therein may be withdrawn, a rotatable closure for said opening and key-controlled locking means for releasably locking said closure against rotation on said body and comprising separately retractable locking portions, the structure containing dissimilar openings adapted to receive certain portions of a key for retracting said locking means, such key portions registering with said openings only when said key is in a predetermined relation to said openings.

14. A bank comprising a hollow body containing an opening through which coins deposited therein may be withdrawn, a rotatable closure for said opening and key-controlled locking means for releasably locking said closure on said body and comprising separately retractable locking portions, the structure containing slots of different lengths adapted to receive certain portions of the key for retracting said locking means, such key portions registering with said slots only when said key is in a predetermined relation to said slots.

15. A bank comprising a hollow body containing an opening through which coins deposited therein may be withdrawn, a removable closure for said opening, said closure containing a plurality of openings spaced apart circumferentially of said closure, and locking means for said closure comprising separately deflectible tongues adapted to enter said openings in said closure, said openings in said closure and said tongues being so disposed that in the application of said closure to said body and in its rotation thereon in either direction, neither tongue will enter one of the openings in said closure until both tongues register with the respective openings provided to receive them.

16. A bank comprising a hollow body containing an opening through which coins deposited therein may be withdrawn, a movable closure for said opening, said closure containing a plurality of openings spaced apart circumferentially of said closure, and locking means for said closure comprising separately deflectible tongues adapted to enter said openings in said closure, said openings in said closure and said tongues being each disposed at an angle to the other and non-radial.

17. A bank structure formed of a hollow body comprising a ring, a plate-member extending crosswise of said ring adjacent one edge thereof, and an end-plate flatwise opposing said plate-member, said plate-member having a deflected portion spaced from said end-plate and affording therewith a compartment, the bank also having a coin compartment, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn therefrom, a closure for said opening, and releasable locking means for said closure comprising an element in said first-referred-to compartment.

18. A bank structure formed of a hollow body comprising a ring, a plate-member extending crosswise of said ring adjacent one edge thereof, and an end-plate flatwise opposing said plate-member, said plate-member having a deflected portion spaced from said ring and affording therewith a compartment at the marginal edge of the bank, the bank also having a coin compartment, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn therefrom, a closure for said opening, and releasable locking means for said closure comprising an element in said first-referred-to compartment.

19. A bank structure formed of a hollow body comprising a ring, a plate-member extending crosswise of said ring adjacent one edge thereof, and an end-plate flatwise opposing said plate-member, said plate-member having a portion forming a wall of a compartment, the bank also having a coin compartment, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn therefrom, a closure for said opening, and releasable locking means for said closure comprising an element in said first-referred-to compartment.

20. A bank structure formed of a hollow body comprising a ring, a cup-shaped member, said ring and member being telescoped and permanently secured together, said body having an opening through which coins deposited in the bank may be withdrawn, a closure for said opening, and releasable locking means for locking said closure on said body.

21. A bank structure formed of a hollow body comprising a ring, a cup-shaped mem-

ber, said ring and member being telescoped, a plate flat-wise opposing the end wall of said member, said ring, member and plate being permanently secured together and said body containing an opening through which coins deposited in the bank may be withdrawn, a closure for said opening, and releasable locking means for locking said closure on said body.

22. A bank structure formed of a hollow body comprising a ring, a cup-shaped member, said ring and member being telescoped, a plate flatwise opposing the end wall of said member and secured to said ring, said ring and plate having portions between which said member is interposed, operating to hold said member in position, and said body containing an opening through which coins deposited in the bank may be withdrawn, a closure for said opening, and releasable locking means for locking said closure on said body.

23. A bank, comprising telescoped members containing a coin-insertion slot through which coins are introduced into the bank, and a one-piece coin-guard located at said slot and interposed between the telescoped portion of said members and held in place thereby.

24. A bank, comprising telescoped members containing a coin-insertion slot through which coins are introduced into the bank, the inner one of said telescoping members being in the form of a cup, an end plate extending across the bottom of said cup and engaging the outer one of said telescoping members, and a coin-guard located at said slot and interposed between the telescoped portions of said members and held in place thereby.

25. A bank, comprising a hollow body portion formed of a ring, and an inner member telescoped with said ring, said ring and member having registering openings forming a coin slot, a coin-guard at said slot and interposed between said ring and member, a cover, a locking means for said cover, said member being shaped to form a recess in its outer surface, and one element of said locking means extending into said recess.

26. A bank, comprising a hollow body portion formed of a ring, and an inner member telescoped with said ring and formed as a one-piece structure, said ring and member having registering openings forming a coin slot, a coin-guard at said slot and interposed between said ring and member, a cover, and locking means for said cover, said member being shaped to form a recess in its outer surface, and one element of said locking means extending into said recess.

27. A bank formed of a hollow body comprising a ring, and an inner cup-shaped member telescoped at its side wall with said ring, said ring and inner member having registering openings forming a coin slot, a coin-guard at said slot and interposed between said ring and member, a cover, and locking means for said cover, said member being shaped to form a recess in its outer surface, and one element of said locking means extending into said recess.

28. A bank formed of a hollow body comprising a ring, an inner member telescoped with said ring, an end plate rigidly connected with said ring, said ring and inner member having registering openings forming a coin slot, a coin-guard at said slot and interposed between said telescoped members, a cover, and locking means for said cover, said inner member being shaped to form a recess in its outer surface whereby said recessed portion of said inner member and said end plate form a compartment, one element of said locking means extending into said compartment.

29. A bank formed of a hollow body comprising telescoped members and an end plate, said inner telescoped member having an end wall, with portions of said end wall and said inner telescoped member spaced from the outer one of said telescoped members and said end plate, whereby two separate compartments are presented one for receiving coins and the other for locking means, said hollow body containing an opening through which coins deposited in said coin compartment may be withdrawn, a closure for said opening, and releasable locking means for said closure comprising an element in said second-referred-to compartment.

JOSEPH KOMOROUS.