Oct. 18, 1932. B. F. FORSYTH 1,883,776

CABINET

Filed Sept. 9, 1931 2 Sheets-Sheet 1

Fig. 1

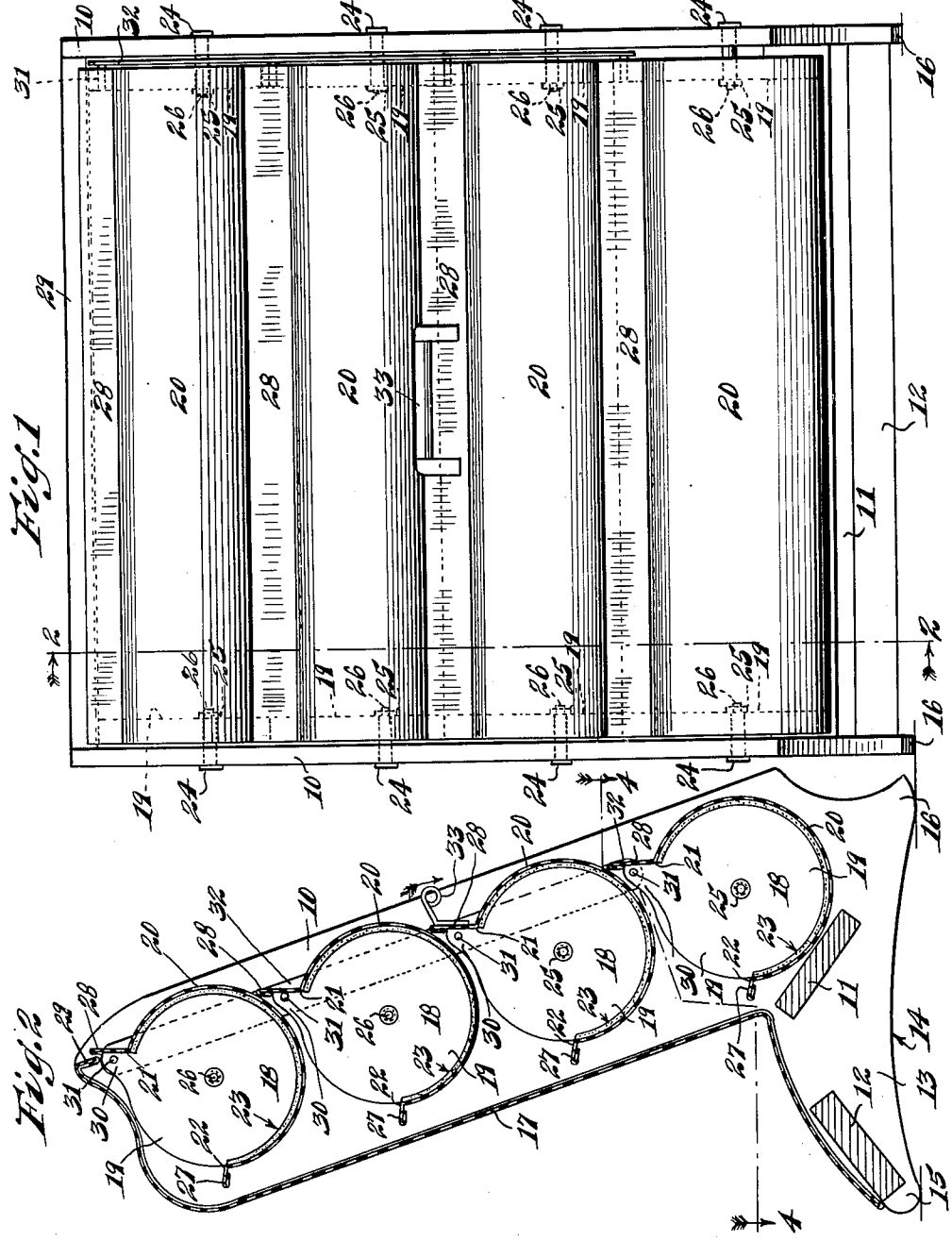


Fig. 2

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Fig. 4

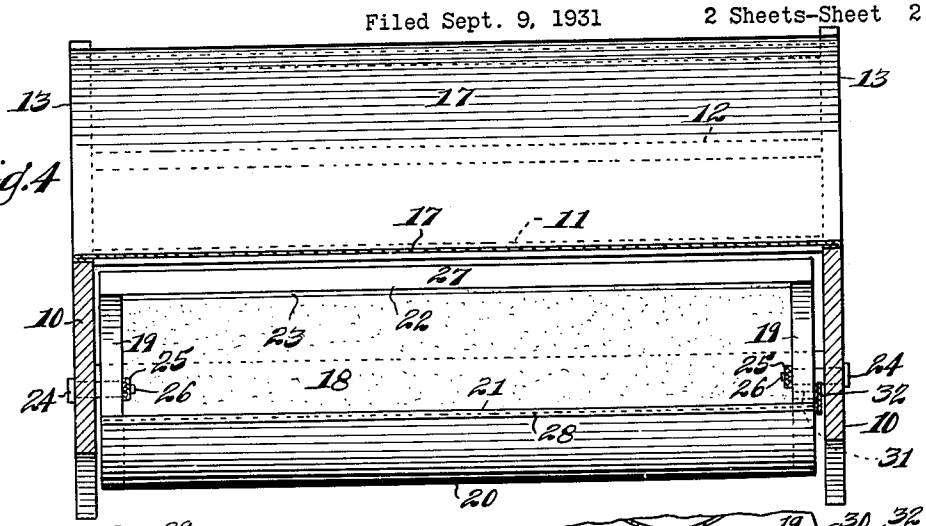


Fig. 3

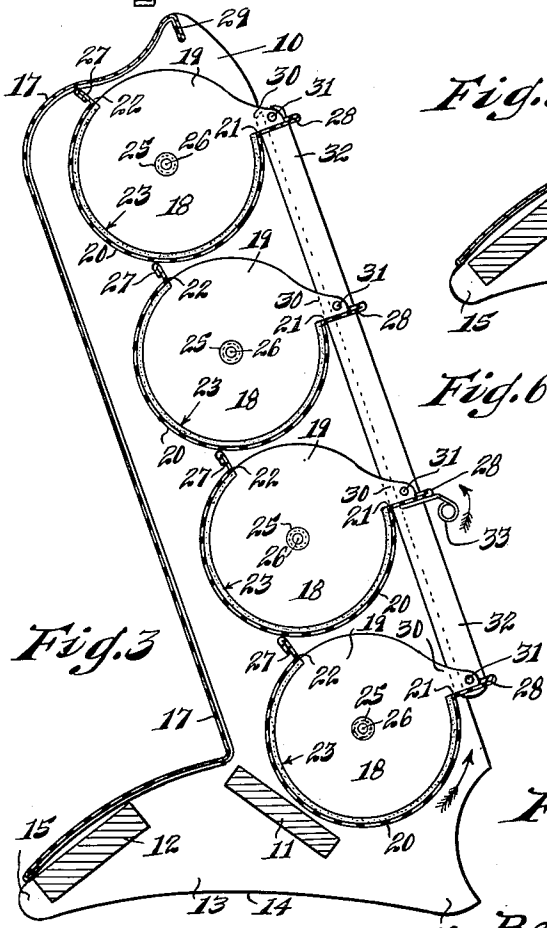


Fig. 5

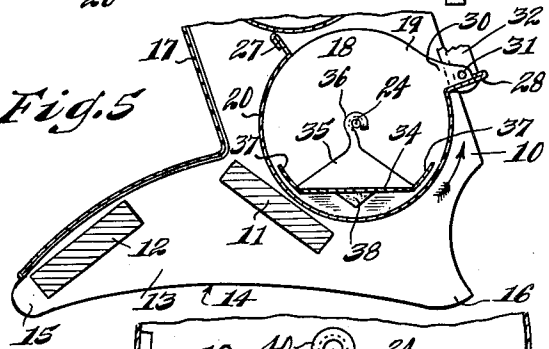


Fig. 6

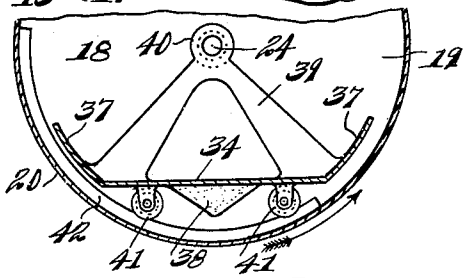
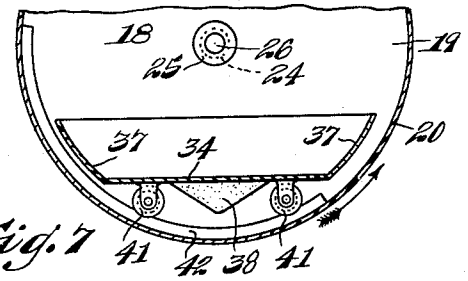


Fig. 7



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Patented Oct. 18, 1932 1,883,776

UNITED STATES PATENT OFFICE

BENJAMIN FRANKLIN FORSYTH, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-THIRD TO ESSEA E. GORDAN AND ONE-THIRD TO EDMUND J. FORSYTH, BOTH OF CHICAGO, ILLINOIS

CABINET

Application filed September 9, 1931. Serial No. 561,893.

This invention relates to cabinets, and has for its object to produce a handy device for the storage of sorted or classified articles so that convenient access may be had thereto, and which is adaptable for many uses and may be constructed on the same principle in a range of several different sizes. Other particular objects and advantages to be attained will hereinafter more fully appear.

The invention consists more particularly in the novel arrangement of a series of cooperating rotary containers within a supporting frame or housing, and in the individual parts as hereinafter described and pointed out with particularity in the appended claims.

In the accompanying drawings, forming part of this specification and illustrating a practical adaptation of the invention,—

Fig. 1 is a front elevation of the device;

Fig. 2 is a vertical section taken on or about the line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 2, but showing the rotary containers in opened condition;

Fig. 4 is a horizontal section, taken on or about the line 4—4 of Fig. 2;

Fig. 5 is a fragmentary section, illustrating a modification of the rotary container;

Fig. 6 is a fragmentary section, illustrating another modification of the rotary container; and

Fig. 7 is a similar view, illustrating a further modification.

Referring now to the drawings, the numeral 10 designates the end members of a supporting frame or housing, which are connected at their lower ends by the cross members 11 and 12, said end members having base extensions 13 which are arched, as at 14, so that their end portions 15 and the forward under portions 16 of the end members 10 afford supporting feet for the structure. As shown more clearly in Figs. 2 and 3, the end members 10 are inclined, and secured to their top and rear marginal portions, and to the upper edge portions of the extensions 13, is an enclosing plate 17. As shown, the end members 10 and cross connecting members 11, 12, may be constructed of wood and the enclosing plate 17 of sheet metal. However, the supporting frame or housing may be constructed of any suitable material and in any approved manner.

Mounted rotatably about horizontal axes within the supporting frame or housing is a cooperative tier of containers 18 which are of general cylindrical form, each comprising circular end members 19 and a semi-cylindrical shell or wall member 20 whose opposite end portions are secured about the circumferences of the end members 19 and, as shown, extend a little more than half way around the end members so as to afford an opening between the edge portions 21 and 22 and extending from end member to end member, thereby producing a channeled receptacle, access to which is had through said opening when the receptacle is turned to a given position, as will be presently more fully set forth.

As with the supporting frame or housing structure, the end members 19 of the containers may be made of wood and the shell or wall member of sheet metal, or, said parts may be constructed of any other suitable material. For some uses the containers 18 may be lined, as at 23, with felt or any other padding material suitable for the purpose. The pivotal mounting of the containers 18 may be accomplished through any approved and desirable means. As shown, studs or bolts 24 are inserted through alined apertures provided therefor in the end frame members 10 and end members 19, the bolts or studs being secured in place by nuts 25 provided on their screw-threaded inner end portions 26. As shown more clearly in Fig. 4 of the drawings, the end portions 26 of the bolts or studs 24 are reduced in diameter so as to afford shoulders against which the nuts 25 are tightened when applied, and said nuts are preferably knurled circumferentially, or, obviously, they may be formed polygonally or otherwise for the application of a wrench.

As shown more clearly in Figs. 2 and 3, the inner edge portion 22 of the semi-cylindrical wall 20 of each container 18 is flanged, as at 27, while its front edge portion 21 is flanged, as at 28. The flanges 28 are provided so as to perform the dual function of

stops for limiting the closing movement of the several containers 18 and to effectively close the cabinet against entrance of dust. That is to say, the flange 28 of the uppermost container 18 is engageable with a downturned flange 29 extending across the forward edge of the upper portion of the enclosing plate 17, while the flanges 28 of the lower containers 18 respectively engage the circumferential portion of the container next above, as shown more clearly in Fig. 2. In the opened condition of the containers 18 the flange 27 of the uppermost container engages the inner face of the top portion of the enclosing plate 17, and the flanges 27 of the lower containers respectively engage the circumferential portion of the shell or wall member 20 of the container next above.

Obviously, the several rotary containers 18 may be separately opened, but it is preferable to provide means for opening and closing all of the containers 18 simultaneously. This may be accomplished in a simple and practical manner as shown in the drawings, Figs. 1 to 4, inclusive. As shown, the end members 19 of the containers 18 are provided with radial ears 30 adjacent to the flanges 28, and pivotally connected to said ears, as at 31, is a link element 32, by which arrangement the entire series of containers 18 are simultaneously opened and closed, and the actuation being effected by applying power to any one of the containers to rotate it about its axis. As shown, a handle member 33 is provided on the flanged portion 28 of the second container 18 from the bottom of the tier. Obviously, however, the handle 33 may be provided on any one or all of the other containers, and the pivotal connecting link arrangement 32, which is indicated only at one end of the cabinet, may be duplicated at the opposite end.

In some cases the semi-cylindrical containers 18 will be complete as shown in Figs. 2 and 3, and either with or without the padded lining 23, but in other cases the containers may be provided with supplemental self-leveling trays or supports 34, as illustrated in Figs. 5, 6, and 7, said supplemental trays or supports being provided for the reception of the articles placed within the container and always maintaining a level position in the opened and closed positions of the semi-cylindrical body of the container and during opening and closing movements thereof.

As shown in Fig. 5, the supplemental tray or support 34 comprises a flat plate-like body portion, the ends of which are upturned and flanged, as at 35, and provided with hooked extensions 36 which are pivotally engaged over the supporting spindles or studs 24, said trays or supports 34 being normally suspended clear of the semi-cylindrical shell or wall member 20 and constituting a false bottom for the container which is self-leveling under the weight of the contained articles. Preferably, the longitudinal margins of the plate 34 are flanged, as at 37, said flanges being preferably curved corresponding to the curvature of the shell or wall member 20, but normally out of contact therewith. So, too, the tray or supporting member 34 may be weighted, as at 38, on its under side.

In Fig. 6 the supplemental tray or supporting member 34 is modified in that its end portions are provided with hanger brackets 39 which are upwardly tapered and are provided with eye portions or loops 40 which are pivotally journaled on the bolts or studs 24, which afford the pivotal bearings for the respective containers 18. In this modification the supplemental tray or support 34 is swingably supported from the pivot bolts or studs 24 similar to the tray or support of the modification illustrated in Fig. 5, but with the further provision of grooved rollers 41 which are journaled on the under side of the plate-like body portion and are arranged to ride on an arcuate trackway 42 provided therefor on the inner face of the semi-cylindrical shell or wall member 20, by which arrangement the weight of the tray or support 34 is distributed and balanced, it permitting the self-leveling action of the device during opening and closing movements of the container 18.

In the modification illustrated in Fig. 7 the hanger features 35 and 39 are dispensed with and the rollers 41 riding on the trackway 42 are alone depended upon to maintain the supplemental tray or support 34 in level position.

Obviously the device of the present invention may be produced on either a relatively large or small scale, and the structure modified in many respects without in the least departing from the spirit and scope of the invention as defined by the appended claims. The invention, therefore, is not limited to the specific construction and arrangement shown in the accompanying drawings.

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

1. A cabinet comprising an upwardly and rearwardly inclined upstanding supporting frame including end wall members and a top and rear enclosing plate, affording an open front housing a plurality of cooperatively superposed semi-cylindrical containers rotatable about horizontal axes within said housing, said containers being pivotally supported at their ends on the end wall members of the housing frame, the front longitudinal marginal portions of the lower semi-cylindrical containers being flanged whereby to engage the circumferential faces of the next above adjoining containers and a correspondingly formed portion of the uppermost container engaging a flanged stop portion on said housing frame thereby to limit the clos-

ing movement of said containers and effect the closing of the cabinet, the rear marginal portions of the lower semi-cylindrical containers being flanged whereby to engage the circumferential portions of the next above adjoining containers and a correspondingly formed portion of the upper most container engaging the top portion of the enclosing plate to limit the opening movement of said containers and determine the opened position thereof, and means for simultaneously actuating said containers in both opening and closing directions.

2. A cabinet comprising an upstanding supporting frame including upwardly and rearwardly inclined end well members having rearwardly base extensions affording a stabilizing rest for the cabinet, a top and rear enclosing plate secured marginally to the top and rear edge portions of said end wall members and including the base extensions thereof, a plurality of cooperatively superposed semi-cylindrical containers having longitudinally elongated rectangular openings, said containers comprising circular end members to which semi-cylindrical wall members are attached peripherally thereof, the front longitudinal marginal portions of the semi-cylindrical walls of said containers being flanged radially to engage the circumferential portions of next above adjoining containers as to the lower contianers and a longitudinal stop flange on the top portion of said enclosing plate as to the uppermost container, the rear marginal portions of the semi-cylindrical walls of said containers being flanged whereby to engage circumferential portions of next above adjoining containers as to the lower containers and also a part of the top portion of said enclosing plate as to the uppermost container thereby to limit the opening movement of the container and determine the opened position thereof.

3. A cabinet comprising an upstanding supporting frame including upwardly and rearwardly inclined end wall members having rearward base extensions affording a stabilizing rest for the cabinet, an enclosing plate secured marginally to the top and rear edge portions of said end wall members and including the base extensions thereof, a plurality of cooperatively superposed semi-cylindrical containers comprising circular end members to which semi-cylindrical wall members are attached peripherally thereof, the front longitudinal marginal portions of the semi-cylindrical walls of said containers being flanged radially to engage the circumferential portions of next above adjoining containers as to the lower containers and a longitudinal stop flange on said enclosing plate as to the uppermost container, the rear marginal portions of the semi-cylindrical walls of said containers being flanged whereby to engage circumferential portions of next above adjoining containers as to the lower containers and also a part of the enclosing plate thereby to limit the opening movement of the containers and determine the opened position thereof, and a link element pivotally attached to the respective containers whereby to effect simultaneous opening and closing actuation of the containers.

4. A cabinet comprising a supporting frame, a semi-cylindrical container mounted rotatably on said supporting frame within said cabinet, the axis of said container being in a horizontal plane, and a self-leveling supplemental tray within said container, said supplemental tray being pivotally suspended about an axis coincident with the axis of rotation of said container.

5. In a cabinet of the character described, a semi-cylindrical container mounted rotatably about a horizontal axis in said cabinet and a self-leveling independently movable supplemental article holder comprising a tray suspended in said container from an axis coinciding with the axis of the container.

6. In a cabinet of the character described, a semi-cylindrical container mounted rotatably about a horizontal axis in said cabinet, a self-leveling independently movable supplemental article holder comprising a tray suspended in said container from an axis coinciding with the axis of the container, an arcuate trackway in said container, and roller elements in said tray cooperatively engaging said trackway for guiding and supporting said tray.

7. In a cabinet of the character described, a semi-cylindrical container mounted rotatably about a horizontal axis in said cabinet, a supplemental tray mounted independently movable in said container, an arcuate trackway in said container, and roller elements on said supplemental tray cooperatively engaging said trackway with anti-friction supporting and guiding effect, whereby said supplemental tray is self-leveling in any rotative position of the container.

In testimony whereof I have signed my name to this specification.

BENJAMIN FRANKLIN FORSYTH.