Nov. 20, 1923. 1,474,642

W. S. PROUDFIT

FILING DEVICE

Filed Jan. 5, 1922 5 Sheets-Sheet 1

Fig. 1.

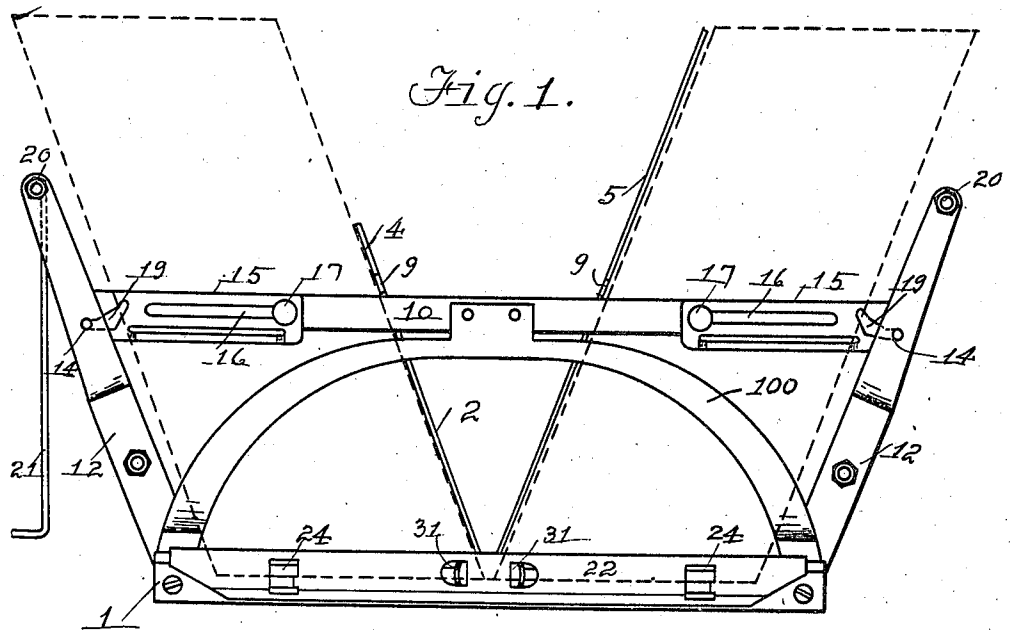
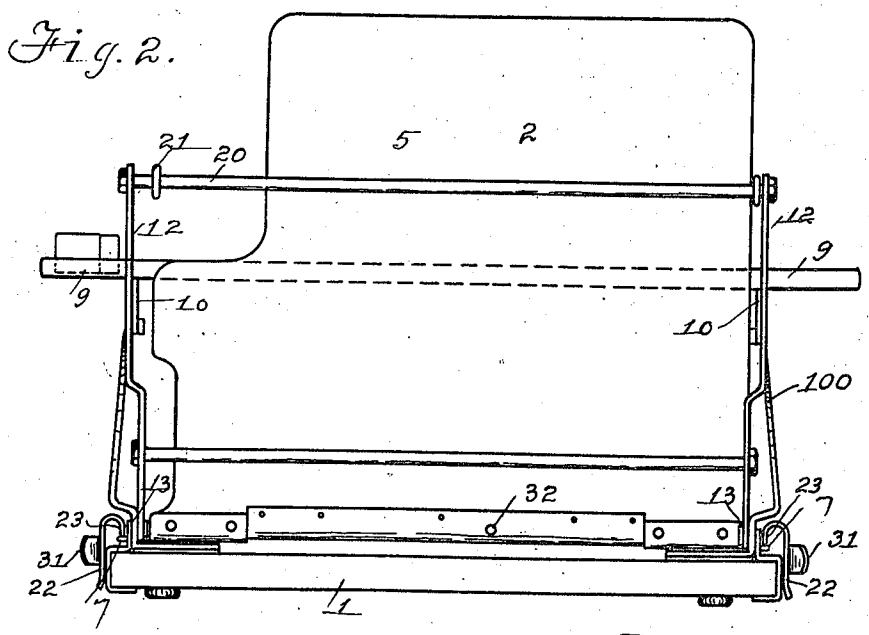


Fig. 2.



Witness:
Edward F. Graf

Inventor:
William S. Proudfit
by Cyrus W. Rice
Attorney.

Nov. 20, 1923. 1,474,642

W. S. PROUDFIT

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Filed Jan. 5, 1922 5 Sheets-Sheet 2

Fig. 3.

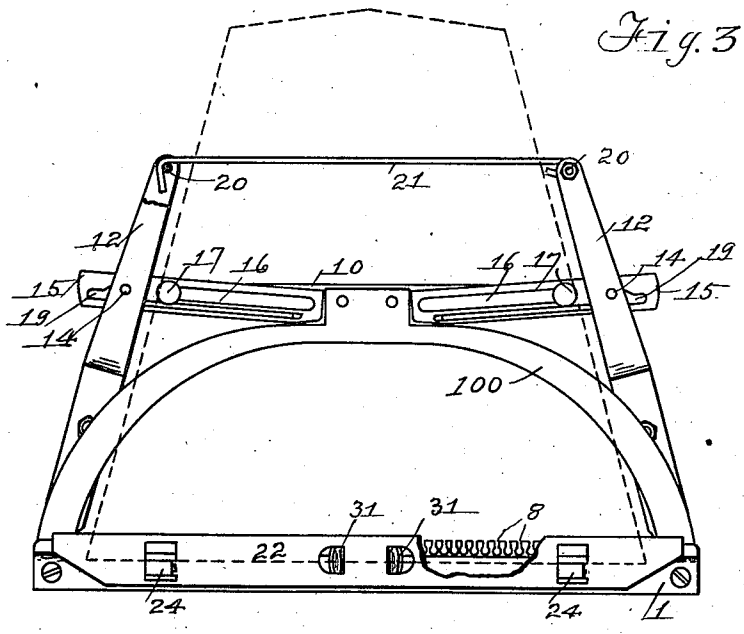


Fig. 4.

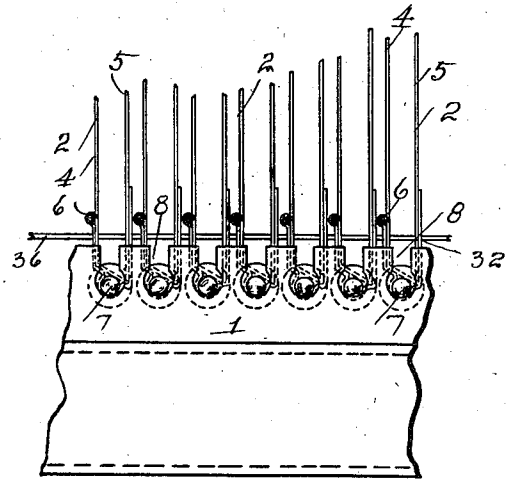
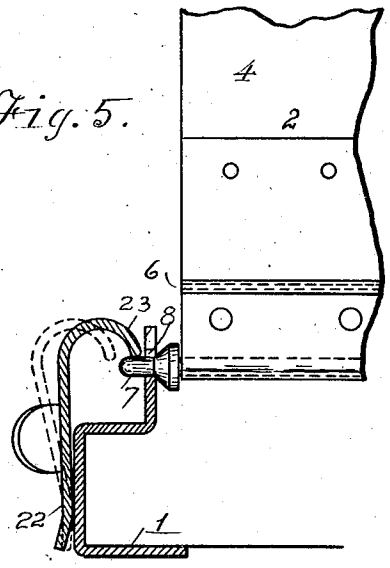


Fig. 5.



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Nov. 20, 1923. 1,474,642

W. S. PROUDFIT

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Filed Jan. 5, 1922 5 Sheets-Sheet 3

Fig. 6.

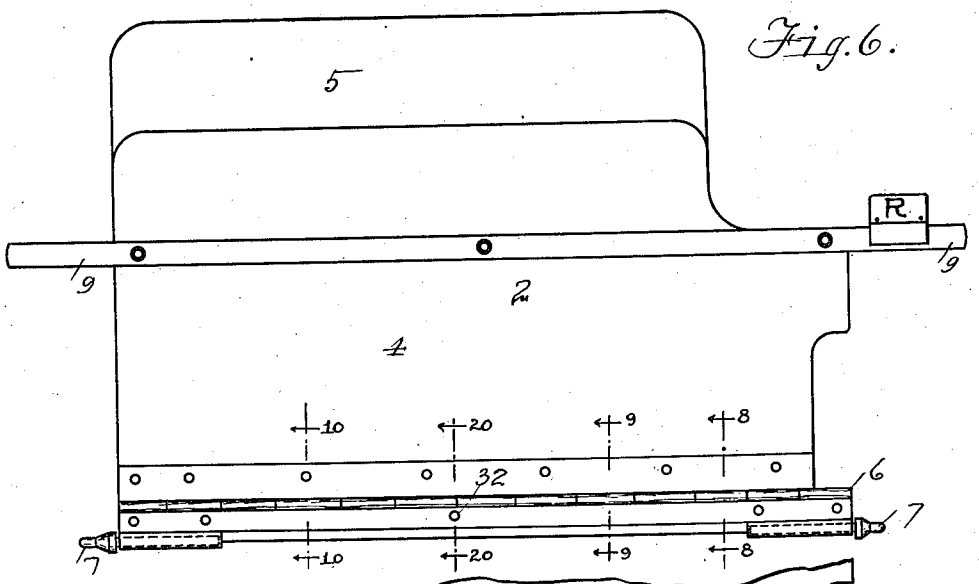
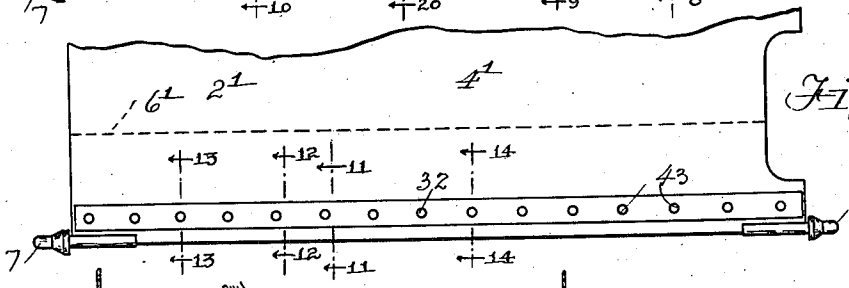
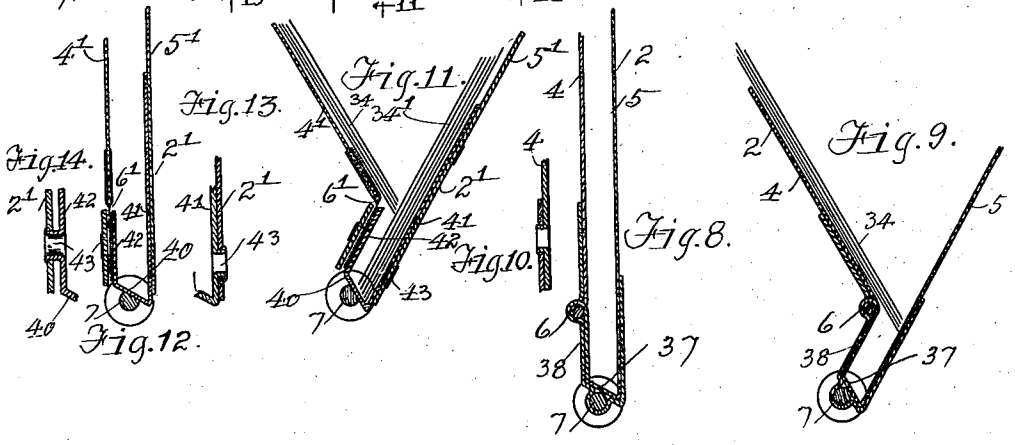


Fig. 7.





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Nov. 20, 1923. 1,474,642

W. S. PROUDFIT

FILING DEVICE

Filed Jan. 5, 1922 5 Sheets-Sheet 4

Fig. 15.

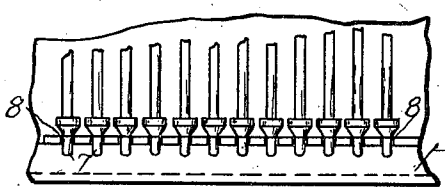
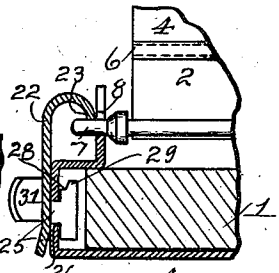


Fig. 17.



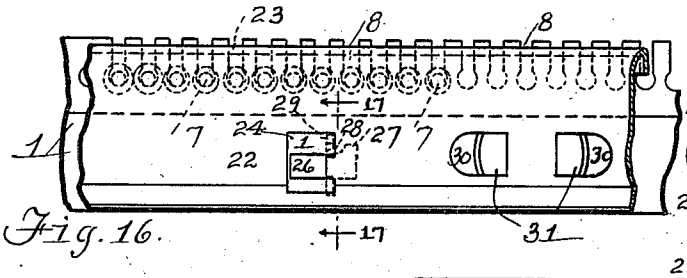


Fig. 16.

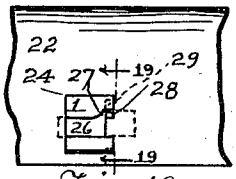


Fig. 18.

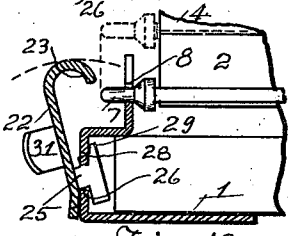
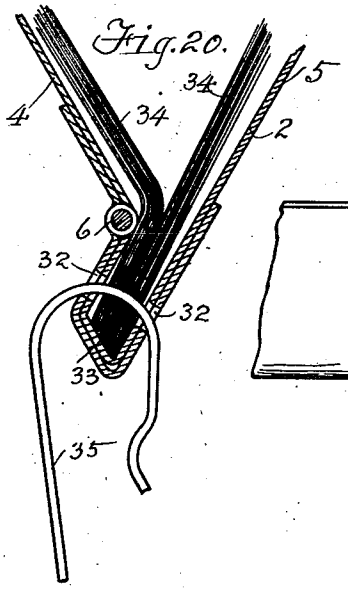


Fig. 19.

Fig. 20.



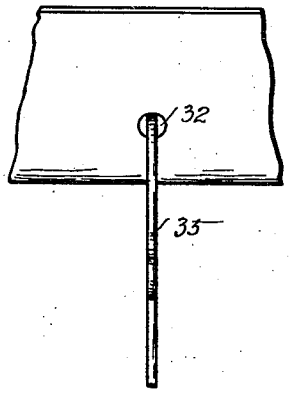


Fig. 21.

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Nov. 20, 1923. 1,474,642

W. S. PROUDFIT

FILING DEVICE

Filed Jan. 5, 1922 5 Sheets-Sheet 5

Fig. 22.

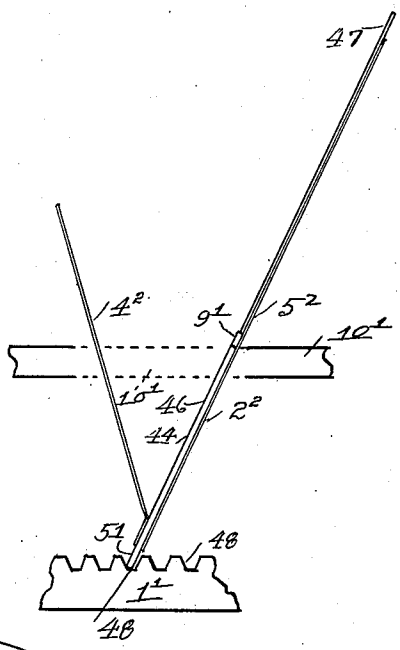


Fig. 23.

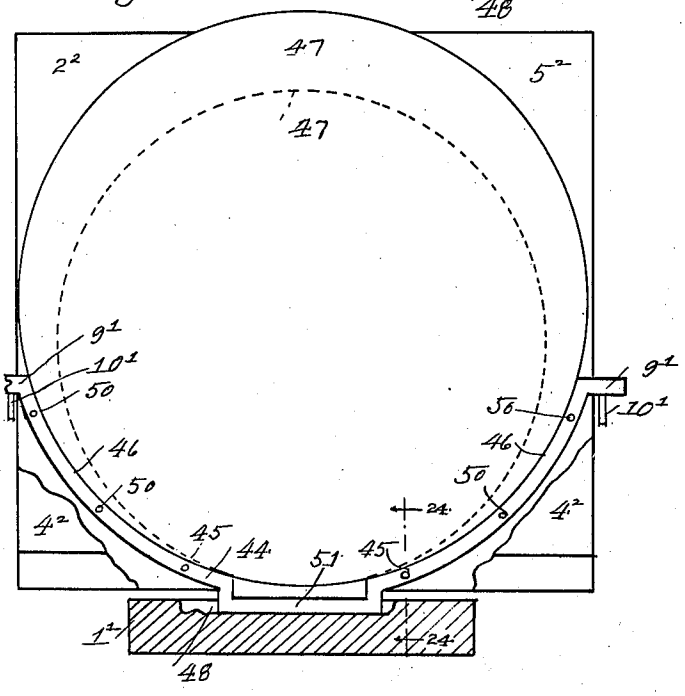
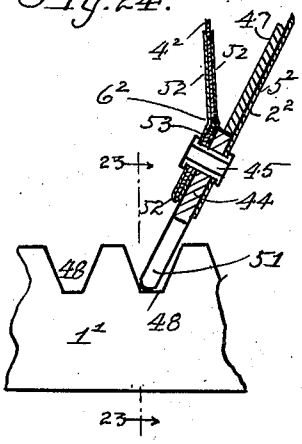


Fig. 24.



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Inventor:
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Patented Nov. 20, 1923. 1,474,642

UNITED STATES PATENT OFFICE.

WILLIAM S. PROUDFIT, OF WALKER TOWNSHIP, KENT COUNTY, MICHIGAN.

FILING DEVICE.

Application filed January 5, 1922. Serial No. 527,201.

To all whom it may concern:

Be it known that I, WILLIAM S. PROUDFIT, a citizen of the United States, residing at Walker Township, in the county of Kent and State of Michigan, have invented new and useful Improvements in Filing Devices, of which the following is a specification.

The present invention relates to filing devices; that is, such devices as are used to contain in orderly arrangement letters, documents and the like; and its object is, generally, to provide an improved device of that character; and more particularly, to provide a plurality of separate containers for such papers, arranged side by side, each having a pair of side members swingably connected adjacent the bottom of the container, the device being so arranged that said side members may be limited as to their separating movement; and further, to provide such a device having such containers which are rockable in spaced-apart bearings; and further, to provide such containers which may be readily removed severally from and returned to their places in the device; and further, to provide means whereby such containers may be securely but removably held in their places in the device; and further, to provide extensible parts of such a device; and further, to provide means whereby the contents of the containers may be securely but removably held therein; and further, to provide improved constructions for such containers.

These and any other objects hereinafter appearing are attained by, and the invention finds preferable embodiment in, the filing device hereinafter particularly described in the body of this specification and illustrated by the accompanying drawings, in which:—

Figure 1 is a side view of the frame of my filing device in expanded position, one position of the contents thereof being indicated in dotted lines;

Figure 2 is an end view of the same showing also one of the containers therein;

Figure 3 is a side view of the frame of my device in contracted position;

Figure 4 is a detail view showing in edgewise position the bottoms of the containers and their rock journals and bearings therefor;

Figure 5 is a view of the bottom of a container, its rock journal and the bearing therefor, and the means for releasably holding the rock journals in their mountings; being partially sectioned vertically through the axis of the rock journal;

Figure 6 is a front-side view of one of the containers;

Figure 7 is a like view of a modified construction of the same;

Figures 8 and 9 are cross sectional views of the lower part of the container shown in Figure 6, taken on lines 8—8 and 9—9 respectively of said figure and showing the side members of the container in closed and open positions respectively.

Figure 10 is a like view of a portion of the same taken on line 10—10 of Figure 6;

Figures 11 and 12 are cross sectional views of the lower part of the container shown in Figure 7, taken on lines 11—11 and 12—12 respectively of said figure and showing the side member of the container in open and closed positions respectively;

Figure 13 is a like view of a portion of the same taken on line 13—13 of Figure 7;

Figure 14 is a like view of a portion of the same taken on line 14—14 of Figure 7;

Figure 15 is a plan view of the rock journals of the containers and their bearings;

Figure 16 is a side view of a portion of the frame and means for holding the rock journals in their bearings, said means being shown in holding position;

Figure 17 is a cross-sectional view of the same taken on line 17—17 of Figure 16, and showing also the bottom of a container;

Figure 18 is a view of a portion of said means for holding the rock journals in their bearings, said means being shown in releasing position;

Figure 19 is a cross-sectional view of the same taken on line 19—19 of Figure 18 and showing also the bottom of a container;

Figure 20 is a cross-sectional view of the container shown in Figure 6, and its contents, taken on line 20—20 of Figure 6, the side members being open and a pin being shown for holding the contents against displacement;

Figure 21 is a view of the bottom of a container showing means for securing its contents against displacement;

Figure 22 is a fragmentary side view of the frame and an edgewise view of a container of modified forms;

Figure 23 is a view of the same, partially

sectioned on line 23—23 of Figure 24; and Figure 24 is a sectional view of the lower part thereof, enlarged, taken on line 24—24 of Figure 23.

In the first embodiment of the invention chosen for illustration by the drawings and for detailed description in the body of this specification, my filing device comprises the frame designated generally 1 and a plurality of containers of which two forms are shown, resignated generally 2 and 2^1. These containers, adapted to hold the paper sheets 34, are arranged side by side in the frame, each container having side members 4 and 5 or 4^1 and 5^1, swingably connected at 6 or 6^1 adjacent the container's bottom, the container having also at its bottom rock journals 7 removably inserted in a pair of rock bearings 8, one member of each pair being located at and carried by one side of the frame and the other member at the frame's other side. At least one of the side members, as 4 or 4^1 has—and the other side member 5 or 5^1 may have—a lateral projection 9 at one or both ends which is adapted to rest on a side rail 10 of the frame when the side member having such projection is swung to its extreme open position as seen in Figure 1, the side rail thus limiting the side member's opening movement. A member 100 serves to support the side rail 10 in its middle. It will be seen that, inasmuch as the containers are supported adjacent their bottoms by the bearings 8 in which their journals rock, the side member of the container having the projection, when swung to extreme open position, always assumes the same angular relation to the frame, thus preventing such side member from falling too low when opened and unduly overlying the side of the adjacent container. It will also be seen that although the frame may have only a few containers therein, the projections 9 resting on the side rail in the open position of any container, maintain the container's side member in the same inclinedly upright position as if the frame were filled with containers; and that, owing to the rock journals 7 turning in the spaced-apart bearings 8, the containers cannot crowd each other, but each may maintain its own position although others are not present in the frame. It is thus evident that although one or more containers be removed from the frame, as for examination of their contents, the proper position of the other containers in the frame is not disturbed; also that two or more containers of the same capacity (i. e. of the same thickness) may be removed and one container having a greater thickness or capacity may be substituted without disturbing other containers in the frame.

The upper parts carried by the frame may be made longitudinally expansible to the length seen in Figure 1 and contractible to the length shown in Figure 3 by suitable means, as by providing the pairs of arms 12 swingably mounted at their lower ends on the frame at 13 and each turnably connected at 14 with the outer end of an extension member 15 slidably connected to one of the side rails 10 by the extension member's slot 16 slidable on the side rail's lug 17. In order that the extension member 15 may assume a horizontal position when drawn out, its turnable connection with the arm 12 may be of the form shown in which the lug 14 of the arm slides and turns in the extension member's slot 19 which is inclined relatively to said member's upper edge. When the frame is contracted it may be held in such contracted position by its portion or cross bar 20 connecting the upper ends of each pair of arms 12 engaging the outermost of the side members of the containers, the arms being now locked by suitable means, as the hook 21 carried by one of the cross bars 20 and adapted to be hooked over the cross bar 20 of the other arms at the opposite end of the frame.

The rock bearings on one or both sides of the frame are open at their tops for the ready insertion and removal of the rock journals so that the several containers with their contents may be removed from the frame whenever desired. In order to hold these journals in their open bearings, I provide a bar 22 slidably and swingably mounted on the lower part of the frame and adapted to be moved into and out of a position wherein its flange 23 overhangs the extremities of the rock journals in the open bearings and thus holds them therein. As shown in Figures 16, 17, 18 and 19, this bar is slit at 24 and a portion thereof is bent inwardly to form a mounting member 25 slidable in a slot 26 in the lower part of the frame. This slot 26 has an upward extension 27 through which the upper shoulder 28 of the mounting member when in registration therewith may pass outwardly as seen in Figures 18 and 19, whereupon the flange 23 releases the ends of the rock journals, the bar 22 being held against further outward movement however by the mounting member's lug 29. To move the bar to its position to hold the rock journals in their open bearings, it is swung inwardly from the position seen in Figures 18 and 19 and slid longitudinally until the shoulder 28 of its mounting member engages the narrower part of the slot 26 as seen in Figures 16 and 17. Handles for sliding the bar 22 may be formed by slitting the material thereof at 30 and bending out tongues 31.

The containers are shown with alined orifices 32 adjacent their bottoms, through which and through registering openings 33 in the sheets 34 held therein, a suitable pin

35 may be thrust (when the container is withdrawn from the frame) to hold such sheets against accidental displacement. Inasmuch as these orifices in all the containers are alined, a long pin 36 may be thrust therethrough to hold the contents of all the containers in the frame against displacement. By providing a second opening (not shown) in the sheets at one side of the openings 33 therein, these sheets may be locked in "offset" position, so that one edge of the sheets may be seen at one end of the side members.

The container seen in Figures 6, 8 and 9 has the body portion or side member 5 and a second portion 37 extending transversely thereto and thence upwardly at 38 parallel with the portion 5 to form the bottom part of the container, the other side member 4 being swingably mounted at 6 on the portion 38 adjacent its upper edge.

The container shown in Figures 7, 11, 12, 13 and 14, has a sheet metal bottom part 40 with parallelly disposed spaced-apart sides 41, 42 integral therewith and having eyelets 43 formed integrally with said sides, whereby the side members 4^1, 5^1 are fastened to the sides 41, 42 respectively of said metallic bottom part.

As particularly shown in Figure 11, the sheets 34 adjacent the front side member 4^1 may be slid out from the bottom part (viz, the part below the swingable connection between the side members) so that their lower edges may rest against the other sheets 34^1, whereupon such other sheets will be retained in the position seen in Figure 11 for ready examination.

In Figures 22, 23 and 24 another modified construction of the container and of a portion of the frame are shown. This form of the container designated generally 2^2 has a rib 44, preferably of metal, to whose opposite sides the container's side members 4^2 and 5^2 are fastened as by eyelets 45, 50. This rib has a pair of laterally extending curved branches 46 forming oppositely disposed abutments adapted to support a circular disk, as the phonograph record 47 and hold the same against edgewise rolling movement. At least one of the branches 46 has a lateral projection 9^1 resting on the horizontally disposed side rail 10^1 of the frame 1^1 in the extreme sidewise-swung position of the rear side member 5^2. This rib has a downward extension 51 rockably supported in a groove 48 extending transversely of the frame.

As particularly seen in Figure 24, this container comprises a rear side 5^2 preferably of fibre or paper, fastened to the rib 44 by the eyelets 45, 50, and a front side 4^2 of like material fastened to the rib by the eyelets 45. A flexible strip 52, as of cloth, is glued to the front and rear sides of the side 4^2 passing around a metallic strip 53 through which the eyelets 45 pass below the swingable connection 6^2 (formed by said cloth strip) between the swingable upper part of the side and its lower fixed part.

In certain constructions, the front side member 4, 4^1 or 4^2 may be dispensed with.

The invention, being intended to be pointed out in the claims, is not to be limited to or by details of construction of the particular embodiment thereof illustrated by the drawings or hereinbefore described.

I claim:

1. In a device of the character described; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom, at least one of said side members having a lateral projection; a frame supporting the containers adjacent their bottoms and having a horizontally disposed side rail on which said projections rest in the extreme sidewise-swung position of the side members having said projections; means connected with the frame for holding the containers adjacent their bottoms against upward movement.

2. In a device of the character described; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom, at least one of said side members having a lateral projection; a frame supporting the containers adjacent their bottoms and having a horizontally disposed side rail on which said projections rest in the extreme sidewise-swung position of the side members having said projections, the side rail having an extension-member slidably connected thereto, and the frame having an upwardly extending arm swingably mounted thereon and turnably connected with the outer end of the extension-member; means connected with the frame for holding the containers adjacent their bottoms against upward movement.

3. In a device of the character described; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom, at least one of said side members having a lateral projection; a frame supporting the containers adjacent their bottoms and having a horizontally disposed side rail on which said projections rest in the extreme sidewise-swung position of the side members having said projections, the side rail having an extension-member slidably connected thereto, and the frame having an upwardly extending arm swingably mounted thereon and turnably connected with the outer end of the extension-member, and a member carried by said arm and adapted to engage the outermost of said side members, and means for holding the arm in inwardly swung position; means connected with the

frame for holding the containers adjacent their bottoms against upward movement.

4. In a device of the character described; a frame having pairs of rock bearings spaced apart, the members of each pair being disposed on opposite sides of the frame; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom and rock journals adjacent its bottom removably turning in said bearings.

5. In a device of the character described; a frame having pairs of rock bearings spaced apart, the members of each pair being disposed on opposite sides of the frame and at least one of them being an open bearing; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom and rock journals adjacent its bottom removably turning in said bearings.

6. In a device of the character described; a frame having pairs of rock bearings spaced apart, the members of each pair being disposed on opposite sides of the frame and at least one of them being an open bearing, the frame having also a horizontally disposed side rail; a plurality of containers arranged side by side, each container having rock journals adjacent its bottom removably turning in said bearings and comprising also a pair of side members swingably connected adjacent its bottom, at least one of said side members having a lateral projection adapted to rest on the side rail in the extreme sidewise-swung position of the side member having said projection.

7. In a device of the character described; a frame having pairs of rock bearings spaced apart, the members of each pair being disposed on opposite sides of the frame and at least one of them being an open bearing; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom and rock journals adjacent its bottom removably turning in said bearings; a bar swingably and slidably mounted on the frame and adapted to be moved into and out of a position wherein it overhangs the rock journals turning in the open bearings to hold them therein.

8. In a device of the character described; a frame having pairs of rock bearings spaced apart, the members of each pair being disposed on opposite sides of the frame; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom and rock journals adjacent its bottom removably turning in said bearings, the containers having orifices adjacent their bottoms; pins adapted to be thrust through said orifices to hold against displacement the contents of the containers severally.

9. In a device of the character described; a frame having pairs of rock bearings spaced apart, the members of each pair being disposed on opposite sides of the frame; a plurality of containers arranged side by side, each container comprising side members swingably connected adjacent its bottom and rock journals adjacent its bottom removably turning in said bearings, the containers having adjacent their bottoms alined orifices; a pin adapted to be thrust through said orifices to hold against displacement the contents of the containers severally; and a pin adapted to be thrust through all the alined orifices to hold the contents of all the containers against displacement.

10. In a device of the character described; a container comprising a pair of members, one of which has a body portion and a second portion extending transversely to the body portion and thence upwardly parallel with the body portion to form the bottom part of the container, the other member being swingably mounted on the last-mentioned portion adjacent its upper edge.

11. In a device of the character described: a container comprising a bottom part with parallelly disposed spaced-apart sides having eyelets integral therewith, and side members fastened by said eyelets to said sides respectively of the bottom part.

In testimony whereof I have hereunto set my hand at Grand Rapids, Michigan, this 29th day of December, 1921.

WILLIAM S. PROUDFIT.