

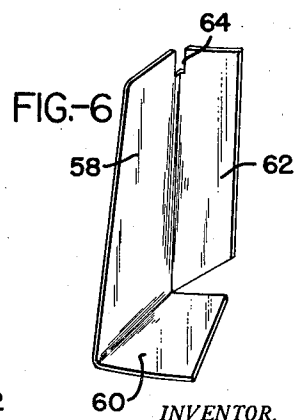
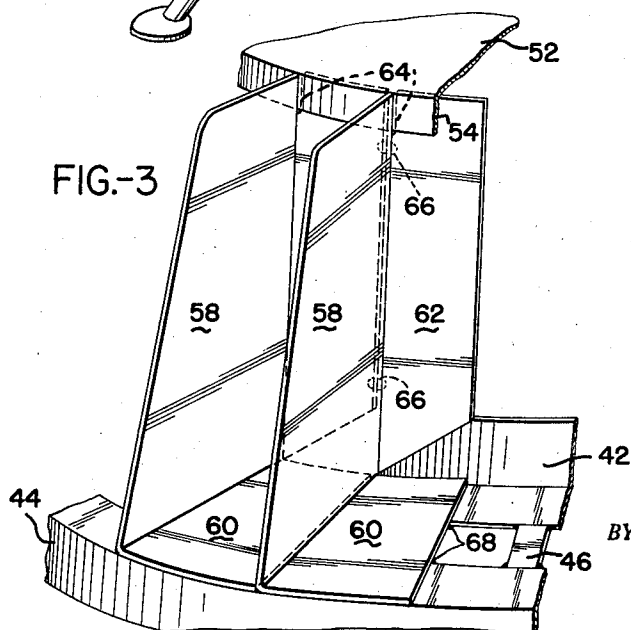
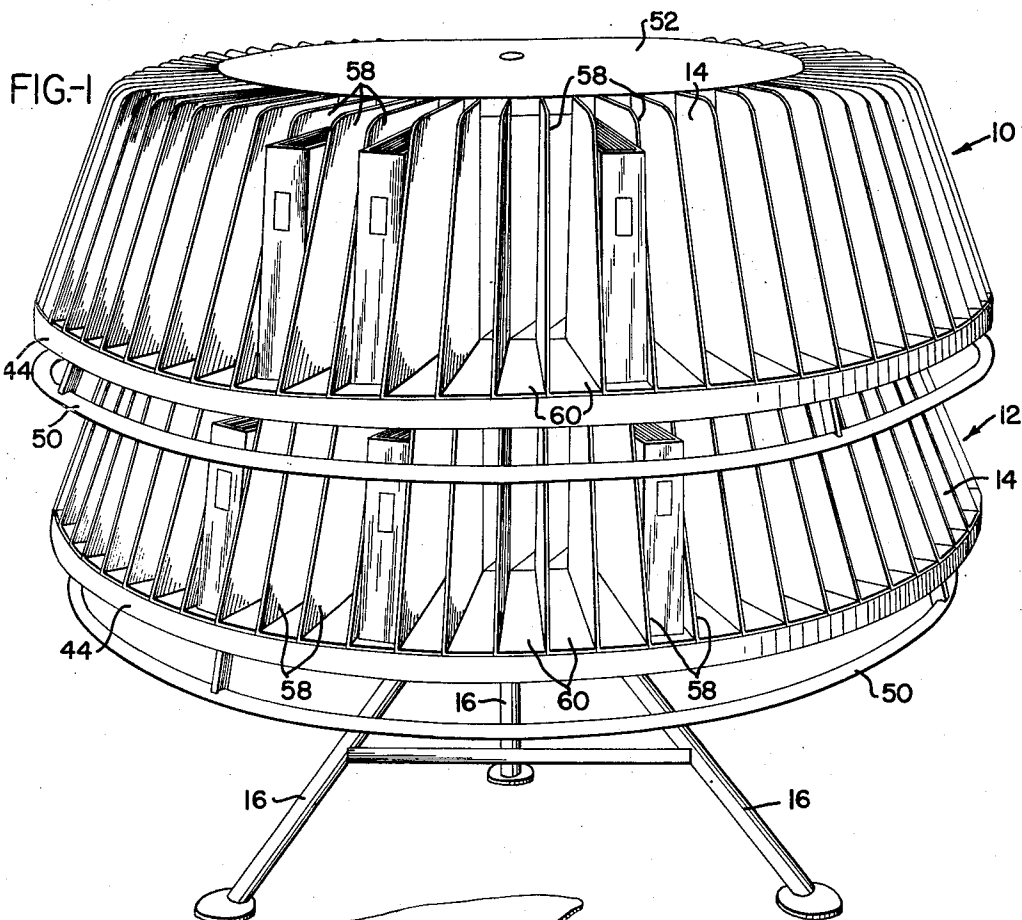
Sept. 1, 1959

W. M. SHOFFNER  
ROTARY FILE CABINET

2,902,175

Filed Oct. 8, 1954

3 Sheets-Sheet 1



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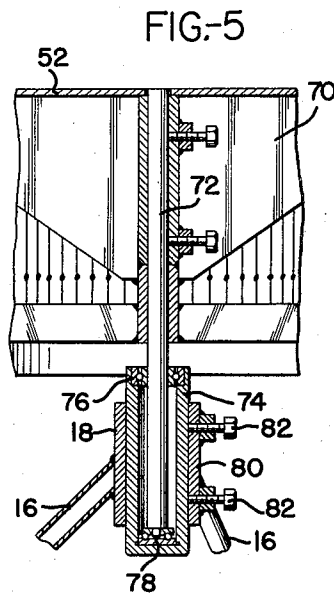
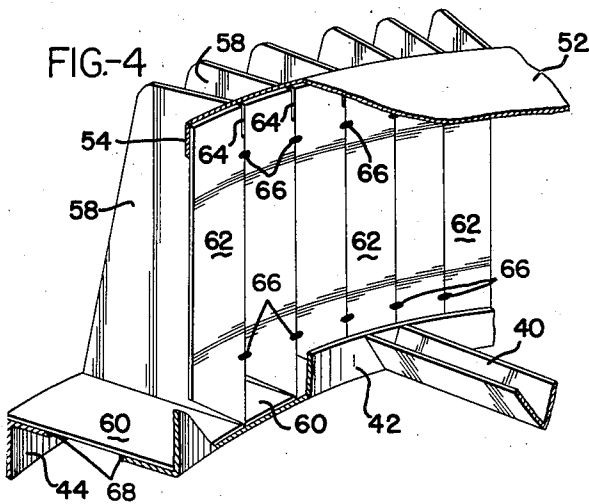
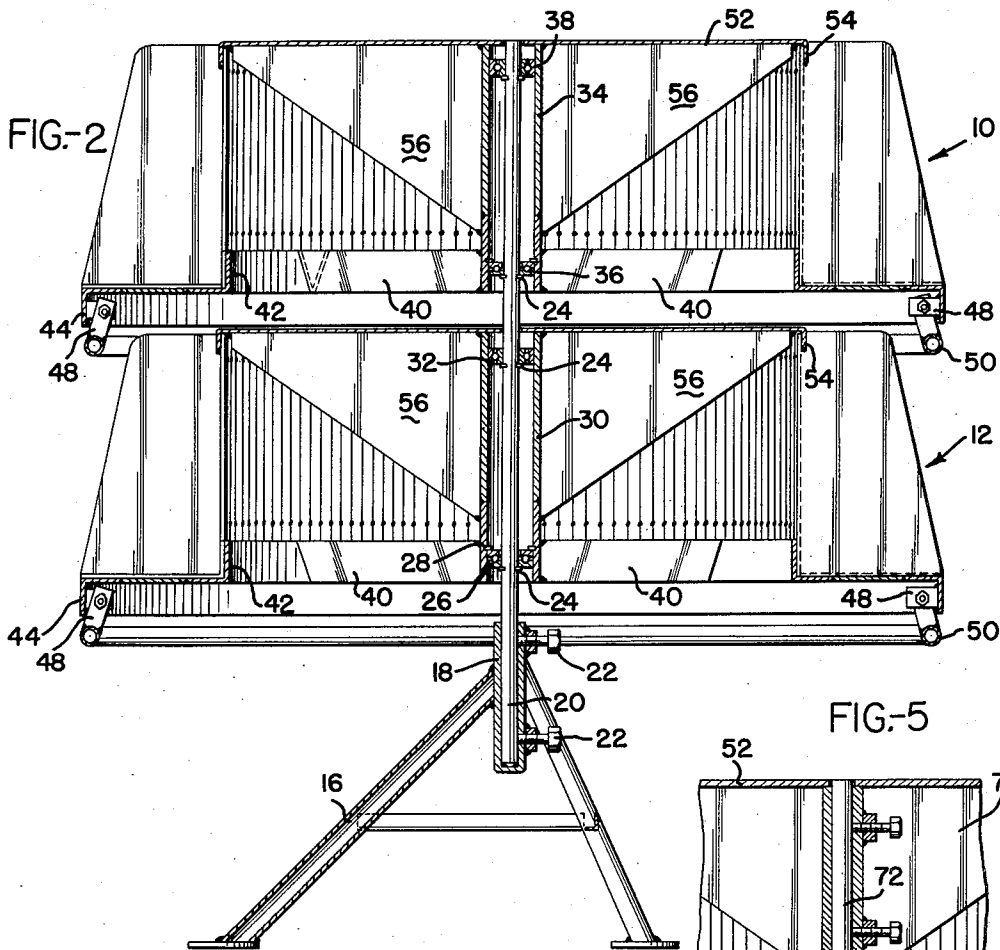
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3 Sheets-Sheet 3

FIG-7

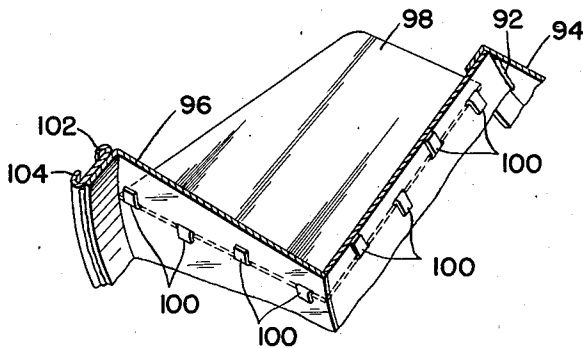
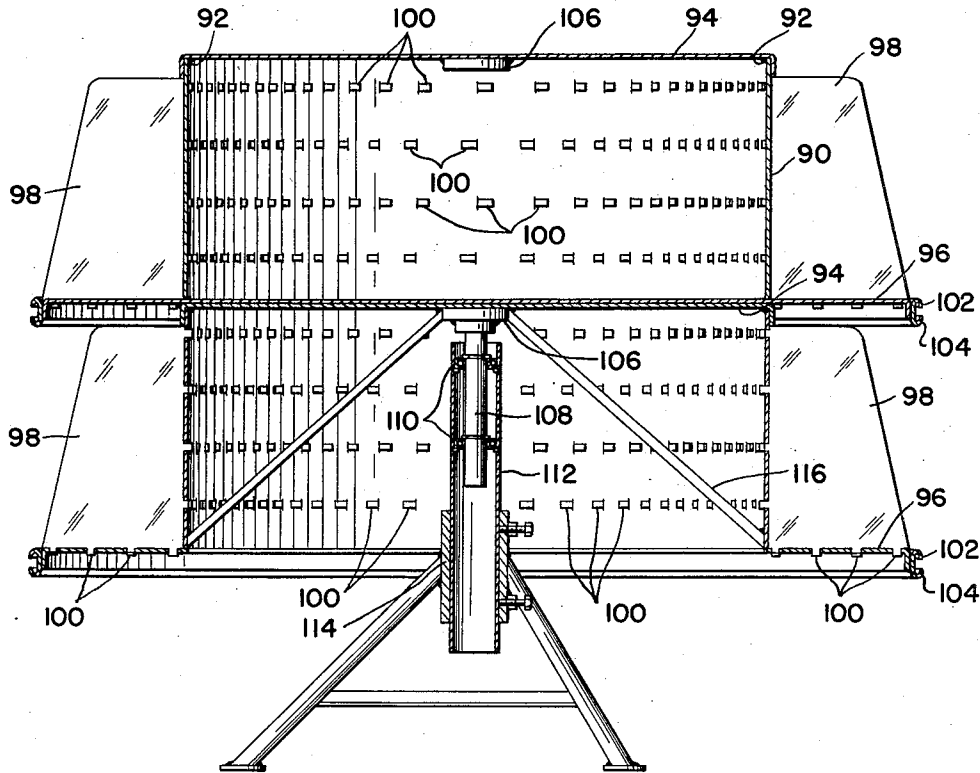


FIG-8

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2,902,175

## ROTARY FILE CABINET

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Application October 8, 1954, Serial No. 461,077

8 Claims. (Cl. 211—144)

This invention relates to file cabinets and, in particular, to file cabinets adapted for receiving catalogs, loose leaf binders, and like volumes such as might be employed by purchasing agents, dispatchers, traffic managers, and similar artisans.

It has always been a problem in connection with working operations in which voluminous records were maintained to have the records located in a convenient place, while, at the same time, preventing the records or the volumes in which they are placed from becoming damaged or mutilated, or from wearing too rapidly. In particular, it has been a problem to maintain such records so that they will be convenient in a case where more than one individual has occasion to refer to the records frequently.

Having the foregoing in mind, it is a primary object of the present invention to provide a file cabinet arrangement particularly adapted for supporting catalogs and similar books, and loose leaf binders so that they will be protected from damage and undue wear and so that they will be extremely conveniently located for ready accessibility to the users.

Another object is the provision of a file cabinet of the nature referred to above, which locates the volumes, and the like placed therein so that they will be conveniently accessible to a number of users.

A still further object is the provision of a rotary file cabinet of the nature referred to which can be placed in convenient location to a number of desks and which will be readily rotatable so that the occupant of any desk space will have access to any portion of the file cabinet.

It is also an object of this invention to provide a rotary file cabinet which can be arranged in tiers, thus providing for a great deal of storage space and a relatively small floor space.

These and other objects and advantages of the present invention will become more apparent upon reference to the following specification taken in connection with the accompanying drawings, in which:

Figure 1 is a perspective view showing a double-tier, rotary file cabinet constructed according to my invention;

Figure 2 is a vertical transverse section through the file cabinet of Figure 1;

Figure 3 is a fragmentary perspective view showing a detail of construction of the file cabinet;

Figure 4 is another fragmentary perspective view showing other details of construction of the file cabinet;

Figure 5 is a fragmentary vertical sectional view showing an arrangement especially adapted for supporting the center shaft of a single-tier file cabinet according to this invention;

Figure 6 is a perspective view showing one of the members that form the individual compartments of the file cabinet;

Figure 7 is a vertical sectional view of a modified form which my invention can take; and

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Figure 8 is a fragmentary perspective view showing a detail of construction of the Figure 7 modification.

Referring to the drawings somewhat more in detail, as will be seen in Figures 1 and 2, the file cabinet of the present invention comprises an upper tier 10 and a lower tier 12, each of which consists of a plurality of pockets or spaces 14 adapted for receiving catalogs, books, loose leaf binders, and the like.

The file cabinet is supported on a base which may consist of a tripod arrangement 16 having a cylindrical shaft socket 18 at its upper end that receives the lower end of the supporting shaft 20. The shaft 20 may be adjustably secured in socket 18 as by set screws 22.

Upwardly of the socket 18 on shaft 20 is a snap ring 24, or other suitable abutment means, that supports the anti-friction bearing 26, which, in turn, is abutted at its upper surface by a snap ring 28, or the like, disposed within a sleeve or central cylindrical column member 30, which is located on the axis of the lower tier 12 of the file cabinet. Shaft 20 and column member 30 form telescoping support members to support the compartmented member on the base.

A second anti-friction bearing 32 is similarly arranged between shaft 20 and the upper end of column 30, whereby the lower tier of the file cabinet is supported on the shaft for ready rotatability. Preferably, bearing 26 is a combination axial and radial thrust bearing, whereas bearing 32 may comprise a conventional radial thrust bearing.

Upper tier 10 of the file cabinet is constructed substantially identically with lower tier 12, and also includes a sleeve or central hollow cylindrical column 34 with a lower anti-friction bearing support 36 and an upper anti-friction bearing support 38. Column 34 and shaft 20 also form a pair of telescoping support members to support the upper compartmented member.

Extending radially outwardly from the lower end of each of the said columns 30 and 34 of the respective tiers is a plurality of angle members 40 preferably rigidly welded at their inner ends to the said columns and at their outer ends being fixedly welded to the annular angle members 42. The angle members 42 are coaxial with a larger outer annular angle member 44 and the two angle members are fixed to each other by a plurality of short bars or straps 46 extending therebetween and welded to the horizontal flanges thereof.

The inside of the vertical flange of each of the outer angle members 44 preferably includes lugs 48, to which are connected the circular hand rails 50, by means of which two tiers of the file cabinet can be independently rotated.

The upper end of each of columns 30 and 34 supports a horizontal disc 52, each of which has a dependent flange 54 at its outer peripheral edge. Each of these discs is welded to the upper end of its pertaining column and there is also preferably provided bracing gusset members 56 that bear between the under sides of the said discs and the columns.

The structure described above is the basic frame of each of the tiers of the file cabinet and forms a rigid, well-balanced unit that can readily be supported on the shaft 20 and rotated thereon.

The aforementioned pockets 14 for receiving the volumes to be placed in the file cabinet are formed by attaching to the aforementioned frame formed sheet metal partition members, all of which are identical and which are secured to each other and to the said frame.

Each of the sheet metal partition members is of a configuration which will best be seen in Figures 3, 4 and 6. Each of these members comprises a vertical flat portion 58 at the bottom of which there is turned outwardly a horizontal part 60. From the back edge of

each of the members there is a circumferential part 62. At the position where portion 58 is bent to form part 62 at the top there is a slot 64 which receives the previously mentioned independent flange 54 of disc 52.

Where each part 62 of one of the compartment forming members abuts the adjacent compartment forming members there is preferably a weld connection 66. The members are also preferably welded as at 68 to the supporting frame, and this operation completes the assembly of the file cabinet.

The compartment forming members are preferably pre-assembled in groups and then located on the frame, whereupon the said groups can be adjusted to provide for substantially uniform spacing about the frame and are then welded thereto.

The resulting assembly is inexpensive to manufacture, is well balanced, provides for a large amount of filing space, protects the volumes filed therein from damage, and positions all volumes where they are, at all times, conveniently accessible to as many users as can be provided with desk space about the file cabinet.

In cases where only a single tier file cabinet is desired, the construction may be of the nature shown in Figure 5, wherein a single tier 70 has a central supporting shaft 72 fixed thereto and extending downwardly into a socket 74 to be supported therein by the radial anti-friction bearing 76 at the top and the radial and axial thrust bearing 78 at the bottom. In the Figure 5 construction the socket 74 is vertically adjustable in the sleeve portion 80 carried by the tripod and can be fixed therein in any of its adjusted positions by the set screws 82.

The Figure 5 modification embodies the same construction as the first described modification with the exception of the supporting shaft and the vertical adjustability thereof. Similarly to the first modification, shaft 72 and socket 74 form telescoping support members to support the compartmented member on the base.

In the arrangement of Figures 7 and 8 there is shown a construction characterized in that it is quite simple and rapid to assemble while eliminating a number of the problems in connection with fitting together of the parts.

In this modification there is a drum 90 welded at 92 to a tank head or disc 94, and with a flat circular plate 96 at the bottom of cylinder or drum 90 and co-axial therewith. Cylinder 90 and the plate 96 are perforated to receive tabs extending outwardly from the flat divider plates 98. These tabs, shown at 100 in Figure 8, are alternately bent over first in one direction and then the other, and hold the divider firmly in place and also maintain the cylinder 90 and plate 96 in assembled relationship without any welding or other fastening therebetween.

Plate 96 also takes the form of a drumhead or disc, and thus has a marginal flange 102. A channel member 104 is secured to flange 102 for receiving index tabs.

In the Figure 7 arrangement the lower cabinet has a plate 106 secured to the underside of its head in the center, and projecting downwardly therefrom is a shaft 108 that is engaged by antifriction bearings 110 in the sleeve 112 that is vertically adjustable in the supporting pedestal 114. Plate 106 may advantageously be braced by a plurality of light angle members 116 arranged as illustrated in Figure 7.

Disc 96 of the lower tier is centrally apertured for receiving the pedestal, but this same disc on the upper tier is not apertured and rests on the upper disc 94 of the lower tier where it can be welded in place. This provides an easy way of constructing a multiple tier cabinet, with all of the tiers rotating together.

In the upper tier the plate 106 and its bracing angles 116 can be omitted if desired since substantially the entire load that will be placed on the tier will be in the region of the margin thereof. As in the case of the previous modification, shaft 108 and sleeve 112 form telescoping support members to support the compartmented member on the base.

It will be apparent that any of the modifications described could be provided with a simple enclosure which could be locked if the records were of such a nature as to require this precaution.

I claim:

1. In a rotary file cabinet; a base, a disc, vertical shaft and sleeve means in telescoping relation forming support members, one of said support members being attached to the base and the other of said support members being attached to the underneath side of the disc in the center for rotatably supporting the disc on the base, there being bearing means between the support members providing vertically spaced points of support therebetween, means forming a cylinder dependent from the outer periphery of the disc, means forming an annular support member extending radially outwardly from the bottom of the said cylinder, and radially extending partition means arranged in spaced relation about the cylinder and forming therewith and with said annular support member a plurality of outwardly opening compartments, said partition means being rigidly attached to said cylinder and annular support member.

2. In a rotary file cabinet; a base, a disc, vertical shaft and sleeve means in telescoping relation forming support members, one of said support members being attached to the base and the other of said support members being attached to the underneath side of the disc in the center for rotatably supporting the disc on the base, there being bearing means between the support members providing vertically spaced points of support therebetween, means forming a cylinder dependent from the outer periphery of the disc, means forming an annular support member extending radially outwardly from the bottom of the said cylinder, and radially extending partition means arranged in spaced relation about the cylinder and forming therewith and with said support member a plurality of outwardly opening compartments, said partition means being rigidly attached to said cylinder and support member, and the radial extent of the said compartments being smaller than the radius of said cylinder.

3. In a rotary file cabinet; a base, a horizontal disc above the base, vertical shaft and sleeve means in telescoping relation forming support members for rotatably supporting the disc on the base, one of said support members being attached to the base and the other support member being attached to the underneath side of the disc in the center and there being bearing means between the support members providing for vertically spaced points of support therebetween, a cylinder rigid with the disc and dependent from the outer periphery thereof, an annular support member extending radially outwardly from the bottom of the cylinder, radially extending circumferentially spaced partition members rigidly connected with said cylinder and said annular support member and forming therewith outwardly opening compartments, the radial dimension of said compartments being substantially smaller than the radius of said cylinder, and means extending from the said support member attached to said disc for bracing the disc and cylinder and the annular support member attached thereto against deflection relative to the said first mentioned support member when the compartments are loaded.

4. In a rotary file cabinet; a base, a horizontal disc above the base, vertical shaft and sleeve means forming support members for rotatably supporting the disc on the base, one of said support members being attached to the base and the other support member being attached to the underneath side of the disc in the center and there being bearing means between the support members providing for vertically spaced points of support therebetween, a cylinder rigid with the disc and dependent from the outer periphery thereof, an annular support member extending radially outwardly from the bottom

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of the cylinder, radially extending circumferentially spaced partition members rigidly connected with said cylinder and said annular support member and forming therewith outwardly opening compartments, the radial dimension of said compartments being substantially smaller than the radius of said cylinder, and brace members extending from the support member attached to the disc to the lower end of said cylinder thereby bracing the cylinder against deflection relative to the first mentioned support member when the compartments are loaded.

5. In a rotary file cabinet; a disc, a cylinder extending downwardly from the periphery of the disc, a plate extending outwardly from the bottom of the cylinder, said disc and cylinder being rigidly interconnected, a plurality of radially extending circumferentially spaced partition members attached to the outer periphery of said cylinder and to the top of said plate forming a plurality of outwardly and upwardly opening compartments and connecting the plate to the cylinder, the radial dimension of said compartments being less than the radius of said cylinder, a base beneath the disc, and support means extending from the base upwardly to the center of the disc rotatably supporting the disc on the base, there being brace means between said support means and said cylinder.

6. In a rotary file cabinet; a disc, an annular support means located beneath the disc and having an inner diameter about equal to the diameter of the disc and having an outer diameter substantially larger than the disc, radially extending circumferentially spaced partition members resting on said annular support means and engaging the edge of said disc thereby defining spaces opening radially outwardly, said partition members having their back edges and bottom edges bent over to close the backs and bottoms of said compartments, and said partition members being rigidly connected to each other and to said disc and support means, a base beneath the disc, and means extending from the center of the disc on the underneath side to the base rotatably supporting the disc on the base and comprising telescoping support members rotatable relative to each other.

7. In a rotary file cabinet; a disc, a cylinder attached to the periphery of the disc and extending downwardly therefrom, a plate at the bottom of the cylinder and ex-

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tending radially outwardly therefrom, a plurality of radially extending circumferentially spaced partition members resting on the plate and against the cylinder thereby forming outwardly opening compartments, said partition members having tab means extending through the cylinder and the plate for rigidly supporting the partition members and connecting the plate to the cylinder, a base located beneath the disc, telescoping support members extending vertically from the base to the disc and one thereof being rigid with each of said base and disc, and vertically spaced bearing means between said support members.

8. In a rotary file cabinet; a disc, a cylinder attached to the periphery of the disc and extending downwardly therefrom, means at the bottom of the cylinder and extending radially outwardly therefrom, a plurality of radially extending circumferentially spaced partition members resting on the last mentioned means and against the cylinder thereby forming outwardly opening compartments, said partition members having tab means extending through the cylinder and the said means for rigidly supporting the partition members and for connecting the said means to the cylinder, a base located beneath the disc, telescoping support members extending vertically from the base to the disc and one thereof being rigid with said base and the other being rigid with said disc, and vertically spaced bearing means between said support members, a second disc above the first disc, a second cylinder dependent from the periphery of the second disc and attached thereto, a plate at the bottom of the second cylinder resting on top of the first disc and extending outwardly from the bottom of the cylinder, and radial partition means connected between the second cylinder and plate forming a second tier of outwardly opening compartments.

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