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Victor

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[54] **FILING APPARATUS**

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[52] **U.S. Cl.** **211/58,** 211/144, 211/184, 108/27

[51] **Int. Cl.** **A47f 7/00,** A47f 5/00

[58] **Field of Search** 211/43, 50–59, 211/144, 163, 175, 184; 108/27, 28, 29; 206/73, 74

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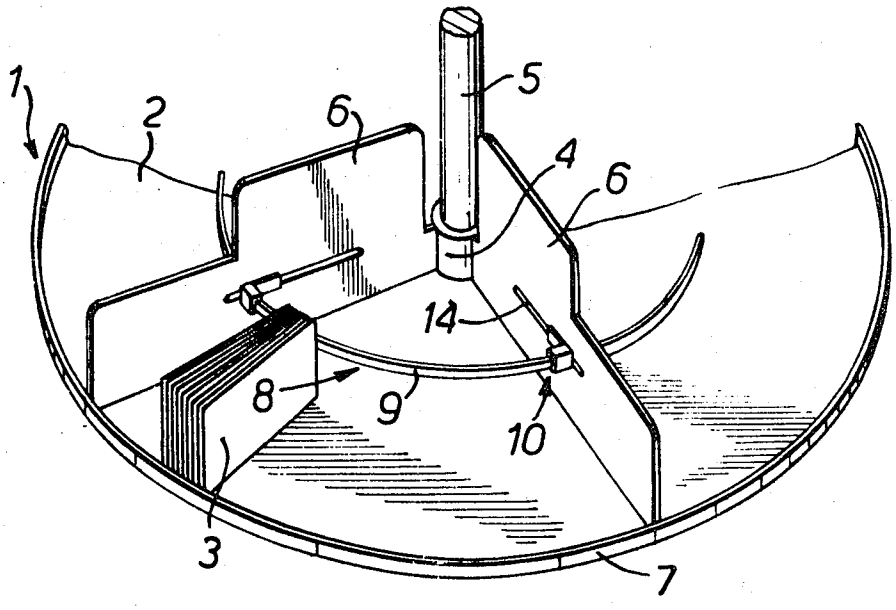
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[57] **ABSTRACT**

Filing apparatus comprising a support member having a horizontal support surface for articles to be stored and rotatable about a central vertical axis, and stop means providing a curved surface centered on said axis against which the inner ends of stored articles abut, the stop means being flexible to enable the curvature of said stop surface to be varied and being adjustably located relative to said support surface to enable the radial position of the said stop surface relative to said support surface to be varied.

8 Claims, 3 Drawing Figures



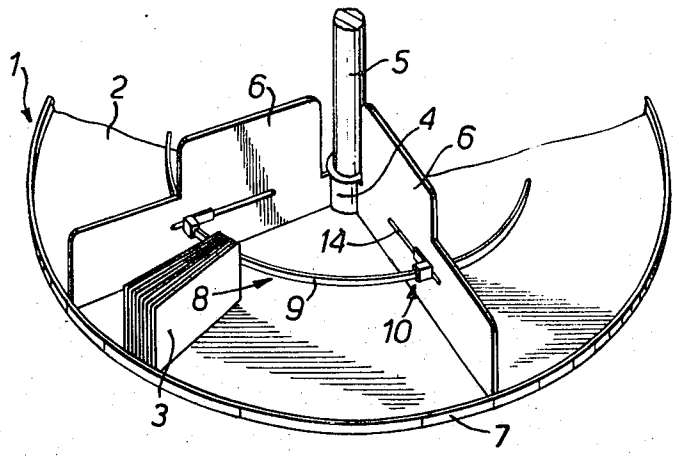


FIG. 1.

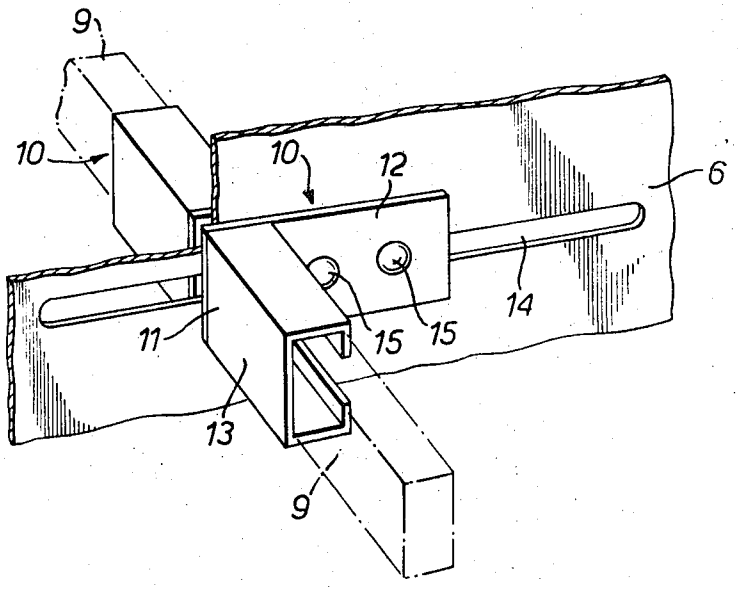


FIG. 2.

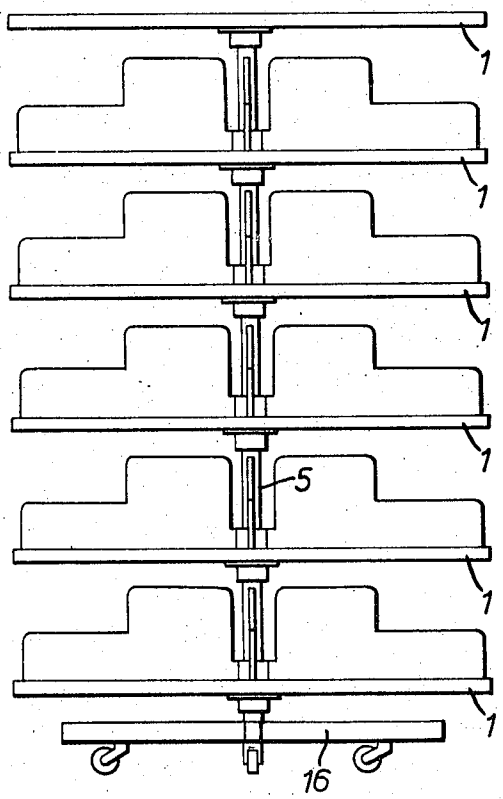


FIG. 3.

FILING APPARATUS

The present invention relates to improvements in filing apparatus.

In horizontal rotary filing apparatus for housing and storing articles, such as cards, documents, discs, cassettes etc., vertically, it is desirable for the articles to be stored with their outer edges lying on a regular curved surface, for example a constant distance from the rotational axis of the apparatus, so that a particular article can be located and removed easily. To facilitate this, such apparatus is provided with a permanent inner stop having a curved surface against which an inner edge of each article abuts. The provision of such a stop has the disadvantage that a particular filing apparatus can be used only for one size of article. If it is desired to use the apparatus for another size of article, expensive alterations have to be made to the apparatus to remove the one stop and replace it by another stop in another position and provided with a differently curved surface.

It is an object of the present invention to provide a filing apparatus which is adjustable for accommodating differently sized articles.

According to the present invention there is provided filing apparatus comprising: a support member defining a horizontal support surface for articles to be stored and a central vertical axis; means for mounting said support member for angular movement about said central vertical axis; stop means for providing a curved surface against which an inner edge of an article supported on said support surface will abut; and adjustable means for adjustably locating said stop means relative to said support means; wherein said stop means is sufficiently flexible such that the curvature of said surface thereof is variable and said locating means is adjustable for varying the position of said stop means radially of said axis.

In the preferred embodiment radially extending dividing means are provided dividing said support surface into a plurality of compartments and said adjustable locating means are mounted on said dividing means.

Preferably said stop means comprises a flexible elongate member for each compartment, said locating means being adjustable along slots in said dividing means for that compartment and being adapted to retain the ends of said elongate member for that compartment.

The invention will be better understood from the following description of an embodiment thereof, given by way of example only, with reference to the accompanying drawings, in which:

FIG. 1 is a perspective view of an embodiment of a support member of a filing apparatus according to the present invention, with parts broken away;

FIG. 2 is a perspective view of a detail of the embodiment of FIG. 1; and

FIG. 3 is a side elevation of a filing apparatus including a plurality of support members of FIG. 1.

As shown in the drawings, the apparatus comprises a support member in the form of a tray 1 having a horizontal support surface 2 on which articles, as shown cards 3, are supported. The tray 1 has a central hub 4 extending from the upper and lower surfaces thereof, through which a vertical shaft 5 passes, the tray 1 being rotatable relative to the shaft 5 about the vertical axis of the shaft.

The upper surface 2 of the tray is divided into a plurality of compartments, as shown four compartments, by radially extending dividers 6.

In use, cards are located in the compartments with their outer edges abutting an arcuate stop surface of an optional outer stop means 7, which, as shown, is formed by an upwardly extending lip on the outer periphery of the tray, and with their inner edges abutting an arcuate surface of an inner stop means 8. The inner and outer stop means 7, 8 of each compartment have a constant spacing radially of the support member which corresponds to the length of the cards in each compartment.

The inner stop means 8 is adjustable radially of the tray to accommodate different sizes of cards and it will be appreciated that the curvature of the stop surface of stop means 8 depends on its position on the support surface and particularly on the radius of the circle of its stop surface.

The inner stop means 8 comprises, for each compartment, a relatively flexible strip 9 of a suitable flexible material such as P.V.C., spring steel, etc. which extends between the dividers 6 of the compartment. The ends of the strip are received in locating means 10 adjustably mounted on the dividers 6 and the strip is of sufficient length to provide its stop surface with the required curvature.

As shown, the locating means 10 each comprise a bracket 11 having an apertured mounting portion 12 and a strip end receiving portion 13 at right angles to the mounting portion 12. Each divider 6 is provided with a radially extending slot 14 and the brackets are mounted in pairs on a divider by a pair of bolts 15 which pass through the aligned apertures of two brackets 11 mounted on that divider and through the slot 14 in that divider, the brackets 11 being fixed together and relative to the divider by a nut (not shown) tightened on each bolt.

When it is desired to change the position of the stop means 8, the strips 9 are removed from the brackets 11 and the nuts slackened off so that the positions of the brackets on the dividers can be changed. The brackets 11 are moved to their new position and the nuts retightened. If the new position is radially inwardly of the previous position, the strips 9 can be cut down to a length sufficient to provide the stop surfaces with the required curvature. If the new position is radially outwardly of the previous position, new pieces of strip can be taken of the required length. The strips 9 are then re-inserted in the brackets and the apparatus is ready for use.

In a modification, the brackets 11 may be individually mountable on the dividers so that the stop strips of adjacent compartments may be in different radial positions to accommodate different sizes of articles.

As shown in FIG. 3, a plurality of trays 1 as above-described may be mounted one above the other on a common support 16 from which the shaft 5 projects.

What is claimed is:

1. Filing apparatus comprising;

a support member defining a horizontal support surface for articles to be stored and a central vertical axis;

means for mounting said support member for angular movement about said central vertical axis;

flexible stop means for providing a variable curved surface against which an inner edge of an article supported on said support surface will abut; and

adjustable means for varying the position of said stop means radially of said axis and for varying the cruvature of the curved surface of said stop means.

2. Filing apparatus according to claim **1**, including dividing means extending radially of said support surface for dividing said support surface into a plurality of compartments, and wherein said locating means are adjustably mounted on said dividing means.

3. Filing apparatus according to claim **1**, wherein said stop means includes an elongate member of flexible material.

4. Filing apparatus according to claim **1**, including a plurality of dividers extending radially of said support surface and angularly spaced apart for dividing said support surface into a plurality of compartments and each defining an elongate slot, said adjustable means being mounted in said slots, wherein said stop means comprise an elongate flexible member for each compartment and said locating means are adapted to retain the ends of each said flexible member.

5. Filing apparatus comprising:

a support member defining a horizontal support surface for articles to be stored and a central vertical axis;

first stop means on said support member providing a first curved surface centred on said axis against which an outer edge of an article supported on said support surface will abut;

second stop means comprising a flexible elongate member providing a variable second curved surface centred on said axis against which an inner edge of an article supported on said support surface will abut; and

means for adjustably varying the position of said second stop means radially of said axis and for varying the curvature of the curved surface of said second stop means.

6. Filing apparatus according to claim **5** including radially extending dividers mounted on said support member for dividing said support surface into a plurality of compartments, and wherein said locating means are adjustably mounted on said dividers.

7. Filing apparatus according to claim **5** including a plurality of said support members, means for mounting said support members on a common shaft coaxial with said central vertical axes of said support members for angular movement about said shaft.

8. Filing apparatus according to claim **1** including a shaft and a plurality of said support members mounted on said shaft for independent angular movement relative thereto.

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