# **Osroff**

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[54]	UTI	LITY-I	DO	OR STORAGE	E CONTA	INER
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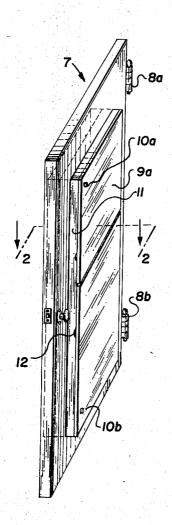
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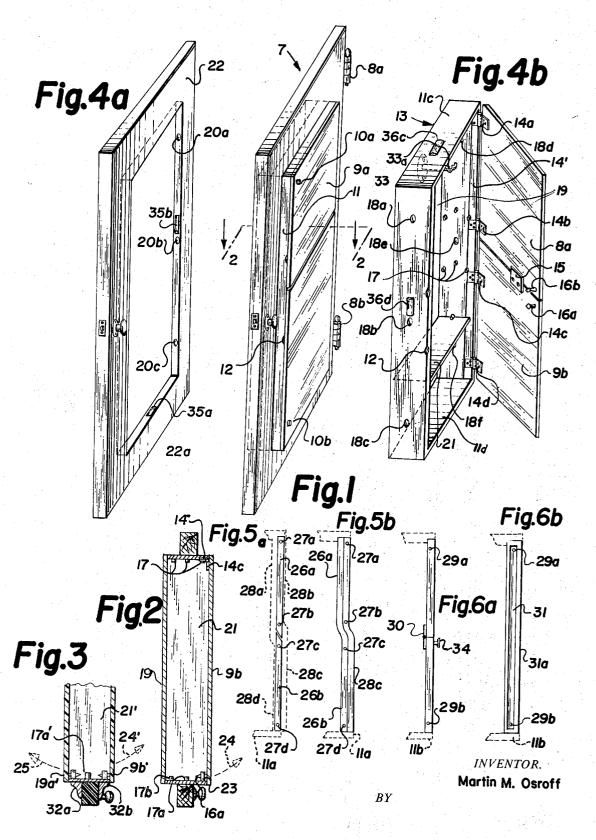
## Primary Examiner-Paul R. Gilliam

### [57] ABSTRACT

In a preferred embodiment, a door of annular frame structure, the door being comparable to a housedwelling door, and instead of having solid panels therein, the annular door frame having its inner annular surfaces receivable of a removable storage container mountable within the annular through space of the annular frame, mountable such that the storage container extends about equidistantly beyond opposite faces of the annular door-frame, the storage container having at least one side thereof openable as a door to the storage container for access into the storage container, with the storage container including structures for removably mounting a plurality of shelves therein and additionally including means for removably mounting a coat hanger support for hanging coat hangers for hanging coat hangers thereon, and including the coat hanger support itself and the removable shelves, the storage container being composed of a light-weight fire-resistant plastic.

# 2 Claims, 9 Drawing Figures





ATTORNEY

#### UTILITY-DOOR STORAGE CONTAINER

This invention relates to a novel storage container and to a utility door.

### **BACKGROUND**

Prior to this invention there have been many varieties of doors as well as various cabinet structures. However, each of these structures have been characterized by a limit utility, such as for example, being adaptable solely for the incorporation into a wall, or the attachment to 10 the side of a door or other bulkhead, or the like. Also, in the nature of storage containers, trunks or the like typically have been characterized by being designed for and limited to solely utilization as a trunk. Cabinets having shelves have not been designed to be convertible to clothes closets but have been designed solely to possibly alter the distance between shelves or to include more or less numbers of the shelves, but nevertheless restricted to the utility of a cabinet with shelves.

#### SUMMARY OF THE INVENTION

Accordingly, it is an object of this invention to provide a storage container flexibly adaptable to a multiplicity of different utilities and to be of such a structure 25 as to make it desireable and convenient for many of these utilities.

Another object of this invention is to provide additional storage space for the objects to be stored particularly in office or house structures where storage space is limited and additional storage space is desirable for that of a necessity of utilizing space needed for other purposes.

Other objects are to provide a storage trunk convertible to a clothes closet.

Another object is to provide a storage trunk which is convertible to a shelved cabinet.

Another object is to provide a storage trunk convertible to a bookcase.

Another object is a storage trunk interchangeably convertible to any one or more of a storage cabinet having one or more shelves therein, a clothes rack closet, a book case, or the like.

Another object is to provide a trunk, cabinet, closet, or the like of the type referred to in the above objects, having a variety of accesses to the contents thereof.

Other objects are to provide any one or more of the preceding objects and to concurrently provide an esthetically pleasing appearance of the storage container and/or of the combination thereof with an annular door-frame mountably receivable of the storage container.

Other objects become apparent from the preceding and following disclosure.

One or more of the preceding objects are obtained by 55 the invention as described hereafter.

The invention broadly includes a storage container adaptable to a multiplicity of various different utilities such as a conventional storage trunk which may be placed in any convenient area either flatly on its back, or standing uprightly such that the door opens outwardly along a horizontal plane, with insertable partitions for partitioning the trunk into one or more separate compartments, or with a choice of type of door and type of mounting thereof such that there is insufficient room for the door (or lid) to open outwardly, the door may be slidable in the nature of separate panels

-one slidable over the other or behind the other or slidable and partially movable outwardly, and with the storage trunk or chest including mounting means and being shaped to fit a separate annular door in which the storage chest in an upright position is extendable therethrough and mountable therein in a balanced stage extending about equi-distant on either side of the opposite faces of the annular door-frame thereby utilizing ordinarily lost space and in the upright mounted position being utilizable as either a bookcase, a cabinet with one or more of the partitions serving as shelves of the cabinet and the cabinet being utilizable solely as a cabinet or jointly as a cabinet and as a closed storage closet having a detachable mountable coat rack or coat hanger support mountable about centrally in an upper portion of the upright storage container which may be utilized solely as a storage counter if desired, without shelves therein. The interchangeable doors of the tunk utility have a corresponding utility for a variety of accesses into the cabinet or storage clothes closet. Similarly, both the front-wall member may be a door as well as the back-wall member may similarly be a door of the same or different type variety openable in an opposite direction such that whether utilized as a storage container with or without shelves as the cabinet and/or as a cloak closet, and/or as a bookcase or the like, for any one or more of these utilities access from each of opposite directions not only make the articles therein more accessible but additionally enhance its utility as a utility-door storage container since irrespective of whether the door is opened or closed, there is easy access to the contents stored therein. Similarly the double door embodiment has a corresponding advantage when the storage container of the invention is utilized as a storage chest whereby it may easily be turned over to an inverted state in order to have access to items which ordinarily would be at the bottom of a pile or stack of stored materials stashed-away therein. The particular combination of the annular door specifically receivable of the particular storage container of the invention make interchangeable a plurality of such containers whenever rearrangements, or bringing out summer clothes and putting away winter clothes, or whenever a change of utility is desired. When utilized as a bookcase or as a what-not trophy case, it is often desirable and preferred to employ a transparent door preferably of plexiglass since the plexiglass material is not subject to fracture and is extremely light in weight as compared to glass of any of various varieties. Similarly, one of the greater utilities of the present invention is the adaptability of the invention to make the cabinet out of lightweight material such as aluminum, plastic, wood, or the like. In a preferred embodiment of this invention the storage container is made out of a fire-resistant plastic composition which together with the utilities already discussed above acts to deter the occurrence of fire and acts as a fire barrier between adjacent rooms, the front and back members of the container also preferably being fire retardant in nature. Accordingly, the nonfragile — i.e. non-glass— and fire retardant nature of the composition together with the multiplicity of utilities of the storage container concurrent with its utilization in conjunction with a predetermined annular door frame typically of the type mountable within any household between rooms but also of any other desired type door such as would be employed within an office

or even within a trailer(mobile home), offers thereby

to the public advantages not heretofore obtainable. However, glass panels may be used.

#### THE FIGURES

FIG. 1 illustrates a perspective view of a typical em- 5 bodiment of the combined annular door-frame together with the storage container in an assembled state.

FIG. 2 illustrates a cross-sectional view of FIG. 1

FIG. 3 illustrates an alternative embodiment illustrated inpart as a cross-sectional view corresponding to that of FIG. 2.

FIG. 4a illustrates a perspective view of an annular

FIG. 4b illustrates a perspective view of an openeddoor storage container of the type employed in combination in FIG. 1.

FIG. 5a illustrates a top view of a typical alternative 20 door to a container such as that of FIG. 4b.

FIG. 5b illustrates a typical top plan view of a keyguide rail for guiding the mounting movement of either panel of FIG. 5a.

FIG. 6a illustrates another alternative door employ- 25 able as a substitute for the door of the storage container of FIG. 4b.

FIG. 6b illustrates a key-guide rail in a top view employable for a door embodiment of the type illustrated in FIG. 6a.

## DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates a utility-door combination 7 including an annular door 22 having mounted therein a storage container 13 (see FIG. 4b). The annular door is  $^{35}$ mountable on hinges 8a and 8b. The storage container 13 includes a door which in this embodiment is divided into a separate upper panel 9a and a lower panel 9b; as illustrated in FIG. 4, the stop 15 prevents the upper door panel 9a from closing without also pressing against the stop 15 which is mounted on door panel 9b thereby also causing the door 9b to be closed whenever closing pressure is applied on the outside of door 9a. and also permitting door 9a to be opened without opening 9b, but requiring the panel 9a to be opened concurrently whenever opening pressure brings open the panel 9b. In order to open either panel 9a or panel 9b, a person's fingers merely move behind the edge into an indention such as the indention 12 on side 11 of the storage container. The door or separate panels thereof 9a and 9b have mounted thereon preferably the door cushion stop 10a and/or door cushion stop 10b preventing the marring of a wall if and when the door is opened against a wall. The door panels 9a and 9b are mounted on the FIG. 4b hinges 14a, 14b, 14c, and 14d respectively and are latchable by typical male latch means 16a and/or 16b insertable through female receiving latch means such as typically latch means 23 of FIG. 2. As is viewable in each of FIGS. 2 and 4b, there extends from the side walls of the storage container the support projections 17, the projection 17a typically being a downwardly extending projection and projection 17b being upwardly extending projections on either side of projection 17a whereby a shelf is slideable horizontally between the upper projection 17a and lower projections 17b. Mounted within the storage container of FIG. 4B is a shelf 21 viewable in FIG. 2 as a

top view thereof. In each of upright opposite walls of the storage container are located apertures 18a, 18b, 18c, 18d, 18e, and 18f through which screws are extendable to be received in the female threaded receptacles 20a, 20b, 20c and the like located on the inner face of the annular door. Viewable in each of FIGS. 4B and 2 is the back-wall member 19. In the alternative embodiment of FIG. 3, back-wall 19 of FIG. 2 is replaced by the openable door panel 19a openable in a direction opposite to that of door panel 9b' corresponding to the FIG. 2 door panel 9b, indicated as door-directions of movement 24' and 25 respectively. FIG. 3 additionally discloses a corresponding shelf 21', as well as preferred molding 32a and 32b for enhancing the appearance and door-frame of the type employed in combination in 15 being composed of wood, plastic, metal, or the like. Viewable in FIG. 4B shown in dotted lines as typically mounted on a wall 19 is a receptacle 33 for a coathanger support 33a. Each of FIGS. 4b and 2 each illustrate removable inset strip 14' on which each of the hinges 14a, 14b, 14c, and 14d are mounted whereby the particular preferred door is easily interchanged depending upon the preference of the purchaser and/or depending upon the utility to which the particular storage container is to be put. For example, in the embodiment of FIG. 4b, possibly the door panels 9a and 9b would be desired whereas in another situation the door illustrated in FIG. 5A or alternatively the door illustrated in the embodiment of FIG. 6A might be more desirable and could easily replace the door of FIG. 4b. 30 Accordingly, a mounting rail of which there would be an identical one nornally and preferably located also at the bottom of the case would be wedged into place with the doors already slidably mounted between the upper and lower rails, and the upper and lower rails each respectively preferably including a suitable simple attaching means such as a member attachable by a screw or the like at each end of the rail to the casing top 11c and/or 11d, respectively.

In the embodiment of FIG. 5a the panel 26a is slidable by means of fixed keys 27a and 27b in the space adjacent 28b into the space adjacent rail 28a on the outer side of panel 26b, the latter panel 26b being slidable in this space adjacent rail 28b into the space adjacent rail 28a behind the panel 26a, the panel 26b being mounted fixedly on the keys 27c and 27d. In FIGS. 5a and 5b, shown in-part in dotted lines are the storage containers side walls such as 11a corresponding to side wall 11 of FIG. 4b.

Similarly, in FIGS. 6a and 6b, the side wall shown in part in dotted lines 11b corresponds to the side wall 11 of FIG. 4b. In FIG. 6a, the door is a two panel door such as that of FIG. 5a, except that the two panels are connected adjacently by a hinge member whereby the connected portion is pivotable outwardly from the enclosed space by movement of the door key 29a in a direction toward key 29b, or by alternatively moving the door key 29b toward the door key 29a, or alternatively moving each of the keys toward each other, any of these choices being possible by manipulationn of pressure on the handle 34 of FIG. 6a, as the handle is being pulled outwardly with pressure in the direction from which it is preferred to gain access into the enclosure within the storage container. FIG. 6b illustrates the single-track arrangement having the slot 31 therein of track 31a in which the keys 29a and 29b are mounted thereon whereby the keys 29a and 29b slide toward each other as a person pulls outwardly on handle 34.

The attaching means for attaching the storage container 7 centrally through the member frame 22, such that edges of the container 7 extends about equally on opposite sides of the frame 22, may comprise apertures 18a, b, c, d, etc. and 20a, b, c, etc. and/or preferably  $\frac{1}{5}$ "centering" projections 36c, d, etc. and projectionreceiving depressions 35a, b, etc., this "centering" projections and depression being optionally and preferably utilizable alone as the sole mechanism of holding the insertable container 7 within the annular door-frame 10

It is to be understood that the various embodiments in this invention illustrated herein are not intended to be all inclusive but are intended solely to illustrate the heat of the invention and the spirit thereof, it being 15 within the scope of this invention to make such modifications and substitutions of equivalents and would be obvious to a person of ordinary skill in this field of endeavor.

I claim:

1. A storage device comprising in combination: a portably-transportable light-weight multi-utility storage container or substantially cuboid shape having a frame structure of two substantially parallel upright opposing ing members fixedly and supportedly connecting respective upper and lower ends of said opposing side members, a back-wall member and a front-wall member, the front wall member being mounted as an access door-panel permitting the placement of objects into 30 ably receiving and mounting a partition-shelf. and the taking of objects out of the storage space de-

fined as an at-least substantially complete enclosure within said sides between said back-wall member and said front-wall member, at least one of said side and top and bottom members including attaching means detachably mounting said frame structure within an annular door structure, said attaching means being located such that said container is detachably mountably extending through said annular door structure with the storage container extending from opposite sides of, said annular door structure, the frame structure including first means for detachably receiving and mounting a detachably-insertable partition-shelf, a detachablymountable partition-shelf, said side, back and front members being such that the storage container defines a total enclosure, said back member being fixedly attached non-movably relative to said side members, at least each of two opposing side members including one of said attaching means mounting the storage container within the annular space, the storage container being 20 composed of light-weight composition.

2. The storage device according to claim 1, door structure, said annular door-frame structure having an inside-annular perimeter shaped to be substantially flushly receivable of top, bottom and sideward perimeside members and top and bottom substantially oppos- 25 ter outer walls of said side, top and bottom members of said storage container and to detachably attachablyreceive said attaching means, and at least one detachably-insertable panel-shelf element mountable detachably on said frame structure's first means for detach-

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