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STORAGE FACILITY FOR SMALL ARTICLES

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FIG. 1.

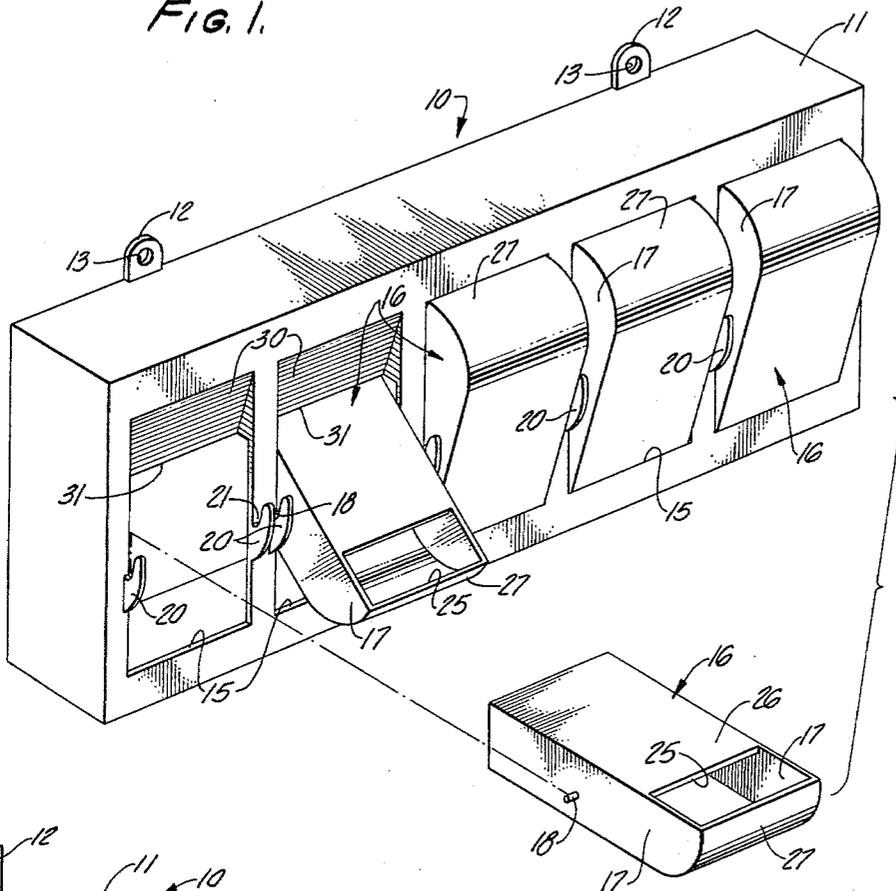
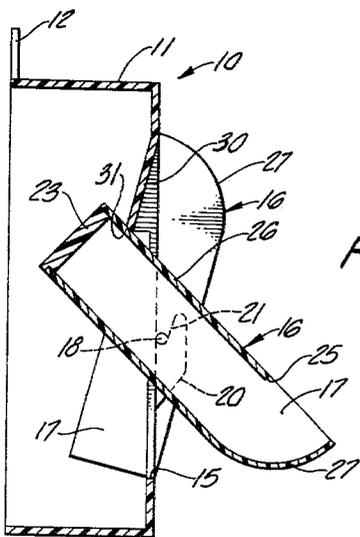


FIG. 2.



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This invention relates to storage facilities and more particularly to a simple, inexpensive versatile storage device having one or multiple independent storage compartments pivotally supported and normally biased by gravity to closed position but being readily pivotable to a convenient dispensing position with the articles therein presented in close proximity to the single access opening.

The present invention has particular utility in storing multiple kinds and sizes of smaller components, as for example, screws, nails, fasteners, electronic components and the like items useful to mechanics, electricians, hobbyists, sportsmen and others. The facility answers the need for a multiple compartment storage device having any desired number of independent compartments individually accessible when needed and otherwise supported in closed dust-tight position. Numerous proposals have been made by designers to satisfy these needs but none are characterized by the simplicity, low cost, convenience and all around efficiency and effectiveness of the present device. The individual similar elongated compartments featured in this invention have but a single access opening and this is associated with effective means for channeling the components into easy reach of the access opening by gravity action and by the simple expedient of tilting the compartment from its normal closed position to its dispensing position. The arc of pivoting is in excess of 90 degrees with the result that the stored items flow naturally to the opposite ends of the compartment depending upon the direction of tilt and are thereby effective to hold the compartment in either position without need for springs or retaining expedients of any kind.

Upon occasion, it is desirable that one or more storage compartments be removed to some place of use away from the storage facility generally. This need is readily accommodated since the pivot support for the compartment opens upwardly thereby permitting the compartments to be readily detached and later reinserted in the normal support therefor. Desirably, the facility includes a combined stop and dust guard for the access opening formed as an integral part of the panel support. This stop is located on the rear of the panel and is so positioned as to lie flush across the access opening in the closed position of the associated storage compartment.

Accordingly, it is a primary object of the present invention to provide a unique, inexpensive and highly versatile storage compartment for smaller articles.

Another object of the invention is the provision of a storage facility utilizing a single movable storage compartment pivotally supported for gravity retention in either its upright storage or its article-dispensing position, and further characterized in being readily detachable from its pivotal support.

Another object of the invention is the provision of an elongated storage compartment closed except for an opening in its side wall near its upper end and pivotally supported between its ends for retention in either an upright storage position or a downwardly inclined article-dispensing position.

These and other more specific objects will appear upon reading the following specification and claims and upon considering in connection therewith the attached drawing to which they relate.

Referring now to the drawing in which a preferred embodiment of the invention is illustrated:

FIGURE 1 is a perspective view of one preferred em-

bodiment of the invention and showing a plurality of independent storage compartments in their various operating positions relative to one another; and

FIGURE 2 is a vertical cross-sectional view taken through the facility and one of its similar storage compartments.

Referring more particularly to FIGURE 1, there is shown one illustrated embodiment of the invention designated generally 10. The facility as there illustrated has a one-piece main supporting panel 11 formed of any suitable lightweight material, as metal, molded plastic or the like. This panel or main casing 11 open along its rear side has the typical configuration shown in FIGURES 1 and 2. Its top wall is provided with mounting tangs 12 provided with openings 13 to receive mounting screws in order that casing 11 may be firmly supported against a wall, cabinet or other place of support.

The front face of panel means 11 is provided with one or more rows of rectangular openings 15 in each of which there is pivotally supported a separate storage compartment designated generally 16. The narrower edge walls 17, 17 of these compartments are provided with trunnions 18 projecting outwardly therefrom and adapted to be loosely journaled in bearing tangs 20, 20 located along either vertical edge of openings 15 as best appears from FIGURE 1. Trunnion seating notches 21 open upwardly through the top edges of tangs 20 and permit compartments 16 and trunnions 18 carried thereby to be lifted readily from panel openings 15 and to be reassembled in notches 21 when returning the compartments to the panel means.

As illustrated in FIGURE 2, compartments 16 are formed of any suitable thermoplastic composition and include but two pieces. One of these is the main body of the compartment and the second comprises bottom wall 23 which may be held in assembled position in any suitable manner as by a snap fit, adhesives or other means. The only opening into the interior of the compartment is the access opening 25 provided at the upper end of rear wall 26. The corresponding portion of the opposite or front wall is desirably rounded, as best indicated at 27 in FIGURE 2, for the purpose of channeling the flow of articles stored within the compartment into easy reach of access opening 25. Although this rounded wall 27 is shown as part of the compartment itself, it will be appreciated that a separate insert may be provided to serve this function if desired.

Another feature is the provision of a combined stop and dust guard 30 best shown in FIGURE 2. Guard member 30 projects inwardly at an acute angle to the front face of panel means 11 so as to lie flush across the plane of access opening 25 in the closed position of the compartment. From FIGURE 2 it will be observed that one of compartments 16 is pivoted downwardly to its open or dispensing position, whereas the adjacent one of the compartments is pivoted upwardly to its closed position with the access opening lying flush against the outer surface of guard member 30. When the compartment is so closed, it will be appreciated that it acts as a stop limiting further upward pivotal movement. Likewise, when the storage compartment is pivoted to its dispensing position, the lower edge 31 of member 30 engages the rear face of compartment 16 and limits further downward pivotal movement. Accordingly, it will be recognized that member 30 serves as a stop at the opposite ends of the pivotal range of movement of the compartment.

In the use of the described storage facility, panel means 11 is securely mounted on any suitable wall utilizing supporting tangs 12, 12 for this purpose. Each of the storage receptacles 16 is then assembled into the notches of tangs 20, 20 either before or after the articles to be

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stored in each one thereof have been charged into the compartment through access opening 25.

Normally the compartments together with their contents will be pivoted to the closed position as shown adjacent the right-hand end of FIGURE 1. If the user desires to remove an article from any one of the compartments, he merely grasps the upper forward corner of the particular compartment and pivots it downwardly past the horizontal position. The contents then slide forwardly and are channeled virtually to the face of access opening 25 by guide means 27. The weight of the contents at the forward end of the compartment is then effective to hold it firmly in open position with the parts positioned for removal by the user's fingers through access opening 25. Any number of the compartments may be opened simultaneously at the user's option.

If the user should have need for the contents of one or more of these compartments at a point removed from the storage facility he simply grasps the upper forward corner of the desired compartment while in its closed position and lifts it upwardly out of notches 21 for removal to the point of use. After the need for the parts is over, the compartment is reassembled in its storage position merely by lowering its trunnions 18 into a related pair of bearing notches 21, 21.

While the herein illustrated storage facility includes but a single row of openings and associated pivoting compartments, it will be recognized that the panel may be of any desired size and to include as many vertical and horizontal rows of openings and compartments as there are separate types of parts to be stored. It is also to be pointed out that desirably the main body of a storage compartment is formed of transparent shock-resistant plastic in order that the contents will be readily visible and identifiable in the closed position of the storage compartments. This permits the user to identify the compartment having the parts needed without need for labels or for opening any compartment except the one containing the parts desired.

While the particular storage facility for small articles herein shown and disclosed in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, it is to be understood that it is merely illustrative of the presently preferred embodiment of the invention and that no limitations are intended to the details of construction or design herein shown other than as defined in the appended claims.

I claim:

1. A storage facility for storing and dispensing small articles comprising a one-piece housing open throughout the rear side thereof and adapted to be supported with said open side against a building wall, said housing having a forward face provided with a horizontal row of rectangular

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openings each having aligned seat means along their opposite vertical edges shaped to provide a seat for trunnion means, a separate elongated generally rectangular article receptacle mounted in said rectangular openings and each having trunnion means centrally of their opposite vertical sides seated in said aligned seat means along the vertical edges of said rectangular openings and cooperating therewith in pivotally supporting said article receptacles, said receptacles and the contents thereof being readily removable from said housing and each having a single access opening in its rear wall adjacent the upper end thereof which access opening overlaps and is normally seated against and closed by that portion of the front face of said housing adjacent the upper transverse edge of said openings in said housing, the upper outer forward end corners of said receptacles being rounded and effective to channel the contents of the receptacle toward the plane of said access opening when said receptacles are pivoted forwardly away from said housing face, and said trunnion means being so disposed relative to the upper edge of said rectangular openings in said housing that said upper edge engages the back sides of said receptacles and acts as a stop limiting opening movement thereof with the normally upper ends of the receptacles tilted downwardly and forwardly below a horizontal plane through said trunnion means and with their contents shifted to their downwardly tilted ends conveniently accessible for removal through said access openings.

2. A storage facility as defined in claim 1 characterized in that said trunnion means is so disposed relative to the front face of said housing that when said receptacles are in closed position the upper rear edges and the lower forward edges of said receptacles lie substantially in the plane of the front face of said housing.

3. A storage facility as defined in claim 1 characterized in that said receptacles and trunnion means are formed of transparent thermoplastic composition to display the contents through the outwardly facing wall thereof when closed, and the upper side edges of said receptacles being exposed forwardly of the front face of said housing when said receptacles are closed and being conveniently spaced for gripping between the thumb and index finger of the user's hand when pivoting a receptacle to its open position.

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