May 17, 1960 G. D. SIEMANTEL 2,936,901

ROTATABLE STORAGE AND DISPLAY ASSEMBLY FOR PARTS

Filed Dec. 20, 1957

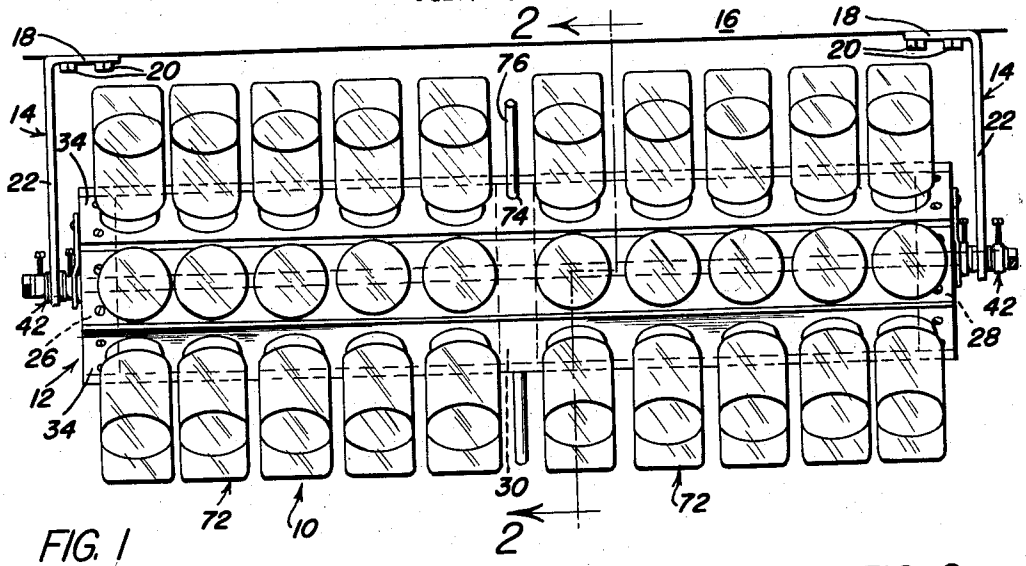


FIG. 1

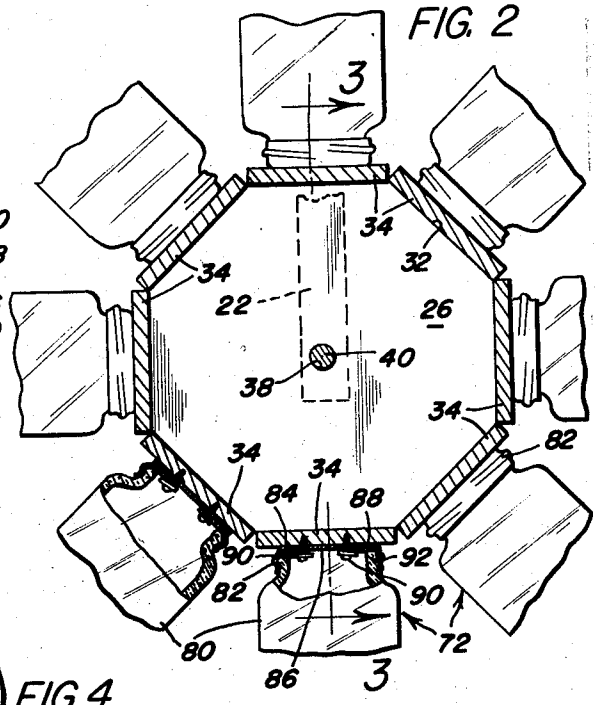


FIG. 2

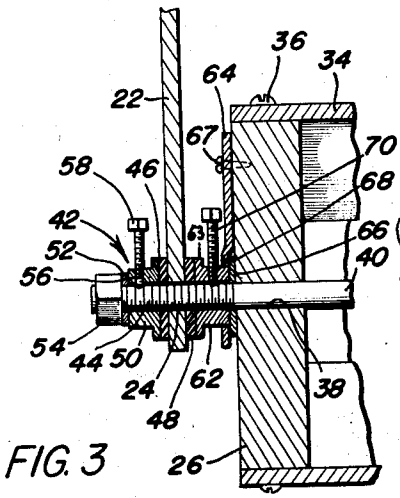


FIG. 3

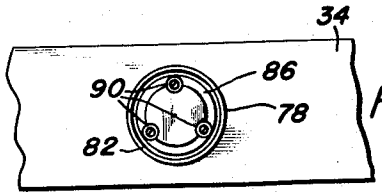


FIG. 4

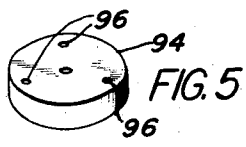


FIG. 5

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United States Patent Office 2,936,901
Patented May 17, 1960

2,936,901

ROTATABLE STORAGE AND DISPLAY ASSEMBLY FOR PARTS

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Application December 20, 1957, Serial No. 704,142

4 Claims. (Cl. 211—77)

This invention relates to an improved storage and display assembly for parts used in a garage, cabinetmaking shop and the like.

Carpenters, cabinetmakers, garage mechanics, etc., generally keep on hand a large number of different, relatively small parts which inadvertently become misplaced or lost, and thus are not readily available for a given job. Delays in locating these parts and losses are not only time consuming and expensive but of course cause a constant source of irritation. Additionally, even though the various parts are properly stored in separate containers, an individual maintaining this supply of the parts is generally unable to ascertain how much stock of these parts is on hand and thus it is highly desirable to have available a facility for the purpose of storing such parts in a readily accessible and separated condition. It is further desirable that the facility for storing such parts take up as little space as possible.

A primary object of this invention is to provide a combined storage and display assembly for relatively small parts including a plurality of transparent containers in which the different parts may be stored and labeled, said containers being readily removable from a horizontally disposed rotatable body member permitting ready access to the parts stored therein, there being included friction means between the body member and the means supporting the same whereby the various storage containers will be maintained in a relatively fixed position in the absence of the body member being manually rotated.

Another object of this invention is to provide a combined storage and display assembly for the purpose set forth which incorporates a plurality of readily assembled parts conducive to manufacture as a "do-it-yourself" kit.

A still further object of this invention is to provide an improved parts storage and display assembly which is readily and economically manufactured, easily assembled and maintained, and highly satisfactory and practical for the purpose intended.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawing there is shown one preferred embodiment of the invention. In this showing:

Figure 1 is a side elevation of the novel storage and display assembly showing it supported from a fragmentary position of a ceiling;

Figure 2 is an enlarged section taken on line 2—2 of Figure 1, with portions broken away for clarity;

Figure 3 is an enlarged fragmentary section through one end of the assembly, taken substantially on line 3—3 of Figure 2;

Figure 4 is a plan view of one of the retaining collars for the storage containers of the assembly; and

Figure 5 is a perspective view of a template element used for drilling the supports slats and container clamp disks of the assembly preparatory to mounting support collars.

Referring to the drawing in detail, indicated generally

at 10 is a preferred embodiment of the storage and display assembly which includes a body member indicated generally at 12 suspended by a pair of inverted L-shaped hanger straps indicated generally at 14 from the ceiling of a workshop or the like, a fragmentary portion of the ceiling being indicated at 16.

The straps, 14, include a short leg 18 suitably apertured and anchored to the ceiling by means of fastening elements 20. The legs 18 are integral with depending legs 22 transversely apertured at their lower ends as indicated at 24 in Figure 3. Although the preferred embodiment is illustrated as being suspended from a ceiling, the body member 12 may be supported from rafters or suitable support straps may be mounted on a work bench, shelf or suitable floor rack, etc.

The body member 12 comprises similar symmetrically conformed polygonal end members 26 and 28 and an intermediate member 30. In the preferred embodiment the members 26, 28 and 30 have an octagonal shape. The members 26, 28 and 30 incorporate coplanar side edges 32, see Figure 2, receiving thereon longitudinally extending slats 34 which are secured by means of suitable screw elements 36, see Figure 3. Although the preferred embodiment shows the end members being constructed from wood, a suitable metal may be used for this purpose.

The members 26, 28 and 30 are centrally apertured as indicated at 38, see Figures 2 and 3, and extending therethrough against relative rotation therewith, as will become apparent, is an elongated support axle 40, opposite ends of which projecting beyond the end members 26 and 28.

Incorporated on opposite ends of the axle 40 are friction brake means indicated generally at 42, and although friction brake means are shown at both ends of the axle it is possible that only one will be sufficient. In any event, since the friction brake means are similar only one will be described in detail.

Considering Figure 3, the terminal end portion of the axle 40 is threaded as indicated at 44, this portion extending through the aperture 24 of leg 22 of the support strap. Disposed on opposite sides of the strap or leg 22 are fiber friction washer elements 46 and 48. Abutting the washer element 46 and threaded on the shaft of 40 is a flanged lock nut 50, a lock washer 52 and a retaining nut 54. The flanged lock nut 50 includes a transverse tapped bore portion 56 receiving therein a suitable lock screw 58. Circumposed on the axle 40 adjacent the washer element 48 is a flanged nut 62. The flanged lock nut 62 has circumposed thereabout a wrench portion 63 extending laterally from one side thereof and terminating in an elongated handle portion 64 facilitating the manual rotation of the flanged nut 62 on the threaded portion of the axle to move it toward or away from the support strap 22. A suitable washer 66 may be interposed between the flanged nut 62 and the outer surface of the end member 26, the handle being offset for this purpose. The lock nut 62 includes a transverse tapped bore portion 68 receiving therein a suitable lock screw 70. After the friction brake means 42 has been adjusted, the handle 64 may be secured to end member 26 by means of a suitable screw 67.

Without describing additional structure, the friction brake means and body member are assembled as follows:

The axle 40 is run through the aligned central apertures in members 26, 28 and 30 with equal lengths of the threaded end portions of the axles extending beyond members 26 and 28. Washers 66 are mounted on the ends of the axle and flanged nuts 62 are mounted. The nuts 62 are tightened by means of handles 64 to hold the body member against rotation on the axle and the screws 67 are applied to prevent rotation of the nuts 62 on the axle, the set screws 70 having been set to aid in retaining the nuts

in their adjusted positions. The ends of the axle are inserted through the apertures **24** of straps **22** with fiber washers **46** and **48** on opposite sides thereof, then flange nuts **50**, lock washers **52** and nuts **54** are applied. After the parts containers are mounted and filled, the nuts **50** are adjusted to obtain the desired frictional resistance to rotation of the body member, except due to manually applied force, and the set screws **58** are set to retain this adjustment. After adjustment of nuts **50**, the nuts **54** are tightened.

Secured in longitudinally spaced relationship on the slats **34** of the body member is a plurality of container assemblies indicated generally at **72**. The container assemblies may include a jar having a half-pint capacity, for example, or many have a larger capacity depending upon what parts are being stored. In the preferred embodiment, each slat is indicated as having ten longitudinally spaced container assemblies **72**, however, a greater or lesser number may be utilized depending upon the storage requirements.

Secured in suitably drilled circumferentially spaced bores **74** to member **30** of the body member are elongated rods **76** providing handles for applying torque to rotate the body member about its longitudinal axis, see Figure 1.

Referring to the container assemblies **72**, these assemblies include a rotatable mounting collar **78** and a transparent storage jar **80**. The mounting collar **78** comprises a circular flanged collar **82** formed with a relatively coarse thread and including an inwardly extending flange **84** juxtaposed on the outer surface of the slats **34**. Received within the collar **82** is a retaining disc **86**, including if preferred an annular sealing gasket **88** which will be disposed on the flange **84**. Extending through suitable apertures in the disc **86** are retaining screws **90** including washer elements thereon. The jars **80** include a threaded portion **92** received within the collars **82** and when tightly threaded therein will apply pressure to the discs **86**. In the absence of the jars **80** being threaded in the collars **82**, the collars may be rotated to assure a proper orientation of labels on the jars.

It will be noted that the friction brake means **42** is utilized to prevent the tendency of the body member **12** to rotate due to unequal loading of the jars of the container assemblies.

The container assembly **72** may comprise conventional "Kerr-Mason" jars and two-piece "Mason" caps which are conventionally used for canning purposes. The various parts comprising body member **12**, the support members **14** and friction brake means **42** may come disassembled in a "do-it-yourself" kit, the slats of the body member subsequently being drilled to receive these screws **90** and the container assembly. In this event, provided with the kit is a template indicated generally as **94** to be constructed from any suitable material, and including suitably located transverse bores **96** therethrough facilitating the drilling of the slats for the proper orientation of the container assemblies **72**.

It is to be understood that the form of the invention shown and described is to be taken as the preferred example of same and that various changes in the shape, size and arrangement of the parts may be made as do not depart from the spirit of the invention or the scope of the appended claims.

I claim:

1. A combined storage and display assembly for parts comprising an elongated body member, means rotatably supporting said body member in a horizontal position for rotation about its longitudinal axis, a plurality of longitudinally spaced transparent storage containers removably secured in radially extending relation on said body member, and friction means between said body member and means rotatably supporting the same for maintaining said body member against rotation in the absence of manually applied force to said body member, said means supporting said body member comprising a support axle extending through said body member, said means supporting said body member comprising hanger straps at opposite ends of said body member in which said axle is journalled, said friction means comprising at least one pair of friction elements on said axle at opposite sides of one of said hanger straps, at least one of said stop elements comprising a nut threaded on said axle, lock means on said nut engageable with said axle for retaining said nut in an adjusted clamped relationship to said one hanger strap, and a torque applying lever on said nut for rotating the same when the lock means thereof is released.

2. In an assembly as set forth in claim 1 in which said body member includes alined polygonal end portion, slat elements extending between the sides of said end portions, said storage containers extending normal from said slat elements.

3. In an assembly as set forth in claim 2 in which said storage containers comprise a threaded collar rotatably secured on said slat elements, and said storage containers comprise transparent jars including a threaded upper end portion removably received in a threaded collar and locking said collars against rotation on said slats.

4. In an assembly as set forth in claim 1 including radially extending handles circumferentially about said body member for rotating said body member about its longitudinal axis in opposition to said friction means.

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