

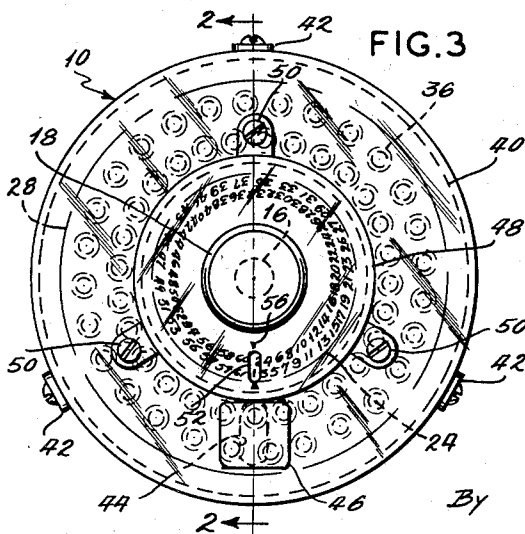
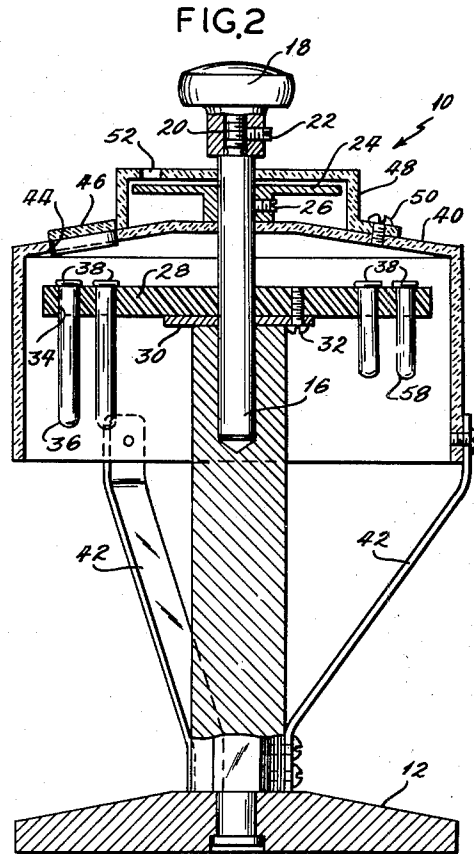
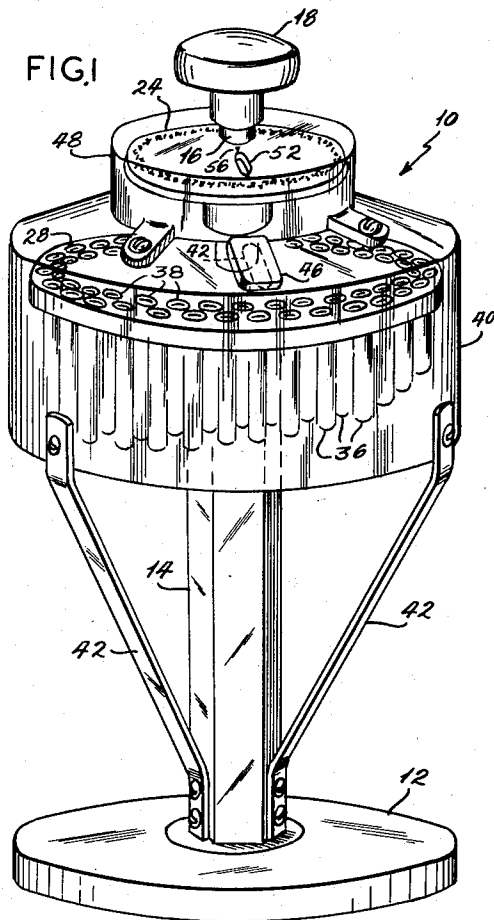
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DRILL POINT HOLDER

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DRILL POINT HOLDER

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This invention relates to storage racks and more particularly racks for storing small articles, and preferably those of an elongated shape such as, for example, drill points which come in several assorted sizes. The novel device of our invention enables a quick selection of a particular size in a minimum of time while affording maximum amount of protection to the stored articles.

Many different types of storage racks have been well known for some time. Among them, a number of open rotary racks with apertures for receiving stored articles have been proposed to enable the user to make a selection from a number of sizes of stored articles by rotating the storage rack and lifting out the desired articles. In other rotary storage racks, containers have been fastened to the underside of plates so as to be covered during storage. In those racks, the user had to rotate the rack until the proper container came in front of him and then had to pull a container out of its holder in order to remove the parts stored therein. The main disadvantages of rotary racks of the first type mentioned was their lack of protection of the parts stored therein, inasmuch as the storage areas were entirely exposed to the air and the dust carried therein, and the lack of easily indexable individual containers for various sizes of parts which would make a desired selection quicker and easier. The disadvantage of the second type of rack was the inconvenience in removing the containers from their holder and also the inherent mechanical complication of these devices due to the necessary removability of the containers.

It is the primary object of our invention to obviate these difficulties and disadvantages by providing a rotary storage rack of a type in which a number of containers are arranged around the periphery of a selector disc and are entirely covered by a cover provided with a single opening, which in turn may be provided with a closure to prevent dust and machine shop dirt from coming into contact with the inside of the containers.

In order to allow quick selection of the parts stored in our rack we further provide indexing means rotatable together with the rack so as to allow quick and positive indexing of a container containing a particular size of part directly under the opening in the cover, so that the proper part may be easily removed.

Other objects of our invention will become apparent as the description progresses, reference being had to the drawings in which:

Figure 1 is a perspective view of one embodiment of our device;

Figure 2 is a vertical section of the embodiment shown in Figure 1 along the lines 2—2 of Figure 3; and

Figure 3 is a plane view of the device shown in Figures 1 and 2.

The preferred embodiment of our invention depicted in Figures 1—3 is particularly adapted for storing a variety of sizes of drill points in a machine shop. It is designed to be positioned somewhat below the eye level of the operator so that the operator when using the device looks down on it in order to facilitate the reading of the index-

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ing marks on the indexing disc positioned above the storage rack. The best protection of the stored articles in this preferred embodiment is achieved by a hood-like cover covering both the top and the sides of the storage containers. A plug or door is provided in the top of the cover to close the opening through which removal of the articles is effected. An indexing disc is provided above the storage rack and directly underneath of the knob by means of which the rack is turned. This indexing disc has printed or embossed on it a number of figures corresponding to the various sizes of drill points which are stored in the containers on the rack. The indexing disc is covered by a separate cover provided with a small window so that, when the selector knob is turned, the size of the drill points in the container positioned directly under the removal opening at that moment will appear in the window cut into the cover which overlies the indexing disc. In this manner the operator can quickly select the desired drill size and, having found it, open the removal opening in the hood and pull out the desired drill point.

Referring now to the drawings, the storage rack of our invention is generally shown at 10. It comprises a pedestal 12 which may be positioned either on the floor of the shop or on a bench, depending on the use to be made of the device, and a support 14 affixed thereto which supports the selector disc. A shaft 16 is journaled in the support 14 for rotation by a knob 18 on the top of the device. The knob 18 is attached to shaft 16 by a screw-type fitting 20 and is fastened by a set screw 22. An indexing disc 24 is slipped over the shaft 16 and attached thereto by set screw 26. Finally, a supporting disc 28 is slipped onto the shaft and is secured, by means of screws 32, to a disc 30 welded to the shaft 16. Disc 28 is provided with a number of apertures 34 around its periphery, the apertures 34 being staggered in two concentric rows. A container 36 is loosely fitted into each of the apertures 34. The containers 36 have flanges 38 at their tops which hold them suspended from the disc 28 when they are fully inserted therein. A hood 40 is provided to cover the disc 28 and the containers suspended therefrom, and the hood 40 is supported directly from the support 14 by struts 42. Hood 40 is provided on one side with an opening 44 closed by a plug 46. A second hood 48 is provided above the hood 40 and is fastened thereto by screws 50. This second hood covers the disc 24 except for a small window at 52 where the indexing marks 56 become directly visible. Indexing marks 56 are provided to allow the exact positioning of the selector disc 28.

In operation, the device of our invention is set up at a desired place and the containers 36 are filled with drill bits of appropriate sizes. For this purpose the length of the containers 36 may be varied, as for example at 58, so as to accommodate various sizes of drill bits in such a manner that their ends protrude the same amount above the surface of the disc 28. If the operator now, for example, wishes to withdraw a number 26 drill he turns the knob 18 until the figure 26 appears centered in the window 52 between index marks 56. If this is done, the container 36 which is centered directly below the opening 44 will be the one containing number 26 drill bits. Thereupon the operator withdraws the plug 46 and reaches in through the opening 44 to withdraw the drill bits which are now positioned directly thereunder. If the operator desires to withdraw the entire container of number 26 drill points, he merely pushes the container up from the under side of the hood 40 and out through the opening 44. The container 36 can be replaced later merely by slipping it back through the opening 44 and into its appropriate aperture 34 in disc 28.

Although a particular embodiment of a storage rack

for holding drill points has been described herein, it will be readily apparent that our invention is not limited to this particular embodiment, and that its salient features can be developed in many other ways. For example, the hoods may be made of plastics or metal as may all the other parts of the device, or the hoods may be transparent to facilitate the quick locating of a particular size desired. The plug 46 may take the form of a hinged door, or it may be a slidable cover. The support may be short so as to allow the device to sit on a bench, or it may reach to the floor for a floor-type embodiment or it may be bent to allow mounting on a wall. Although a rotary motion of the disc 28 is preferred, other motions may be used in the practice of this invention as may appear necessary or desirable for any particular embodiment. For example, a longitudinal sliding motion of the container bearing member may be adopted and the container bearing member may be accordingly varied in shape or size, or the cover may be moved instead of the selector disc.

Regardless of the particular embodiment used, the device described and claimed herein will be effective in permitting a quick selection of various mechanical parts while at the same time protecting the parts from the dust and grit common in the air of a machine shop, thus reducing "down" time of equipment while drill points are being changed, and reducing defects of drill points due to storage damage. The small space required by our device and its handy operation also contribute greatly to the efficiency obtainable by the use thereof.

It will be apparent from the above that we do not desire to be limited to any particular embodiment shown

or described, but that as our invention resides in the particular advantageous features pointed out and claimed herein, our invention is to be limited only by the scope of the following claims.

5 Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

1. A storage rack comprising a stand, a rotatable shaft journaled in said stand, a first disc attached to said shaft, a plurality of containers liftably suspended from said first disc, a first cover covering the mouths and sides of said containers but leaving the bottoms thereof freely accessible and having a first opening, a second disc attached to said shaft, a second cover covering said second disc and having a second opening, said second disc having indexing markings, and means for rotating said shaft.

15 2. A storage rack according to claim 1, further comprising closure means for selectively closing said first opening.

3. A storage rack according to claim 2, in which at least one of said covers is transparent.

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