PARTS STORAGE SYSTEM

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ABSTRACT

The present invention is directed to a parts storage system comprising a plurality of individual parts storage containers and a holder for holding the parts storage container. The parts storage containers each have a top, bottom and sidewalls, the sidewalls tapering inwardly from the top to the bottom. The container has a regular geometric shaped cross section. The holder is provided with a plurality of openings for holding the parts storage container, each of the openings having a regular geometric shape corresponding to the shape of the cross section of the container. The opening is sized to hold the container by engaging the sidewall below the top, the opening being provided with an open front dimensioned to allow the container to be removed from the opening by lifting the container upwardly until the sidewall will pass through the open front and then outwardly without having to lift the container to pass the bottom upwardly through the opening.
PARTS STORAGE SYSTEM

FIELD OF THE INVENTION

The present invention is directed to a parts storage system providing a plurality of individual parts storage containers which are easily inserted into and removed from a holder for holding the parts storage containers.

BACKGROUND OF THE INVENTION

Storage containers for small parts are used in a number of different scenarios. For example, in many workshops, containers for holding different types and sizes of fasteners are quite common. It is often desirable to organize such containers so that the fasteners are easily accessible. A number of parts storage systems are presently available for such tasks such as, for example, a system utilizing screw top jars containing the small parts with the covers for the jars being attached to a holder such that the containers when screwed into the cover are held by the holder. While such a system allows the parts to be organized, the removal and replacement of the storage container can be tedious because of the required action of screwing and unscrewing the container. Another type of parts storage system commonly used is a bank of small drawers with each of the drawers containing an individual type of small part such as a different type of fastener. Such drawers are commonly provided with a transparent front or a label to allow for labeling of the parts contained within the container. However, it is sometimes difficult to see what is contained within the drawer and thus it is necessary for the person to search through a number of drawers until they find the specific part they are looking for.

Another circumstance where a parts storage system is utilized is in an assembly line operation where a number of small parts will be installed during the manufacture of an item. In these circumstances, it is necessary to have easy access to the part to be installed on the item so that the assembly process is not unduly slowed down. Should the assembler run low on parts, it is necessary to replenish the parts supply in a rapid and simple manner.

SUMMARY OF THE INVENTION

The present invention is directed to a parts storage system comprising a plurality of individual parts storage containers and a holder for holding the parts storage container. The parts storage containers each have a top, bottom and sidewalls, the sidewalls tapering inwardly from the top to the bottom. The container has a regular geometric shaped cross section. The holder is provided with a plurality of openings for holding the parts storage container, each of the openings having a regular geometric shape corresponding to the shape of the cross section of the container. The opening is sized to hold the container by engaging the sidewall below the top, the opening being provided with an open front dimensioned to allow the container to be removed from the opening by lifting the container upwardly until the sidewall will pass through the open front and then outwardly without having to lift the container to pass the bottom upwardly through the opening.

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the present invention are illustrated in the attached drawings in which:

FIG. 1 is a perspective view of a preferred embodiment of the parts storage system of the present invention;
FIG. 2 is a front elevation view of the parts storage system of FIG. 1 illustrating the removal and replacement of the parts storage container of the parts storage system of FIG. 1; and
FIG. 3 is a side elevation view of the parts storage system of FIG. 1 illustrating the removal and replacement of the parts storage container.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

A preferred embodiment of a parts storage system of the present invention is illustrated in the attached figures. The parts storage system comprises a plurality of parts storage containers 12 and a holder 14 for holding the parts storage containers 12. The holder 14 may be mounted to a supporting surface such as a wall 16, work bench, etc. In the embodiment illustrated in the figures, the holder 14 is mounted to a wall 16 by using suitable fasteners such as screws 18.

The individual parts storage container 12 has a top 20, a bottom 22 and a sidewall 24. The sidewall 24 tapers inwardly from the top 20 to the bottom 22. In the embodiment illustrated in the figures, the container top 20 is open. However, if desired the top 20 may be closed by a removable closure such as a snap lid or screw on lid.

The parts storage container 12 has a generally regular geometric shaped cross section. In the embodiments illustrated in the figures, the parts storage container 12 has a circular cross section, however, other regular geometric cross sections such as squares, hexagonal shape, etc. are also possible.

The holder 14 is provided with a plurality of openings 30 for holding the parts storage container 12. The openings 30 have a regular geometric shape corresponding to the shape of the cross section of the parts storage container 12. The size of the opening 30 is selected to hold the container 12 within the opening by engaging the sidewall 24 of the container 12 below the top 20. The opening 30 is provided with an open front 32 dimensioned to allow the container 12 to be removed from the opening 30 by lifting the container 12 upwardly until the sidewall 24 will pass through the open front 32 and then the container 12 is moved outwardly to allow the container 12 to be removed without having to lift the container 12 completely above the holder 14 to pass the bottom 22 upwardly through the opening 30.

The parts storage container 12 and holder 14 may be constructed of any suitable material such as metal, glass or plastic. Preferably, the parts storage container 12 and holder 14 are each constructed of a thermal plastic polymer material such as polyethylene, polystyrene, polypropylene, polyvinylchloride or the like. Most preferably, a parts storage container is constructed of a polypropylene or polyethylene and the holder is constructed of a polyethylene or polystyrene.
The parts storage system of the present invention allows for easy removal and replacement of the parts storage container 12 in the holder 14 to allow for easy access to the parts contained within the parts storage container 12.

Although various preferred embodiments of the present invention have been described herein in detail, it would be appreciated by those skilled in the art that variations may be made thereto without departing from the spirit of the invention or the scope of the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A parts storage system comprising a plurality of individual parts storage containers and a holder for holding the parts storage container, the parts storage containers each having a top, bottom and sidewalls, the sidewalls tapering inwardly from the top to the bottom, the container having a regular geometric shaped cross section; the holder being provided with a plurality of openings for holding the parts storage containers, each of the openings having a regular geometric shape corresponding to the shape of the cross section of the parts storage container, the opening being sized to hold the container by engaging the sidewall below the top, the opening being provided with an open front dimensioned to allow the container to be removed from the opening by lifting the container upwardly until the sidewall will pass through the open front and then outwardly without having to lift the container to pass the bottom upwardly through the opening.

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