ABSTRACT

A device that is used for the stacking and orientation of handled containers that become unstable after being stacked one upon another. The device includes a platform that is equal or greater in size to the container, with a perpendicular projection located at the back of the base that rises to the approximate height of a plurality of containers. The frame acts like a spine for the containers by aligning the containers vertically and limiting their movement from side to side. The platform may include a plurality of projections that surround the container or containers, that also offer stability.
CONTAINER STACKER, STABILIZER AND ALIGNER

FIELD OF THE INVENTION

The invention generally relates to the storage and display of containers and more particularly to, but not limited to, the storage and display of paint cans.

BACKGROUND OF THE INVENTION

The storage and display of a containers, especially paint, at home or in a store, is a small undertaking. The way it is normally done at home is to throw it on the shelf in the garage and when the shelf is filled, you go out and buy a set of free standing shelves, and start stacking containers on the bottom. When it comes time to paint again, you go searching all the places, that you have stored paint. You find that the labels on the high shelf are facing the wrong way, and the containers in front on the low shelf are obscuring the view of the labels on the containers in back. The lost shelf space to containers that you can’t readily identify is incredible.

The same problem exists in a store because the display takes up a lot of room. They are usually boxes of paint with their tops sliced off, stacked about six high, or stacking plates, put between the layers of loosely stacked cans also stacked about six high. This also is a terrible waste of floor space.

The solution up until now seems to be making surfaces that will allow the containers to mate together. In U.S. Pat. No. 5,722,540 Laird describes a can stacking insert to make can surfaces mate together for stacking purposes. In U.S. Pat. No. 5,285,899 Apps and Lang describe a tray system for stacking cans. When it comes to the larger containers, the floor space that is needed for trays is outside the scope of the homeowner. In U.S. Pat. No. 4,593,818 Schenkelman describes what he calls the can stacker which is another form of a mating surface for two cans. In U.S. Pat. No. 5,669,526 Keyfauver describes a lid that will mate two similar type containers, the only problem is you have to keep swapping lids on all your containers to get them to stack.

The idea behind the invention is to give similar containers, something to lean against instead of depending on the container below. The weight is being exerted downward like a normal stack of similar containers but the stability is gained from the spine or the vertical projection, stabilizing the container. The projection limits lateral movement so that if you stack your containers with the labels forward, they will remain facing forward.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows the front perspective of the invention with no containers present.
FIG. 2 shows the invention with three containers in place, misaligned.
FIG. 3 shows a side view of the invention with the containers in place with their handles extended over the rear projection.
FIG. 4 shows the invention from the rear, with the containers misaligned and the handles are over the projection closest to the cut out section.
FIG. 5a shows the invention stacked vertically three high from the front.
FIG. 5b shows the invention stacked three high from above.

DETAILED DESCRIPTION OF THE DRAWINGS

FIG. 1 shows the basic design of the base 2 with a perpendicular projection rising from the base 1 that is used as a spine to align the containers. A projected surface 3 is shown to provide stability to the bottom container but can be extended for a plurality of containers. A cut out section, to the base 4 allows for stacking purposes during shipping.
FIG. 2 shows the basic design with misaligned containers 7, 5, 8, stacked against the projection 1 while sitting on the base 2 and in between the projected surface on the base 3 for additional stability. These projections 3 are mounted outside the circumference of the container 7 to the base plate. The containers 7, 5, 8, are deliberately misaligned, yet in practice they remain stacked and stable.
FIG. 3 shows the basic design from the side with the containers stacked vertically on the base 2 with their handles 6 extended over the rear projection 1 and their labels facing forward for display purposes.
FIG. 4 shows the basic design from the rear with the containers stacked vertically on the base 2 inside the projections 3 and their handles extended over the rear projection 1 to
FIG. 5a shows the basic design of three stacked units from the front for shipping and display purposes.
FIG. 5b shows the basic design of three stacked units from above.

We claim:

I. A method of providing stacking stability, to handled containers that are similar but do not stack together well comprising:
   a. a base that is sized approximately, to the bottom of said containers to be stacked, and
   b. a perpendicular projection mounted in a predetermined location on said base, that is of a predetermined size, and to a height of approximately a plurality of containers
II. The base in claim I, with a section removed behind said vertical projection, with a predetermined cross-sectional shape.
III. The base in claim I, with a projected area that rises on opposing sides of said base that are of a predetermined size and shape.
IV. The perpendicular projection in claim I, that is sized to be inserted between said handle and said container when said container is being placed on the base and said handle is horizontally extended.
V. The base in claim I, with a section removed behind said vertical projection of a predetermined size to engage with said vertical projections of another base for shipping and display purposes.
VI. The perpendicular projection in claim I. that is sized to limit lateral movement of said containers for stacking and display purposes.