Nov. 10, 1959 W. J. TALLEY 2,912,139

DRUM STACKING RING

Filed March 30, 1955

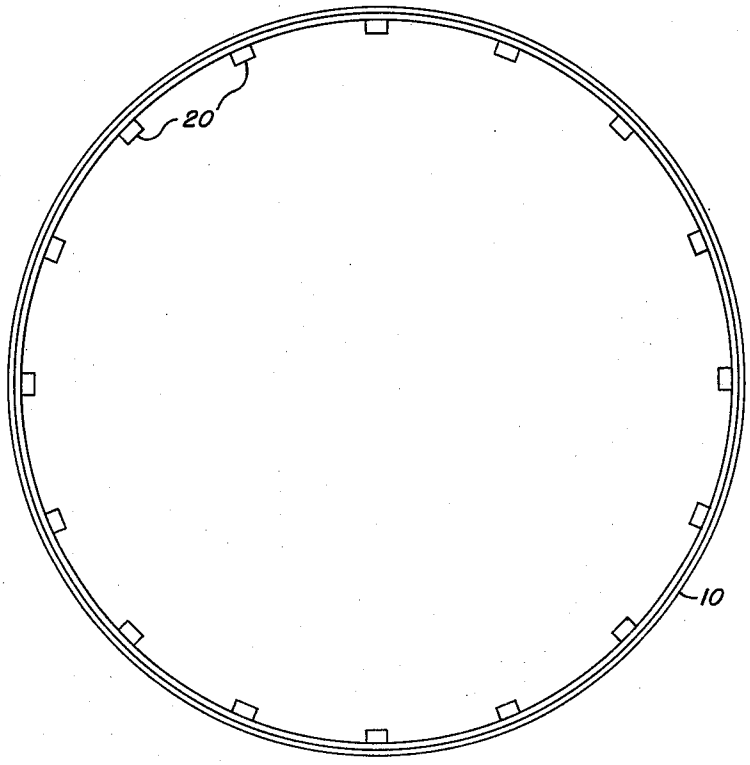

FIG. 1

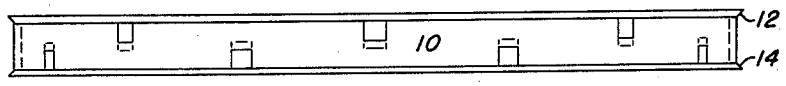

FIG. 2

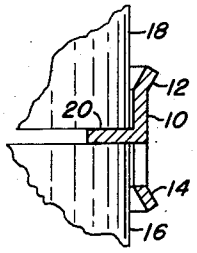

FIG. 3

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United States Patent Office 2,912,139 Patented Nov. 10, 1959

2,912,139

DRUM STACKING RING

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Application March 30, 1955, Serial No. 498,039

1 Claim. (Cl. 220—97)

The present invention relates to a drum stacking ring and method of use therefor adapted to engage the opposing chimes or rims of drums and hold them solidly one upon the other.

Orderly, safe and space-conserving storage of heavy drums of materials has presented a vexing warehousing problem. Warehouse space is always at a premium and the storage of heavy packaged materials one upon the other in a manner such that easy access may be had to individual items when needed is directly opposed to space conservation where the items cannot be placed in piles or tiers effectively. A balance must, of necessity, be struck between the desire to utilize all storage space with the greatest efficiency and the safety requirement of material handling methods directed to protection of personnel and prevention of damage to the stored materials. At the present time, no completely satisfactory means or method is known for the safe and efficient storage of drums. The practice is to place a third drum, on its end, upon two up-ended drums standing adjacent one another so that the two bottom drums equally support the third drum. The top drum is never entirely stable and there is a loss of storage space in the second tier of drums. The present invention is directed to a means and method of overcoming these problems.

Accordingly, one object of the invention is to provide a method of storing drums or similar packaged goods in a safe and efficient manner.

Another object of the invention is to provide a means for holding two or more drums together in stacked relationship whereby the placement of the drums in position and their subsequent removal is facilitated.

In accordance with the present invention, a drum stacking ring is provided which is very simple to fabricate, economical and particularly adapted to handle either heavy or light drums. The invention provides a one-piece drum stacking ring having a continuous outer bevel-edge ring-shaped wall with a plurality of retainer tabs extending radially inward and adapted to be engaged by opposing chimes or rims of stacked drums.

These and related objects of the invention are better understood by reference to the drawings in which

Figure 1 is a plan view of the drum stacking ring;

Figure 2 is a side view of the ring; and

Figure 3 is a partial section showing the manner in which the ring engages the sides and chimes or edges of the drums, the latter being shown in fragmentary elevation.

In the drawings **10** represents the body of the ring preferably made from flat bar-iron stock. Since the ring is under no great stress when in use, it can be economically fabricated from relatively thin metal stock. The outer edges **12** and **14** are flared away from the center of the ring. This is readily accomplished by a rolling operation. The ring may be joined by welding, riveting or by a simple bolt. The outer edges **12** and **14** are flared away from the center of the ring. The flared edge **14** forms a guiding surface for placement

of the ring on the first bottom drum **16** to engage the inner flat part of the ring **10** with the chime or ring thereof. Likewise, the flared edge **12** acts to guide the top drum **18** into position. The plurality of retainer tabs **20** are compressed between the opposing chimes of the drums and keep the device in position. For flat bar stock measuring ⅛" x 1½", these tabs **20** may measure about ⅞" x ⅝". These tabs are preferably equally spaced about the circumference of the ring and may, for example, be placed at an angle of about 22½° from each other. The tabs are preferably cut from opposite sides of a center line of the body **10** of the ring so that their surfaces are all in the same plane.

It is seen that the device has several features. The tabs **20**, being inside the ring **10**, are protected from being bent and are automatically aligned under the weight of the drums. The device being made of different diameters for different sizes of drums is easily stored when not in use and the flared edges automatically align the ring with the drum chimes when the device is placed on the bottom drum and a second drum is lowered on top thereof. The device permits the storage of a greater number of drums in a smaller floor space. Furthermore, drums stacked together through the use of this stacking ring form a stable arrangement whether the drums are empty or full. Drums may be stacked two- or three-high by use of this device without danger to equipment or personnel. Floor loading specifications, however, generally do not allow stacking 55 gallon drums more than two-high. Handling of the drums is readily accomplished by the use of lift trucks equipped with hook arrangements adapted to engage the top chime of the drum, as described in U.S. Patent 2,272,447 by C. E. Traxel.

The foregoing description and drawings are merely illustrative and the only limitations attaching appear in the appended claim. The ring **10** need not be circular in shape and may be formed in any configuration to fit any type of package. The device is particularly adaptable to the storage of cylindrical drums or cartons that are heavy and ordinarily difficult to store in stacked relationship because of their indented ends and chime-type of construction.

What is claimed is:

An oil drum stacking ring consisting of a cylindrical, rigid metal ring having a vertical wall and outwardly flared upper and lower edges, the circumferential shape of said vertical wall conforming with and being slightly larger than the outer circumferential shape of the chime of a drum, a plurality of uniformly spaced, integral tabs cut from said vertical wall alternately from opposite sides of a medial circumferential line thereof, each of said tabs having a length equal to about one-half of the width of said vertical wall, said tabs being bent inwardly and having their inwardly projecting portions substantially in a common plane and engageable between the opposing chimes of an upper and lower drum, the outer surfaces of which are closely encircled by said vertical wall.

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