Oct. 22, 1957 N. G. KINNA 2,810,505

DRUMS

Filed Nov. 12, 1954

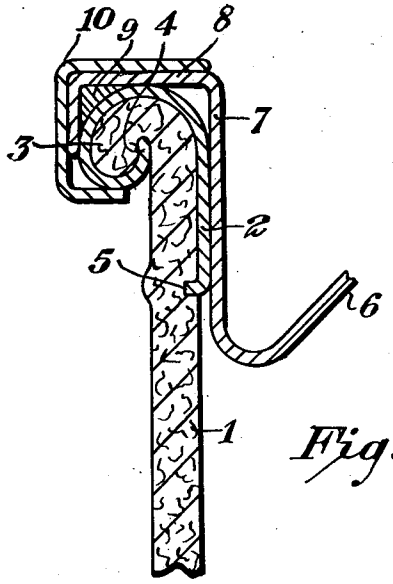

Fig. 1.

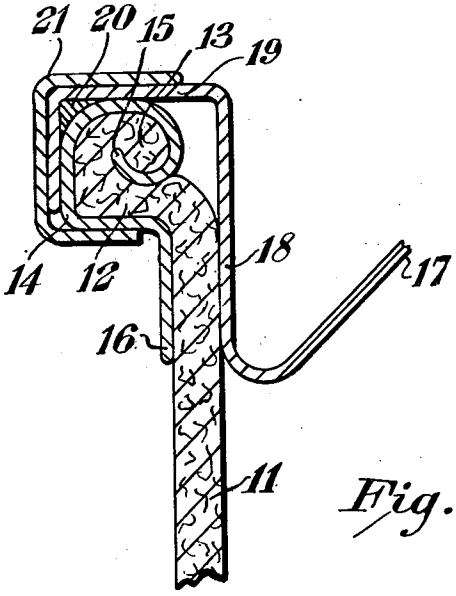

Fig. 2.

Inventor:
Norman George Kinna
By his attorneys:
Baldwin & Wight

United States Patent Office 2,810,505 Patented Oct. 22, 1957

2,810,505

DRUMS

Norman George Kinna, Seer Green, England, assignor to The Bowater Research and Development Company Limited, London, England

Application November 12, 1954, Serial No. 468,497

Claims priority, application Great Britain November 16, 1953

2 Claims. (Cl. 229—5.7)

This invention comprises improvements in the formation of the lid-receiving ends of drums made of fibreboard or the like.

The object of the invention is to provide a simple construction of reinforced beaded rim.

According to the invention a drum of fibreboard or the like has an open cylindrical end terminating with a beaded rim bodily radially exterior of the inner surface of the drum wall, the rim being formed by the top of the drum body being rolled over upon itself together with a metal hoop so that one end portion of the hoop is embedded in the roll and the other end portion extends to lie against the wall of the drum body, the arrangement being such as to provide for the fitting of a lid having a flange to seat on top of the rolled over part of the hoop and a vertical depending portion to fit flush inside the open cylindrical end of the drum below the beaded rim.

In a preferred embodiment of the invention the top of the drum body is turned outwards, together with the hoop, under the roll, and the other end portion of the hoop lies against the outside wall of the drum body.

The drum may be provided with a lid having a flange which seats on top of the rolled over part of the hoop and a vertical portion which fits inside the top of the drum in flush contact with the inside wall of the fibreboard or like body of the drum. A sealing gasket may be located between the lid flange and the hoop outwardly of the seat of the lid flange. A clamping ring of channeled cross-section may be provided to keep the lid in place.

The invention is illustrated in the accompanying drawings in which:

Figure 1 is a partial cross-section of the end of a drum with a lid and clamping ring in position; and

Figure 2 is a view similar to Figure 1 showing an alternative construction.

Referring now to Figure 1, **1** indicates the drum body, made of fibreboard or the like, and **2** a metal hoop. The top of the drum body, indicated at **3**, is rolled outwards upon itself together with the hoop **2** so that one end portion of the hoop is embedded within the roll. The hoop extends downwards to lie against the inside wall of the drum. The extreme end of the hoop **5** is bent so that it bites into the wall as shown. A lid **6** for the drum, has a depending portion **7** which fits flush against the hoop inside the mouth of the drum below the beaded rim and the lid is also provided with a flange **8** which seats on top of the rolled over part of the hoop. A sealing gasket **9** is located between the flange **8** and the hoop outwardly of the seat of the flange on the hoop.

A clamping ring **10** is provided to maintain the lid in position.

Referring now to Figure 2 the drum body **11** has its top turned outwards as at **12** and rolled inwards upon itself as at **13** together with a metal hoop **14**, one end **15** of the hoop being embedded in the roll. The hoop extends downwards so that it lies against the outside wall of the drum as indicated at **16**. The drum wall and the hoop are bent outwardly immediately below the roll and intermediate the ends **15** and **16** of the hoop so as to position the roll wholly outwardly of the inner surface of the drum wall, thereby providing a rim for the drum which has a larger diameter than the remainder of the drum. This construction enables a drum lid or closure **17** having a depending part **18** to fit flush against the inside wall of the fibreboard drum cylinder. The lid is also provided with a flange **19** which seats on the rolled over portion of the hoop. A sealing gasket **20** is located between the flange **19** and the hoop outwardly of the seat of the flange on the hoop. The lid is kept in position by a clamping ring **21** similar to that indicated at **10** in Figure 1.

It will be appreciated that, especially with the construction shown in Figure 2, a sealing gasket will not always be necessary since a sufficiently good seal is obtainable between the depending portion of the lid and the open cylindrical end of the drum.

What is claimed is:

1. A drum comprising an open end body having a wall formed of fibreboard terminating in a cylindrical beaded rim bodily radially exterior of the inner surface of said wall, said rim comprising a metal hoop positioned in part externally of said wall at the open end of said body, said wall and said hoop being rolled over inwardly upon themselves so as to sandwich one edge portion of said hoop within the roll, said wall and said hoop being bent outwardly intermediate said one edge portion of said hoop and its other edge portion so as to position said roll wholly outwardly of the inner surface of said wall, the arrangement being such as to provide said body with a rim having a larger diameter than the diameter of the remainder of said body, the inner body wall immediately adjacent to said rim extending straight towards the opposite end of said drum and being free from inwardly radial protuberances so as to permit a closure to be inserted in said open end of said drum and be in flush engagement with the inner surface of said wall.

2. The combination of a drum according to claim 1 with a lid for said open end of said drum, said lid having a peripheral flange portion which seats on the rolled over part of said hoop and a cylindrical part extending from said flange portion which fits inside the open end of said drum in flush contact with a portion of said inner surface of said wall.

References Cited in the file of this patent

UNITED STATES PATENTS

1,590,750	Hulbert	June 29, 1926
1,702,606	Hulbert	Feb. 19, 1929
2,141,499	Williams	Dec. 27, 1938
2,391,774	Eggerss	Dec. 25, 1945
2,511,481	Schneider	June 13, 1950