Nov. 12, 1957 W. N. FLETCHER 2,812,854

FIBREBOARD REEL TYPE PACKAGE

Filed May 2, 1955

FIG. 1

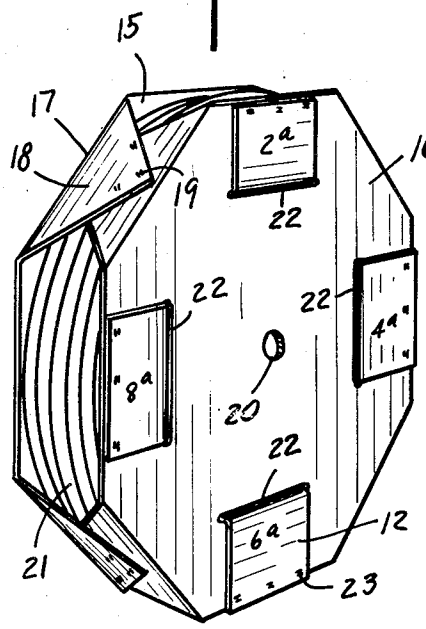


FIG. 2

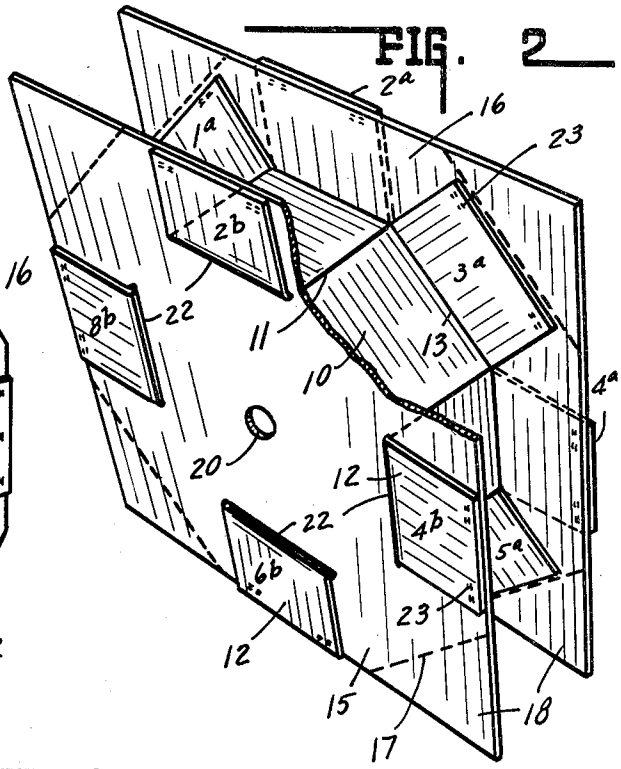
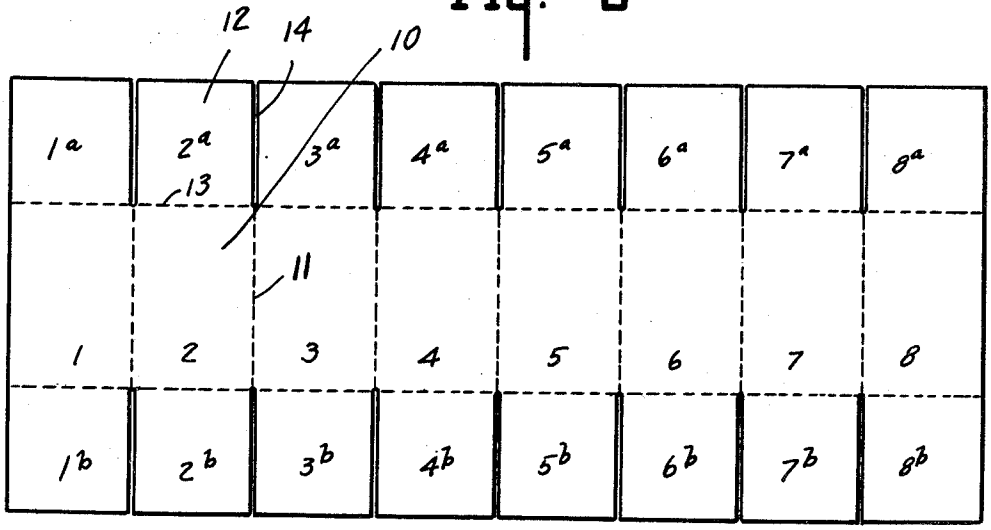


FIG. 3



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This invention relates to a reel type container of fibreboard, and is particularly adapted for providing a package for reeled elongated flexible material, such as plastic pipe, hose, cordage and the like.

It is the object of this invention to provide a fibreboard reel and package of the character above referred to which may be formed of a plurality of fiberboard blanks such as may be conveniently fabricated, shipped and stored until assembled for use, and which will provide an inner reeling drum adapted to be erected from a single blank of fibreboard, and panel heads for supporting and embracing the reeled material, and wherein the end heads are formed with overlapping corner portions adapted to be secured together in embracing relation to the drum and the material coiled thereabout in fixed reinforced package formation.

By means of the structure and method of fabrication and assembly, important advantages over prior known structures are inherent therein. Thus, there is provided a reel type container of great strength due to its reinforcing characteristics; and at a low cost per unit; greater range of size by reason of its fabrication and structure; simplified material handling, packaging and shipping; less warehouse space in pre-assembled condition; and a package which is attractive in appearance.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

Fig. 1 is a perspective view of the container with the reeled material packaged therein.

Fig. 2 is a perspective view of the inner drum and end heads in assembled relation before packaging and with a portion of one said head broken away.

Fig. 3 is a layout of the blank forming the inner drum.

In the drawings there is shown in Fig. 3 a fibreboard blank to be formed into an inner drum for the reel having a plurality of panels to be arranged in annular formation to provide facets **10**, as shown in Fig. 2, there being eight such facets illustrated herein. Each facet is separated from adjacent facets by a score line **11**. A rectangular locking ear **12** extends from each end of the respective facets **10**, being defined by the score lines **13** and separated from adjacent ears by the slits **14**. For identification, eacho ft he facets **10** may be numbered, **1** to **8**, inclusive. The locking ears extending from one end of the respective facets may be similarly indicated as **1***a* to **8***a*, respectively. The opposed locking ears may be identified as **1***b* to **8***b*, respectively.

The end heads **15** and **16** are die cut to a generally rectangular shape with their respective corners scored diagonally, as indicated at **17**, to define an octagonal plane and permit the defined respective corner portions **18** to be bent inwardly into overlapping relation and tacked together, as indicated at **19** in Fig. 1. Each head is provided with a central aperture **20** through which a suitable rod or shaft may extend for rotatably mounting the reel for winding thereon a length of elongated flexible

material, such as plastic pipe, as indicated at **21**. Each head is provided with a plurality of slots **22** spaced inwardly from and extending parallel with the respective side edges of each head a distance equal to the length of the locking ears **12** and generally of a length equal to the width thereof. As shown herein there are four such slots in each head with adjacent slots arranged at right angles and their ends spaced from each other a distance equal to the width of a locking ear.

The above described elements of the container are normally stored and shipped unassembled and in their flat fibreboard blank formation, one drum and two heads for each unit.

In assembling the container the inner reel drum is formed up in a generally annular formation longitudinally of the blank so that the free edge of facet **1** meets and registers with the free edge of facet **8**, to which it is secured as by taping. Every other locking ear **12** is bent about its score line **13** at right angles to extend radially outward of the drum, for example, **1***a*, **3***a*, **5***a* and **7***a*; **1***b*, **3***b*, **5***b* and **7***b*. The remaining intermediate locking ears remain in their normal position, extending from the ends of the facets **2**, **4**, **6** and **8**, and in the same plane therewith, namely, ears **2***a*, **4***a*, **6***a* and **8***a*; **2***b*, **4***b*, **6***b* and **8***b*. The latter outwardly extending locking ears are then inserted through the corresponding slots **22** in the end heads, respectively, after which they are bent outward at right angles to their respective facets radially to lie outside of and against the outer surface of the respective heads. With the parts thus assembled, the first group of locking ears lies against the inner surfaces of the respective heads, and the second group lies against the outer surfaces thereof in the manner illustrated in Figs. 1 and 2. The outer edge of each locking ear is then tacked to the respective heads, as indicated at **23**.

From the above assembly of the inner drum within the heads, and the interlocking of the locking ears therewith, a suitable reel is provided upon which the material may be reeled in the usual manner. After reeling, and to form the complete container, the corner portions **18** of the heads are bent into overlapping relation and tacked together at **19**, to further lock and reinforce the assembled structure, as well as embrace, retain and protect the reeled material for storage and shipment as a packaged unit.

The invention claimed is:

1. A reel type container of fibreboard for reeling and packaging an elongated flexible material, comprising an annular drum formed from a fibreboard blank having a plurality of facets joined by score lines, means securing the free ends of said blank in its annular drum formation, an individual locking ear portion in said blank joined to each end of the respective facets by a score line, every other said locking ear being bent to extend radially outward at right angles relative to its adjoining facet, a pair of rectangular end heads each formed from individual blanks of a dimension to embrace said drum and the material reeled thereon, each having a slot dimensioned and positioned to receive the intermediate locking ears therethrough, said last-mentioned locking ears extending through and being bent at right angles from said slots to lie against the outer surface of their respective heads with said first-mentioned ears lying adjacent the inner surfaces thereof, means securing the said locking ears to the respective inner and outer surfaces of said heads whereby said head is interlocked between alternate locking ears of said drum, the corner portions of said rectangular heads being bent inwardly to register in overlapping relation over the reeled material, and means securing said overlapping corner portions to each other to provide a unitary package.

2. A reel type container of fibreboard for reeling and

packaging material comprising an annular drum formed from a fibreboard blank having a plurality of facets, an individual locking ear portion in said blank joined to each end of the respective facets, a pair of rectangular end heads of a dimension larger than the diameter of said drum and adapted to overlie the ends of said drum, every other one of said locking ears being formed to extend radially outward at right angles relatively to its adjoining facet and contiguous to the inner face of its corresponding end head, said end heads having spaced slots adapted to accommodate the intermediate locking ears therethrough, the terminal portions of said intermediate locking ears extending contiguous to the outer face of said end heads, said locking ears being secured to their corresponding end heads, the corner portions of said rectangular heads being bent inwardly to register in overlapping relation over the reeled material, said overlapping corner portions being secured together to provide a unitary package.

3. A reel type container of fibreboard for reeling and packaging material comprising a drum assembly formed from a rectangular blank, two opposed sides of said blank having spaced slots therein to form a plurality of extending locking ears, a pair of rectangular end heads of a dimension larger than the diameter of said drum

adapted to overlie the ends of said drum, every other one of said locking ears being formed to extend contiguous to the inner face of its respective end head, spaced slots in said end heads positioned alternately to said other locking ears, the intermediate locking ears being formed to extend through said slots and overlie the corresponding front face of said end heads, means securing said locking ears to their respective end heads, and reinforcing means comprising registering corner portions of said end heads bent inwardly over the reeled material and secured together in overlapping relation.

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