

Jan. 25, 1944.

W. C. FERGUSON ET AL

2,340,116

PACKAGE FOR PUTTY-LIKE MATERIAL

Filed Aug. 15, 1941

FIG. 1.

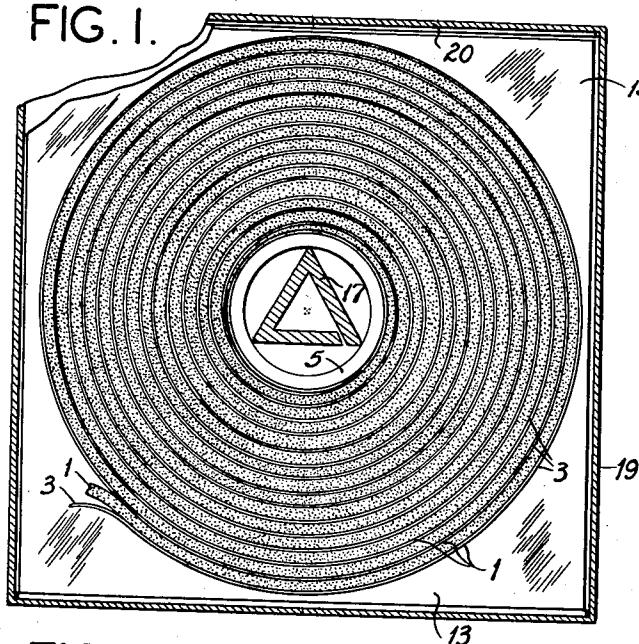


FIG. 2.

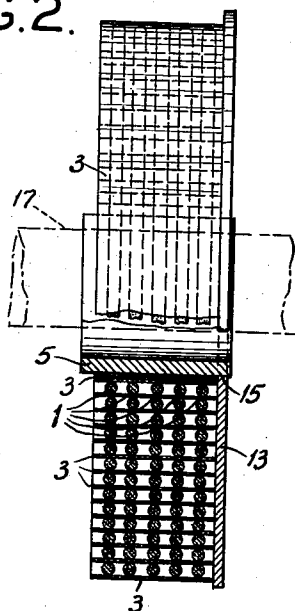


FIG. 4.

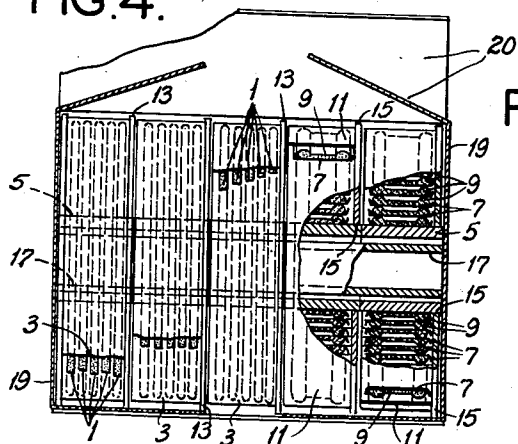


FIG. 3.

FIG. 7.

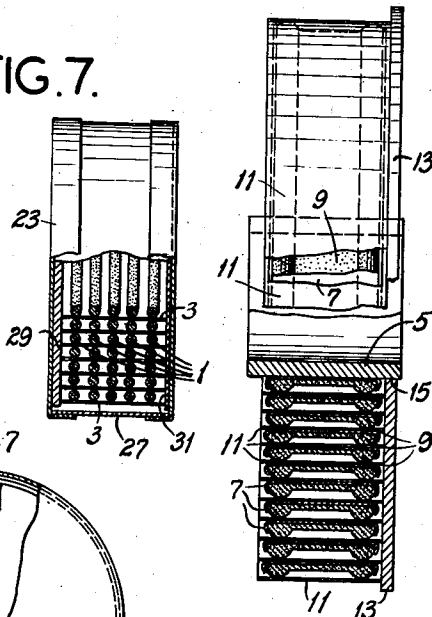


FIG. 5.

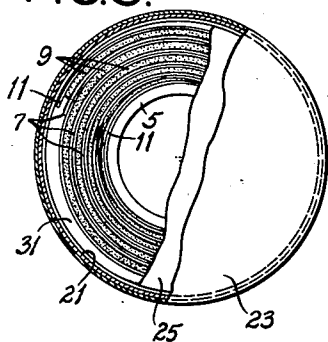
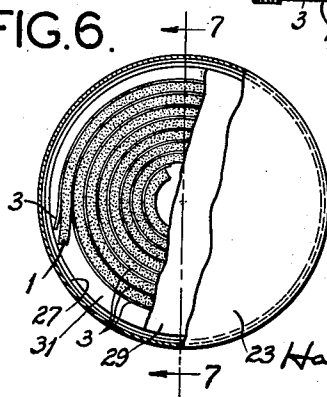


FIG. 6.



William C. Ferguson,
Cyril H. Smith,
Inventors.
Haynes and Koenig,
Attorneys.

UNITED STATES PATENT OFFICE

2,340,116

PACKAGE FOR PUTTYLIKE MATERIALS

William C. Ferguson, St. Louis, and Cyril H. Smith, Clayton, Mo., assignors to Presstite Engineering Company, St. Louis, Mo., a corporation of Missouri

Application August 15, 1941, Serial No. 407,022

5 Claims. (Cl. 206—52)

This invention relates to packaging means for putty-like materials which are made up in lengths.

Among the several objects of the invention may be noted the provision of a package for lengths of putty-like materials, in which the desired elongate forms of the material are maintained without deleterious deformation until they come into the hands of users; the provision of a package of the class described which may be roughly handled without deleteriously deforming its more or less fragile contents; the provision of a package of the class described which is easily made up and closed and equally easily opened and emptied; and the provision of such a package which is compact in form and economical in construction. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structures hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing, in which are illustrated several of various possible embodiments of the invention,

Fig. 1 is a vertical section through a package embodying one form of the invention;

Fig. 2 is a front elevation of one portion of the package, parts being broken away to show a vertical section;

Fig. 3 is a view similar to Fig. 2, but showing another form of the material being packaged;

Fig. 4 is a front elevation on a reduced scale of a partially opened package, parts being broken away to show various elevations and sections;

Fig. 5 is a plan view of a smaller form of package, partially broken open;

Fig. 6 is a plan view of an alternative form of package; and,

Fig. 7 is a vertical section taken on line 7—7 of Fig. 6.

Similar reference characters indicate corresponding parts throughout the several views of the drawing.

In the United States patent application of William C. Ferguson, Serial No. 369,063, filed December 7, 1940, for Caulking compound, there is disclosed the idea of providing a continuous winding of a putty-like compound of preformed cross-section. The present invention constitutes an improvement upon the construction disclosed in said application.

The present invention has application to two forms of putty-like material. One form of material is shown in Figs. 1, 2, 6 and 7, and another form is shown in Figs. 3 and 5. Both forms are illustrated in a single container in Fig. 4.

Referring now more particularly to Figs. 1 and 2, there are shown at numerals 1 five parallel spirally wound lengths of a plastic caulking compound. Each length has a circular cross-section, and the five lengths lie upon a spirally wound separator sheet 3 which may be composed of paper suitably impregnated with a material which will prevent the caulking compound from unduly sticking; for example, oiled paper or the like.

The winding is accomplished upon a short hollow arbor 5, preferably composed of cardboard or the like.

In Fig. 3 there is shown a winding on an arbor 5 of another material which is described in the United States Patent 2,256,864 of William C. Ferguson, dated September 23, 1941, for Sealing composition, consisting of a metal foil backing 7 on which is a ribbon or layer of putty-like caulking material 9. This composite foil and caulking material is spirally wound on a hollow cardboard arbor 5 with a spirally wound paper separator 11.

After the lengths of material shown in Figs. 2 and 3 have been wound upon the respective arbors 5, in connection with their spirally wound separating sheets, there is applied to one side of each winding a square stiff sheet of cardboard 13. Each sheet of cardboard 13 has an opening 15 just large enough to frictionally and snugly engage the respectively hollow arbor 5. This frictional engagement prevents undue tilting of the sheet 13. Thus each sheet 13 is organized with an arbor 5.

After a number of rolls such as shown in Figs. 2 and/or 3 are produced, they are applied side by side over a spindle 17 having a cross-section formed as a hollow triangle, and preferably composed of corrugated board or the like. This spindle being stiff serves to align the various arbors 5. The triangular cross-section of the spindles 17 is representative of various polygonal shapes that may be used, the object of such shapes being to obtain rigidity.

The supporting sheets 13 on the arbors 5 are stiff and of square form (Fig. 1), and when a group of these along with their loaded arbors 5 have been aligned on a spindle 17 (say for example five of them), they may be slipped into a box 19 made of corrugated board or the like adapted snugly to receive said supports 13 edgewise. The assembly of spindle 17, arbors 5, supports 13 and

the spiral winding of five rolls can be inserted into the box at one time as a unit. After these rolls have been inserted, the sheets 13 function as supports for the arbors 5 which in turn support the spiral rolls spacedly from the box walls. They also function as separators between rolls. It is clear that the outline of each sheet is determined by the form of the box, being made snugly to fit. Other than square shapes may be used, if desired. The box has the usual side and bottom construction and openable top 20 which is shown open in Fig. 4 and closed in Fig. 1.

When a customer receives a box he needs only to open it in the usual way and withdraw its contents as a unit, consisting of the five rolls along with the spacers 13, arbors 5 and spindle 17. If he wants to remove one of the spiral rolls, this may be simply done by slipping it with its arbor from the spindle 17 and replacing the remainder of the material in the box 19. This remainder will remain upright because of the aligning functions of the supports 13 and the spindle 17.

If desired, the user may withdraw the spirally wound material from the box, simply by pulling on the strands of it from the spiral loops. When the type of material shown in Figs. 1 and 2 is thus handled, it is the separating paper 3 that takes the tension of the pull, since the material 1 is quite low in tensile strength. In this case, it will be seen that the withdrawal of a given length of paper 3 supplies the user with five lengths of the putty-like material supported on the paper. Hence the total length of this material is five times as long as the length of the separator. The five lengths may then be removed from the paper for application to caulking uses. In the case of Fig. 7 the foil 1 also assumes tension resisting functions.

In Fig. 5 is shown how the tape-like material 7, 9 may be wound upon an arbor 5 with the spiral paper separator and placed in a disc-like box 21 having a removable lid 23. Beneath the lid is inserted a round spacer 25, and a similar spacer, or a piece of paper, may be used on the other side of the spiral, if desired.

In Figs. 6 and 7 is shown how a coil of the multi-wound round material 1 may be placed within a disc-like box 21, without the use of any of the arbors 5. This box also has a spacer 29. In Fig. 7 is shown a paper disc 31 which may be used as a protection between the other side of the spiral and the box.

It will be noted that advantages of the invention are that it is compact, rigid and may be cheaply made from corrugated or like board, as to any or all parts.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

We claim:

1. A package for spirally-wound putty-like materials comprising a box, a spindle in the box, a series of coaxial cylindric arbors on the spindle, a series of stiff separator sheets having openings for snugly receiving the arbors respectively, said separator sheets being of a polygonal form for non-rotary engagement with the sides of the box, one separator sheet exclusively being organized with one side of each arbor, a roll of spirally-wound putty-like material being wound on each arbor adjacent the respective separator sheet.

2. An all cardboard package for spirally-wound putty-like materials comprising a box, a cardboard spindle in the box of polygonal section, a series of coaxial cylindric cardboard arbors aligned on the spindle, a series of stiff cardboard separator sheets having openings for snugly receiving the arbors respectively, said separator sheets being of a polygonal form for non-rotary engagement with the sides of the box, one separator sheet exclusively being organized with one side of each arbor, a roll of spirally-wound putty-like material being wound on each arbor adjacent the respective separator sheet.

3. A package for spirally-wound putty-like materials comprising a box, spaced supporting separator walls within the box, each separator wall having an opening, individual removable arbors in said openings and supported by the separator walls respectively, said arbors abutting one another and having an aggregate length to fit between opposite ends of the box, a spiral of said putty-like material on a spiral separator strip on each arbor, a spindle traversing the insides of all of the arbors and supported thereby, and being of a length adapted to fit between opposite ends of the box, said spindle holding said arbors in alignment for aggregate insertion and removal into and out of the box of all of said arbors and separators on the spindle and including the spirally-wound material.

4. As an article of manufacture, a package of putty-like material, which material is of an inherently low tensile strength, comprising a plurality of separate beadings of the material arranged in parallel plane spirals of indefinitely continuous lengths all located parallel upon a single ribbon-like spiral separator located in a box, said separator being of tensile strength enough to protect the beadings of putty-like material against breakage and lateral deformation during winding and unwinding.

5. As an article of manufacture, a package of putty-like material, which material is of an inherently low tensile strength, comprising a plurality of relatively thick portions of said material forming parallel beadings respectively located in parallel plane spiral loops and wound with a ribbon-like spiral separator all located in a box, said ribbon-like separator being axially tangent to and locally contacting said beadings, whereby lateral deformations of said beadings are minimized.

WILLIAM C. FERGUSON.
CYRIL H. SMITH.