

July 5, 1960

J. J. KOVALESKI ET AL

2,943,732

PACKAGE AND CONTAINER FORMING PART THEREOF

Filed April 9, 1956

2 Sheets-Sheet 1

Fig. 1

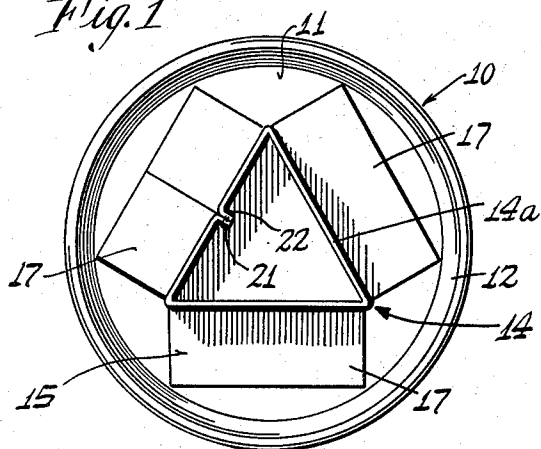


Fig. 2

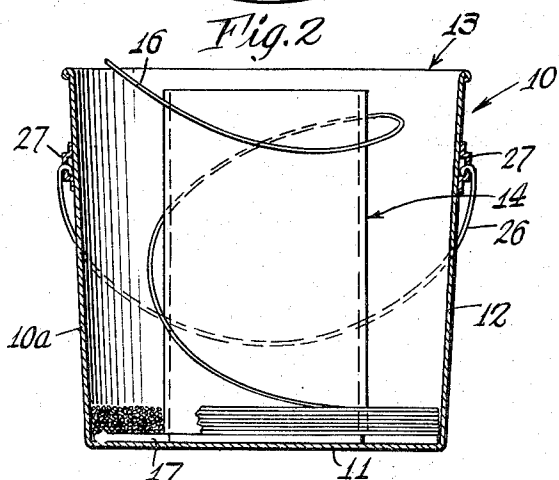


Fig. 5

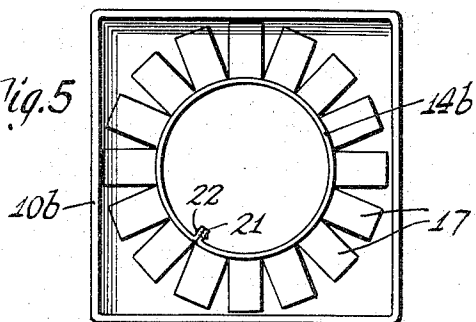


Fig. 3

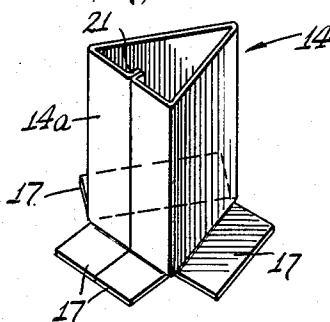


Fig. 6

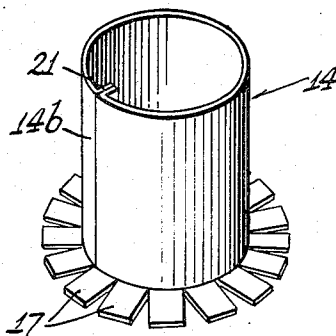


Fig. 10

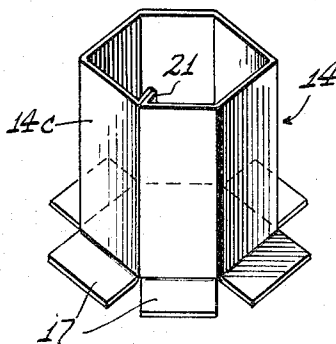
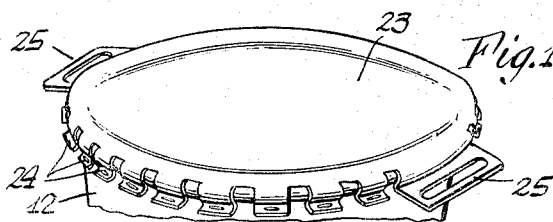


Fig. 14



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Fig. 8

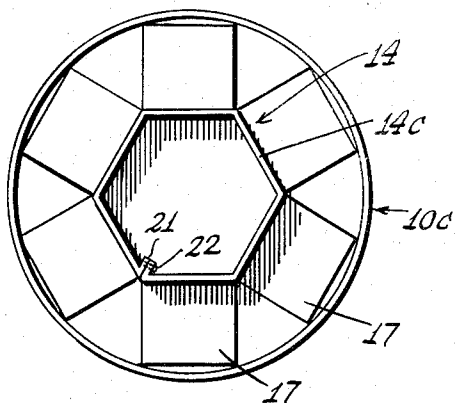


Fig. 4

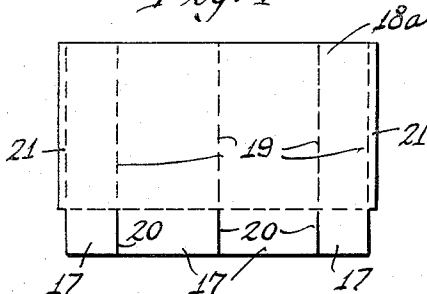


Fig. 7

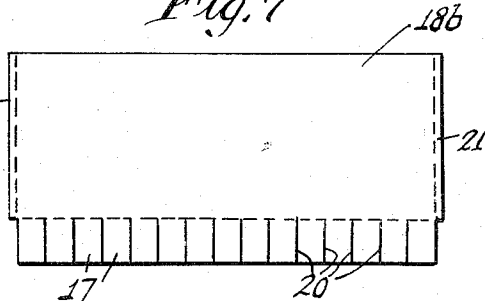


Fig. 9

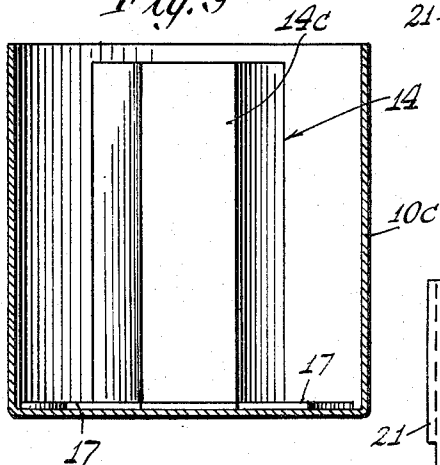


Fig. 11

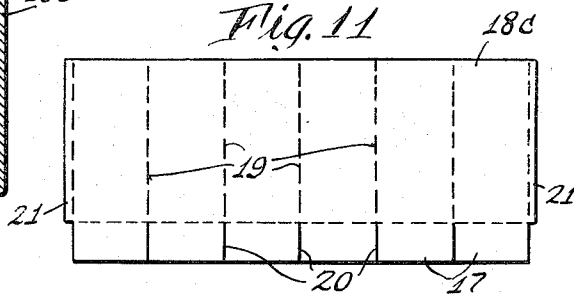


Fig. 12

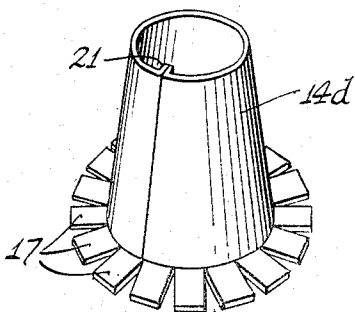
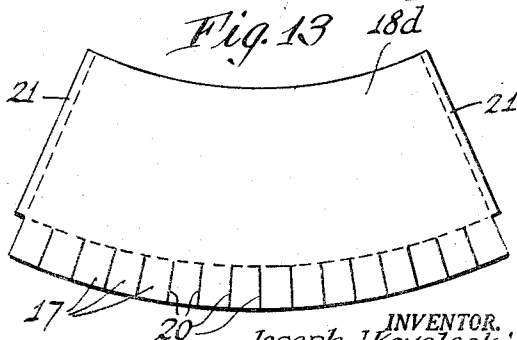


Fig. 13



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PACKAGE AND CONTAINER FORMING PART THEREOF

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Filed Apr. 9, 1956, Ser. No. 577,123

2 Claims. (Cl. 206—59)

The present invention relates to packages of coiled filamentary material and to the containers employed therein.

Heretofore, in packaging wire or the like material by coiling it into the containers, special containers have been required which were provided with a central cylindrical core which had been permanently fixed to the bottom of the container so as to provide an annular coiling space between the core and sides of the container. These containers which are of special construction were expensive since they required additional operations to secure the core in position and have presented a problem since they could not be nested or stacked because of the core therein.

The present invention overcomes these difficulties by providing a novel package and container construction which does not require a special container, provides a core which can be readily inserted in a standard container and held in position by the wire therein, and which can be shipped in a knockdown condition, thus enabling nesting of the empty containers during shipping.

In carrying out the invention, standard containers are provided with an insertable core having a flange at the bottom thereof adapted to overlie the bottom of the container with the edges of the flange engaging the side walls of the container and properly centering the core in the container. As the wire is fed into a container it will fall on the flange and aid in holding it in position during the packaging operation and also during the uncoiling of the wire therefrom.

A feature of the invention resides in the fact that the core can be used with standard pails, containers, boxes or the like which may be tapered, cylindrical or square.

Another feature of the invention resides in the fact that the cores can be made by suitable scoring and slitting flat stock which can be readily formed up into the core as required.

A still further feature of the invention resides in the fact that shipping and storage of the containers and cores is greatly facilitated since the cores can be shipped and stored in flat condition and the containers, particularly if tapered, or cylinders of different diameters, can be nested so as to save shipping and storage space.

Other features and advantages of the invention will be apparent from the specification and claims when considered in connection with the drawings in which:

Figure 1 shows a top view of a tapered container with a triangular core therein.

Fig. 2 is a longitudinal sectional view of the container showing the wire inserted therein.

Fig. 3 is a perspective view of the triangular core.

Fig. 4 shows the blank for forming the triangular core.

Fig. 5 shows a square box having a cylindrical core therein.

Fig. 6 is a perspective view of the cylindrical core.

Fig. 7 shows the blank for forming the cylindrical core.

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Fig. 8 shows a top view of a cylindrical container with a hexagonal core therein.

Fig. 9 shows a longitudinal sectional view of the cylindrical container of Fig. 8.

Fig. 10 shows a perspective view of the hexagonal core.

Fig. 11 shows a blank for forming the hexagonal core.

Fig. 12 shows a perspective view of the frusto-conical core.

Fig. 13 shows the blank for forming the core of Fig. 12.

Fig. 14 shows the novel closure for a container having hand grips formed integral therewith.

In accordance with the present invention a container 10 has a bottom 11, side walls 12 and an open top 13.

The container can be of any suitable shape, as for example, it can be a tapered container 10a, as shown in Figs. 1 and 2, a square box type container 10b as shown in Fig. 5, or a cylindrical container 10c as shown in Figs. 8 and 9. These containers can be made of stiff paper, cardboard, fiberboard, wood or metal.

In carrying out the present invention a core 14 is provided for the container for aiding in the coiling of the wire thereon and in the uncoiling of the wire therefrom. This core can be formed of stiff paper, cardboard, fiberboard or metal and made of any polygonal, tapered or cylindrical shape.

The core is adapted to be disposed centrally of the container so as to provide a substantially annular space 15 between the core 14 and the side walls 12 of the container into which the wire 16 or other filamentary material can be coiled as the package is produced and from which the wire may be uncoiled for use. This is accomplished by providing the bottom of the core with radially disposed flanges 17 of a length sufficient to engage the side walls of the container. The engagement of the edges of the flanges with the side walls will tend to hold the core in position. Further, as shown in Fig. 2, the flanges overlie the bottom and are adapted to receive the coils of wire as they are coiled into the container so that as the wire builds up in the container, the increase in weight of wire tends to anchor more firmly the core in position.

With this construction, it will be noted that the core is not permanently secured to the container but is insertable into standard containers when and as required. Preferably, the core is formed from blanks 18a, 18b, 18c and 18d of flat stock which is suitably scored at 19 and slit at 20 as shown in Figs. 4, 7, 11 and 13 so as to be readily shaped into the triangular shaped core 14a of Fig. 3, the cylindrical core 14b of Fig. 6, the hexagonal core 14c of Fig. 10 and the frusto-conical core 14d of Fig. 12. If desired, the blanks can be provided with edge flaps 21 which can be secured together by staples 22 or the like fastening means, if required, to hold the blank in core form.

An advantage of the present invention is that the cores can be stored and shipped in flat form and when it is desired to adapt a container to receive coiled material, it is merely necessary to fold up the core along the score lines, secure the edge flaps together as shown in Figs. 3, 6, 10 and 12, spread the slit portion to form the flange 17 and insert the same in the container. The container, pail or box is then ready to receive the coils of strand material. By means of the novel core construction, standard pails of varying sizes can be readily adapted for use in the packaging of coiled wire or the like material.

Since the cores can be shipped and stored in flat condition and the containers, because they have no permanent core, can be readily stacked if they are tapered or of different diameters, valuable storage and shipping space can be saved.

After the space 15 is filled with coiled wire or the like filamentary material the package may be closed by a suitable cover. For example, when metallic or metallic

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rimmed containers are used, the cover 23 of Fig. 14 can be applied. This cover is provided with a plurality of tabs 24 which are adapted to be crimped under and locked with the bead on the rim of the container to hold the cap in position.

If desired, means may be provided whereby the package can be handled. For example, with the cover of Fig. 14 handles 25 can be formed at the same time the tabs 24 are stamped out, thus providing integral hand grips so that the package can be readily handled without the necessity of having handles or other means secured thereto. However, if desired, the container can be provided with a standard cover and a bail type handle 26 as shown in Fig. 2 may be mounted in bearings 27 on the side of the container.

Variations and modifications may be made within the scope of the claims and portions of the improvements may be used without others.

We claim:

1. A package of coiled metal strand adapted to be paid out from the package comprising a container having a bottom and side walls and having an insertable strand-engaging core therein provided with a single radial flange means located solely at the bottom of said core and adapted to overlie and rest upon the bottom of the container, said radial flange means engaging the inner walls to properly center the core in the container to provide a substantially annular space to receive and hold coiled metal strand, and coiled metal strand disposed in said annular space and resting upon and thereby frictionally holding said radial flange means against rotation on said bottom.

2. A package of coiled metal strand adapted to be paid

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out from the package comprising a container having a bottom and side walls provided with a metal rim at the upper edge thereof, an insertable strand-engaging core in the container provided with a single radial flange means located solely at the bottom of said core and adapted to overlie the bottom of the container, said radial flange means engaging the inner walls to properly center the core in the container to provide a substantially annular space to receive and hold coiled metal strand, coiled metal strand disposed in said annular space and resting upon and thereby frictionally holding said radial flange means against rotation on said bottom, and a cover overlying the top of the container and having tabs clinched into engagement with the metal rim and having integral handle portions formed on the edge of the cover and providing hand grips whereby the package can be readily moved.

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