

[54] **METHOD FOR PACKAGING
TELEPHONE CABLE**

[72] Inventor: **Arnulv Moe Jacobsen**, Lillehammer,
Norway

[73] Assignee: **A/S Norsk Kabelfabrik**, Dram-
men, Norway

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206/52 W, 59 B; 150/54 B

[56]

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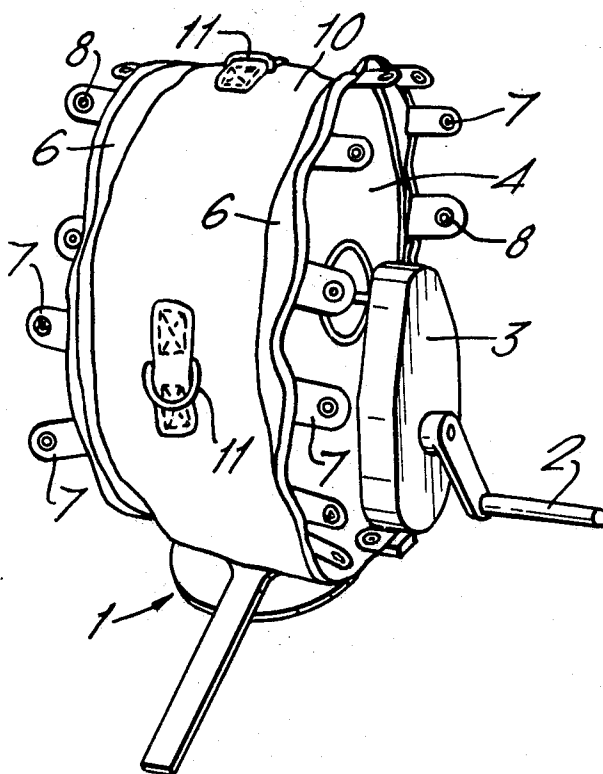
Primary Examiner—Travis S. McGehee
Attorney—Johnson, Diener, Emrich, Verbeck &
Wagner

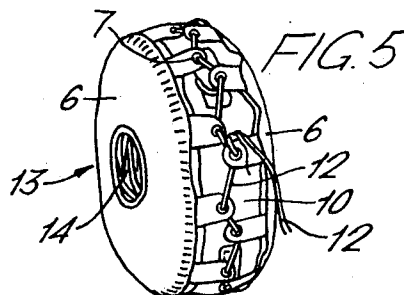
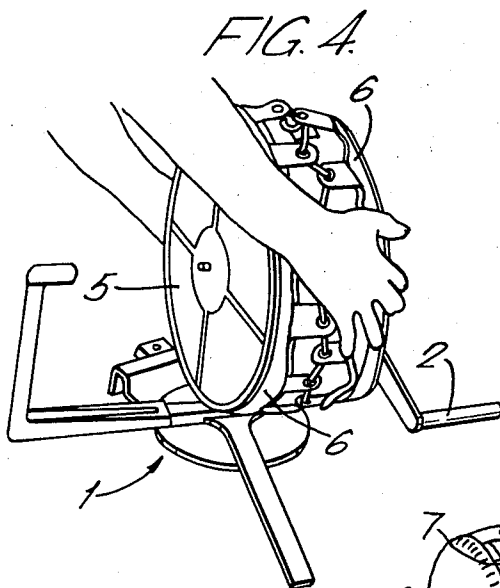
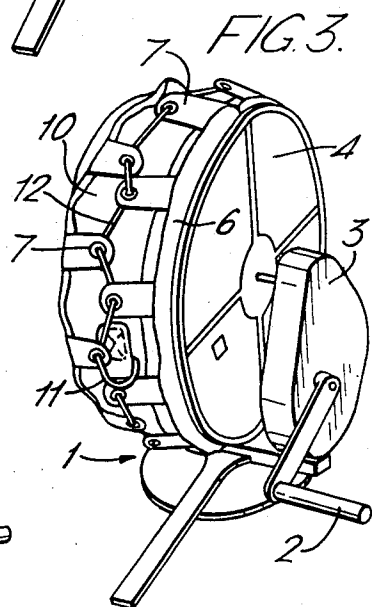
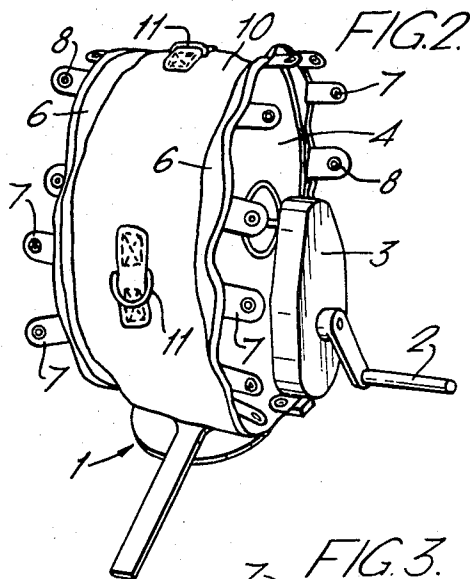
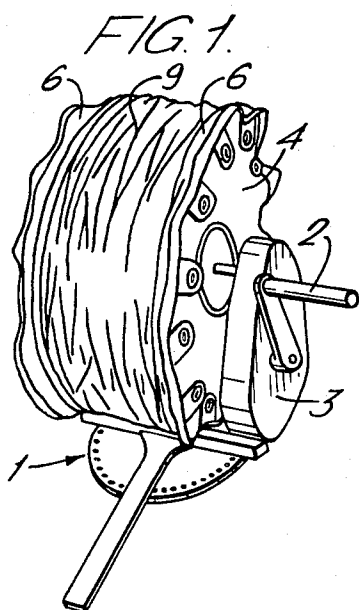
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ABSTRACT

The specification discloses a cable package or dispenser for army telephone cable, comprising a cable coil with a hollow center, two annular side members of strong, flexible material and a belt of strong, flexible material overlying the outer periphery of the coil. Holes are provided at the outer periphery of the side members, which are kept tightly together by a lacing extending through the holes and overlying the belt.

6 Claims, 5 Drawing Figures





METHOD FOR PACKAGING TELEPHONE CABLE

This is a divisional application of my co-pending application, U. S. Ser. No. 847,838, now U.S. Pat. No. 3,637,071 issued Jan. 25, 1972, which was filed on Aug. 6, 1969.

BACKGROUND OF THE INVENTION

The present invention relates to a cable package or dispenser for army telephone cable, comprising two annular side members of flexible material adapted to be threaded onto a mandrel upon which the cable is wound, and to be interconnected at the outer periphery after a cable coil has been wound between the side members, so as to form a closed package, which can then be detached from the mandrel and in use permits the cable to be paid out from the central opening formed in the coil by the mandrel.

Army telephone cables were previously supplied on reels or spools upon which the cable was rewound after use. Recently, army telephone cables have also been supplied in packages or dispensers of the kind initially referred to, the package being closed at the outer periphery by means of adhesive tape that also performs the function of securing or fastening supporting rings secured to the peripheral portions of the side members to attach the dispenser on a rucksack or the like. Such a package or dispenser constitutes a package that can be used once only, since it is not possible to bring a laid cable back into the dispenser and the adhesive tape cannot be removed economically in such a way that the side members, which are usually made of canvas, can be used once more in a new dispenser. Further, the manufacturing of the dispenser with the cable is relatively time-consuming and must be performed very carefully for the result to be satisfactory. The known dispensers can therefore not be manufactured in the field. The advantages of the dispenser, which primarily are based upon a significantly simplified laying of the cable, are therefore only present the first time the cable is used. In the field the cable must be reeled on spools.

SUMMARY OF THE INVENTION

An object of the present invention is to provide a method for packaging army telephone cable, which can be used several times and permits already laid cable to be packed in the field.

In order to accomplish this object, a belt is placed so that it substantially covers the periphery of the cable coil and then the peripheral portions of the side members are interconnected. For this purpose, the peripheral portions of the side members are provided with holes through which a cord is laced in a fashion to pull the side members tightly together into a closed package. The holes are preferably provided in flaps or lugs of strong material secured to the side members at the periphery and overlying the belt. The belt closes the package at the periphery, and the lacing provides the necessary tensioning for keeping the coil together and giving it the necessary stability. A lacing may be used under almost any conditions in the field and can easily be released when the dispenser is empty in order to dismantle the various components of the dispenser (two side members and a belt) for reuse.

Another consideration which has contributed to the fact that it has not been tried to produce dispensers in the field, is that it has been regarded as indispensable to apply an adhesive to the cable during reeling in order to obtain a sufficient stability of the cable coil. However, it has now been found that this is not necessary, provided that the cable is given a course that as far as possible deviates from the peripheral direction by guiding the cable comparatively rapidly back and forth between the side members during reeling. In forming the package according to the invention the cable in the coil is wound back and forth between the side members with a relatively fast pitch.

In addition to perform the function of closing the dispenser and securing the outer layers of the cable in position the belt may also carry supporting rings for securing the package on supporting frames or the like. Thereby the load on the supporting rings will be transferred to the periphery of the package and, through the lacing, place approximately equal loads in the two side members which will therefore not be mutually displaced.

The invention will now be described in more detail, reference being had to the accompanying drawings.

IN THE DRAWINGS

FIGS. 1 to 4 illustrate various stages in the assembly of a package or dispenser formed in accordance with the principles of this invention; and

FIG. 5 illustrates the finished dispenser.

In FIGS. 1 to 4 there is indicated a simple reeling apparatus 1 that may be carried by a person or attached to, for instance, a vehicle. The apparatus comprises a fork in which there is rotatably mounted a reeling mandrel that may be rotated by means of a crank 2 through a gear 3. The mandrel, which is not visible in the drawing, has two side plates 4 and 5, at least one of which is detachable. In making the dispenser according to the invention two annular side members 6 of canvas are threaded onto the mandrel between two side plates 4 and 5, and in contact with either of these plates. The canvas side members 6 are provided with flaps or lugs 7 of a strong material such as leather at the periphery. In each flap 7 there is provided a hole 8 which is reinforced by a grommet. The flaps and the marginal portions of the side members 6 are fastened around the edge of the plates 4 and 5 in a position as illustrated in FIG. 1, e.g. by means of a rope (not shown) threaded through the holes 8. The cable 9 is then wound onto the mandrel between the side members 6 and as it is wound, the cable is guided back and forth between the side members 6 at a relatively fast pitch. When the cable coil has attained the desired size a belt 10 is placed around the cable coil. The belt 10, which is made of strong woven material, canvas or the like, has a width and a length so as substantially to cover the periphery of the cable coil. In several positions around the periphery the belt 10 carries supporting rings 11 of metal for securing the package during transport.

When the belt 10 has been laid around the cable coil, the flaps 7 and the marginal portions of the side members 6 are folded so as to overlie the belt, and a rope 12 is threaded through the holes 8. The rope 12 is then strongly tensioned and firmly knotted so as to provide a close and tightly laced package 13 as shown in FIG. 5.

The mandrel, the side plates 4 and 5 and the interjacent package 13 is now released from the apparatus 1 as illustrated in FIG. 4, whereupon the side plates and the mandrel are detached from the package 13. The mandrel may be slightly tapered or adapted to be constricted in the radial direction so as to be easily retractible from the cable coil. The mandrel leaves a central opening 14, through which the cable ends may extend so as to permit the cable to be paid out for being laid in the field.

It will be seen that according to the invention there is provided a method for packaging army telephone cable, which can be assembled in the field when taking up already laid cable while using material that has already been used one or more times for making a dispenser. Thus, it is possible to benefit from the use of dispensers not only the first time, but each time a given cable is to be laid out.

The package also has the advantage of having a long storage life since it is kept together only by mechanical elements and is not dependent upon the aging resistance of adhesives or the like.

I claim as my invention the following:

1. A method of packaging communication cable in the coiled form in the field, comprising the steps of:
 - a. placing a pair of annular side members of flexible material having central openings on a mandrel between a pair of spaced rigid side plates, said side members having outer peripheral margin means extending radially beyond said rigid side plates and peripherally spaced lace receiving means formed in said margin means,
 - b. holding said margin means of each side member closely adjacent the peripheral edge of one each of the rigid side plates,
 - c. wrapping cable around said mandrel between said side members to form a coil having substantially the same outer diameter as said rigid side plates,
 - d. placing a belt around the periphery of said coil of a sufficient width to substantially cover said cable,
 - e. folding said margin means of said pair of annular side members inwardly to overlie said belt, and
 - f. threading lace means through said lace receiving means of said margin means to lace said margin

means together thereby keeping said side members tightly together in a closed package.

2. A method as defined in claim 1, wherein said step of holding said margin means comprises folding said margin means over the peripheral edge of said rigid plates and lacing through said lace receiving means to hold said side members in place.

3. A method as defined in claim 1, wherein said step of wrapping cable around said mandrel is performed by guiding the cable back and forth between said side members at a relatively fast pitch.

4. The method of packaging a cable in the coiled form, comprising the steps of:

- a. placing a pair of annular side members of flexible material having central openings and having a plurality of spaced flaps with apertures formed around their outer peripheries on a mandrel between a pair of spaced rigid side plates,
- b. folding the outer peripheral margin of said pair of annular side members over the peripheral edge of said rigid side plates,
- c. lacing through said apertures of each side member together to hold said side members in place,
- d. wrapping a cable around said mandrel between said side plates,
- e. placing a belt around the periphery of said coiled cable of a sufficient width to substantially cover said cable,
- f. unfastening said flaps of each side member and folding said outer peripheral margin of said pair of annular side members inwardly crosswise to said belt, and
- g. lacing said flaps of said flexible side members together.

5. The method as defined in claim 4, wherein said lacing step comprises threading a rope through said apertures in an alternating fashion between said flexible side members with a resulting zig-zag pattern being formed by said rope in an overlying relation with said belt.

6. A method as defined in claim 4, wherein said step of wrapping cable around said mandrel is performed by guiding the cable back and forth between said side members at a relatively fast pitch.

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