

April 29, 1930.

A. E. WATSON ET AL

1,756,771

CARTON FOR PACKING REELS OF WIRE AND THE LIKE

Filed Oct. 6, 1927

2 Sheets-Sheet 1

FIG. 1.

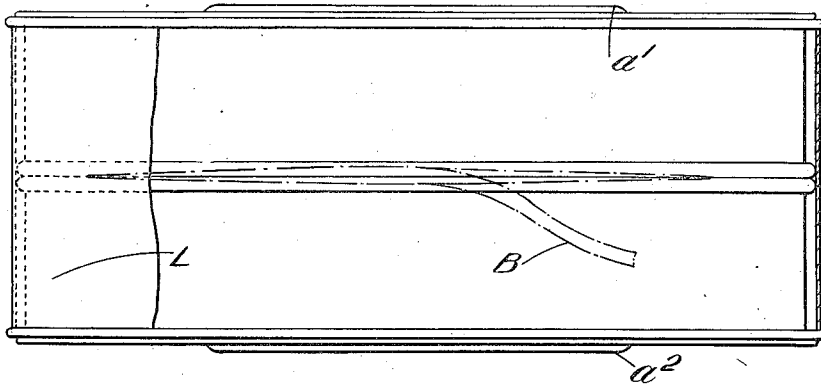
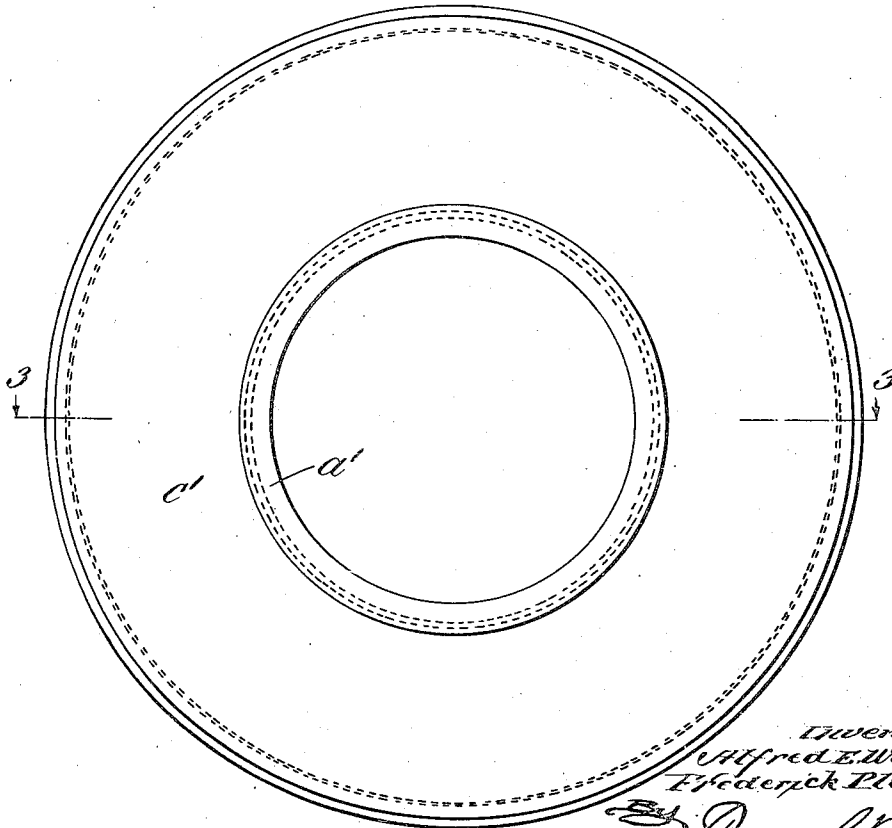


FIG. 2.



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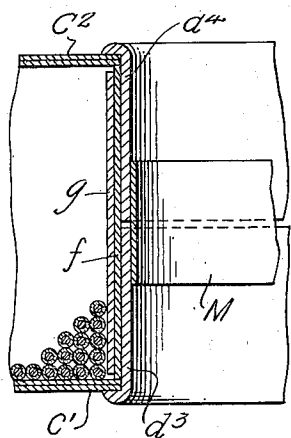
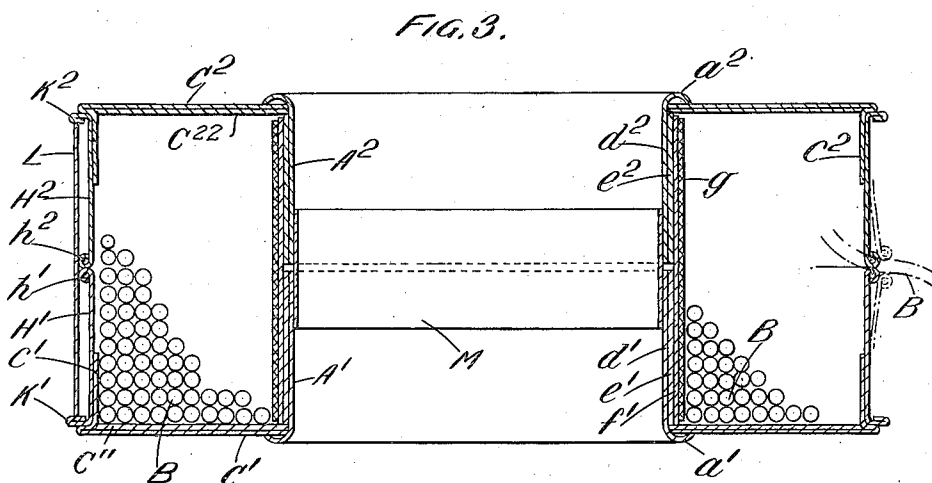
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2 Sheets-Sheet 2



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CARTON FOR PACKING REELS OF WIRE AND THE LIKE

Application filed October 6, 1927, Serial No. 224,406, and in Great Britain October 27, 1926.

The invention relates to cartons or containers for facilitating the handling and protection of coils of insulated or uninsulated wire and the like.

Wires for electrical installations such as are used for ordinary house and factory wiring, are usually supplied in the form of coils, spirally wrapped round with canvas, or alternatively coiled on cardboard reels covered by corrugated paper or packed in box-type cartons, which afford sufficient protection against displacement of the coils or damage during transit, but in all these known forms, the wire is exposed when the outer protecting covers are removed; consequently, during actual working operations the wire is liable to mechanical damage or to come into contact with some foreign injurious matter used in the construction of the buildings, etc. In addition, there is always the possibility of the wire becoming entangled and kinked.

According to the invention, these drawbacks are avoided by the carton being so formed that the coil of wire is at all times totally protected, and when in use only the length of wire actually needed at any time is released.

For this purpose the carton takes the form of an ordinary circular box, with two similar cover discs attached in known manner to central tubes on which the wire is contained and protected by two circumferential rings attached respectively at right angles to the flat covering discs.

In use, no portion of the actual carton is removed, as is generally necessary in other known forms, but the length of wire required at any time is pulled out at the junction of the two rings, sufficient resilience and flexibility being imparted to or by the rings or by the cover discs, or by the cover discs and rings jointly, to ensure a dust-tight fit around the junction, while allowing of the easy withdrawal of the wire.

The cartons may be constructed in many forms and of any suitable material, such as cardboard, presspahn, composite material, or metal.

In the accompanying drawings, which show an example of a carton according to the

invention adapted for containing a length of insulated wire—

Fig. 1 is an elevation with a portion of the wrapper removed,

Fig. 2 is a plan, and

Fig. 3 a section on the line 3—3 of Fig. 2.

Fig. 4 is a part section showing a slightly modified construction of the central tubes.

A', A² are coaxial central tubes for receiving the wire B, the outer ends of the tubes being bent over as shown at a', a² to form a tight connection with the flat covering discs C', C² of the separable lower and upper parts of the carton.

In the example illustrated, the lower tube A' comprises strips d' and e' of cardboard or other suitable material glued or otherwise secured together and extending to about the junction of the two parts of the carton when these parts are closed together, and an outer strip f' also glued or otherwise secured to the strips d' and e' and extending upwards so that its upper edge will lie, when the carton is closed, just below the under surface of the covering disc C² which preferably is supplemented on its under side by a disc C²². An outer removable tube g on which the wire B can be previously wound can be slipped over the part f'.

The upper tube A² comprises strips d² and e² secured together and adapted to slide into the part f' of the lower part of the carton which extends above the upper edge of the strips d' and e'.

The parts d', e', d², e² may, as shown in Figure 4, be replaced, respectively, by single tubes d³ and d⁴ having the requisite rigidity.

The covering disc C' preferably is supplemented by a disc C'' and the rims of the covering discs C', C² are bent downwards to form inwardly projecting flanges c', c² to which are wired or otherwise secured circumferential rings H', H². When the parts of the carton are placed together the inner flanged ends h', h² of the rings are in contact, but the parts are sufficiently flexible to allow the wire to be withdrawn between the flanges as shown in interrupted lines in Figs. 1 and 3. The flanges h', h² are suitably curved, as shown, in order that the insulation of the wire should

not be abraded in the process of withdrawal.

The outer ends of the rings H' , H^2 are also flanged as shown at K' , K^2 and the flanges extend outwards beyond a wrapper L , which is, preferably, placed round the rings during storage or transit.

After the wire has been placed in position in the carton, the two parts may be secured together by gluing the tubes e^2 and f' together or by means of a connecting strip M .

Although the invention has been described in connection with coils of insulated wires, a similar construction of the cartons may be used where lengths of other material such as rope, string or cotton are required to be protected and controlled whilst being unwound.

Having thus described the nature of the said invention and the best means we know of carrying the same into practical effect, we claim:—

1. A carton in which a coil of insulated or uninsulated wire, string or the like is enclosed and efficiently protected during transit and use, comprising end discs and circumferential rings, each of said rings having one end connected to one of said end discs and its other end abutting against the opposed end of the other ring, the abutting ends of said rings being flexible to permit the withdrawal therebetween of the wire or the like enclosed within said rings.

2. A carton according to claim 1 having a centrally arranged supporting means comprising a pair of coaxial portions each having one end connected to one of the end discs.

3. A carton according to claim 1 comprising a pair of central tubes arranged end to end within and spaced from the circumferential rings concentrically of the latter, and a tube secured to one of said end discs enclosing said central tubes when the carton is in closed position.

4. A carton according to claim 1 comprising a pair of tubes within and spaced from the circumferential rings concentrically with the latter, each of said tubes having its outer end connected to one of the end discs.

5. A carton according to claim 1 comprising a pair of coaxial tubes within and spaced from the circumferential rings concentrically with the latter, each of said members having its outer end connected to one of the end discs and a tube removably surrounding said coaxial tubes and on which the wire or the like may be wound.

In testimony whereof we have signed our names to this specification.

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