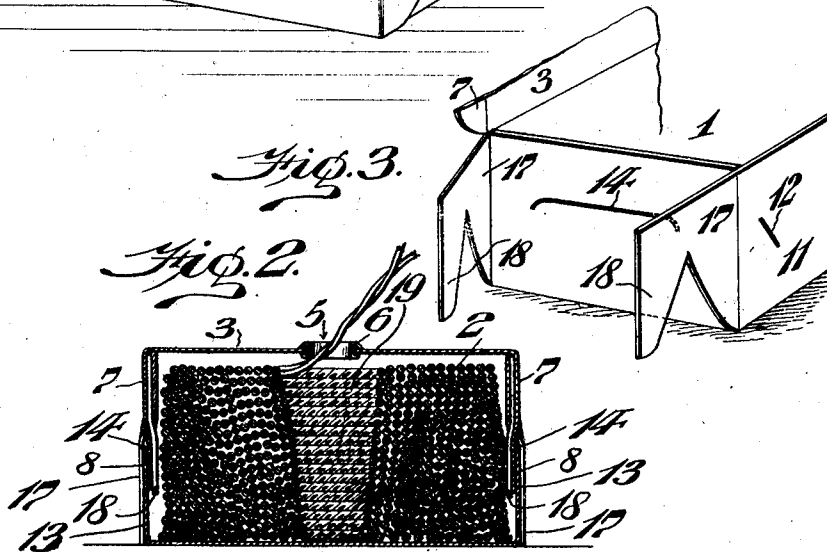
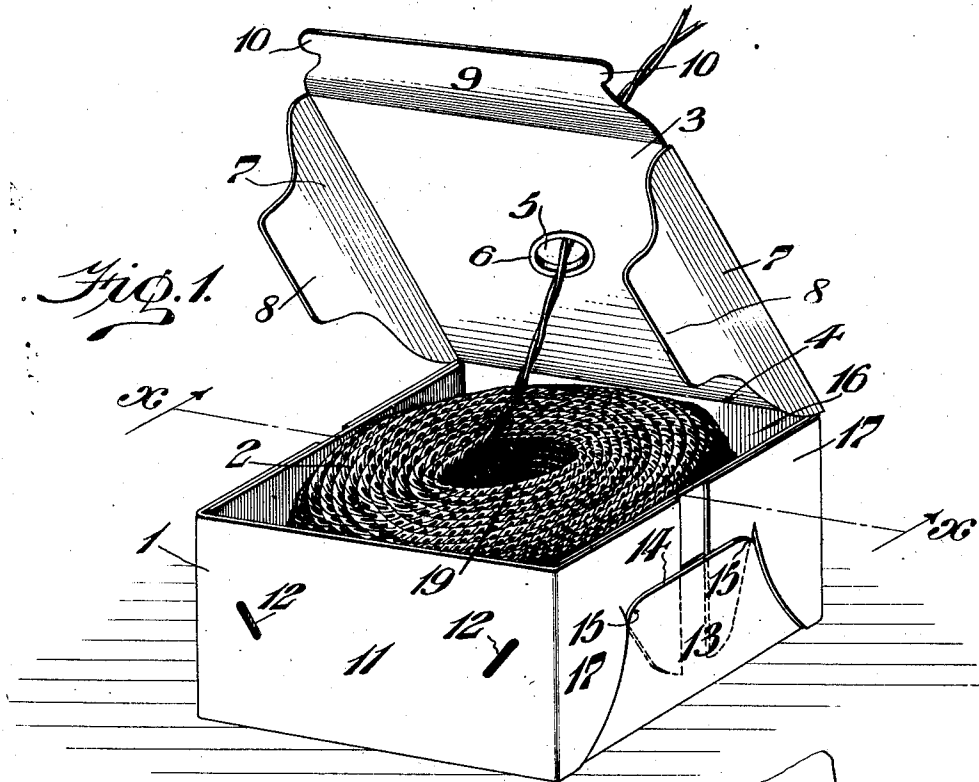


A. BOURNONVILLE.
 UNREELING DEVICE FOR ELECTRIC CONDUCTORS.
 APPLICATION FILED AUG. 7, 1912.

1,063,646.

Patented June 3, 1913.



WITNESSES

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ANTOINE BOURNONVILLE, OF PHILADELPHIA, PENNSYLVANIA.

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Specification of Letters Patent.

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Application filed August 7, 1912. Serial No. 713,713.

To all whom it may concern:

Be it known that I, ANTOINE BOURNONVILLE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Unreeling Device for Electric Conductors, of which the following is a specification.

In practice, in the dispensing or unreeling of electric conductors of the character commonly employed for electrical purposes, it has been found that such conductors, owing to the peculiar body or internal construction and insulating cover formation, are exceedingly difficult to handle and manipulate without producing troublesome tangles, knots, bends or kinks and furthermore owing to the strong and tough texture of the insulation, the unreeling of the same has a tendency during the longitudinal pull thereon to cut, break or destroy the receptacle or carton, usually made of pasteboard, within which it is contained during the act of unreeling or dispensing the same.

By my present invention I have devised a novel construction of assembling the coiled or reeled electric conductors in a carton receptacle whereby the foregoing defects and disadvantages incident to the unreeling thereof are eliminated and owing to which it is possible after starting the unreeling operation to continue the same, if desired, without opening the receptacle or carton until all of the electric conductor has been withdrawn therefrom, an attractive closed package being thus produced, whereby its contents are guarded against entanglement, and also against soiling by promiscuous handling or otherwise, either while displayed for sale or during use.

To the above ends my invention relates to a novel device for effecting and permitting the expeditious unreeling of an electric conductor of the character generally employed in electric devices, which is ordinarily insulated and comprises a plurality of strands longitudinally twisted together or braided and my invention consists of a novel receptacle embodying features particularly adapted for coördinate action with a coiled insulated conductor which has a transverse opening formed by coiling said conductor in the shape of an inverted truncated cone, from the inner annular wall of which the conduc-

tor is unreeled, the end of said conductor being withdrawn through an eyelet or reinforced opening in the lid of the receptacle, the said opening being arranged in substantial alinement with the axis of said conductor opening, said receptacle being provided with strengthened or reinforced walls at its sides and depending side flaps or tabs adapted to coact and interlock with said reinforced side walls and the forward end of said lid being provided with interlocking tabs, whereby the carton or receptacle can be shipped in a locked condition and yet at the same time having its lid capable of being readily disconnected, so that it can easily be lifted to inspect the contents of the carton if desired.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a perspective of an unreeling device for flexible electric conductors embodying my invention, said figure showing a receptacle having its lid partially open to disclose the arrangement of a conductor contained therein. Fig. 2 represents a section on line $x-x$ of Fig. 1. Fig. 3 represents a perspective of one side of the receptacle showing the relation of the end flaps to the sides.

Similar numerals of reference refer to similar elements in the drawings.

1 designates a carton receptacle or container for an electric conductor 2, which is preferably arranged within said receptacle in a coil, having a transverse opening the configuration of whose walls is substantially that of an inverted truncated cone. The conductor 2 is arranged in this particular form for the purpose of preserving a definite relation with the containing receptacle 1, so that the unreeling action may be performed in a simple and efficient manner. It will be further noted that the unreeling of said conductor 2 takes place from the

interior thereof and from the wall of the opening 19 whereby the superposed convolutions may be successively unreeled without causing the coil to break down or collapse during the operation.

3 designates the lid of the receptacle 1 and in the present instance forms an integral part thereof which may be opened or closed by folding along the edge 4. At a suitable point the lid 3 is provided with an eye or aperture 5, here shown, as located at substantially the center thereof and alined in closed position of the lid with the axis of the opening formed within the convolutions of the conductor 2. This opening 5 serves as an outlet for the conductor 2 and in order that the lid 3 may not be torn or damaged as the conductor is drawn through the opening, I employ a reinforcing eyelet 6 of metal or other suitable material capable of protecting the edge of the said opening, during the withdrawal of the conductor.

7 designates a side flap formed integral with each side of the lid 3 and terminating in a tongue 8, the purpose of which will be later described. The front portion of the lid 3 is provided with a flap 9 having laterally extending and oppositely disposed tabs or tongues 10 which are adapted to interlock with the front 11 of the receptacle 1, said front 11 having angularly arranged incisions or slits 12 through which the tongues 10 are passed to form a lock to retain the lid 3 in closed position.

The receptacle 1, in the present instance, is formed from a blank of suitable material the sides 13 of which are provided with a substantially horizontal slot 14, the ends 15 of which are preferably curved toward the bottom of the receptacle. The front 11 and the rear 16 of the receptacle are each provided with a pair of end flaps 17, each of which is cut away to form a downwardly extending tongue 18 the function of which is to interlock with the slot 14 so that when the four tongues 18 are in the position shown in Fig. 2, the body portion of the receptacle will be a complete unit to retain or hold the conductor 2. In closed position of the lid 3 the tongues 8 of the side flaps 7 are adapted to pass into the slot 14 and form an additional reinforcement for the sides of the receptacle and also prevent lateral displacement of the lid 3, it being apparent that there are three thicknesses of material at each side of the carton, which enables the carton to withstand any strain incurred during the unreeling of the conductor.

In the commercial use of my novel unreeling means for a conductor, the retainer or carton 1 is folded together and interlocked by the several flap members and the conductor 2 placed therein as shown in Fig. 1 with one end of the said conductor passing through the reinforced aperture 5. The lid

3 is then closed and locked through the medium of the tongues 10 and slits 12 whereupon the device is ready for shipment and trade use. When it is desired to make use of the conductor it is unnecessary to unlock or unfasten the receptacle since as much of the conductor as desired for use may be drawn through the aperture 5 and in view of the fact that the said conductor is coiled so as to be unreeled from the interior, which is widest at its top, there is permitted a free unreeling of the same and an unobstructed feeding without breaking down of the coil.

By the novel means heretofore described, it will be seen that a conductor composed of twisted, braided or solid strands may be readily unreeled or unwound from the coil in which form it is placed on the market and during the unreeling step there is no danger of crimping or tearing the carton or receptacle in which it is packed, nor is there danger of damaging the coil itself since the successive layers or convolutions of the conductor with their gradual increase of diameters prevents kinking or shearing of the wire strands and permits the coil to be unreeled without collapse thereof.

It will be apparent that my device is adapted to be employed in conjunction with solid, braided or twisted electrical conductors and is especially adapted to be employed in conjunction with lamp cord which is ordinarily flexible. It will also be apparent that I have devised a complete unitary device suitable for the unreeling, in a simple and effective manner, of a coil of electric conducting material and further that delays due to breaking down of the coil are eliminated and the workmen may give undivided attention to their work and not be obliged to continually cease work for the purpose of rearranging and untangling the conductor.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In an unreeling device for insulated conductors, the combination of an electric conductor coiled to form a transverse opening centrally disposed thereof having diverging walls and extending from the bottom to the top thereof, said opening being formed by superposed convolutions of said conductor, the diameters of said convolutions successively increasing from bottom to top of the coils of said conductor, an end of said conductor leading outwardly from said opening, and a receptacle having an inclosing wall, a lid movably attached to said wall and provided with a reinforced aperture, said aperture being alined with the axis of said conductor opening and adapted for the passage of the free end of said conductor therethrough, said lid being adapt-

ed to be raised to inspect the contents of the receptacle, and means for securing said lid in closed position.

2. In an unreeling device for insulated
5 electric conductors, the combination of an insulated electric conductor coiled to form a transverse opening centrally disposed thereof and extending from bottom to top
10 thereof in the form of an inverted truncated cone, said cone being formed by superposed convolutions of said insulated conductor, the diameters of said convolutions
15 successively increasing from bottom to top of said conductor, an end of said conductor leading outwardly from said opening, and a receptacle comprising an inclosing wall, a lid movably attached to said wall and provided with a reinforced aperture or eyelet, said aperture being alined
20 with the axis of said conductor opening and adapted for the passage of the free end of said insulated conductor therethrough, means for enabling said lid to be raised to

inspect the condition of the insulated conductor coil, and means for securing said lid
25 in closed position.

3. In an unreeling device for insulated electric conductors, the combination of a plurality of insulated electric conductors
30 twisted together and coiled to form a transverse opening extending from top to bottom thereof, said opening being formed by superposed twisted convolutions of said conductors, the diameters of said twisted convolutions successively increasing from bot-
35 tom to top of the coils of said conductor, an end of said conductors leading outwardly from said opening and a receptacle having a lid provided with a reinforced aperture, said aperture being juxtaposed in substan-
40 tial alinement with respect to said conductor opening.

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Witnesses:

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