

# UNITED STATES PATENT OFFICE

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## HOLLOW CABLE

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1 Claim. (Cl. 173—13)

My invention relates to the class of electrical conductors commonly known as hollow cables in which the desired effect is the combination of large outside diameter with light weight and minimum amount of metal. Such cables have been constructed in various ways, one method being the use of open seam tubes, without reinforcing flanges at the edges of the seam, to form a light weight core.

Cables made in this manner have not been successful due to the tendency of the tubes to buckle at the seam, when the cable is bent around a drum, sheave, etc., or to collapse by the edges of the tube sliding by each other. In order to prevent this the wall thickness of the tubes were thickened which increased the weight excessively and almost eliminated the flexibility. If the core was made of a number of tubes stranded together, it was difficult to get them to lay closely together, so that wires stranded on the outside were cagey and bunched.

The object of my invention is to produce a hollow core cable that overcomes the above defects, at the same time to meet all of the requirements of actual service.

The foregoing and other features of my invention will now be described in connection with the accompanying drawing forming part of this specification in which I have represented my hollow cable in its preferred form after which I shall point out in the claim those features which I believe to be new and of my own invention.

In the drawing:—

Figure 1 is a longitudinal view of my cable in part section,

Figure 2 is a cross section through my cable.

As illustrated in the drawing I employ open seam tubes 1 of relatively small diameter, stranded together in the ordinary method of stranding wires; these tubes are reinforced by a metal ribbon 2 wound helically upon the stranded tubes. Around this structure which I propose to use as my core I strand wires 3, around the outside thereof.

I have found that by the use of the ribbon it is possible to bend my cable without distortion of the tubes at the seams, and that the tubes are held closely together so that wire could be stranded on the outside without caging or bunching.

I wish it distinctly understood that my hollow cable herein described and illustrated is in the form in which I desire to construct it and that changes or variations may be made as may be convenient or desirable without departing from the salient features of my invention and I therefore intend the following claim to cover such modifications as naturally fall within the lines of invention.

I claim:

A flexible conductor cable having a large overall cross-sectional area relative to its metallic area comprising a plurality of tubes of conducting material stranded together, a flat metallic ribbon laid helically thereon with a pitch less than the stranding pitch of the tubes to provide a large flat surface to support an outer conducting layer, an outer conducting layer comprising a plurality of conductors stranded thereon, whereby said outer layer will lay without caging or bunching.

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