March 24, 1936. O. A. McNAMEE 2,035,088

CABLE

Filed Feb. 6, 1934

Fig. 1.

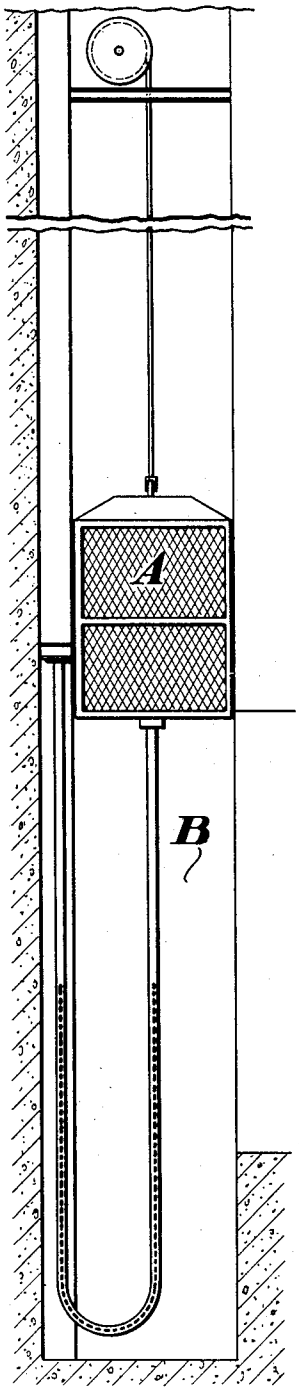


Fig. 2.

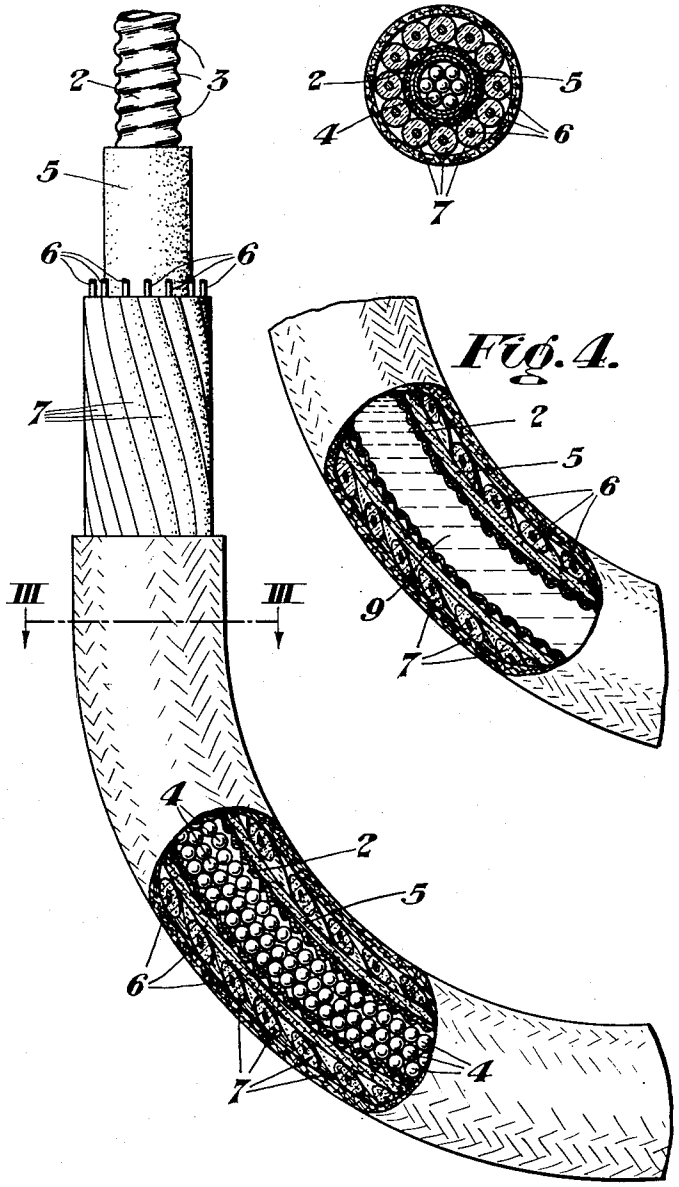


Fig. 3.

Fig. 4.

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CABLE

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3 Claims. (Cl. 173—264)

This invention relates to cables, and more particularly to those which are used for conducting electricity for the controlling and signal devices of elevators, although not limited thereto.

One object of the present invention is the provision of a novel movable cable which will closely follow the course it is intended to prescribe.

Another object is to provide a construction of the class described which will not require the usual counterbalancing to prevent it from weaving from side to side, or assume the form of a figure 8.

The foregoing and still further objects will be apparent after referring to the drawing, in which:

Figure 1 is a diagrammatic elevation of an elevator employing the novel cable of the invention.

Figure 2 is a side elevation of the cable with successive layers thereof partially removed.

Figure 3 is a sectional end elevation.

Figure 4 is a fragmentary elevation of a modified form of the cable of the invention, partially cut away to show the various layers thereof.

Referring more particularly to the drawing, the numeral 2 designates a hollow flexible core, or conduit, formed from a closely convoluted strip 3. The hollow core, or conduit, 2, is effectively weighted with a filler 4, preferably of mercury, or fine shot.

A rubber jacket 5, of substantial thickness, is provided for the hollow core 2.

In order that the cable may properly conduct electricity for, by way of example, the controls and signal devices of an elevator, a plurality of copper wires 6, having the usual insulation 7, are arranged tightly around the rubber jacket 5 in close contact with each other, and with their longitudinal axes defining a relatively long helix.

The outer casing of the cable of the invention is composed of a woven braid, preferably of cotton.

Referring to Figure 1 of the drawing, the letter A designates an elevator which is disposed in the usual shaft B. It will be seen that the heavy filler 4 which, as before stated, is preferably mercury or fine shot, will move relatively to the hollow core 2 and at all times occupy the loop of the cable which is beneath the elevator and prevent it from weaving from side to side, and assuming a figure 8. The heavy filler 4 will also occupy that end of the cable which is secured to the top of the elevator, although the effect of the weight is not needed, due to tautness.

Referring to Figure 4 of the drawing, a modified form of the invention is shown as comprising a filler 9 of water, or other suitable fire resistant which will, in the event of fire resulting from an overload, seep between the convolutions of the wire 3 which forms the hollow core 2, and, also through holes in the rubber jacket 5 caused by the flames. The fire resistant material will very effectively quench the flame, and eliminate the possibility of further destruction of the cable.

While I have shown and described several specific embodiments of my invention, it will be understood that I do not wish to be limited exactly thereto since various modifications may be made without departing from the scope of my invention, as defined in the following claims.

I claim:

1. A cable comprising a hollow flexible core, a substantially heavy flexible body disposed in said core, said flexible body occupying only a portion of the length of said core and being movable longitudinally with respect thereto, a plurality of closely assembled electrical conductors for covering said core, and a braid covering for said plurality of electrical conductors, said flexible body being entirely confined against movement from said core.

2. A cable comprising a hollow flexible core, a substantially heavy flexible body disposed in said core, said flexible body occupying only a portion of the length of said core and being movable longitudinally with respect thereto, a rubber covering for said core, a plurality of closely assembled individually insulated electrical conductors for covering said rubber covering, and a braid covering for said plurality of electrical conductors, said flexible body being entirely confined against movement from said core.

3. A cable comprising a hollow flexible core, a substantially heavy flexible body disposed in said core, said flexible body occupying only a portion of the length of said core and being movable longitudinally with respect thereto, said body having fire resisting qualities, a plurality of closely assembled individually insulated electrical conductors for covering said core, and a braid covering for said plurality of electrical conductors, said flexible body being entirely confined against movement from said core.

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