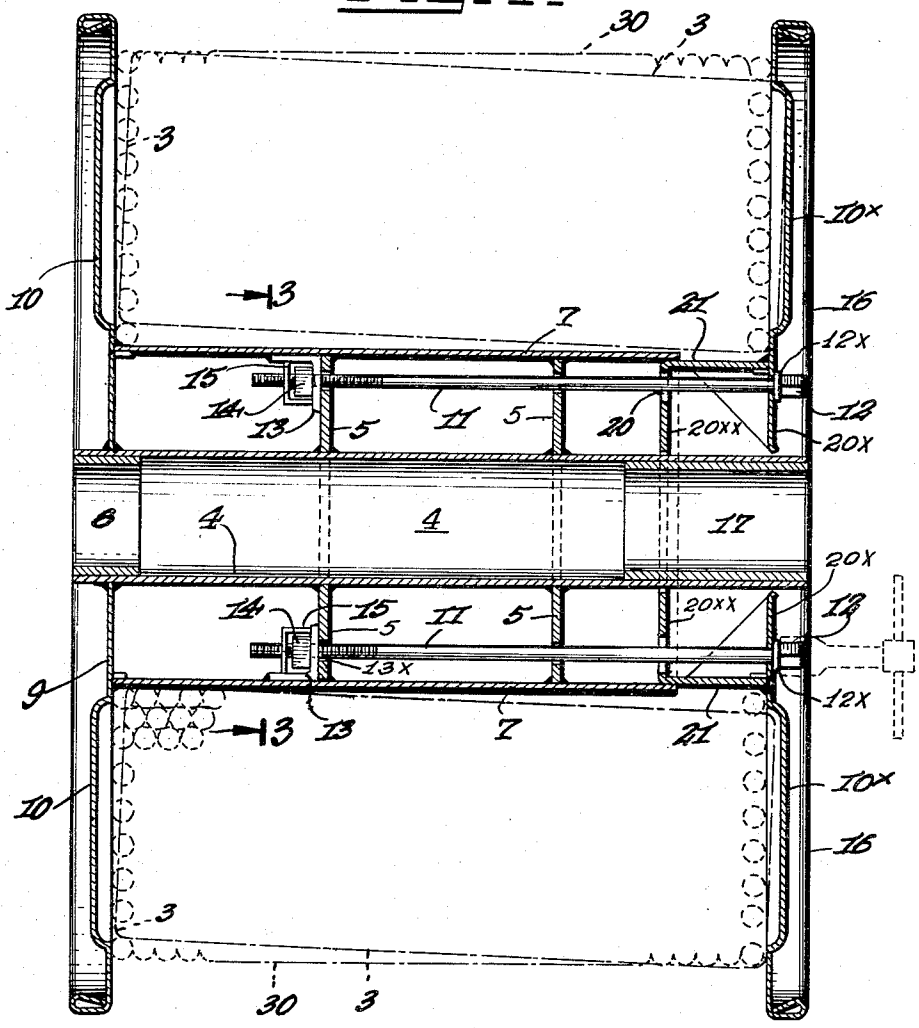
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FIELD REEL FOR CABLE COIL

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Fig. 1.



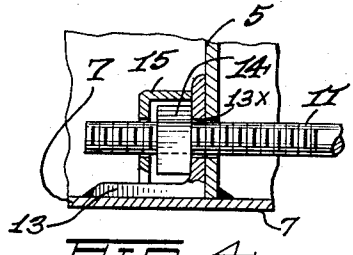


Fig. 4.

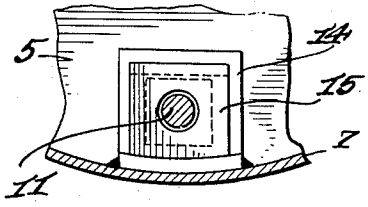


Fig. 5.

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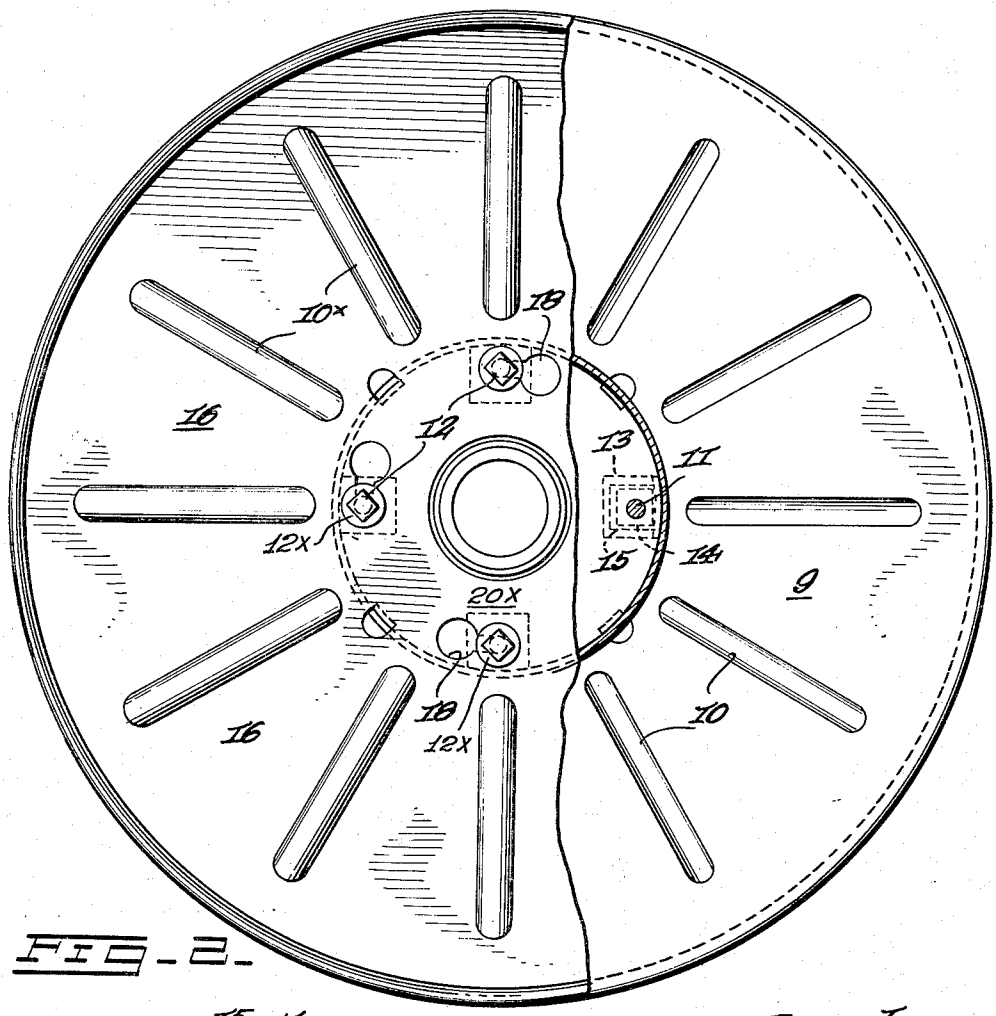


FIG. 2.

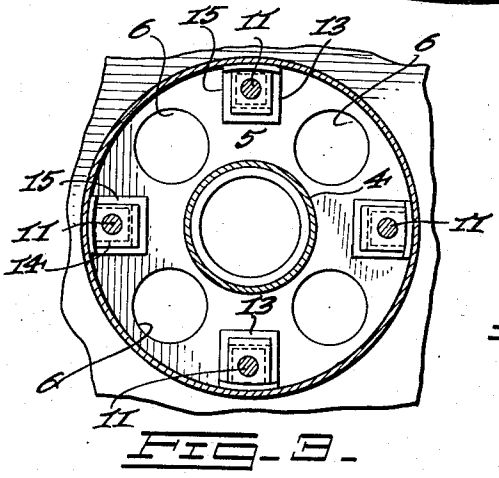


FIG. 3.

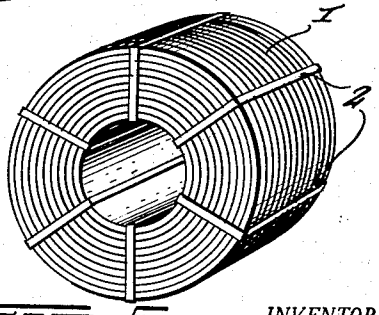


FIG. 5.

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UNITED STATES PATENT OFFICE

2,649,260

FIELD REEL FOR CABLE COIL

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Application May 26, 1950, Serial No. 164,391

2 Claims. (Cl. 242—115)

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The present invention relates to reels for cable coils and particularly to a reel for use in the field and to which a transported coil of cable will be applied. The invention is particularly applicable to the handling of coils of cable which, through handling in shipment have been affected by derangement of the convolutions as to normal relative position because the invention enables restoration of the proper form of the coil preliminary to unwinding and without tangling, binding and probable injury.

The invention will be described with reference to the accompanying drawings, in which:

Fig. 1 is a vertical section through an embodiment of the invention;

Fig. 2 is a side elevation, partly broken away;

Fig. 3 is a fragmentary section on the line 3—3, Fig. 1;

Fig. 4 is an enlarged fragmentary view showing one of the adjusting rod members of the reel into which it is threaded;

Fig. 5 is a view in elevation taken at right angles to the preceding figure;

Fig. 6 is a perspective view showing a normal coil of cable secured by tie bands.

In the shipment of cable, including armored cable, it is customary to form a coil of the cable and to tie convolutions in position by means of metallic tie bands. Such a coil is shown at 1 in Fig. 6, the tie bands being indicated at 2.

In the field it is customary to place such a cable coil upon a horizontally supported shaft or drum and to unreel the cable preliminary to use. It frequently happens, however, that, due to stresses exerted upon the coil in shipping, the convolutions are mis-alined and the normal form of the coil distorted. Therefore difficulty is met with in unreeling the cable because the convolutions are not properly related.

In Fig. 1 I have indicated by the dotted lines at 3 the boundaries of a coil of cable which has become distorted from its normal form and placed upon a field reel constructed in accordance with the present invention. This reel consists of a shaft receiving sleeve 4 provided with a plurality of discs or spacer members 5. These spacer members 5 preferably being of disc form, and the discs may be lightened in weight by cut outs as at 6. Such may be the case even where the reel is constructed of a strong aluminum alloy, this metal being preferred because it is rust proof, light in weight and strong. Welded or otherwise held by the spacer discs 5 is the annular hub or drum 7.

It will be noted that the outer end of sleeve 4

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is reinforced by an internal reinforcing ring 8. Supported upon sleeve 4 and also suitably secured to drum or hub 7, is a large cable coil abutting first header 9. This header 9 may be stamped out of a sheet of aluminum alloy or other metal and the peripheral area turned outward and then inward as shown in Fig. 1 to provide a strong rim, the strength of the header being further increased by embossed ribs 10.

The spacer discs 5 are apertured to receive a plurality of tie rods, four in the present embodiment. These tie rods are shown at 11 and at their outer ends they carry exterior nuts 12. The inner ends of the rods are threaded and are passed through apertures 13x of L-shaped brackets 13 which are welded or otherwise secured to one of the spacer discs 5 and, in each case, to the adjacent inner wall of drum or hub 7. Inner nuts 14 threaded on to the tie rods 11 may be held against rotation by clips 15.

The reel is provided with a removable header 16 the periphery of which is rolled as in the case of header 9, and reinforcing ribs 10x may be provided. The header 16 is formed with a disc 20x having an axial aperture for the reception of a shaft, this aperture being in register with an internal reinforcing ring 17 for the sleeve 4. Header 16 is provided with a plurality of bayonet slots as at 18, Fig. 2, the larger area of each slot being of a size to pass the nuts 12. The nuts likewise may pass through corresponding apertures at 20 in a telescopic hub 21 having disc 20xx and carried by said header 16 and slidingly fitted within hub 7. A washer 12x is used in conjunction with screwable nut 12 to effect a firm grasp against disc 20x.

When the nuts 12 are alined with the apertures 20 and hence the bayonet slots 18 of header 16, the latter may be moved inwardly to the position of Fig. 1 whereupon said header 16 may be rotated to bring the rods 11 into the narrow section of the bayonet slots, the coil being in position on the tightening of the nuts 12 to move header 16 toward its co-acting header 9 until, for example, whereupon the deformed and mis-alined coil, shown in its position at the dotted lines 3, will be restored to proper form, as indicated by the dotted lines 30. Thereupon the nuts may be somewhat loosened to permit free paying-out cable from the reel.

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

1. A reel for aligning deranged cable coil thereon comprising a first header, an inner sleeve se-

cured to said first header, a plurality of spaced-apart discs disposed about said sleeve and having a plurality of in-line apertures therein for passage of tie-rods therethrough, an outer cylindrical drum secured to the peripheries of said discs and to the said first header, a movable header, a cylindrical hub secured to said movable header and adapted to be adjustably moved into and out of said drum, said hub having a pair of spaced-apart discs integrally secured thereto and having a plurality of in-line apertures therein adapted to receive a plurality of tie-rods, and a plurality of tie-rods having threaded ends fitted through said discs of said first and said movable headers and means workably associated with said tie-rods to move said hub into said drum.

2. The reel of claim 1 wherein a plurality of brackets are disposed exteriorly relative to one of said spaced-apart discs secured to said sleeve, said brackets having apertures therein to receive said tie-rods, and said means being adjustable

means for securing said tie-rods to said brackets and to said hubs secured to said movable header, whereby adjustment of said adjustable means will cause linear movement of said hub within said drum.

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