June 27, 1933. E. N. HESCOCK 1,915,825

KNOCKDOWN CABLE REEL

Filed April 23, 1929 2 Sheets-Sheet 1

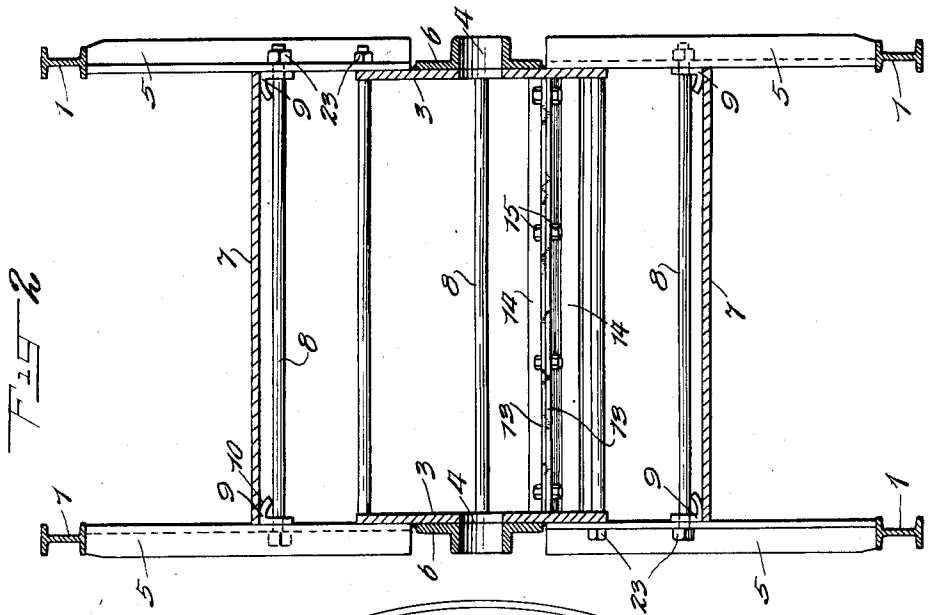


Fig. 2

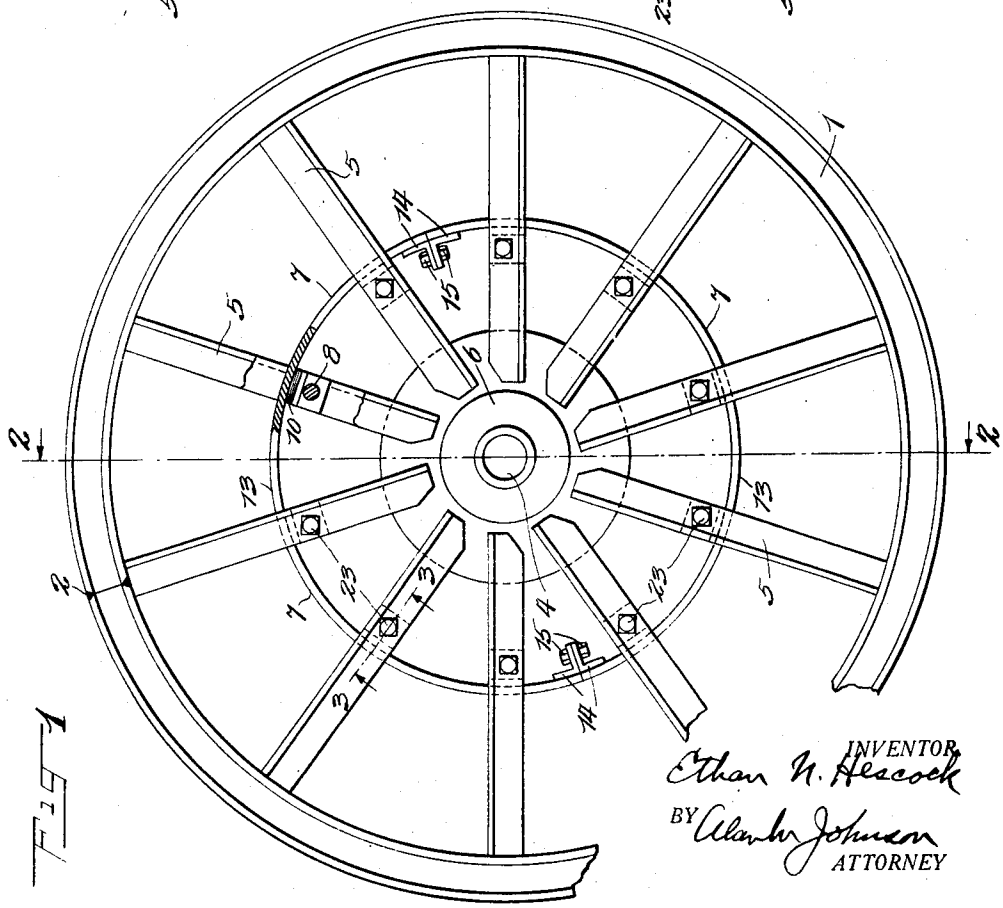


Fig. 1

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Fig 3

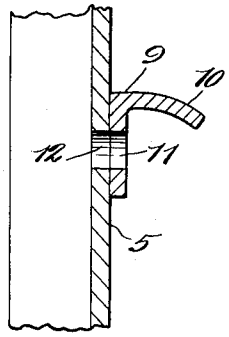
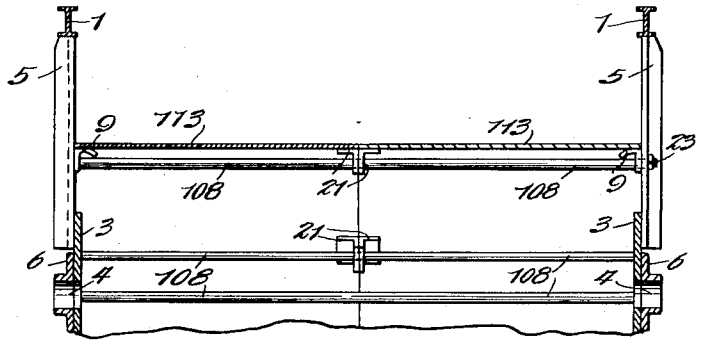


Fig 6



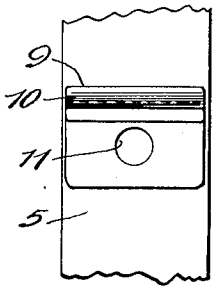


Fig 4

Fig 7

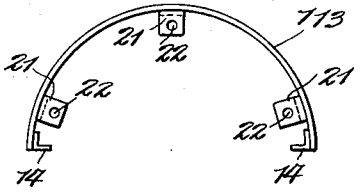


Fig 5

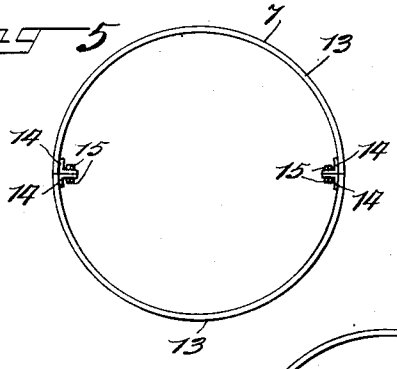


Fig 8

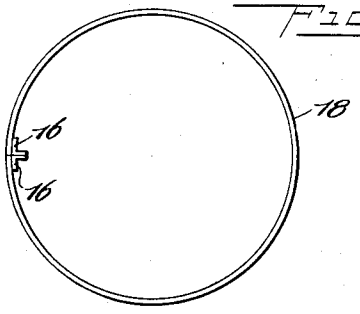
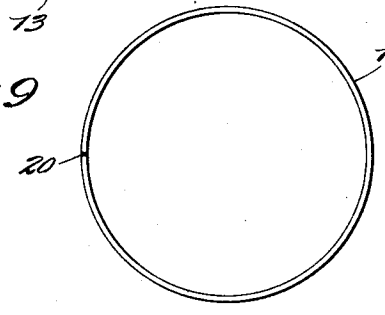


Fig 9



Ethan N. Hescock

INVENTOR.

BY Charles Johnson

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Patented June 27, 1933 1,915,825

UNITED STATES PATENT OFFICE

ETHAN N. HESCOCK, OF WESTFIELD, NEW JERSEY, ASSIGNOR TO HENRY B. NEWHALL CORPORATION, OF GARWOOD, NEW JERSEY, A CORPORATION OF NEW JERSEY

KNOCKDOWN CABLE REEL

Application filed April 23, 1929. Serial No. 357,400.

My invention relates to cable reels for heavy wire, wire rope, or similar material and more particularly, to knock down reels to permit the reels to be knocked down and shipped back in that condition to the place of manufacture to be again reassembled and used. For the sake of brevity, such reels will, hereinafter in the specifications and claims, be referred to as cable reels.

My invention further relates to particularly strong cable reels, and yet one in which the connecting through bolts are, relatively, light and inexpensive, in that these bolts are not subjected to any shearing strains.

My invention further relates to such a knock down cable reel in which, should the drum, or drum sections, become somewhat distorted, from the usual rough usage, the mere tightening up of the connecting through bolts will correct this distortion and properly center the drum on the head members. The drums may also be made of relatively light material.

My invention further relates to combinations, sub-combinations, articles of manufacture, and details of construction, which will be more fully hereinafter described in the specification and pointed out in the claims.

In the accompanying drawings showing different illustrative embodiments of my invention, and in which the same reference numerals refer to similar parts in the several figures:—

Figure 1 is a side elevation, partly broken away, of my improved knock down cable reel.

Figure 2 is a vertical section, on the line 2, 2 of Figure 1.

Figure 3 is a fragmentary detail section on line 3, 3 of Figure 1, the bolt being omitted.

Figure 4 is a face or front view of Figure 3.

Figure 5 is an end elevation of a drum formed of two sections, secured together.

Figure 6 is a fragmentary vertical section of a longer reel, formed of multiple drum units or sections.

Figure 7 is a modification of a drum to which angle irons may be secured, and provided with openings to receive through bolts.

Figure 8 is a modified form of drum formed from a single piece of sheet metal provided with angle irons which are brought together and secured by clamping bolts.

Figure 9 is a modification of a drum formed from a single piece of bent sheet metal, its ends being welded.

Cable reels are used to hold heavy wire, lead covered cable, wire rope, or other heavy material which can be wound upon the drum reels at the place of manufacture, and then the loaded cable reel is transported, in any suitable manner, to the location where the cable, wire, wire rope, or other material is to be used. To wind and unwind the cable, or other material from the reel, the reel is jacked up and temporarily supported so that it may rotate on a temporary axle passed through the drum. For short distances, to get the cable reel into its proper position, it is sometimes customary to use the heads of the reel as wheels.

Necessarily, these cable reels have to be very large and very strong to withstand the tremendous load and the rough handling to which they are subjected. Such reels are too valuable to throw away, after use. Empty cable reels are of relatively large bulk and lightweight, so that it is impossible to load enough empty cable reels into a railroad car to obtain the carload rate, which is much lower than the less carload rate.

My invention particularly relates to a knock down cable reel of improved construction wherein the cable reel can be taken apart for shipment back to the factory, to be again used, the knock down parts, when packed, being adapted to obtain the carload rate. Further, should the drums of my reel become slightly distorted due to rough handling or transportation back to the factory, the reassembling of the cable reel will correct the fault and properly center the drum with relation to the heads.

I take an I beam of the proper size and bend it in a bending machine to form the rim or felloe 1, the ends of the I beam being welded at 2. This rim or felloe 1 is then laid upon a proper support and an axle plate 3 is arranged concentrically with it, so that

its axial bore 4 will coincide with the axis of the rim 1. The angle iron spokes 5, 5 have their respective ends secured to the axle plate 3 and the rim 1 in any suitable manner, preferably by electric welding. Bearing plates 6, 6 are secured to the axle plates 3, 3 in any suitable manner, as by electric welding. The temporary axle (not shown) is adapted to be passed through the bearing plates 6, 6 and the axle plates 4, 4 to permit the reel to be jacked up, and rotatably supported while the cable, or other material, is wound upon the drum 7, or unwound from it at the place of consumption.

The drum 7 in my reel is formed of relatively light material to save expense. I am enabled to do this because I provide the spokes 5, 5 with means to directly support the drum, or drums if more than one drum is used. Further, these supporting means are also preferably provided with means to true the drum if it should be distorted or out of true. It is not necessary in my invention to use a heavy expensive drum with a flange which would place shearing strains upon the through bolts 8, 8.

The supporting means 9, 9 on the spokes 5, 5, are preferably short pieces of angle iron, secured to the spokes in any suitable manner, preferably by electric welding. I also preferably bend down the flange 10 of the angle iron 9 so that it performs the additional function of centering the drum 7 and correcting any distortion of the drum due to rough handling in packing or transportation. The supporting means 9 is provided with registering hole 11, which registers with the hole 12 in the spoke 5 to permit the free passage of the through bolts 8, 8.

My drum 7, Figures 1, 2 and 5, is preferably formed of two semi-circular numbers 13, 13 provided with lugs 14, 14 and clamping bolts 15, 15, these clamping bolts being disconnected to permit the drums to be knocked down for shipment back to the factory.

In some cases I may form a drum 18 of a single piece of sheet metal, as shown in Figure 8, and provide lugs 16, 16 for the reception of clamping bolts, similar to 15 in Figure 5. Or, I may form, my drum 19 of a single piece of bent sheet metal, Figure 9, and weld the ends as shown in 20.

If for any purpose a wide reel is desirable, I may use a plurality of drums as shown in Figure 6. In this form the semi-circular drum sections 113, Figure 7, are provided on one end with supporting members 21, 21, each provided with an opening 22 to permit the long through rods or bolts 108, 108 to pass through them, the bolts being tightened by the nuts 23.

It will be clear that if a drum section 13 or 113 are bent or distorted in their knock down condition, that by placing the sections on the wedge supports or centering members 10, carried by the spokes, and then tightening up upon the nuts 23, the drums will be properly centered in the reel and the distortion corrected.

By mounting the supporting means 9 and 10 on the spokes 5, removes all shearing strains from the through bolts 8, or 108, allowing the use of lighter and less expensive bolts.

Having thus described my invention in connection with different illustrative embodiments thereof, to the details of which I do not desire to be limited, what is claimed as new and what is desired to secure by Letters Patent is set forth in the appended claims.

What I claim is:

1. In knock down cable reels the combination of separate heads each formed of a rim formed of a bent I beam having its ends welded together to form a substantially true circle, adjacent portions of the groove in two different I beam rims forming lagging grooves for lagging to protect the cable wound on the reel, each head provided with an axle plate, angle iron spokes welded to the axle plate and to the I beam rim of each head, a drum carried by the spokes, and detachable means to secure two heads together to form a complete knock down cable reel.

2. In knock down cable reels the combination of separate heads each formed of a rim formed of a bent I beam having its ends welded together to form a substantially true circle adjacent portions of the groove in two different I beam rims forming lagging grooves for lagging to protect the cable wound on the reel, each head provided with an axle plate, angle iron spokes welded to the axle plate and to the I beam rim of each head, and a plurality of drums mounted between the heads the outer ends of each drum being carried by the spokes on each head, means to secure the inner ends of the drums together, said means including through bolts which also hold the two heads together.

ETHAN N. HESCOCK.