July 1, 1924. 1,499,477

J. F. REILLY

CABLE ATTACHMENT

Original Filed Aug. 24, 1921

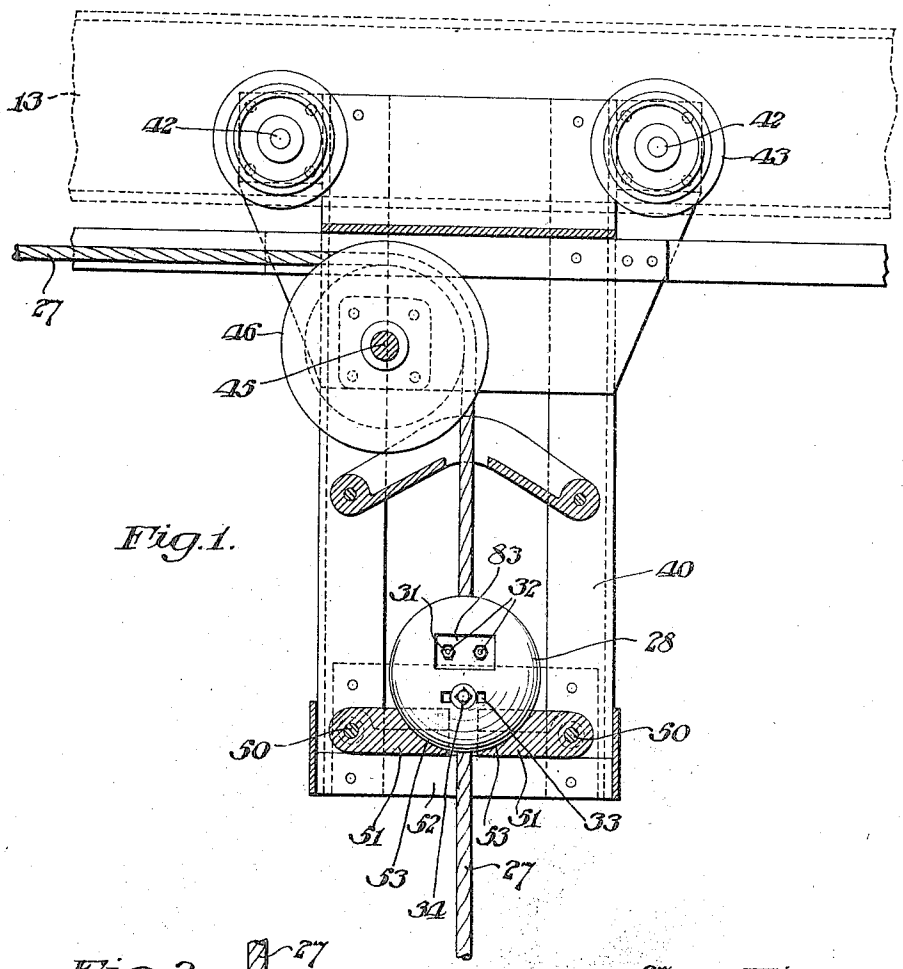


Fig. 1.

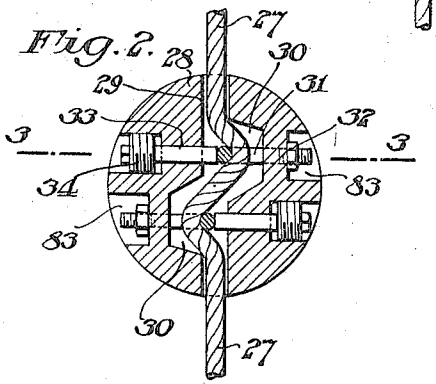


Fig. 2.

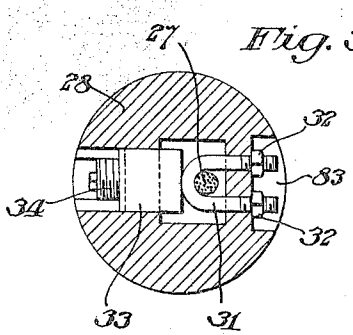


Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES F. REILLY, OF PHILADELPHIA, PENNSYLVANIA.

CABLE ATTACHMENT.

Original application filed August 24, 1921, Serial No. 495,059. Divided and this application filed September 13, 1923. Serial No. 662,404.

To all whom it may concern:

Be it known that I, JAMES F. REILLY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cable Attachments, of which the following is a specification.

My invention relates to cable attachments, that is to say, to a device adapted to be mounted upon a hoisting or power cable for the purpose of supporting the load or taking the strain thereof.

In my previous application for Letters Patent, filed August 24, 1921, Serial No. 495,059, of which this application is a division, there is shown and described an invention relating to trolleys or traveling carriages for elevating and transporting the buckets used in trench and other similar engineering operations, and having as one of the features thereof means for positively supporting the load in the elevated position while the same is being transported by said trolley or carriage.

Heretofore, in the use of hoisting and power cables, considerable difficulty has been experienced in providing attachments for supporting the load and taking the strain which could be adjustably mounted upon the relatively stiff wire cables and which, when mounted at the desired place upon the cable, would be firmly held against shifting thereon. Various constructions have been employed, such as those embodying the use of split sleeves, and securing means were usually employed having projecting parts which were liable to foul on the other parts of the apparatus in connection with which the cable is used, but such constructions were more or less objectionable and unreliable in use.

The principal object, therefore, of my present invention is to provide an attachment adapted to be secured upon a hoisting cable, in apparatus of the character such, for example, as that set forth in my previous application for Letters Patent aforesaid, for supporting the load which is carried by the hoisting cable, but which attachment, however, is also adaptable for other purposes when mounted upon hoisting and power cables for taking the strain therein. A further object of my invention is to provide a device of the character aforesaid, with means for adjustably securing the attachment to the cable whereby the same will be precluded from shifting with respect thereto when subjected to the strains resulting from the intended use thereof.

The nature and characteristic features of my present invention will be more readily understood from the following description, taken in connection with the accompanying drawings forming part hereof, in which:

Figure 1 is a vertical, central section of a trolley or carriage adapted to travel upon an overhead trackway, with a hoisting cable shown in connection therewith, and provided with a cable attachment embodying the main features of my present invention, said attachment being shown in side elevation;

Fig. 2 is a vertical, central section, enlarged, of the cable attachment shown in Fig. 1 of the drawings; and

Fig. 3 is a horizontal section thereof, taken approximately on the line 3—3 of Fig. 2.

Referring now more particularly to Fig. 1 of the drawings, there is there shown a trolley or carriage embodying one type of apparatus in connection with which my present invention is adaptable for use. A detailed description of the construction, arrangement and operation of said trolley or carriage is fully set forth in my previous application for Letters Patent, hereinbefore referred to, the same comprising a suitable framework 40, preferably built up of structural shapes and plates, and provided at the upper corners thereof with means for supporting stud shafts 42, for journaling the wheels 43 which are adapted to run upon the upper surfaces of the lower flanges of an I-beam 13, said I beam forming a trackway upon which said trolley is adapted to travel. The framework 40 also carries means for supporting a shaft 45, upon which shaft a sheave 46 is mounted, and over which sheave passes the hoisting cable 27 for elevating the buckets or other load, which may be secured upon the lower end of said cable 27 in any suitable manner.

Journaled in each of the lower corners of the framework 40 is a transversely arranged shaft 50, each of which shafts has secured thereto a dog or latch 51. The

dogs or latches 51 normally rest upon a bar 52, secured to the framework at each side, so as to form positive means of support for the latches 51 when the load comes thereon, as is more fully explained in my previous application hereinbefore referred to. The upper inner ends of the latches 51 may be recessed, as at 53, complemental to the shape of the cable attachment 28, which comprises the essential novel feature of my present invention. It will, of course, be understood that the particular manner of operation, as well as the specific construction, of the trolley or carriage above described forms no essential part of the present invention, but the same is illustrated in connection with the cable attachment 28 to show more particularly one way in which the same is adapted to be used.

The cable attachment 28, in the particular embodiment of my invention shown in the drawings, comprises a member preferably spherical in shape and adapted to be adjustably but firmly clamped upon the cable. For the purpose of clamping the attachment 28 at the proper location on the cable 27, the attachment 28 is provided with a vertical central hole or bore 29, through which the cable 27 extends, and there are also provided interior recesses 30, off-set on each side of the central bore 29 (see Fig. 2). The cable 27 is engaged at each of the off-set recesses 30 by a U-bolt 31, provided with nuts 32 threaded on its ends and seated in recesses 83, whereby the ends of the U-bolts 31, and the nuts 32 which are mounted thereon, will not project beyond the outer spherical surface of the attachment 28. The arrangement is such that, as the nuts 32 are advanced on the threaded ends of the U-bolts 31, the cable will be deformed from a straight line and sufficiently drawn within the recesses 30 to clamp the member 28 upon the cable 27 at any desired location.

For the purpose of reinforcing the U-bolts 31, there is provided, opposite each of said bolts, a block 33, slidably mounted in a complementally shaped opening and held in position by means of a plug 34 which is threaded in the member 28 and bears against the other end of the block 33.

By the foregoing arrangement, there will be provided an attachment for cables which may be mounted thereon at any desired position, which attachment is particularly adaptable for supporting the load or taking the strain in connection with wire and similar stiff cables and the like, which, when so mounted upon the cable, will be securely and firmly held against shifting thereon, which is so constructed and arranged that the stresses within the structure will be well taken care of, and which is also characterized by the absence of projecting parts which would interfere with the coaction of the attachment with the other parts of the apparatus in connection with which the same is used, and which is further characterized by the integral formation of the main body portion of the attachment.

Having thus described the nature and characteristic features of my present invention, what I claim as new and desire to secure by Letters Patent is:

1. In apparatus of the character described including a cable for elevating and transporting materials in and about trench and similar engineering operations, a spherical member mounted upon the cable, said spherical member having a hole extending therethrough and a recess extending from said hole, and a U-bolt arranged in conjunction with said recess and adapted to deform the cable within said recess.

2. In apparatus of the character described including a cable for elevating and transporting materials in and about trench and similar engineering operations, a spherical member mounted upon the cable, said spherical member having a hole extending therethrough and a plurality of staggered recesses extending from said hole, and a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses.

3. In apparatus of the character described including a cable for elevating and transporting materials in and about trench and similar engineering operations, a spherical member mounted upon the cable, said spherical member having a hole extending therethrough and a plurality of recesses extending from said hole, a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses, and a reinforcing member bearing against said U-bolt.

4. In apparatus of the character described including a cable for elevating and transporting materials in and about trench and similar engineering operations, a spherical member mounted upon the cable, said spherical member having a hole extending therethrough and a plurality of recesses extending from said hole, a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses, a reinforcing member bearing against said U-bolt, and means for securing said reinforcing member comprising a plug threaded in said spherical member and bearing against said reinforcing block.

5. An attachment for hoisting and power cables and the like comprising a member adapted to be mounted upon the cable, said member having a hole extending therethrough and a recess extending from said hole, and a U-bolt arranged in conjunction with said recess and adapted to deform the cable within said recess.

6. An attachment for hoisting and power cables and the like comprising a member adapted to be mounted upon the cable, said member having a hole extending therethrough and a plurality of staggered recesses extending from said hole, and a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses.

7. An attachment for hoisting and power cables and the like comprising a member adapted to be mounted upon the cable, said member having a hole extending therethrough and a plurality of recesses extending from said hole, a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses, and a reinforcing member bearing against said U-bolt.

8. An attachment for hoisting and power cables and the like comprising a member adapted to be mounted upon the cable, said member having a hole extending therethrough and a plurality of recesses extending from said hole, a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses, a reinforcing member bearing against said U-bolt, and means for securing said reinforcing member comprising a plug threaded in said member and bearing against said reinforcing block.

9. An attachment for hoisting and power cables and the like comprising an integral spherical member adapted to be mounted upon the cable, said spherical member having a hole extending therethrough and a recess extending from said hole, and a U-bolt arranged in conjunction with said recess and adapted to deform the cable within said recess.

10. An attachment for hoisting and power cables and the like comprising an integral spherical member adapted to be mounted upon the cable, said spherical member having a hole extending therethrough and a plurality of staggered recesses extending from said hole, and a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses.

11. An attachment for hoisting and power cables and the like comprising an integral spherical member adapted to be mounted upon the cable, said spherical member having a hole extending therethrough and a plurality of recesses extending from said hole, a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses, and a reinforcing member bearing against said U-bolt.

12. An attachment for hoisting and power cables and the like comprising an integral spherical member adapted to be mounted upon the cable, said spherical member having a hole extending therethrough and a plurality of recesses extending from said hole, a U-bolt arranged in conjunction with each of said recesses and adapted to deform the cable within said recesses, a reinforcing member bearing against said U-bolt, and means for securing said reinforcing member comprising a plug threaded in said spherical member and bearing against said reinforcing block.

In testimony whereof, I have hereunto signed my name.

JAMES F. REILLY.