Aug. 30, 1932. R. J. KENT 1,874,543

CABLE CAR

Filed Feb. 14, 1931

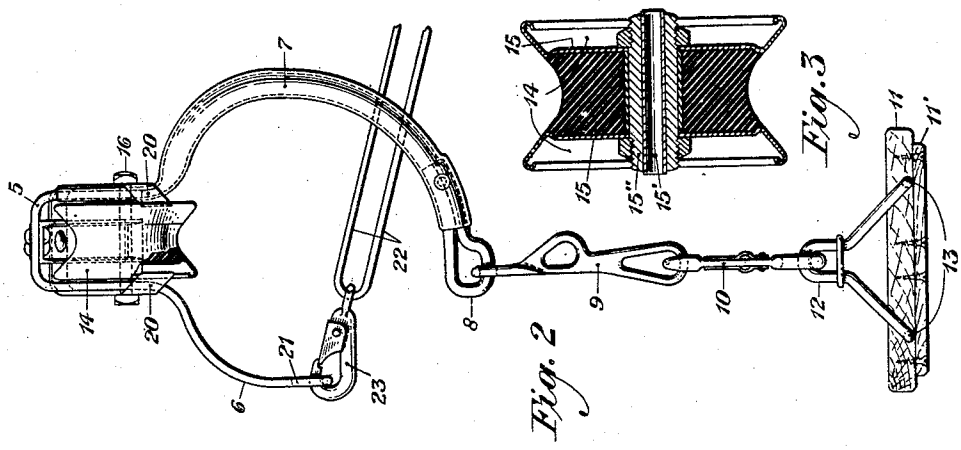


Fig. 2

Fig. 3

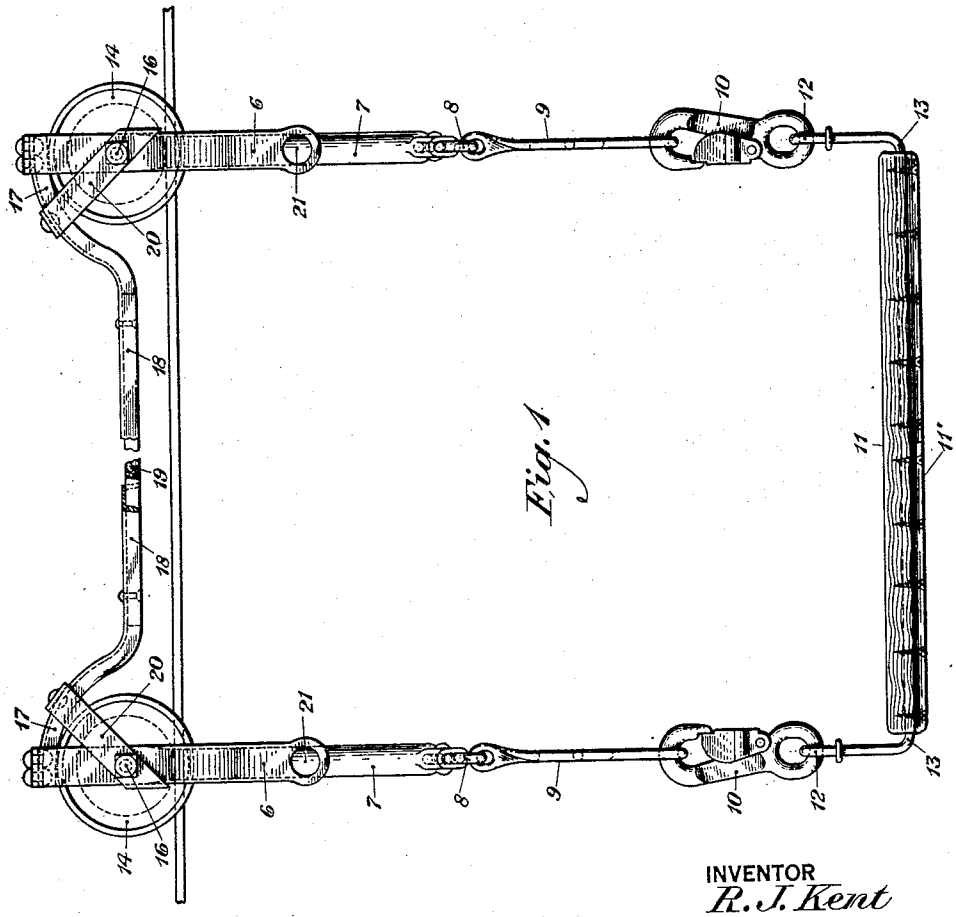


Fig. 1

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UNITED STATES PATENT OFFICE

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CABLE-CAR

Application filed February 14, 1931. Serial No. 515,870.

This invention relates to cable cars or linemen's chairs adapted to be supported upon messenger wires for use by linemen in traveling from pole to pole in the construction and maintenance of electric transmission lines.

One of the objects of the invention consists in the provision of an improved cable car of a comparatively simple and efficient character.

Another object consists in the provision of a flexible support for the car seat whereby it may be adjusted on and also prevented from becoming accidentally detached from its supporting frame.

Another object is to provide safety guards to prevent accident to workmen's arms while engaged in the use of the cable car.

A further object consists in providing attachments for safety belts to guard the lineman from falling and also the car from falling in case of its accidental dislodgment from its supporting messenger wire.

These and further objects will be apparent from the following description when considered in connection with the accompanying drawing, in which one embodiment of the invention is illustrated.

Referring to the drawing, Figure 1 illustrates a side elevation of the improved device; Fig. 2 is an end view of Fig. 1; and Fig. 3 is an enlarged vertical section of one of the sheaves showing its construction.

In the improved device as disclosed in the drawing, a pair of yokes, 5, 5 are each provided with a pair of substantially arcuate-shaped arms 6 and 7, respectively, which extend downwardly therefrom and substantially form with each other a broken ring. The arms 6 may be formed integral with the yokes, and the arms 7 may be made of steel tubing or the like, somewhat flattened at this point to fit over the other prongs of the yokes and may be brazed or welded thereto. The arms 7 may extend downwardly and terminate in a flattened or oval-shaped socket at a point slightly offset with respect to the axes of the yokes. The tubular formation of the arm 7 and its manner of connection provides a minimum amount of weight in material and a maximum amount of supporting strength for the elements it is to carry and to be presently described. Steel rods 8, or the like, may be turned upon themselves to form loop portions extending from these sockets. The remaining portions of said rods are forced together, and their ends register in the sockets to which they may be riveted and welded or brazed. The loop portions of said rods form supports for stirrups which may be of flexible and adjustable linkage including links 9 and snap-hooks 10. An elongated rectangular seat is carried by the flexible linkage to which it is attached by means of parallel yoke portions 12 which in turn may be attached to the ring portions of the snap-hooks 10. The connections between the loops 8 and the links 9 are such that while each link is free to swing in a longitudinal or in a transverse direction with respect to the messenger wire upon which the improved device is supported, they cannot be rotated about their vertical axes. The link is thus prevented by such connection from becoming twisted and the hook 10 is prevented from accidentally unsnapping from the link. The ends of the yokes 12 may be provided with encircling bands or links, and diverging extensions therefrom connect with parallel horizontal rods 13. Longitudinal grooves are provided in the bottom surface of the seat in which the parallel rods register, and a cleat 11 may be applied to the bottom of the seat. The cleat serves to insulate the rods 13 and prevents accidental contact of these members with any high tension or other conductors which may be encountered.

A sheave 14 is carried by each of the yokes 5. The sheaves are provided with side flanges 15, each having a shoulder. The sheaves are also provided with a tubular bearing 15′ on which a sleeve or bushing 15″ is journaled. The tubular bearing is rigid and serves to maintain the proper spacing between the arms of the yoke. A spacer tube is provided for the bushing 15″ to keep the flanges 15 of the sheave in a definite spaced position with respect to each other and forms a core for a ring of rubber or the like. This ring is held between the flanges 15 and a resilient tread for the sheave

is provided thereby. The sleeve 15'' is provided with clamping nuts on its ends to draw the flanges together and clamp the rubber ring therebetween. A bolt 16 passes through the tubular bearing 15' and alined openings in the arms of the yokes and provides a support for the sheaves.

The sheaves 14 and their supporting yokes are interconnected in spaced alinement by means of a cross-bar which may be in the form of a channel. This cross-bar may be provided at its ends with arcuate-shaped portions 17 affixed to the yoke members 5 by a welding or brazing process and rivets may also be applied at these points. The portions 17 are interconnected by a depressed portion 18 which extends on an approximate level with and at right angles to the axes of the sheaves 14. The cross-bar may be provided with a wood filler 19 attached to its channel portion throughout the length of the depressed portion 18 for the purpose of providing a comfortable surface to carry the improved device.

Parallel guard members are shown as being associated with the sheaves 14. These guard members include an elongated yoke 20. The guard members lie in an inclined position and are attached by rivets or the like, at their closed ends to the arcuate portions 17 of the cross-bar. The lower ends of member 20 are flanged and turned about the edges of the arms of the yokes 5. Alined openings are provided in the lower portions of each of the arms of the yokes 20 through which the bolts 16 pass. These bolts are provided with nuts on their ends and in addition to providing supports for the sheaves 14, as formerly stated, also serve to clamp the arms of the members 20 to the yokes 5. The members 20 provide safety guards to prevent pinching a workman's arm or clothing between the sheaves and the frame. The lower portions or flanges which extend over the edges of the arms of the yokes 5 present a barrier to prevent the messenger wire from becoming wedged between the sheaves and the frame in the event the sheaves become accidentally dislodged from said wire.

The arms 6 of the yokes have openings 21 near their extremities to each of which a safety strap 22 connected to a lineman's belt may be applied. The safety strap 22, which may be in the form of a loop and may be adjustable in length, may pass through a link carried by some such detachable fastener as the snap-hook 23, and may be attached to a ring or the like carried on the lineman's belt. The snap-hook 23 of each safety strap may be applied to the end of each arm 6 through its associated opening 21. When the safety straps are thus attached to the arms 6 at each end of the improved device and to each side of the belt worn by the lineman, the lineman is able to work with facility and is safeguarded from falling. The safety straps also form an extension or bridge at each end of the cable car from the arm to which they are attached substantially across to their associated arm which precludes the danger of the cable car falling from its supporting messenger wire in the event it is accidentally dislodged therefrom.

What is claimed is:

1. A lineman's chair adapted to be carried on a messenger wire and including a pair of yokes, each yoke having a pair of arcuate arms extending downwardly therefrom, one of the arms of each pair having an opening near its end, flexible linkage carried by the opposite arm of each pair, a cross-bar for connecting said yokes together, a seat adjustably carried by said linkage, a sheave carried by said yokes, and means adapted to be attached to the arms having openings whereby an extension is provided to prevent accidental dislodgment of the chair from the messenger wire.

2. A lineman's chair adapted to be carried on a messenger wire and including a pair of yokes each having arcuate-shaped arms extending downwardly therefrom, a cross-bar for interconnecting said yokes in spaced relation, a sheave carried by each of said yokes, safety members positioned on each side of a sheave, an axle removably mounted in each of the yokes forming a bearing for a sheave and also a clamp to attach the safety members to their yoke, said safety members at their upper portions coacting with the cross-bar to provide a guard to prevent linemen's arms from being pinched between the sheaves and yokes and said safety members at their lower portions coacting with the edges of the yokes to provide a barrier to prevent wedging of the messenger wire between the yokes and sheaves upon the accidental dislodgment of the sheaves from the messenger wire, flexible linkage mounted on one of said arms, and a seat adjustably carried by said linkage.

In testimony whereof, I have signed my name to this specification this 9th day of February 1931.

ROBERT J. KENT.