Jan. 13, 1953 C. N. DUNN 2,625,371

TRANSFORMER GIN

Filed Sept. 29, 1950

FIG. 1

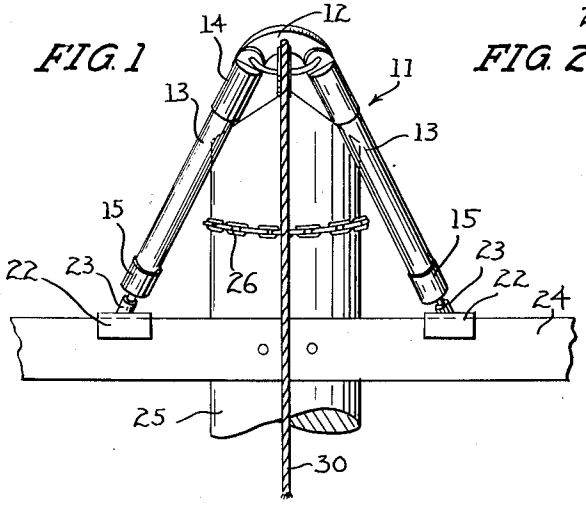


FIG. 2

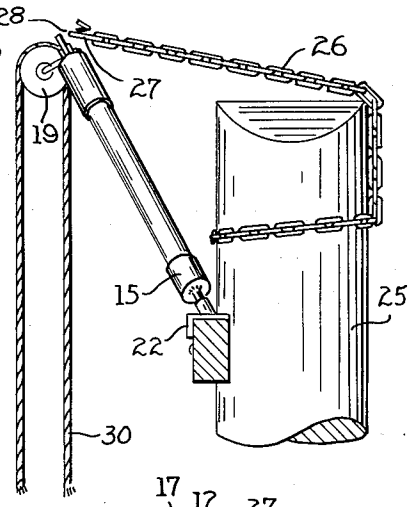


FIG. 3

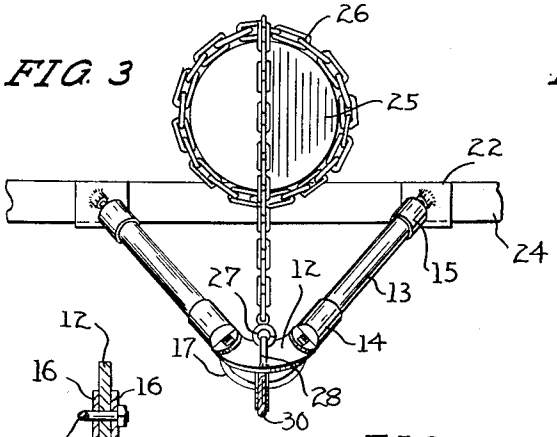


FIG. 4

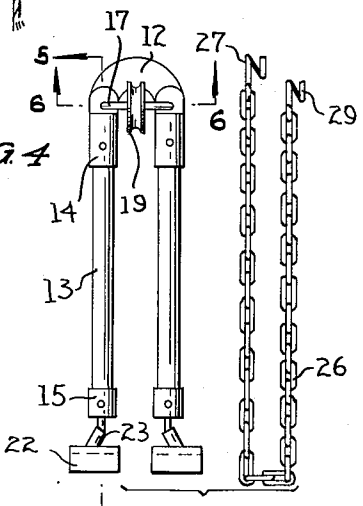


FIG. 5

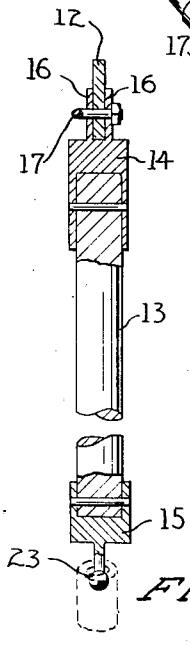


FIG. 7

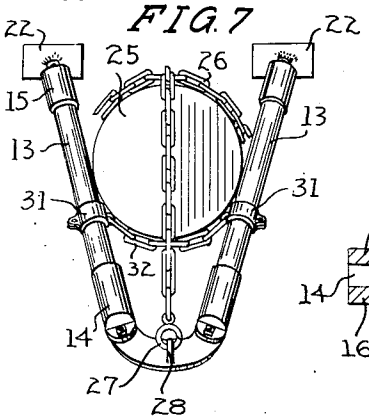
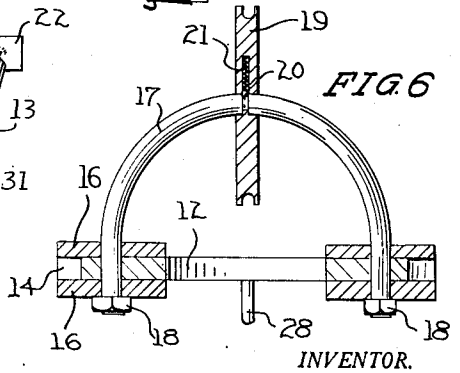


FIG. 6



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TRANSFORMER GIN

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2 Claims. (Cl. 254—139)

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This invention relates to hoist supports, and more particularly to a hoist support for use on a pole for raising transformers or other heavy objects onto the pole.

A main object of the invention is to provide a novel and improved hoist support for use on poles which is simple in construction, which is easy to install, and which is foldable to a very compact unit for transportation or storage.

A further object of the invention is to provide an improved hoist support for use on poles for elevating transformers or other heavy objects onto the poles, the hoist device being inexpensive to manufacture, involving only a few parts, being practical for installation by one person, and being readily adjustable to any desired position in accordance with the size of the object to be lifted.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a front elevational view of the upper portion of a pole showing an improved hoist device according to the present invention mounted on the crossarm of the pole in operative position;

Figure 2 is a transverse vertical cross-sectional view taken through the upper portion of the crossarm of the pole of Figure 1, showing the improved hoist device of the present invention in side elevation;

Figure 3 is a top plan view of the structure of Figure 1;

Figure 4 is an elevational view of the improved hoist device of the present invention shown in folded, inoperative position, the parts being shown separated;

Figure 5 is an enlarged cross-sectional detail view taken on line 5—5 of Figure 4;

Figure 6 is an enlarged cross-sectional detail view taken on line 6—6 of Figure 4;

Figure 7 is a top plan view, similar to Figure 3, but showing a modified form of hoist device in accordance with the present invention.

Referring to the drawings, the hoist support is designated generally at 11 and comprises a flat, arcuately-shaped bracket member 12 to the ends of which are pivotally secured the respective rigid arms 13, 13. As shown, each arm 13 is provided with a cylindrical cap member 14 at one end and another cup-like cylindrical member 15 at the other end. The intermediate portion of the arm may comprise any suitable material, such as oak or other sturdy material, the ends of the intermediate member being secured in the respective cap elements 14 and 15. The members

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14 are formed with the spaced parallel apertured lugs 16, 16 between which are received the respective ends of the arcuate bracket member 12, as shown in Figure 6. Designated at 17 is a U-shaped bolt member whose ends pass respectively through the lugs 16, 16 and the intervening end of bracket member 12 at each end of the bracket member, as shown in Figure 6. Respective nuts 18, 18 are threaded on the ends of the U-shaped bolt member 17. Rotatably and slidably mounted on the bolt member 17 is a pulley 19, said pulley being frictionally secured on the bolt member in any desired adjusted position by a spring-pressed ball 20 provided in a radial bore 21 in the pulley and arranged to project into the central aperture of the pulley and frictionally engage the bolt 17.

Designated at 22, 22 are respective shoe members which are L-shaped in cross-section and which are connected to the respective cap members 15 by ball-and-socket joints 23. As shown in Figures 1 and 2, the L-shaped shoe members 22 are adapted to be placed on the top edges of a crossarm 24 of a pole 25 when the hoist support is set up for use.

Designated at 26 is a chain, one end of the chain being provided with a hooked link 27 adapted to be engaged with an eye 28 secured to the mid-portion of the arcuate bracket member 12. The other end of the chain is provided with a hooked link 29 adapted to be engaged with an intermediate link of the chain 26 to secure the chain around the upper portion of the pole 25 in the manner shown in Figures 1, 2 and 3. When thus secured, the chain supports the remainder of the hoist gin in inclined position, as shown in Figure 2. A cable 30 is engaged over the pulley 19 and may be employed for raising a transformer or other heavy object upwardly on the pole.

In installing the hoist device, it is merely necessary to secure the chain around the upper portion of the pole in the manner shown in Figure 2, and then to place the shoe elements 22, 22 on the crossarm 24 of the pole in symmetrically spaced relationship with respect to the pole and with the arms 13, 13 arranged in upwardly convergent, inclined positions, as clearly shown in Figures 1 and 2. The hooked link 27 of the chain 26 is, of course, engaged with the eye 28 to support the device in the position shown in Figures 1 to 3. The pulley 19 is moved to a centered position on the bolt 17 and the cable 30 is engaged around the pulley, whereby the device is ready for use. In view of the provision of the bolt-and-socket joints 23, 23, the shoe members 22, 22 are readily adjustable on the

crossarm 24 and allow the arms 13, 13 to be disposed at desired angles of inclination.

Referring now to Figure 7, a modified form of the hoist-supporting device is disclosed, and adapted to be employed on poles which are not provided with crossarms. In the modified form of the invention shown in Figure 7, respective collars 31, 31 are securely clamped to the intermediate portions of the respective arms 13, 13 and a short length of chain 32 is connected to the respective collars 31, 31 as clearly shown in Figure 7. In using the device, the arms 13, 13 are arranged to receive the pole 25 between them with the chain 32 bearing against the pole, as shown in Figure 7. The chain 26 is engaged around the pole and the free portion of the chain is connected to the eye 28 in the same manner as previously described. In Figure 7, the chain 32 supports the device in the same manner as the crossarm 24 and the shoes 22, 22 support the device in the previously described embodiment of the invention.

When the device is not in use, it may be folded to a relatively compact size and the chain 26 may be detached therefrom, as shown for example in Figure 4, whereby the parts of the device may be readily transported or stored.

While certain specific embodiments of an improved hoist support for use on poles have been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A hoist support of the character described comprising a rigid bracket member, a pair of rigid arms pivotally connected to the respective opposite ends of said bracket member, an L-shaped shoe member pivotally connected to the free end of each rigid arm for universal rotational adjustment with respect to said arms, the shoe members being adapted to engage the top edges of the crossarm of a pole on opposite sides of the pole, a U-shaped bolt secured at its ends to said bracket member, a pulley rotatably and slidably mounted on said bolt, and a flexible fastening member adapted to be secured around the pole, one end of said fastening member being secured to said bracket member.

2. A hoist support of the character described comprising a rigid bracket member, a pair of rigid arms pivotally connected to the respective opposite ends of said bracket member, a collar fixedly secured to each arm intermediate its ends, a chain extending between and connected to said collars, said collars and chain being adapted to supportingly receive a pole, a U-shaped bolt arranged transversely of said bracket member and secured at its ends to the latter, a pulley rotatably and slidably mounted on said bolt, and a flexible fastening member adapted to be secured around the pole and having one end secured to said bracket member.

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