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HOISTING DEVICE FOR LINE POLES

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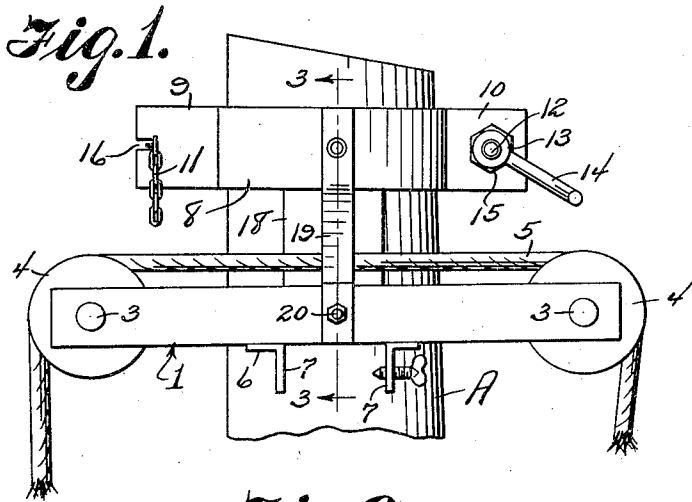
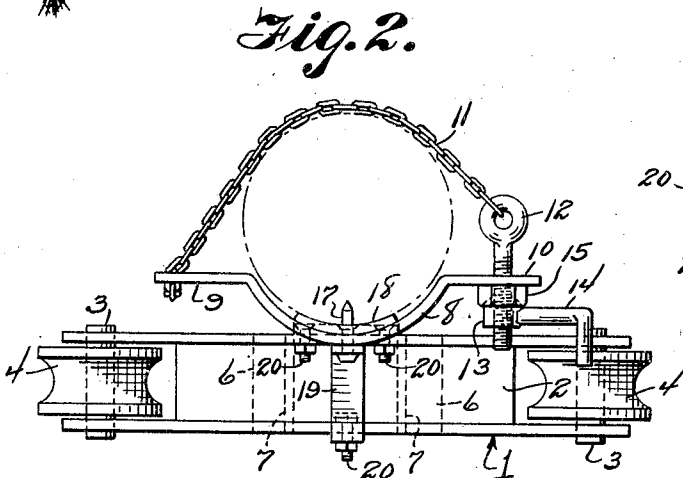
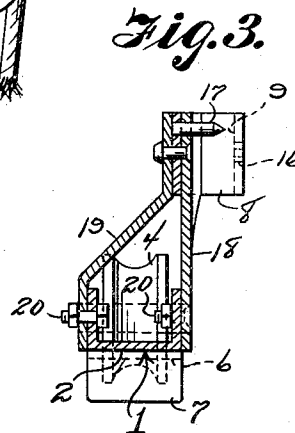
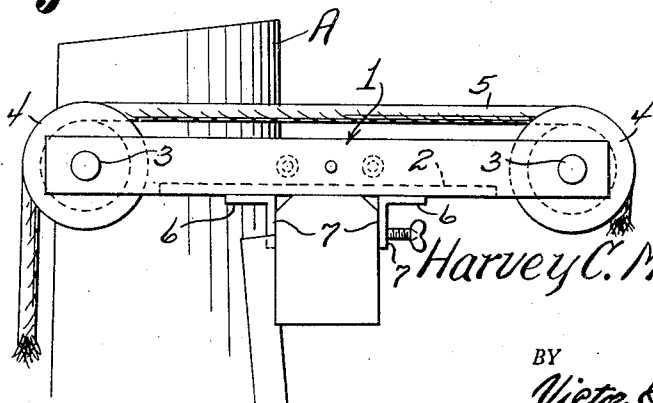


Fig. 4.



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HOISTING DEVICE FOR LINE POLES

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Substitute for abandoned application Serial No.
432,361, February 25, 1942. This application
July 6, 1948, Serial No. 37,113

3 Claims. (Cl. 254—195)

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This invention relates to hoisting devices, and its general object is to provide a device that is primarily designed for installing transformers on power line poles and the like, the device making it possible to hoist the transformer in close proximity to the top of the pole for installation accordingly, thus conserving space for crossarms and wires.

A further object is to provide a hoisting device that can be used for installing transformers on poles with or without crossarms, as the device can be attached directly to the pole or to a crossarm, in an easy and expeditious manner, yet casual removal or displacement is practically impossible.

Another object is to provide a hoisting device by which a transformer can be raised and lowered in a manner to clear the pole, and the device is simple in construction, inexpensive to manufacture and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of my device in its entirety attached directly to a pole.

Figure 2 is a top plan view of Figure 1, with the hoisting rope removed.

Figure 3 is a sectional view taken approximately on the line 3—3 of Figure 1, looking in the direction of the arrows.

Figure 4 is a side elevation, with the pole clamping structure removed from the pulley block, and with the latter attached to the primary or upper crossarm.

Referring to the drawings in detail, the letter A indicates a power line pole or the like, and B the primary or upper crossarm.

My device includes an elongated rectangular relatively narrow pulley block that is made up of a pair of spaced parallel horizontally arranged side members 1 and a base member 2 which is integral with the lower longitudinal edges of the side members, for disposal along the length thereof, the base member being of less length than that of the side members and the ends thereof terminate an equal distance inwardly of the ends of the side members to provide pulley receiving

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spaces at the ends of the block, as shown in Figure 2. Fixed to and bridging the side members adjacent to the ends thereof are shafts 3, each having a pulley 4 journaled thereon for receiving the hoisting line or rope 5 which when the device is in use is trained about the pulleys for disposal in bridging relation thereto above and along the longitudinal center of the block.

The block can be attached either to the crossarm or directly to the pole, and in order to attach the block to the crossarm, there is fixed to the under face of the base plate or member 2, upon opposite sides of the transverse center thereof the upper portions 6 of a pair of right angle brackets that have their free portions 7 extending transversely of the under face in depending relation therefrom, and spaced from each other a proper distance to bear against the side faces of the crossarm, so that the block will rest upon the crossarm for attachment thereto and for disposal an equal distance upon the opposite sides thereof, as shown in Figure 4.

In the event the upper crossarm is disposed a considerable distance below the top of the pole, or as in some instances crossarms are not used, for example when the conductors are connected to insulators on pine brackets or the like, fixed directly to the pole, the block is then attached to the pole by a clamp through the medium of a bracket as shown in Figures 1 and 2.

The clamp includes a saddle plate formed with an arcuate intermediate portion 8 from which extends laterally directed ears 9 and 10 respectively, the arcuate portion being curved to substantially follow the transverse curvature of the pole. The clamp also includes a chain 11 that has one end connected to an eyebolt 12 which has its shank extending through an opening in the ear 10 and the bolt is secured to that ear by a nut 13 provided with a crank handle 14. A spacing collar 15 is disposed between the ear 10 and the nut and the latter is formed with a beveled inner face mounted in a socket in the collar. The opposite end portion of the chain has adjustable connection with the ear 9 and for that purpose, the latter ear is provided with a notch 16 for receiving any one of the links of said end portion, with the result it will be seen that the clamp can be readily adjusted to fit poles of various diameters and is disposed in surrounding and binding engagement therewith. In order to prevent any possibility of displacement of the clamp relative to the pole, the clamp is provided with a pole penetrating pin 17 fixed to the arcuate portion of the saddle plate midway the ends there-

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of, and is adapted to be driven into the pole, as shown in Figure 2.

The clamp is connected to the block by a bracket which includes a pair of arms 18 and 19 respectively, the arms having their upper ends riveted or otherwise permanently fixed to the arcuate portion for disposal in depending relation therefrom, while the lower ends of the arms are detachably secured to the block by bolt and nut connections 20. The arm 18 is of greater width than that of the arm 19 and has its upper end curved to follow the curvature of the arcuate portion, as well as is arranged on the inner face of the arcuate portion to bear against the pole. The arm 18 is secured to the outer face of the inner side member of the block, while the arm 19 which is of angle formation is secured to the outer face of the outer side member, as shown in Figure 3.

It will of course be understood that the pole clamping structure is not used when the device is attached to the crossarm as shown in Figure 4, but whether the device is attached as shown in that figure or as in Figures 1 and 2, the manner of hoisting the transformer may be the same, and in practice it has been found desirable that the device be attached relative to the pole with the rope 5 trained about the pulleys. One end of the rope is then secured to the transformer by any suitable means, and the rope is trained about a snatch block fixed to the pole at the ground end thereof. The opposite end of the rope is then preferably connected to a truck or other vehicle for use in hoisting the transformer and for holding the same during the process of attaching it to the pole.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

This application is a substitute for abandoned application, Serial No. 432,361, filed February 25, 1942.

What I claim is:

1. A hoisting device for use on line poles, comprising an elongated relatively narrow pulley block, pulleys journaled at the ends of the block, a hoisting rope trained about the pulleys for disposal in bridging relation thereto, clamping means for disposal in surrounding relation to the pole, said clamping means including a saddle plate, said plate having an arcuate portion to follow the curvature of the pole, a pole penetrating pin fixed to the arcuate portion, an eyebolt having its shank extending through one end portion of the plate and the opposite end of the plate being notched, a handled nut on the shank, a

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spacing collar between the nut and the plate, a chain connected to the eyebolt and receivable in the notch for adjustment of the clamping means to fit poles of various diameters, and a bracket secured to and depending from the arcuate portion and having its lower end detachably secured to the block.

2. In a hoisting device, a body having a pair of flat longitudinally elongated side members, a base member fixed to the lower edges of the side members to connect the same in transversely spaced parallel arrangement, the said base member terminating short of the ends of the side members, a pulley journaled on the side members at each end outwardly of the base member, a hoisting rope trained over the pulleys, a pair of angle brackets secured in longitudinally spaced relation to the base member and depending therefrom, and a screw element threadedly mounted in one of the said brackets for detachably fastening the device on a crossarm of a power line pole.

3. In a hoisting device, a body having a pair of flat longitudinally elongated side members, a base member fixed to the lower edges of the side members to connect the same in transversely spaced parallel arrangement, the said base member terminating short of the ends of the side members, a pulley journaled on the side members at each end outwardly of the base member, a hoisting rope trained over the pulleys, a pair of complementary arms secured to the center portions of the side members and extending upwardly therefrom at right angles to the side members, a clamping plate having an intermediate arcuate portion connected to the upper ends of the arms, an eyebolt having its shank extending through one end portion of the clamping plate, the opposite end of the clamping plate having a notch therein, and a chain connected to the eyebolt and engageable with the notch in the clamping plate for clamping the device about a power line pole.

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