

Jan. 8, 1935.

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1,987,281

POLE LOCK

Filed July 29, 1932

Fig. 1

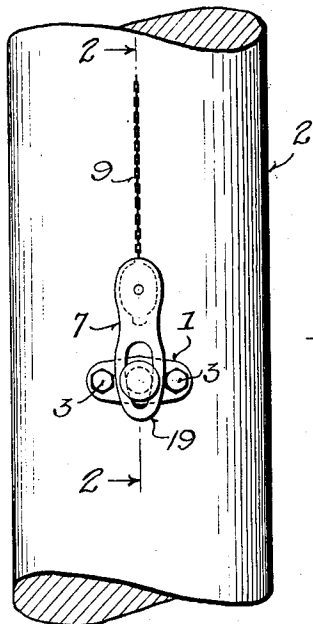


Fig. 2

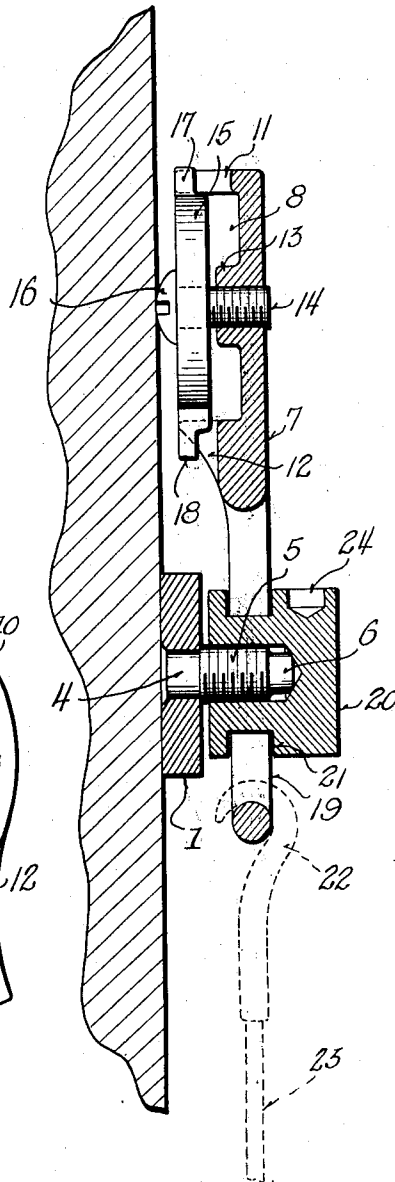


Fig. 3

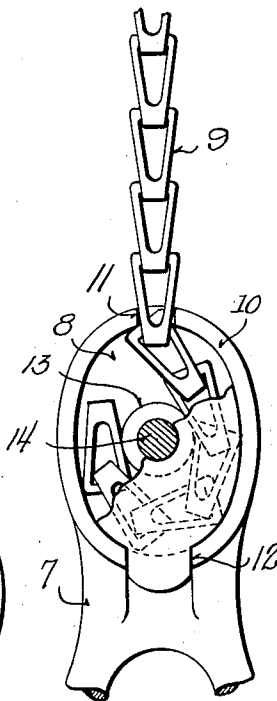
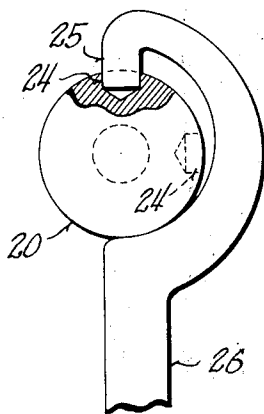


Fig. 4



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1,987,281

POLE LOCK

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Application July 29, 1932, Serial No. 625,797

7 Claims. (Cl. 240—63)

This invention relates to pole locks.

Objects of this invention are to provide a device for use with lamps suspended by pulleys, such as from a mast arm or center suspension construction, which is so made that the device is composed essentially of two normally inter-engaging portions, one of which is carried by the free end of the chain or rope which suspends the lamp, and the other of which is attached to the pole, the device being so made that the two parts may be readily locked together.

Further objects of this invention are to provide locking means which is so constructed that it prevents unauthorized tampering or releasing, which can only be released by authorized persons equipped with a suitable tool or instrument, in which the lower end of the device is provided with a loop which is always free even in its attached position, and thereby permits the operator to hook on his extension line without first detaching the device from the pole.

Further objects are to provide a construction having the above characteristics which nevertheless is very simple and which has no fragile and no exposed parts that may be readily damaged by stones or by being struck.

An embodiment of the invention is shown in the accompanying drawing, in which:—

Figure 1 is a fragmentary view of a pole with the device attached thereto.

Figure 2 is a sectional view drawn to an enlarged scale and taken on the line 2—2 of Figure 1, such view omitting the chain.

Figure 3 is a fragmentary view from the inner side of the device with the cover plate or chain locking plate removed, parts being broken away and in section.

Figure 4 is a fragmentary detail showing the manner in which the device is unlocked from the pole.

Referring to the drawing, it will be seen that the device comprises an anchoring member 1 which is attached to a pole 2 by means of bolts or lag screws 3. Preferably the member 1 is slightly transversely curved to fit the curved face of the pole.

The member 1 carries a centrally located stud 4 which is rigidly attached thereto and which is provided with an enlarged cylindrical threaded portion 5 and with a reduced stud or projecting end 6.

The chain or cable receiving member 7 is provided with an annular or elliptical recessed portion 8 opening towards its inner side and adapted to receive the chain or cable 9 in the manner shown in Figure 3. The side walls 10 surrounding the recess 8 are provided with an upper notch 11 and a lower notch 12. The lower notch 12 may, if desired, and as shown on the drawing, be larger than the upper notch 11. The central

portion is provided with a raised inwardly located boss 13 which is apertured and threaded and receives the screw 14.

The chain or cable 9 is passed through the upper notch 11 and is laid or wrapped around the central boss or inwardly projecting portion 13, as shown in Figure 3.

Thereafter the cover plate or cable locking plate 15 is positioned over the chain and is held in place by the screw 14, as shown most clearly in Figures 2 and 3. The head 16 of the screw is on the inner side of the cover plate or locking plate 15 and is consequently not accessible to anyone who desires to tamper with the device. Therefore, it is clear that the cover plate cannot be released by an unauthorized person, and the chain or cable cannot, therefore, be detached from the member 7.

It is to be noted also that in the event a chain is used, one of the links is preferably shouldered against the upper portion of the wall 10, as shown in Figure 3. It is to be noted particularly that the cover plate 15 is provided with an upper ear 17 and a larger lower ear 18 which respectively fit into the notches 11 and 12, and thus prevent the cover plate from turning. In addition to this, it causes the proper alignment of the cover plate with the recessed portion and insures the proper relative positioning of these parts, so that the cover plate may be drawn inwardly flush with the inner surface of the member 7. In addition to this, the upper tongue 17 presses downwardly against that portion of the chain or cable which passes through the notch 11, and tightly anchors the chain or cable in the notch.

The lower portion of the member 7 is provided with an elliptical or elongated looped member 19 within which is located the attaching nut or attaching member 20. This attaching member is provided with an annular recess 21 in the opposite sides of which the arms of the portion 19 loosely fit, thereby allowing free rotation of the member 20, but preventing removal of the member 20 from the looped portion 19.

In addition to this, it is apparent from Figures 1 and 2 that the looped member 19 wedges against the locking member 20 and prevents the locking member 20 from resting at the bottom portion of the loop. This allows room for the free insertion of the hook indicated in dotted lines at 22, which is attached to the operator's extension rope 23, while the device is locked in place to the pole. This is shown most clearly in Figure 2.

The nut or attaching member 20 is internally threaded and is screwed upon the threaded portion 5 of the fixed stem. This nut 20 is cylindrical in contour and is provided with one or more radial recesses 24 adapted to receive the hooked end 25 of a spanner wrench 26, as shown

in Figure 4, so that the nut may be tightly locked in place or may be unscrewed from the pin by an authorized person with a suitable tool or instrument, such as a spanner wrench. However, an unauthorized person cannot release the locking member or nut 20.

It is to be noted that the threaded hole in the nut 20 does not extend completely through the nut, but that its bottom strikes the projecting stub or stud 6 of the pin and therein enables the nut to be tightly locked in place without damage to the threads either of the pin or of the nut.

When the operator desires to lower the lamp or other suspended member, he merely hooks the hook 22 in the lower free end of the loop 19 and thereafter unscrews the nut 20. There is no danger of the lamp dropping, as it is already attached to the extension rope 20 of the operator.

In order to avoid needless repetition, the chain or cable will hereinafter be referred to as a cable, it being understood, however, that this term is used not in a specific sense but in a generic sense to cover a chain, rope, cable, or other suspension member. Further, it is to be understood that the expression pole is intended to cover any fixed member such as a wall or a pole, depending, of course, from what point the lamp is suspended.

It is apparent also that the device has no projecting or fragile parts that can be damaged by stones or by being struck, but instead is of strong substantial construction and also is very simple and is easy to make.

Although this invention has been described in considerable detail, it is to be understood that such description is intended as illustrative rather than limiting, as the invention may be variously embodied and is to be interpreted as claimed.

I claim:

1. A pole lock for a cable comprising an anchoring member rigidly attached to the pole and having an outwardly projecting threaded stud, a cable receiving member securely attached to the cable and having a downwardly looped portion, and a nut revolubly and permanently carried by said cable receiving member and internally threaded for cooperation with said threaded stud.

2. A pole lock for a cable comprising an anchoring member rigidly attached to the pole and having an outwardly projecting threaded stud, a cable receiving member securely attached to the cable and having a downwardly looped portion, and a nut revolubly and permanently carried by said cable receiving member and internally threaded for cooperation with said threaded stud, said nut having an annular groove formed therein, said cable receiving member having a looped portion fitting within the annular groove of said nut and continuing downwardly to form a downwardly extending continuation of said looped portion spaced at all times from said nut for the reception of a hook.

3. A pole lock for a cable comprising an anchoring member adapted for attachment to a pole and having an outwardly projecting threaded stud provided with a reduced stub portion projecting therefrom, a cable receiving member, a nut revolubly carried by said cable receiving member and having an internally threaded aperture and adapted to cooperate with said threaded stud, said aperture extending only part way through said nut and leaving a bottom wall adapted to contact with the projecting stub portion of said threaded stud when said nut is screwed tightly in place.

4. A pole lock for a cable comprising an anchoring member adapted for attachment to a pole and having an outwardly projecting threaded stud provided with a reduced stub portion projecting therefrom, a cable receiving member, a nut revolubly carried by said cable receiving member and having an internally threaded aperture and adapted to cooperate with said threaded stud, said aperture extending only part way through said nut and leaving a bottom wall adapted to contact with the projecting stub portion of said threaded stud when said nut is screwed tightly in place, said nut being provided with an annular groove formed therein, and said cable receiving member having a looped portion fitting within the annular groove of said nut and converging towards the lower end of the looped portion, whereby the lower end of the looped portion is spaced from said nut when the device is in position.

5. A pole lock for a cable comprising anchoring means adapted for attachment to a pole, a cable receiving member having means interlocking with the said anchoring means, said cable receiving member having an annular recess adapted to receive the cable and having a notch through which the cable projects, and a cover plate closing said annular recess and clamping said cable in place, said cover plate having an ear positioned in said notch and bearing upon said cable and tightly anchoring said cable in the notch.

6. A pole lock comprising anchoring means adapted for attachment to a pole and having a projecting threaded stud, a cable receiving member having a downwardly extending looped portion, an internally threaded nut adapted to cooperate with said threaded stud and revolubly positioned within the looped portion of said cable receiving member, said nut having a substantially cylindrical exterior surface and having a radial aperture, said looped portion converging towards its lower end to provide a part spaced at all times from said nut, said cable receiving member having its upper end provided with a peripheral wall surrounding an annular space and having an upper notch through which the cable may be passed, the free end of the cable being receivable within the annular space, a cover plate adapted to enter the annular space and having an ear adapted for positioning within the notch in the peripheral wall, and a headed locking screw passing through the cover plate with its head located adjacent said cover plate, said screw being threaded into said cable receiving member.

7. A pole lock for a cable comprising anchoring means for attachment to a pole, a cable receiving member having means interlocking with said anchoring means to hold a predetermined face of said cable receiving member presented towards the pole when said means are interlocked, said cable receiving member including two parts, one of which constitutes a body portion provided with an annular recess adapted to receive a cable, and the other of which constitutes a cover plate and jointly enclosing that portion of the cable within said annular recess, said cover plate contacting with the margins of the body portion surrounding the cable receiving recess, and a headed screw locking said two parts together with the head of said screw on the side of said cable receiving member presented towards said pole.