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2,237,597

AUTOMATIC RELEASABLE CABLE HANGERS

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Fig. 1.

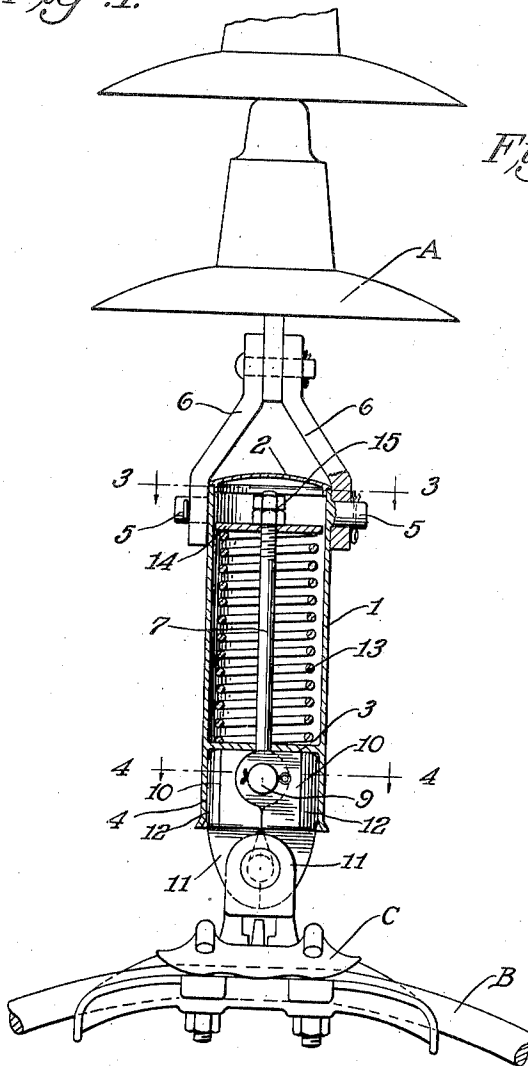


Fig. 2.

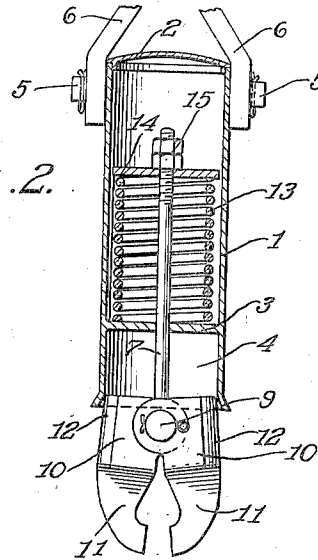


Fig. 5.

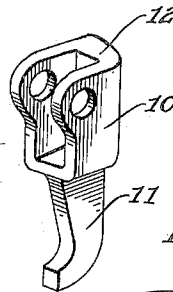


Fig. 4.

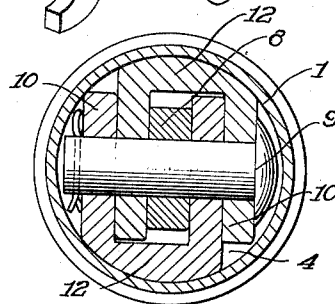
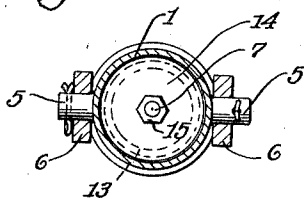


Fig. 3.



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AUTOMATIC RELEASABLE CABLE HANGER

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3 Claims. (Cl. 267-71)

This invention relates to cable hangers, and its general object is to provide a releasable hanger device that is primarily designed for supporting conductor cables of high tension transmission lines, in the usual suspended manner and under normal conditions against casual removal or displacement, but will automatically release the cables, in the event an abnormal load or weight is applied thereto, such as a falling tree or the like, or if the cables become heavily laden with ice or sleet, therefore it will be seen that my device will eliminate breaking or damage to the cables, poles, supporting towers or the like.

A further object is to provide an automatic releasable hanger service for cables, that can be installed on lines now in use, and is applicable to cable clamping shoes in an easy and expeditious manner.

Another object is to provide a releasable hanger device of the character set forth, that 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 full described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

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

Figure 1 is a view partly in section of the cable hanger that forms the subject matter of the present invention, and illustrates the same in use for supporting a cable through the medium of its clamping shoe.

Figure 2 is a similar view with the device in released position.

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

Figure 4 is a sectional view taken approximately on line 4-4 of Figure 1.

Figure 5 is a detail perspective view of one of the jaw members.

Referring to the drawing in detail, it will be noted that I have illustrated my hanger device as being connected to the attaching lug of the lower insulator A of a high tension transmission line, for holding and supporting a cable B, through the medium of its clamping shoe C, but my device can be used on all kinds of electric lines and for supporting cables for any use.

The device in the form shown includes a rela-

tively narrow cylindrical casing 1 having open upper and lower ends and the upper end is closed by a cap 2, while the lower end is permanently open and outwardly flared, but a disk partition 3 is formed within the casing adjacent to its lower end to provide a chamber 4 for the clamping jaws of the device, as will be apparent upon inspection of Figures 1 and 2.

Formed on or otherwise fixed to the casing 1 adjacent to its upper end and extending from diametrically opposite sides thereof are trunnions 5 for pivotally receiving the lower ends of separate arms 6 that are preferably held on the trunnions by cotter pins as shown, and the arms are directed toward each other from the trunnions and have their upper ends connected to the attaching lug of the insulator A by a bolt and cotter pin.

Axially arranged in the casing 1 and slidably mounted through the partition 3 is the shank 7 of an eye bolt 8 which has extending through the eye head thereof a pivot bolt 9 having mounted thereon the apertured yokes 10 of companion clamping jaws 11. The yokes 10 are closed as at 12 and the outer faces of the closed portions are rounded to fit the chamber wall for slidable movement therein, while the apertured portions of one yoke are disposed in overlapped relation with the like portions of the other yoke, and disposed between the innermost apertured portions is the eye head 8, as clearly shown in Figure 4.

The clamping jaws are reduced toward their outer end portions and the latter are directed toward each other in hook formation, as well as terminate in flat ends normally held together about the attaching member of the cable clamping shoe, when the yokes 10 are arranged within the chamber 4, so that the cable is supported in its usual suspended position.

In order to hold the jaws in normal clamping position about the attaching member of the cable shoe, I provide a coil spring 13 that is sleeved about the shank 7 and has its lower convolution resting upon the partition 3, while its upper convolution is engaged with an abutment disk 14 mounted on the shank and held accordingly by lock nuts 15 which are adjustable to vary the tension of the spring, as will be apparent upon inspection of Figure 1.

From the above description and disclosure in the drawing, it will be obvious that my hanger will support the cable in the usual manner under normal conditions, against casual removal or displacement, but in the event an abnormal load should be applied to the cable, such as for exam-

ple a tree or pole falling against the same, or if the cable should become heavily coated with ice or sleet, such load or weight will exert a strain upon the cable and cause the clamping jaws to be moved against the action of the coil spring and out of their chamber, to allow the same to open as shown in Figure 2, for releasing the cable therefrom, thereby eliminating breaking or damage to the cable or any of the suspending means therefor, or supporting means, such as poles, supporting towers or the like.

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.

What I claim is:

1. An automatic releasable cable hanger comprising companion jaws, yokes for said jaws, means including a shank and having the jaws pivoted thereto, a casing having the shanked means mounted therein for slidable movement of the yokes in engagement with the walls of the casing to hold the jaws closed for supporting the cable under normal conditions, a coil spring sleeved on the shank, abutment means for one end of the spring and fixed within the casing, abutment means for the opposite end of the spring and mounted on the shank for the spring to urge and hold the yokes within the casing for disposal of the jaws to a closed position, so that when an abnormal load is applied to the cable the jaws are moved against the action of the spring from the casing for disposal to an open position to release the cable.

2. An automatic releasable cable hanger comprising companion jaws, yokes for said jaws, a cylindrical casing having open ends, suspending arms for the hanger and pivoted to the upper end of the casing, a cap closing the upper end, a partition disposed adjacent the lower end of the casing and providing a chamber therein for slidably receiving the yokes for engagement with the

wall of the chamber to hold the jaws closed for supporting the cable under normal conditions, an eye bolt slidably mounted through the partition and having the yokes pivotally connected to the head thereof, a coil spring sleeved on the shank of the bolt and having its lower convolution engaged with the partition, an abutment disk for the upper convolution of the spring and mounted on the shank for the spring to urge and hold the yokes within the chamber for disposal of the jaws to a closed position, so that when an abnormal load is applied to the cable the jaws are moved against the action of the spring from the casing for disposal to an open position to release the cable.

3. An automatic releasable cable hanger comprising companion jaws, yokes for said jaws, a cylindrical casing having open ends, suspending arms for the hanger and pivoted to the upper end of the casing, a cap closing the upper end, a partition within said casing adjacent to its lower end to provide a chamber having the yokes mounted therein for engagement with the wall thereof to hold the jaws closed for supporting the cable under normal conditions, an eye bolt slidably mounted through the partition for disposal of the head thereof within the chamber, a pivot bolt extending through the head and having the yokes pivotally mounted thereon with the arms of the yokes disposed in overlapped relation and the head of the eye bolt between the innermost arms of the yoke, a coil spring sleeved on the shank of the eye bolt and said shank having a threaded upper end, said spring having its lower end convolution engaged with the partition, an abutment disk for the upper convolution of the spring and mounted on the shank for the spring to urge and hold the yokes within the chamber with the jaws in closed position, so that when an abnormal load is applied to the cable, the jaws are moved against the action of the spring from the casing for disposal to an open position to release the cable, and lock nuts threaded on the shank for adjusting the spring and for holding the same in adjusted positions.

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