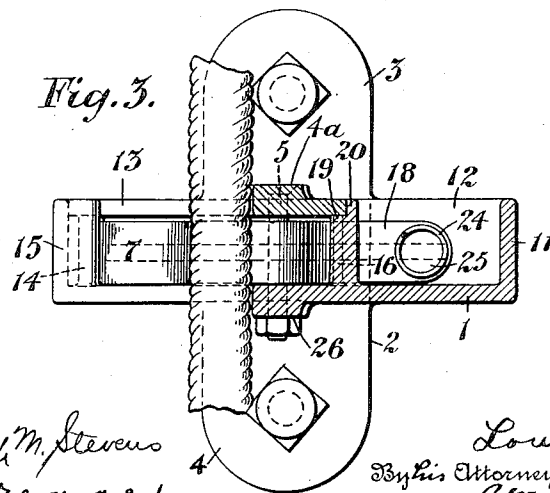
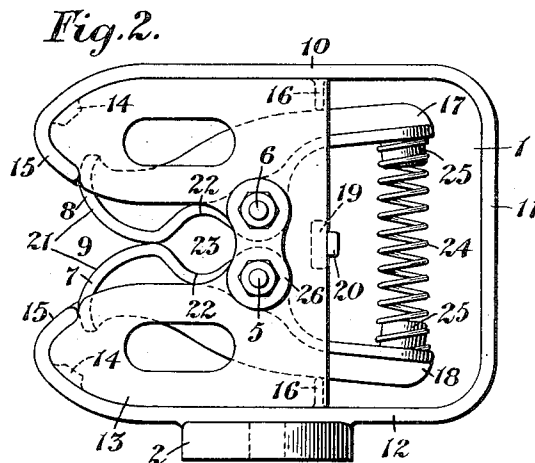
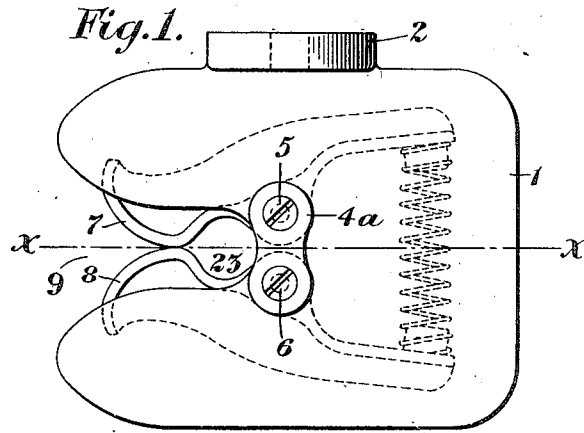


L. FORT.
ADJUSTABLE CLAMP.
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1,128,593.

Patented Feb. 16, 1915.



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UNITED STATES PATENT OFFICE.

LOUIS FORT, OF JERSEY CITY, NEW JERSEY.

ADJUSTABLE CLAMP.

1,128,593.

Specification of Letters Patent.

Patented Feb. 16, 1915.

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To all whom it may concern:

Be it known that I, LOUIS FORT, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Adjusting-Clamps, of which the following is a full, clear, and exact description, whereby any one skilled in the art may make and use the same.

The invention relates to adjusting clamps and more particularly to a clamp having special features of construction, arrangement and mode of operation whereby it is particularly desirable for use with flexible connectors such as are ordinarily used for suspending devices such, for instance, as arc lamps. Its uses, of course, are not confined to the suspension of arc lamps, but is referred to in connection therewith. Its various advantages are employed with great efficiency.

The object of the invention is to provide a simple form of clamp which will be automatic in its action and to which and from which the flexible connector may be inserted or removed without liability of straining or injuring the movable jaws.

Referring to the drawings: Figure 1 is a top plan view of the clamp. Fig. 2 is a bottom plan view of the clamp shown in Fig. 1. Fig. 3 is a cross-sectional view through the clamp on the line $x-x$ of Fig. 1, the parts being in inserted position as compared with the showing of Fig. 1.

Referring to the drawings, the numeral 1 denotes a casing having a bracket member 2 by which the device may be secured at any desired position of adjustment. The bracket portion consists of ears 3 and 4, preferably formed integral with the casing 1. As illustrated, a reinforce 4^a is cast upon the casing and provides a suitable support for pivots or rivets 5, 6, which serve as the bearings for jaws 7, 8.

As illustrated in the bottom plan view of Fig. 2, the casing 1, has a central opening at one side as at 9, into which the abutting faces of the jaws 7 and 8 project, and the side walls or skirting flange 10, 11, and 12, depend from the top portion of the casing 1 forming a closure for the jaws, in conjunction with a bottom plate or cover 13. The casing is so formed that it may be readily cast without the use of cores and to support the bottom plate 13 firmly in place lugs 14

are provided adjacent to the curved dependent walls 15, which serve as a guide to the opening 9 and jaws 7 and 8, and lugs 16 are cast in the side walls in such position as to form an abutment for the rear end of the bottom plate and also provide stops against which the extended arms 17 and 18 of the jaws 7 and 8 abut. To give a center support and prevent rearward movement of the plate, a post or lug 19 is cast in the casing with an extended lug 20, the post portion 19 forming a seat support against which the plate 13 may be securely held and the extended portion 20 forming a brace to prevent rearward movement thereof.

The jaws 7 and 8 are arranged upon the pivots 5 and 6 and are preferably formed with substantially wide faces 21, which are curved and terminate in semi-circular curves 22, so related as to form a central opening 23, within which a cord or flexible connector may rest. The outer curved faces 7 and 8 are so formed that the cord may be pressed inward between the jaws until it reaches the central opening 23, the jaws being movable to permit the introduction or removal of the cord. Attention is particularly called to the arrangement of the jaws and the disposition of their curved outer ends with reference to those portions of the skirting flange, designated 15, which bound the outer portion or mouth of the flaring opening, 9, into the casing. The ends of the jaws extend into the casing and lie behind the ends of the portions 15 of the side wall or skirting flange, which form complete guards for the jaws as well as guides to direct the rope or cable to the jaws. Thus when a heavy wire or other cable is used it may be easily forced or guided into the flaring opening 9, between the extended portions of the casing, and can only come into contact with the exposed faces of the jaws a safe distance back from their ends. There is no possibility whatever of the cable encountering the outside edges of the jaws, a contingency that would tend to displace and break them; and as these jaws can only be engaged by the cable on their contiguous curved faces, they are separated against the tension of the spring 24, and there is practically no liability of injuring or displacing the jaws. The abutments 16, serve as stops for the jaws and means for properly centering them, so that upon the release of the cable the jaws

instantly assume a proper central position, and the spring is prevented from forcing the meeting faces thereof together with such force as to cause breakage or disintegration of the metal. The wide faces of the jaws are separated to move between the casing and the cover plate without binding or cramping upon their pivots.

These jaws are held together by a spring 24 which is under compression and is held in place by lugs 25 upon the inner opposed faces of the arms 17 and 18.

The casing 1, with its dependent sides and ends forms a complete protection for the moving parts or levers 7 and 8, against snow, sleet or rain and the bottom plate 13, when in place, gives a complete closure and support for the same parts. The rivets or pivots 5 and 6 pass through the upper portion of the casing and the bottom plate, which is also reinforced as at 26.

The operation of the device is apparent. When secured in any given position, the cord or flexible connector which is partially illustrated in Fig. 3 and is intended to have an abutment or stop on its lower end (said stop not being illustrated) may be moved into the clamp by forcing it through the curved jaws until it occupies a position in the central opening 23, whereupon the stop will prevent the cord pulling through said opening, but permits a ready removal from the opening by an outward pull. In lieu of a specific separable stop element or abutment secured to the cord below the clamp, the cord may, of course, be knotted, said knot serving as an abutment to prevent pulling the cord through the clamp beyond certain limits. The device is particularly efficacious in conjunction with devices such as arc lamps, where it is required to raise and lower them. In such uses, the device serves to prevent breakage and improper adjustments due to shrinkage and expansion of the flexible connector. It is common practice to suspend arc lamps from an arm having a clutch device and contact devices for the lamp. The flexible connectors are ordinarily used for raising and lowering the lamp into and out of engagement with the clutch and its contacts. Where flexible connectors are employed and secured to a cleat or a fixture upon the pole, it not unfrequently happens that changes in atmospheric conditions varies the length of the connector. Provided the device is "close-hauled" and shrinkage occurs, with the end or the flexible connector secured, undue

strain is placed upon the parts of the lamp, clutch and appurtenant parts and they are frequently broken.

With the clamp such as shown, the end of the flexible connector may be permitted to extend through the clamp and while insuring the holding thereof against accidental dislodgment may expand or contract without placing strain upon the lamp or appurtenant parts. Furthermore, it serves a very convenient means of adjustment for such devices. The cord may be readily disengaged from the clamping jaws, thus permitting the lamp to be lowered and may be just as readily engaged therewith.

It is to be understood that the device is not limited in its application to arc lamps, but, obviously may be used in conjunction with flexible connectors to suit the exigencies of any particular case.

What I claim as my invention and desire to secure by Letters Patent is:

1. A cable clamp comprising a casing into which extends from one of its sides a flaring opening, the casing being provided with a depending skirting flange formed with portions that bound on opposite sides the mouth of the said opening, and a pair of spring-held, cable-clamping jaws supported in the casing, the outer ends of the said jaws extending behind the ends of the portions of the skirting flange that bound the mouth of the said opening, substantially as and for the purposes set forth.

2. A cable clamp comprising a hollow-casing open at the bottom and into which extends from one of its sides a flaring opening, the casing being provided with a depending skirting flange formed with portions that bound on opposite sides the mouth of the said opening, and a pair of levers supported in the casing and formed with cable-clamping jaws that extend into the said opening, the outer ends of the said jaws extending behind the end portions of the skirting flange that bound the mouth of the opening, a removable plate secured to the casing and partially closing the bottom of the casing, the rear ends of the said levers extending beyond the rear edge of the plate whereby they are exposed, and a spring for holding the jaws together arranged between the said rear ends of the levers.

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