

UNITED STATES PATENT OFFICE.

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LIGHTNING-ROD SUPPORT.

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The invention has relation to lightning rods, and more particularly to improved means for securing the point portion of the rod upon the ridge of the roof and for connecting said point portion with the conducting cable.

According to the present invention the point portion of the rod may be securely attached to the ridge without perforating the roof for the insertion of securing devices, and may be rapidly and conveniently applied.

The invention consists in the novel construction and combinations of parts as set forth in the appended claims.

In the accompanying drawings illustrating the invention, Fig. 1 is a side view of the invention as applied to a horizontal ridge tile. Fig. 2 is a section on the line 2—2 of Figure 1. Fig. 3 is a similar view illustrating the several parts and the several steps in the application of the device. Fig. 4 is a side view of the device as applied to a tile laid on an inclined ridge. Fig. 5 is a view similar to Figure 1, showing the application to a slate roof. Fig. 6 is a detail fragmentary perspective view.

In these drawings, numeral 1 designates the point portion of the rod, which may be of any desired form, terminating at its base in a flattened portion 2, provided with perforations for receiving suitable bolts 7, where by the point portion is secured between the upper ends of attachment straps 3. The straps 3, preferably of copper, are of flat pliable nature, and are designed to extend divergently across the ridge member 2' of the roof and back upwardly thereunder at 3' a sufficient distance to secure the point portion rigidly upon the roof. Below the portions engaged by the part 2 of the point portion the straps 3 are perforated for the reception of a clamping bolt 4 the utility of which will be explained in connection with the method of attachment of the device.

To the attachment strap 3 which is to carry the conducting cable 5 is secured the short copper brace strap 6, preferably attached at its upper end by means of the bolt 4, and having a slotted lower end at 6' adapted to engage the bolt 8 by which the cable clip 9 is attached to strap 3. The brace strap 6 will serve also as an additional conductor between the point portion and the cable, inasmuch as the upper end of the brace strap 6 and the lower end of the base 2 of the point

portion of the rod are approximated, or lapping, the brace strap 6 and the attachment strap 3 jointly acting as a conductor from base 2 to the cable 5.

In applying the device the attachment straps 3 are inserted below the tile or other ridge member of the roof, one upon each side of the ridge, and are bent upwardly around the edges of the tile so as to meet above the ridge. The point portion 1 is now bolted between the ends of the straps 3 and the bolt 4 is inserted in its perforations and tightened to draw the straps 3 together and tighten the connection with the ridge tile. This tightening action is made more effective by the location of the bolt 4 between the ridge member and the point portion 1, where space is provided for proper tensioning of the attachment straps 3, the arrangement also permitting of automatic correction of unevenness of length between the two bent straps, since if the point is held vertical, the tension of the two straps will be equalized as the bolt is tightened. The brace strap 6 may now be put in place and the cable clamped to the device by means of the cable clip 9 and the bolt 8.

It will be noted that by the use of this invention the point portion is secured to the roof by means of inconspicuous members, and that the device may be rapidly applied to the roof by an unskilled person.

I claim:—

1. In a lightning rod, a point portion, opposite flat pliable attachment straps adapted for insertion at their lower ends between the roofing plates and the ridge member of a roof and at their upper ends having bolt connection with said point portion, a clamp bolt connecting said attachment straps between said point portion and the ridge member, and a conducting cable secured to one of said attachment straps.

2. In a lightning rod, a point portion, opposite flat pliable attachment straps adapted for insertion at their lower ends between the roofing plates and the ridge member of a roof and at their upper ends having bolt connection with said point portion, a clamp bolt connecting said attachment straps between said point portion and the ridge member, a conducting cable secured to one of said attachment straps, and a short brace and conductor strap forming an additional electrical connection between said point portion and said cable.

3. In a lightning rod, a point portion having a flattened base, opposite flat pliable attachment straps adapted for insertion at their lower ends between the roofing plates and ridge member of a roof and at their upper ends having bolt connection with said base, said base terminating at its lower end a short distance above said ridge member, a clamp bolt connecting said attachment straps and drawing the same together in the interval between said base and said ridge member to tighten the engagement of said attachment straps with said ridge member, and a conducting cable carried by one of said attachment straps.
4. In a lightning rod, a point portion having a flattened base, opposite flat pliable attachment straps adapted for insertion at their lower ends between the roofing plates and the ridge member of a roof and at their upper ends having bolt connection with said base, said base terminating at its lower end a short distance above said ridge member, a clamp bolt connecting said attachment straps and drawing the same together in the interval between said base and said ridge member to tighten the engagement of said attachment straps with said ridge member, a short brace and conductor strap having its upper end portion secured by said clamp bolt, and a cable clip bolted to the lower end of said brace and conductor strap and to one of the attachment straps, and a conducting cable carried by said clip.

In testimony whereof I affix my signature.

AMASA G. HOOVENS.