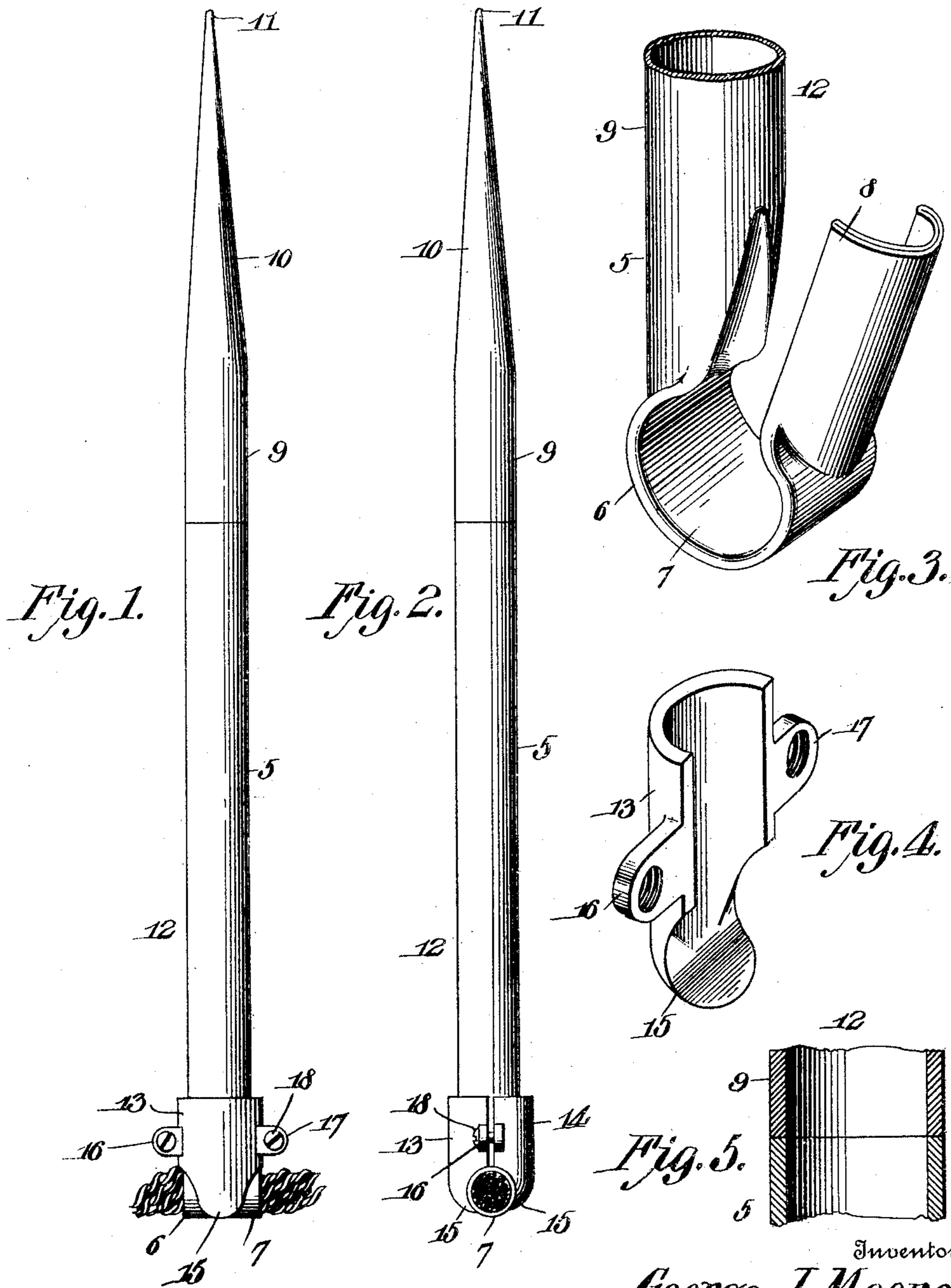


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 LIGHTNING ROD UPRIGHT.  
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964,297.

Patented July 12, 1910.



Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORGE J. MOORE, OF MARYVILLE, MISSOURI.

## LIGHTNING-ROD UPRIGHT.

964,297.

Specification of Letters Patent.

Patented July 12, 1910.

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*To all whom it may concern:*

Be it known that I, GEORGE J. MOORE, citizen of the United States, residing at Maryville, in the county of Nodaway and State of Missouri, have invented new and useful Improvements in Lightning-Rod Uprights, of which the following is a specification.

This invention relates to improvements in that class of electrical conductors known as lightning rods.

The object of the invention is the provision of an improved form of upright and point connected together by swaging, whereby a continuous surface is produced at the juncture between the rod and point and by this provision the danger of corrosion produced by electro-chemical action will be prevented and the conductivity of the point, rod and upright will be increased.

Another object is the provision of an upright, the lower end of which is bent upon itself to provide a loop to receive the rod proper and means for clamping the looped end to the rod proper whereby the connection between the rod and upright will be such that the danger of fusion and the loss of conductivity will be reduced to a minimum.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming a part of the specification:—Figure 1 is a side elevation of the device. Fig. 2 is an end view of the same. Fig. 3 is a detail perspective of the lower portion of the upright. Fig. 4 is a detailed perspective of one of the clamping straps. Fig. 5 is an enlarged detail section through the joint between the point and upright.

Similar numerals of reference are employed to designate corresponding parts throughout.

The upright is designated in general by

the numeral 5 and is preferably of a single length of copper tubing. What will subsequently be termed the lower end portion of the upright is flattened as shown at 6, the said flattened portion being bent at a point adjacent its juncture with the unflattened portion, and curved outwardly and inwardly for a portion of its length to provide an eye or socket 7. The said eye or socket 7 terminates in a portion 8 which is arcuate in cross section and designed to bear on the lower end portion of the upright, the said arcuate portion 8 constituting what will subsequently be termed a tongue.

By reference to Fig. 3 it will be seen that the surface of the upright which directly underlies the tongue 8 is slightly beveled toward the eye 7 so that when the tongue bears upon the upright the axis of the eye will be in alinement with the axis of the upright. What will subsequently be termed the point is designated by the numeral 9. This member is preferably formed of a single length of copper tubing and its lower end is swaged or otherwise rigidly secured to the upper end of the upright 5. The point 9 tapers as shown at 10 so that its upper end terminates in a sharpened end 11. While I have shown the point and upright swaged together still it must be understood that I am not limited to this specific structure for the reason that the connection between the point and upright forms but one part of the subject matter of the present invention, the other part residing in the connection between the lower end of the upright and rod proper. The rod proper is designated in general by the numeral 12 and may be of any suitable material and is herein shown to be constructed of copper cable and of a diameter to snugly fit within the eye 7.

The means for clamping the upright to the rod is shown to consist of a pair of straps designated by the numerals 13 and 14. These members are preferably of metal and are substantially semicircular in cross section so that when they bear one upon the other as shown in Figs. 1 and 2 a circular opening will be presented to receive the lower end of the upright 5. The lower ends of the straps 13 and 14 are slightly reduced in width and curved inwardly as shown at 15 to bear on the lower side of the eye 7. Extending laterally from the opposite sides of the straps are lugs 16 and 17, the said lugs having threaded openings which re-

ceive clamping screws 18 by means of which the straps are connected and operate to hold the tongue 8 and lower end of the upright clamped as shown in Figs. 1 and 2.

5 From the foregoing it can be seen I have provided a device which is comparatively simple in structure and inexpensive in manufacture, embodying few parts and these so arranged that the danger of derangement  
10 will be reduced to a minimum.

Having thus described the invention, what is claimed as new is—

1. In combination with a lightning rod; of an upright having its lower end portion  
15 provided with a loop to receive the said rod and its upper end tapered to provide a point, and means for securing the looped end to the rod.

2. In combination with a lightning rod;  
20 of a tubular metallic upright having its lower end portion curved into a loop to receive said rod and its upper end provided with a tapered point, and means for securing said looped end to the rod.

25 3. In combination with a lightning rod; of a tubular metallic upright having its

lower end portion curved into a loop to receive the said rod and its upper end integrally provided with a tubular point.

4. In combination with a lightning rod; 30 of a tubular metallic upright having its lower end portion flattened and curved for a portion of its length to provide an eye to receive said rod, said eye terminating in a tongue to bear on the side of the upright, the  
35 upper end of said upright being provided with a point, and means for clamping said upright and tongue for the purposes described.

5. In combination with a lightning rod 40 and an upright having its lower end provided with a curved portion to embrace said rod; of a pair of clamping straps to bear on opposite points of the said curved portion, and means for connecting said straps for  
45 the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE J. MOORE.

Witnesses:

JOHN D. RICHEY,

JAMES B. ROBINSON.