

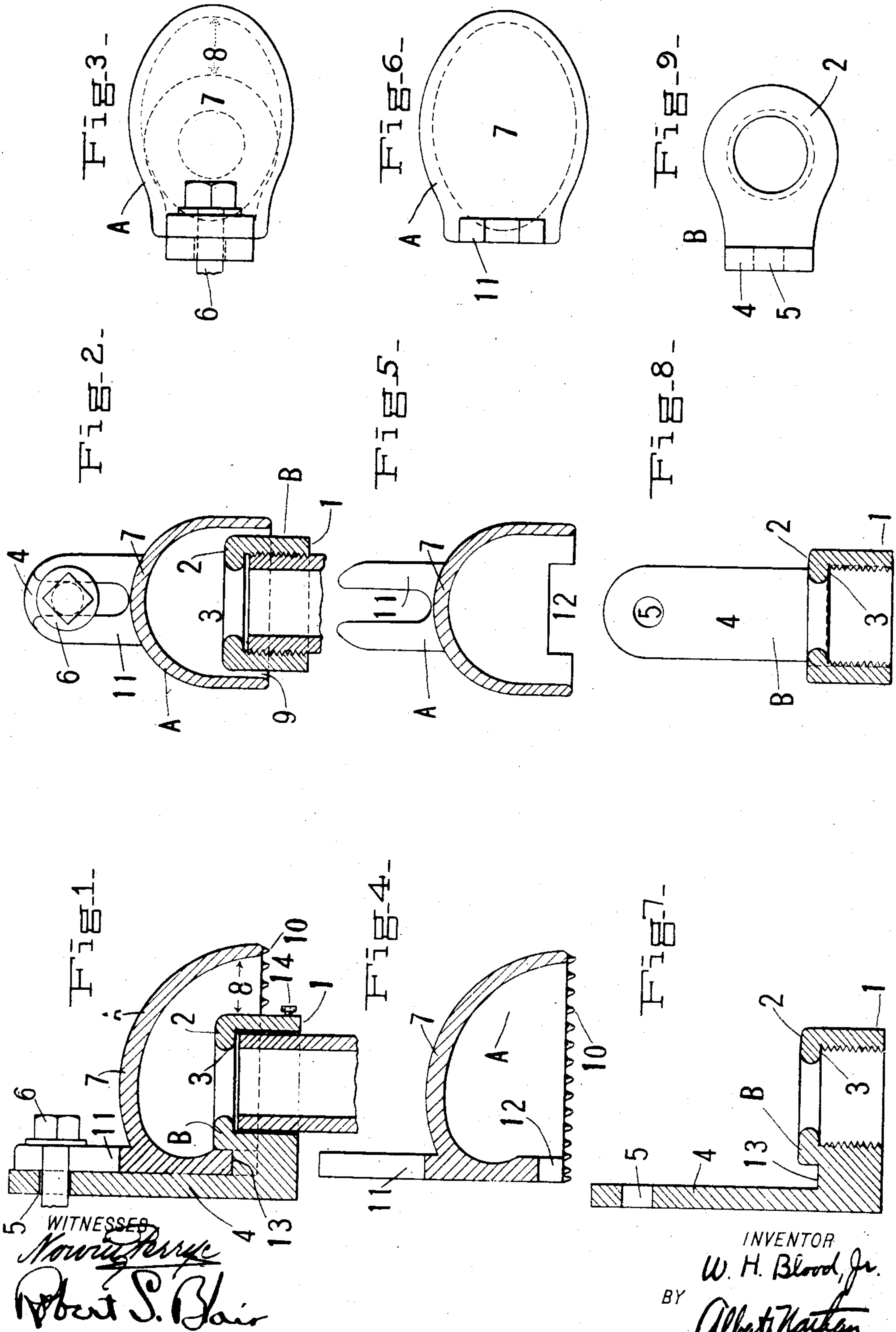
No. 871,667.

PATENTED NOV. 19, 1907.

W. H. BLOOD, JR.

PIPE CAP.

APPLICATION FILED MAR. 22, 1907.



UNITED STATES PATENT OFFICE.

WILLIAM H. BLOOD, JR., OF WELLESLEY, MASSACHUSETTS.

PIPE-CAP.

No. 871,667.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed March 22, 1907. Serial No. 363,829.

To all whom it may concern:

Be it known that WILLIAM H. BLOOD, Jr., residing at Wellesley, in the county of Norfolk and State of Massachusetts, has invented certain new and useful Improvements in Pipe-Caps, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates broadly to improvements in appliances adapted to be affixed to the ends of a cable conduit to secure the latter to an adjacent support, such as a wall or the like, and at the same time shield the open end of the conduit against the admission of water without interfering with the egress of the electrical conductors contained within said conduit.

More particularly, however, this invention deals with certain improvements in my earlier form of pipe cap, which I have disclosed and broadly claimed in my co-pending application No. 353,012, filed January 19, 1907, whereby the same is simplified in construction and is better adapted for practical use under certain conditions.

Inasmuch as certain of the particular advantages characteristic of this invention prominently appear in the herein illustrated specific application thereof, it will be conducive to clearness to disclose it through such embodiment.

This invention has for its object to provide a device of the foregoing nature commonly known in the art as a pipe cap which, in general, may be said to comprise an annular collar, capable of being initially secured to both the end of the conduit and to the adjacent support, and also an overlying hood which in turn is adapted for being subsequently secured with great facility to the collar.

Another object of the invention is to so devise the various parts comprising the pipe cap that they may be very easily assembled and secured, not only together but to both the conduit and the supporting wall or pole, as the case may be, by means of a single bolt and without involving the difficult manipulation of small screws and the like.

Still another object is to obtain a pipe cap comprising a collar having a vertically extending rear ear which is suitably apertured for the reception of a bolt whereby it may

be secured to the adjacent support, and which collar is so designed as to be capable of being readily fitted over or otherwise secured to the conduit.

The invention also proposes a hood, adapted to be used in conjunction with the aforesaid collar, having a vertically extending rear lug which is complementary to the aforesaid ear, and is also adapted to be engaged and fixed in place by the retaining bolt.

Other objects and advantages will be in part obvious from the annexed drawings, and in part pointed out in the following description.

In general, this invention seeks to provide a means of the class described which from an electrical standpoint will in practical usage possess a high degree of effectiveness, and which structurally considered, will be of the greatest possible simplicity and be composed of but few parts each capable of being manufactured at a minimum of cost and so correlated as to be capable of being very readily assembled by the ordinary worker in the art to accomplish the purposes intended.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the following claims.

In order that this invention may be more fully understood, and made comprehensible to others skilled in its relating arts, drawings illustrating one of the various applications of the same are appended as a part of this specification, and while the controlling principles of the invention may be otherwise applied by modifications falling within the scope of the claims, the herein disclosed embodiment is that which will ordinarily be resorted to in practice, and is regarded as representing substantial improvements over many of the obvious and implied variations of the same.

In the appended drawings, corresponding parts are similarly referred to by like characters of reference throughout the figures, of which

Figure 1 is a side sectional elevation showing the parts assembled, and showing the general relationship therebetween; Fig. 2 is

a front sectional elevation, or in other words, a vertical medial section taken transversely through Fig. 1, showing the arrangement of certain parts not clearly apparent from said figure; Fig. 3 is a top plan view of the device 5 showing the parts assembled; Fig. 4 is a side sectional elevation of the hood, disassociated from the webless collar. Fig. 5 is a front sectional elevation of the disassociated hood; 10 Fig. 6 is a top plan view of said hood; Fig. 7 is a side sectional elevation of the webless collar alone; Fig. 8 is a front sectional elevation of the same; while Fig. 9 is a top plan view thereof.

15 Referring now to the aforesaid figures, B represents the collar which is preferably webless as shown, and is adapted for being mounted on the extreme end of the conduit. To this end the collar may comprise an annular portion 1, which may be of some little 20 length and may have its interior surfaces smooth and of sufficient diameter to be readily slipped over the end of the conduit. Since the latter will ordinarily be secured to the retaining wall along intermediate or other 25 portions and be thereby prevented from undergoing a downward longitudinal displacement, it will usually suffice for the collar to prevent transverse and upward movement 30 of the conduit, and I accordingly propose to eliminate where possible the customary threaded connection between the collar and the conduit, as the threading and fitting together of these parts involves a considerable 35 expense and inconvenience. It will be understood, however, that such threads may be provided if so desired, as shown by Fig. 2. The upper rim 2 of the collar is preferably rounded and also shouldered at 3, so as to 40 provide a bore which will be substantially flush with the inner surface of the conduit in order that the cable may pass therethrough without any liability of abrasion, and also in order that the relations between the collar and the conduit may be more definitely 45 and easily predetermined. Here it may be noted that this invention also proposes a set screw 14, which may in certain cases be employed to establish a fixed relation between 50 the conduit and collar when the screw threads have been dispensed with. At its rear such collar is provided with a vertically extending ear 4, which is orificed at 5 for the passage of a retaining bolt 6 so that it may be 55 secured to the support. That is to say, the ear extends upwardly in the same direction as the conduit so that it may be said to lie in the vertical plane defined by the axis of said conduit so as to bring its orifice for the bolt 60 directly over the end of said conduit. It will at once be perceived that this very simple and easily made collar can be quickly slipped over the end of the conduit and positioned by means of the single bolt 6. Because of the peculiar arrangement of the

parts, the bolt will be positioned directly over the end of the conduit so as to lie in the plane passing of said conduit, as a result of which, any strains which normally tend to cause a separation of the pipe cap pass directly against the end of the conduit and do not tend to cause the pipe cap to swing to one side. When setting up the device, however, this bolt will not in the first instance be driven or screwed entirely home until the hood A has been put in place when, because of the peculiar corelationship between the interfitting parts, by completely driving or screwing home the retaining bolt the hood and the webless collar will simultaneously be bound together. 70 75 80

The hood A merely consists of a dome 7 of suitable contour which is preferably somewhat elongated and spread so as to entirely clear the collar at the sides and front, as shown by the drawings. A very considerable advantage resides in this arrangement inasmuch as a free space 8 of considerable size is provided for the egress of the cables, and at the same time by having the hood appreciably distanced from the collar at the sides, as shown at 9, the flow of water from the hood to the collar along an intervening web or body portion (which the shown specific embodiment of this invention does not have) is entirely prevented, and the water will drip from the lower edges of the hood. Such edges may be provided with a plurality of small teats 10, shown in Figs. 1 and 4, which will 100 drain all the moisture from the inner and outer surfaces of the hood and keep the latter dry, and which will also enable the water to drop more freely from the hood and prevent the formation of icicles in cold weather. At the rear, the hood is provided with a vertically extending lug 11, which is complementary to the ear 4 of the collar, and which preferably, as shown, is bifurcated or apertured at its upper end and thereby adapted for being conveniently slipped over the shank of the retaining bolt 6, so that upon tightening the latter all the parts may be simultaneously secured together. The slot in the lug may of course open from the sides. To promote the interfitting of the hood and collar, the latter may be provided with a recess 13 into which is seated a complementary part of the hood, which part may form the bottom of an analogous recess 12 in the hood, and in this manner the hood and collar may be locked against relative movement in a horizontal plane. It will thus be readily appreciated that the assembling of the several parts may be very easily done without the assistance of special tools or appliances and without involving the use of small screws or other attaching means, which are so likely to become loose during the mounting of the parts. 105 110 115 120 125

As many changes could be made in the above construction, and many apparently 130

widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative, and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of novelty of the invention herein described and all statements of scope thereof which as a matter of language might be said to fall therebetween.

Having thus described my invention, I declare that what I claim as new and desire to secure by Letters Patent, is,—

1. A device of the class described comprising in combination, an upright conduit, an annular collar having a substantially smooth bore telescoping the end thereof and adapted to be readily slipped into said relation, a hood overlying said collar, and means comprising an ear extending upwardly in the direction of said conduit for simultaneously securing the hood to said collar and the latter to a support.

2. A device of the class described comprising in combination, an upright conduit, an annular collar telescoping the end of said conduit, said collar having a vertically extending ear provided with an orifice overlying the end of said conduit for a bolt securing said collar to a support whereby the strains from said bolt will tend to urge said collar directly onto said conduit, and a detachable hood overlying said collar and having its lower front rim spaced away from the opposite portion of the collar whereby an intervening space between said parts is provided, said hood having a vertically extending lug provided with an orifice adapted to be brought into alinement with the orifice in said ear whereby a bolt may be passed through said alined orifices to secure said collar and hood together.

3. A pipe cap comprising in combination, an annular collar adapted to be engaged with a cable conduit, said collar having a rounded upper edge and being provided at its rear with an ear extending upwardly in parallelism with the conduit whereby it may be secured to an adjacent support, and a hood secured to the collar by means of a complementary vertically extending lug, the front portion of the rim of said hood being spaced away and entirely free from said collar or extensions thereof and being below the upper rounded edge thereof.

4. A pipe cap comprising in combination, a collar adapted to be secured to a cable conduit and at its rear providing an ear extending upwardly in the direction of said conduit and having overlying the end of the latter an orifice adapted to receive a screw for securing the same to an adjacent support, and a hood

having a vertically extending extension adapted to be engaged by said screw, whereby upon tightening the same the hood and collar will be clamped together and secured to the support.

5. A pipe cap comprising in combination, a collar adapted to be loosely telescoped over the extreme end of a cable conduit and having a vertically extending rear ear provided adjacent its end with an orifice overlying the end of the conduit adapted to receive a screw for securing the same to an adjacent support, and a hood surmounting said collar and having a bifurcated lug adapted to straddle the shank of said screw and be thereby positioned against displacement upon tightening the screw.

6. A device of the class described comprising in combination, an upright conduit, an annular collar secured to the end thereof and adapted to be readily brought into said relation, a hood overlying said collar, and having its lower edge provided with a plurality of teats, and means for simultaneously securing the hood to said collar and the latter to a support.

7. A device of the class described comprising in combination, an upright conduit, an annular collar telescoping the end of said conduit, said collar having a vertically extending ear provided with an orifice overlying the end of said conduit for a bolt securing said collar to a support, and a detachable hood overlying said collar and at its rear an interlocking engagement therewith and having its lower rim spaced away from the opposite portion of the collar whereby an intervening space between said parts is provided, said hood having a vertically extending lug provided with an orifice adapted to be brought into alinement with the orifice in said ear whereby a bolt may be passed through said alined orifices to secure said collar and hood together.

8. A pipe cap comprising in combination, an annular collar adapted to be engaged with a cable conduit, said collar having a rounded cable bearing edge and being provided at its rear with an ear extending upwardly in the direction of said conduit and provided above the end of the latter with an orifice whereby it may be secured to an adjacent support, and an overlying hood at its rear in interlocking engagement with said collar and secured to the latter by means of a complementary vertically extending lug, the front portion of the rim of said hood being spaced away from said collar and being below the rounded edge thereof.

9. A pipe cap comprising in combination, a collar adapted to be loosely telescoped over the extreme end of a cable conduit and having a rearwardly and vertically extending ear extending upwardly in the direction of the conduit and terminating above the end of

said conduit provided adjacent its upper end with an orifice adapted to receive a screw for securing the same to an adjacent support, a set screw passing through said collar into
5 contact with said conduit, and a hood having a teated lower rim and surmounting said collar and having a rearwardly and vertically extending bifurcated lug adapted to straddle the shank of said screw and be thereby po-

sitioned against displacement upon tightening the same. 10

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

WILLIAM H. BLOOD, JR.

Witnesses:

ALBERT F. NATHAN,
R. S. BLAIR.