(No Model.)

H. H. LUSCOMB.

INSULATING TURN BUCKLE.

No. 524,467. Patented Aug. 14, 1894.

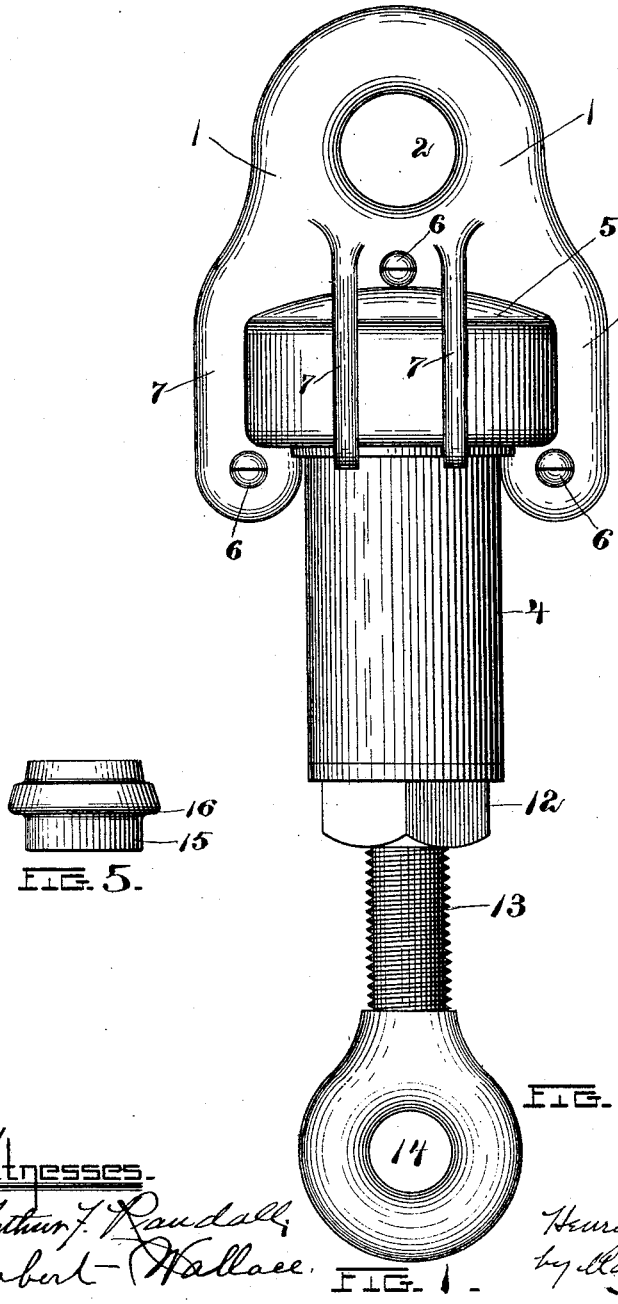

FIG. 1.

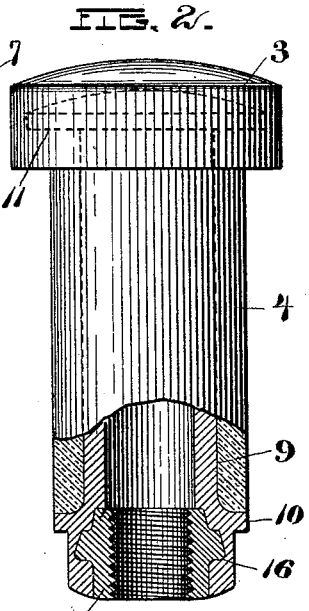

FIG. 2.

FIG. 5.

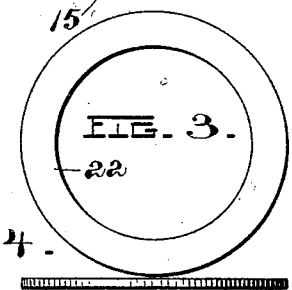

FIG. 3.

FIG. 4.

Witnesses.
Arthur J. Randall
Robert Wallace.

Inventor.
Henry Herbert Luscomb
by Macleod Calvert Randall
his Attorneys

UNITED STATES PATENT OFFICE.

HENRY HERBERT LUSCOMB, OF HARTFORD, CONNECTICUT.

INSULATING-TURNBUCKLE.

SPECIFICATION forming part of Letters Patent No. 524,467, dated August 14, 1894.

Application filed June 5, 1894. Serial No. 513,524. (No model.)

To all whom it may concern:

Be it known that I, HENRY HERBERT LUSCOMB, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Insulators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide an improvement in insulators, and relates to that class of insulators which are termed "strain insulators" and which are provided with a turn-buckle device, comprising a screw bolt and a revoluble socket therefor, by means of which the slack in the wire or other flexible support for the insulator may be taken up.

My invention is fully set forth in the following description and illustrated in the accompanying drawings, and the novel features thereof are pointed out in the claims which are appended hereto.

In the said drawings, to which reference is made in the following description, Figure 1 is a plan view of an insulator embodying my invention, the screw bolt being shown as partly withdrawn from its socket. Fig. 2 shows mainly in elevation but partly in longitudinal section the revoluble connecting piece or bolt-socket detached. Figs. 3 and 4 are plan and edge views of the washer which is placed underneath the head of the connection shown in Fig. 2. Fig. 5 is an elevation of the bushing through which the screw-bolt passes.

Strain insulators possessing the same exterior form as the insulator herein shown and described have been made hitherto. These insulators have been provided, also, with insulating material of the same kind and arranged in the same manner as the insulating material herein shown. They have, however been made from brass, all the metallic parts thereof being of that material, to avoid rusting. This material is expensive and hence the use thereof is undesirable. By the employment of the construction herein set forth, I am enabled to use iron, instead of brass throughout the greater portion of the metal parts, an equally strong and durable insulator being obtained at greatly reduced cost.

Referring to the drawings, the part designated at 1 represents one of the metallic parts of the insulator, it being provided with an eye at 2, by means of which it may be secured to a wire, or the like flexible support. The part 1 is constructed in two parts or halves, and is provided with a cavity or socket to receive the head 3 of the revoluble connection 4. This socket or cavity is formed within the enlarged portion 5 of the part 1, one half of said portion 5 being integral with one half of the part 1, and the other half of the portion 5 being integral with the other part or half of the part 1. By separating these halves the head 3 may be placed within the cavity or socket. Screws or rivets are provided at 6 by means of which the two halves of the part 1 are firmly secured together. The part 1 is formed with webs 7 which extend over the portion 5, so as to increase the strength of the device and give it capacity to resist tensional strain. The part 4 comprises a spool-shaped metal portion 9 provided at one end thereof with an annular flange 10 and having at the other end thereof a head 11. Outside the flange 10 is a polygonal portion 12 adapted to receive a wrench by means of which the part may be turned. The body of this metallic connecting piece 4 is covered with an exterior layer of insulating composition which may be of any well known character, and which is applied in a plastic state and then allowed to harden. This insulating layer forms the entire exterior of the head 3 and body or shank 4.

A screw bolt 13 is provided which has an eye 14 by means of which it may be secured to a wire or the like support. This bolt is screwed into the end of the part 4 and projects within the same. In order to prevent rusting, the bolt is made preferably of brass, and the internally threaded bushing or socket shown at 15 into which it is screwed is also made of brass, while the remaining metal portions are made of any suitable material, such for example, as cast or malleable iron.

The bushing 15 preferably is of the shape shown in Figs. 2 and 5 and is provided with an annular projection or flange 16 which serves to better hold it in place. This bushing is secured within the end of the iron interior portion of the revoluble connection. I prefer in practice to secure this bushing in

place as follows: The bushing is placed on the core which is employed in casting the metallic spool-shaped connection and the iron from which the connection is formed is then poured into the mold and flows around the brass bushing. By pouring the iron at the right temperature, the surface of the brass is fused slightly and the brass and iron are firmly united so that the brass bushing cannot be withdrawn from the iron under any strain which the insulator will bear. The fusion of the surface of the brass and its union with the iron results in an integral union of the two metals or parts. While I prefer this method of securing the bushing in place, I do not desire to limit myself thereto, inasmuch as many of the advantages of my construction may be obtained by securing the bushing in place in any well known manner, as by threading or uniting said brass bushing in place.

To resist wear and abrasion between the under side of the cap 3 and the approximate faces of the inturned ends of the webs 7, I provide a washer of asbestos material shown at 22, which is slipped over the part 4, and placed against the under side of the cap 3 before the cap is placed in its socket in the part 1.

By the construction above described, I am enabled to make a strain insulator of the required strength and durability at a relatively low cost.

The bushing may be of any suitable material which is free from liability to oxidation.

What I claim is—

1. An insulator comprising a holder having a socket or cavity therein, a revoluble connection having at one end thereof a head or enlarged portion fitting within said socket or cavity in the holder and provided with a metallic body having at the other end a threaded bushing and a screw bolt fitted to said bushing.

2. An insulator provided with a connection having applied to the free end thereof, a bushing of non-oxidizable material, and a screw-bolt composed of material of similar nature, fitted to said bushing, substantially as described.

3. An insulator provided with a connection having applied to the free end thereof a bushing of non-oxidizable material fused to the metal of said connection, and a screw bolt composed of material of similar nature fitted to said bushing, substantially as described.

4. The method herein described of applying and connecting a bushing to a metallic part or connection of an insulator which consists in inserting the said bushing in the mold in which said other part is cast, casting the other part around the said bushing, and regulating the heat of the molten metal so as to occasion the fusing together of the bushing and the other part, substantially as set forth.

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

HENRY HERBERT LUSCOMB.

Witnesses:
WILLIAM A. WHITE,
JAMES A. SPALDING.