March 25, 1930. H. A. EWEN 1,751,580

ELECTRIC INSULATOR

Filed April 1, 1925

Fig. 1

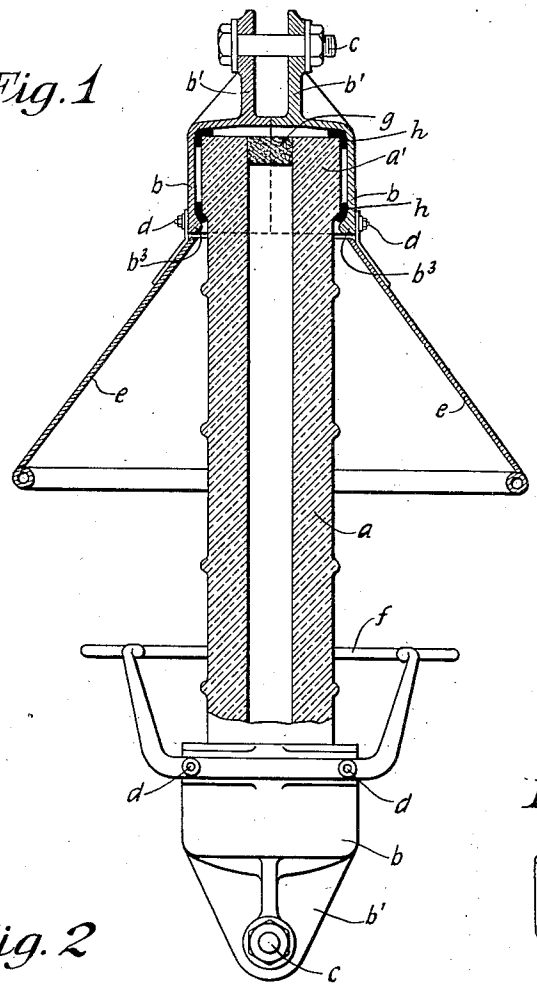


Fig. 2

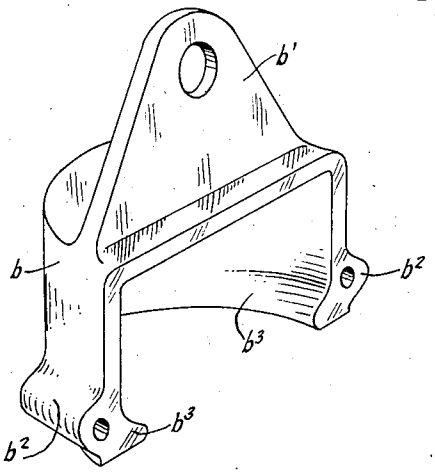
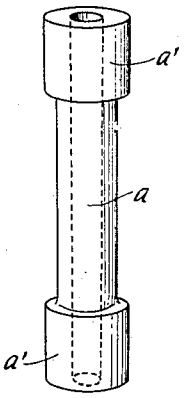


Fig. 3



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UNITED STATES PATENT OFFICE

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ELECTRIC INSULATOR

Application filed April 1, 1925, Serial No. 19,763, and in Great Britain April 4, 1924.

This invention relates to electric insulators and its object is to provide an insulator in which the porcelain stem may be readily replaced and fittings, such as a weather shield and a corona ring, may be easily attached.

According to this invention I provide a clamp or cap made in two pieces each provided with a wing having in it a bolt hole.

Preferably the insulator proper consists of a porcelain stem or tube having an enlarged head at each end. A clamp or cap fits over each head, the cap being provided with a thickened rim fitting under the head having lugs through which pass two bolts securing the two parts of the cap together. A weather shield may be suspended from the two bolts of the cap at one end of the stem and an anti-corona ring may be supported by the two bolts of the cap at the other end of the stem or tube, so that these fittings may be secured in place without any additional bolts being required.

The invention is illustrated in the accompanying drawing, in which Figure 1 is a part sectional elevation showing an insulator provided with its clamps and fittings, Figure 2 is a perspetcive view to a larger scale of one half of a clamp or split cap, and Figure 3 is a perspective view to a smaller scale of one type of insulator proper.

Referring mainly to Figure 1, a is a porcelain insulator tube provided at each end, as is also shown in Figure 3, with an enlarged head a^1 and carried between end caps b, each formed, as shown in Figure 2, of two half caps. The clamping pressure may be taken upon a packing h h. Each half cap is provided with a wing b^1 having in it a bolt hole with which engages a bolt c (to which may be attached a shackle), and with a pair of lugs b^2, and a thickened rim b^3, which fits under the enlarged head a^1 of tube a. d are clamp bolts which enter bolt holes in the lugs b^2 and which also serve to hold in the case of one clamp the lugs of a weather screen e, and, in the case of the other clamp, a fitting which carries the anti-corona screen f. g is one of two end plugs placed in the tube a in order to seal its interior against the entrance of atmospheric moisture.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I claim the following:—

1. In combination, a tubular high tension insulator having enlarged end portions, separable shackle caps surrounding the enlarged end portions, shackle bolts on one part of the caps, clamping bolts on another part, packing between the caps and the insulator, plugs for the ends of the insulator to prevent atmospheric moisture from affecting the insude of the insulator, a corona ring attached to one cap by means of its clamping bolts, and a weather screen attached to the other cap by means of its clamping bolts.

2. In combination, an insulator, two-piece split clamping caps surrounding the ends of the insulator, clamping means including a rim portion of the cap and clamping bolts for joining the two-pieces of the cap together, supports attached to the caps by the clamping bolts, a weather screen and a corona screen attached to the suporting means.

3. In combination, a cylindrical insulator having enlarged end portions, two-piece caps surrounding the end portions and having thickened clamping rings, clamping means on said caps, shackle means on each cap, protecting means for the insulator, and supports held by the clamping means for supporting said protecting means.

4. In combination, an insulator, removable split end caps fastened by clamping bolts, a weather shield attached to one of said end caps by means of its clamping bolts, and a corona screen attached at the other of said end caps by means of its clamping bolts.

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