May 13, 1958 W. E. SKIDMORE 2,834,830

SERVICE INSULATOR CONSTRUCTION

Filed April 12, 1955

Fig. 1.

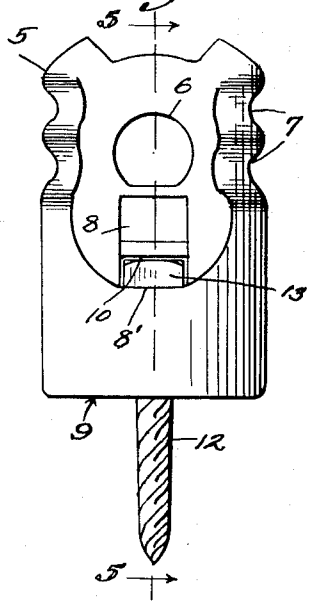


Fig. 4.

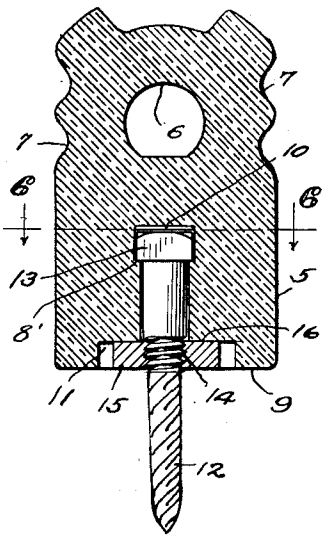


Fig. 5.

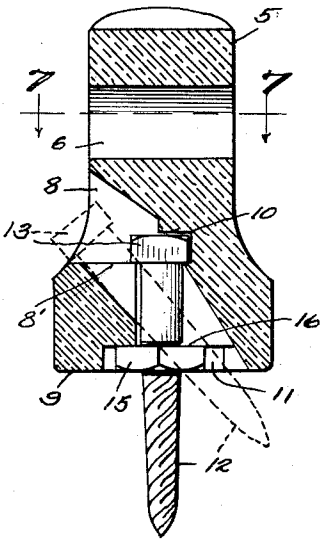


Fig. 2.

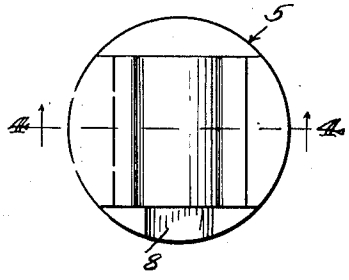


Fig. 6.

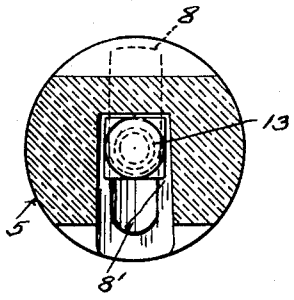


Fig. 7.

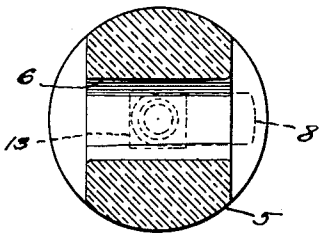
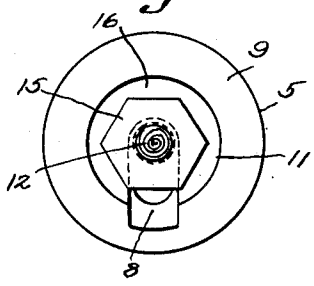


Fig. 3.



Walter E. Skidmore

INVENTOR

BY C. A. Snow & Co.

ATTORNEYS.

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2,834,830

SERVICE INSULATOR CONSTRUCTION

Walter E. Skidmore, East Liverpool, Ohio

Application April 12, 1955, Serial No. 500,798

1 Claim. (Cl. 174—165)

This invention relates to service insulator construction, the primary object of the invention being to provide a service insulator wherein the screw of the insulator is self-centered and is anchored within the body of the insulator by mechanical means to insure against the screw pulling out of the insulator body as it is being positioned on its support.

Another object of the invention is to provide an insulator wherein the screw thereof is provided with the conventional lag screw threads and in addition a machined threaded section to receive a securing nut for securing the screw in the opening of the insulator body, in lieu of the usual molded lead which frequently becomes loose, releasing the screw from the body of the insulator.

Another object of the invention is to provide a service insulator having an opening so arranged with respect to the outer surface thereof, that a lag screw may be readily positioned therein and secured in position, the wall of the opening being such as to cooperate with the head of the lag screw to prevent rotation of the lag screw with respect to the body, as the securing nut is being positioned on the lag screw securing the lag screw in place.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 is an elevational view of a service insulator constructed in accordance with the invention.

Fig. 2 is a plan view thereof.

Fig. 3 is a bottom plan view of the insulator.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 1.

Fig. 6 is a sectional view on line 6—6 of Fig. 4.

Fig. 7 is a sectional view taken on line 7—7 of Fig. 5.

Referring to the drawing in detail, the body of the insulator is indicated generally by the reference character 5, the body being constructed preferably of insulating material, preferably porcelain.

Formed in the upper portion of the body, is a transversely disposed wire opening 6 through which a live wire may be extended, and secured by means of wires, not shown, and which are secured in the grooves 7 formed exteriorly of the body adjacent to the opening 6.

The body 5 is also provided with an opening 8 which is disposed at an oblique angle with respect to the bottom 9 of the body, the opening 8 having an offset portion providing a shoulder 10 within the body, which shoulder is in a direct line with the enlarged lower end 11 of the opening 8. The wall of said opening 8 is formed with flat parallel surfaces 8'.

The diameter of the opening 8 is such that a lag screw

12 may be positioned therein and moved laterally within the opening to swing the lag screw from an inclined position shown in dotted lines in Fig. 5 of the drawing, to the vertical position shown in full lines.

Since the lag screws have rectangular heads such as indicated at 13, when positioning a lag screw within the opening 8, the rectangular head will rest on surface 8' and fit against the shoulder 10, preventing rotation and movement of the lag screw longitudinally with respect to the body of the insulator allowing the lag screw to be screwed into a supporting surface.

As better shown by Fig. 4 of the drawing, the lag screw is provided with a threaded section 14, at the upper extremity of the threads of the lag screw, the threads 14 being machine-formed to receive a nut 15, which when rotated over the threaded section 14 in securing the lag screw in position, will bind against the shoulder 16 which forms a part of the enlarged end 11 of the opening 8.

It might be further stated that the base of the shoulder 10 is engaged by the lower surface of the head 13, so that when the nut 15 is tightened on the lag screw, the head 13 of the lag screw will be drawn into engagement with the lower end of the shoulder 10, securely clamping the lag screw and body of the insulator together, eliminating any possibility of the lag screw being drawn from the opening 8.

From the foregoing it will be seen that due to the structure shown and described, I have provided a service insulator wherein the usual lag screw is secured thereto by mechanical means, eliminating the necessity of securing a lag screw to its insulator by molding lead or similar material in the opening around the screw.

It will also be seen that with applicant's structure, a lag screw may be inserted in the body of the insulator, at the location of the job.

When positioning a lag screw in an insulator body, the lag screw is inserted in the opening 8 in a manner as show in dotted lines in Fig. 5 of the drawing. The lag screw is now moved to a position in line with the longitudinal axis of the body 5, whereupon the head 13 of the lag screw moves against the shoulder 10, holding the lag screw against rotation with respect to the body 5. The nut 15 is now threaded on the machine-threaded section 14 of the lag screw and the nut is threaded home, causing the lag screw to be securely held within the body of the insulator, against displacement.

Having thus described the invention, what is claimed is:

A service insulator comprising an insulator body having a transverse opening adjacent the upper end thereof, said body having an axial recess extending upwardly from the lower end thereof, said body also having an obliquely inclined opening extending downwardly from one side thereof and communicating at the lower end thereof with said recess, said body also having a shoulder on each side of said oblique opening parallel with the lower end of said body, a lag screw formed with a square head insertable in said body through said oblique opening, the head of said screw seating on said shoulder with the shank of said screw coaxial with the axis of said body, machine screw threads on said shank above the wood screw threads, and a nut engaging said machine threads and seated in said recess for tightly holding said lag screw relative to said body.

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