No. 741,994. PATENTED OCT. 20, 1903.

N. F. ANDERSON & E. BEBLER.

DEVICE FOR ATTACHING INSULATORS TO THEIR SUPPORTS.

APPLICATION FILED OCT. 27, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

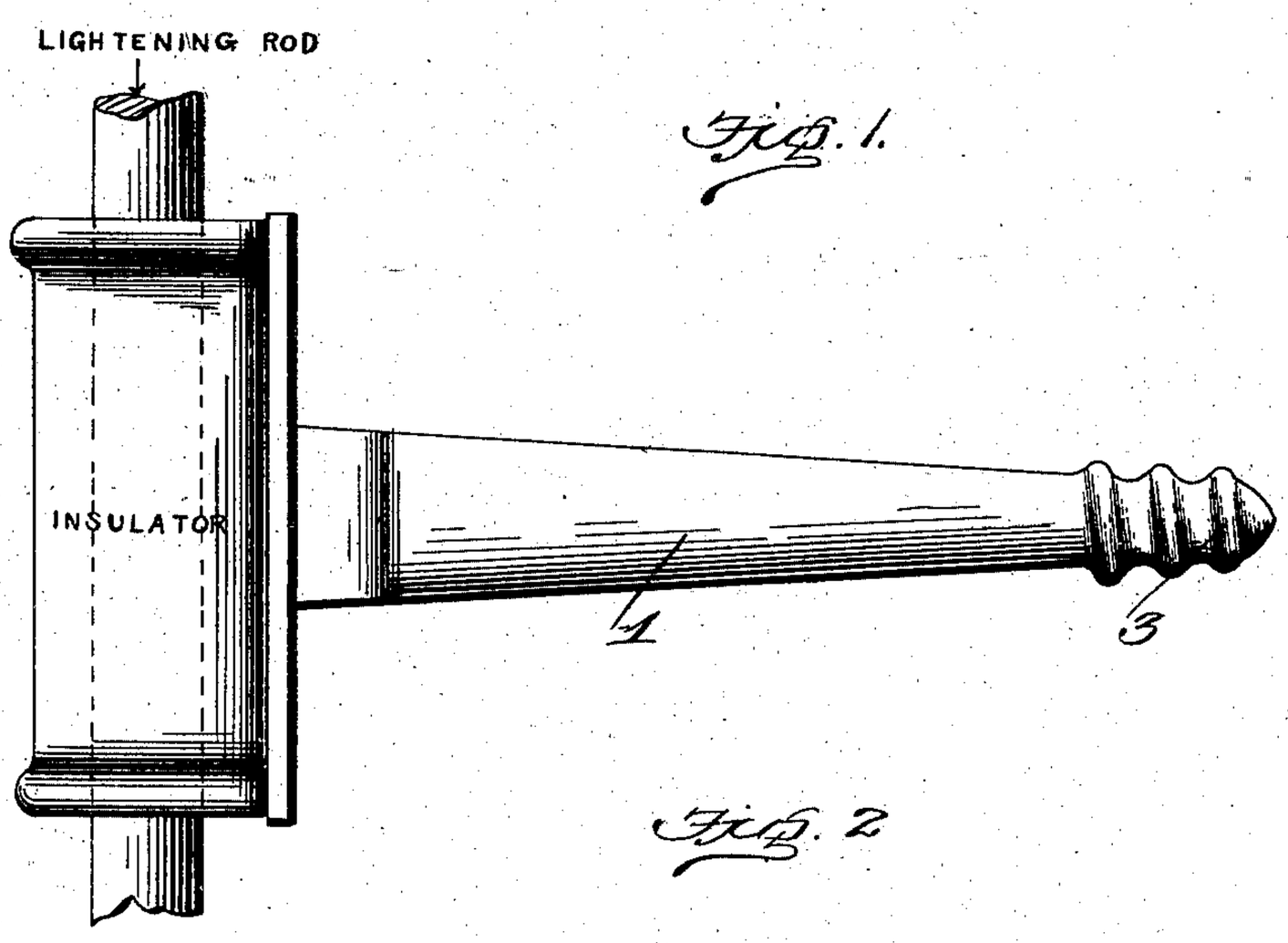


Fig. 1.

Fig. 2

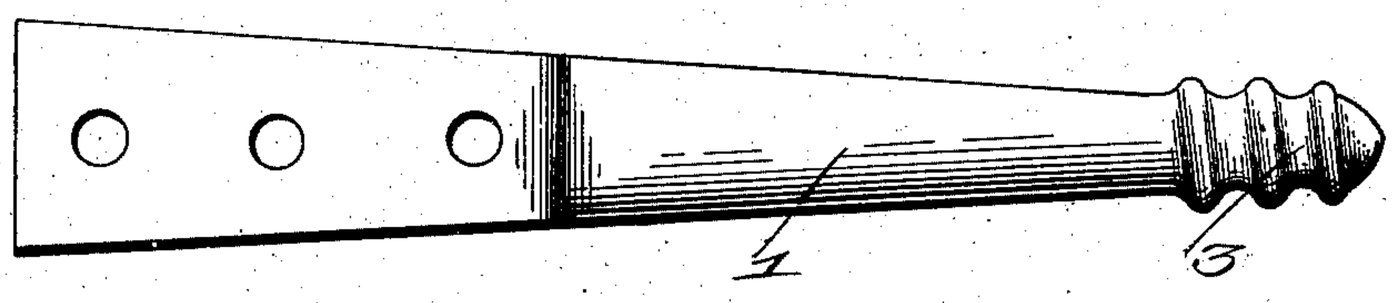


Fig. 3

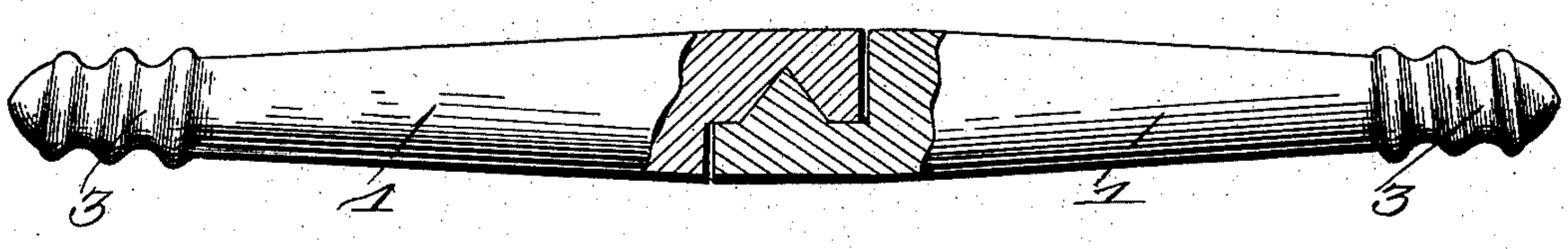
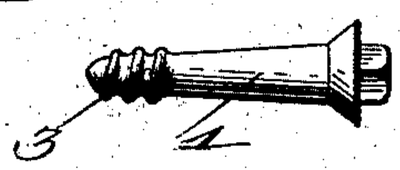


Fig. 4.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5.

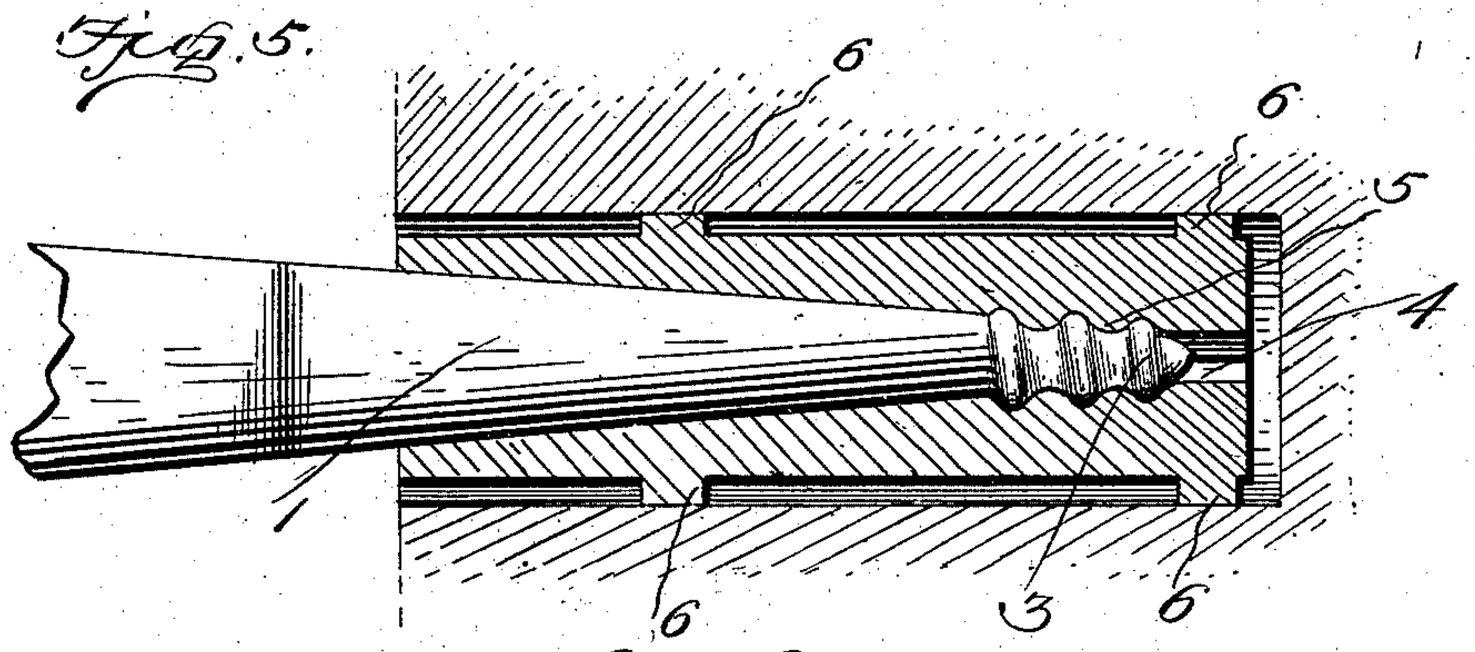


Fig. 6

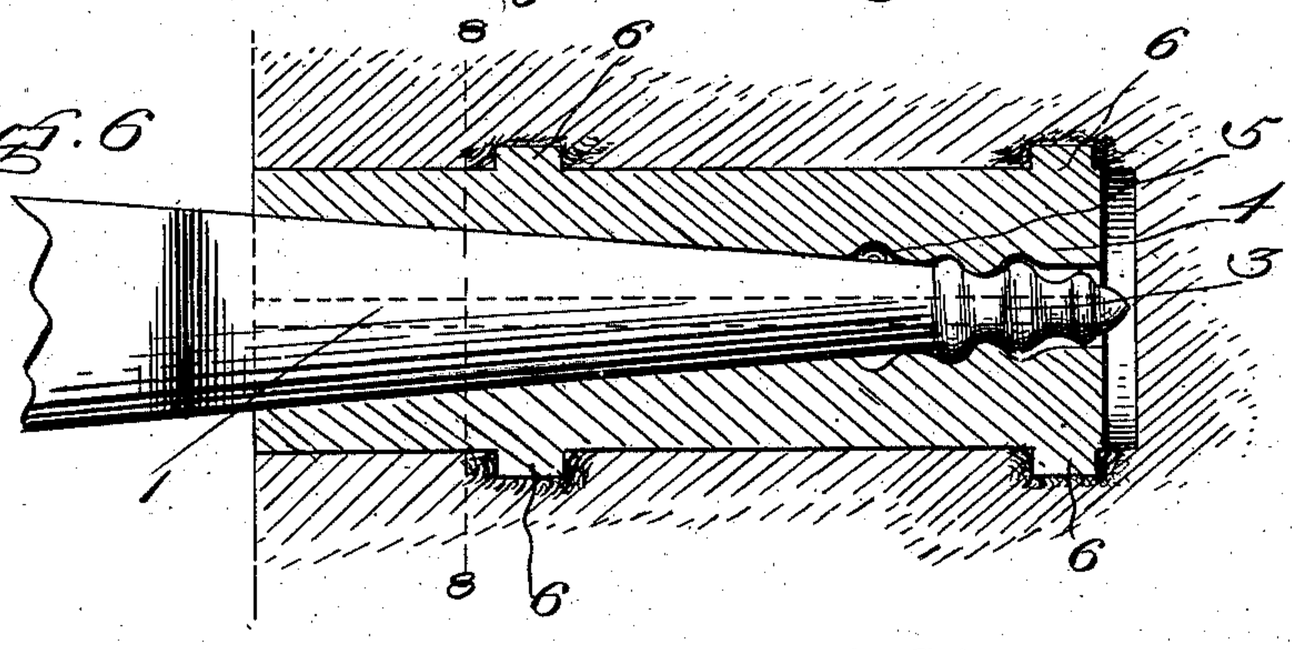


Fig. 7.

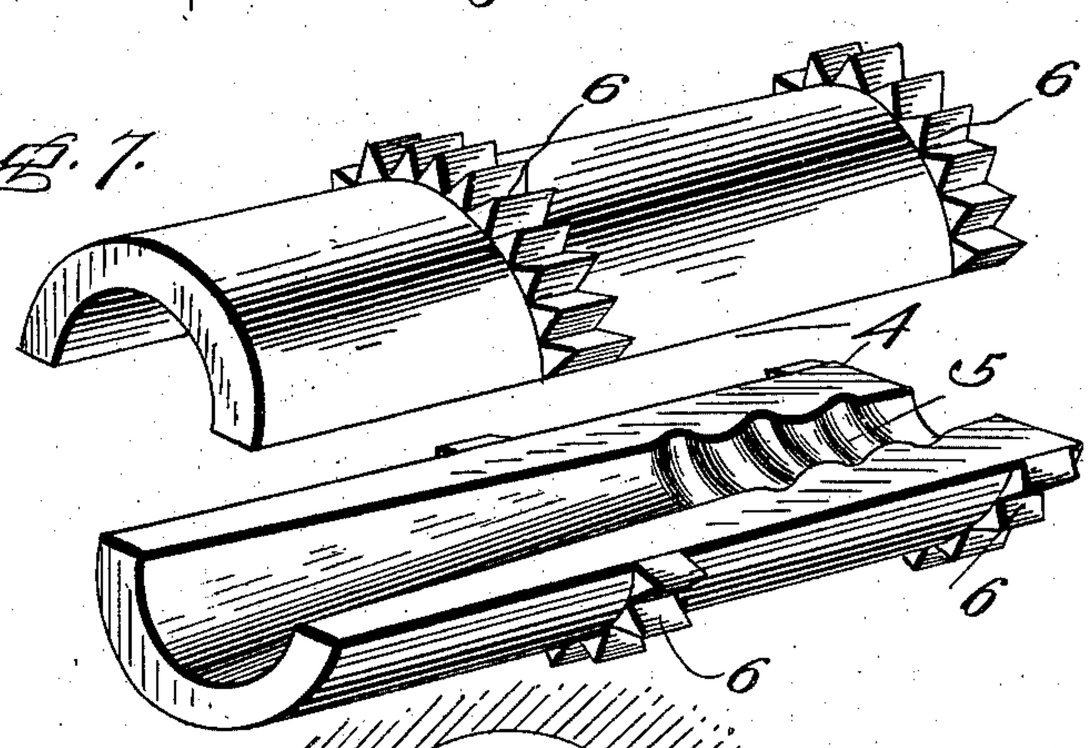
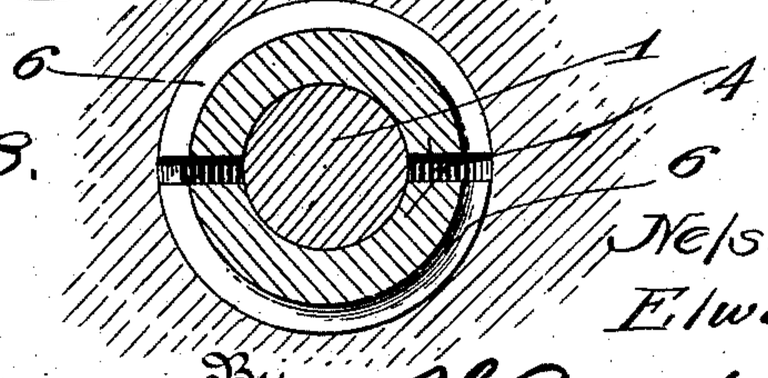


Fig. 8.



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No. 741,994. Patented October 20, 1903.

UNITED STATES PATENT OFFICE.

NELSON FILLMORE ANDERSON AND ELWOOD BEBLER, OF LOS ANGELES, CALIFORNIA.

DEVICE FOR ATTACHING INSULATORS TO THEIR SUPPORTS.

SPECIFICATION forming part of Letters Patent No. 741,994, dated October 20, 1903.

Application filed October 27, 1902. Serial No. 128,974. (No model.)

To all whom it may concern:

Be it known that we, NELSON FILLMORE ANDERSON and ELWOOD BEBLER, citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Devices for Attaching Insulators to Their Supports; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates primarily to devices for attaching insulators to their supports, but which may be adapted to many other uses—such, for instance, as for attaching the members of gate and door hinges to their respective supports, also to serve as supports for shelves, &c., and may be used to take the places under certain conditions of ordinary screws and bolts.

The object is to provide a device of this character which will firmly hold the article to which it is connected in place, but which will when properly manipulated allow the same to be readily removed.

With these and other objects in view the invention consists in the construction and combination of the several parts, as will be hereinafter more fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the device applied to an insulator. Fig. 2 is a side view of the device in the form of a shelf-support. Fig. 3 is a similar view showing it in the form of gate-hinge members. Fig. 4 is a similar view in the form of an attaching-screw. Fig. 5 is a longitudinal sectional view of the device, showing the parts in place and before being tightened up. Fig. 6 is a similar view after the bolt is entirely screwed in and the socket spread. Fig. 7 is a detail view of the parts of the socket separated. Fig. 8 is a cross-sectional view on the line 8 8 of Fig. 6.

In the drawings, 1 denotes a tapering shank or bolt, which may be provided at one end with some form of head to which is adapted to be connected the article to be supported and having formed on its opposite end screw-threads 3.

4 denotes a cylindrical sleeve or socket having a tapering bore and is divided longitudinally to form two semicylindrical halves, the bore in each of which is formed at their smaller ends with interior screw-threads 5, which when the two halves are placed together coincide and form a continuous threaded surface for the reception of the threaded end 3 of the bolt or shank 1. Each half of the socket 4 is also provided on its exterior surface with one or more rows of radially-disposed teeth or prongs 6, the purpose of which will presently appear.

The application of the device is as follows: A hole of the proper diameter is first bored into the object or support to which the devices are to be attached, and into this hole is placed the two-part cylindrical sleeve or socket 4. The screw-threaded end of the shank or bolt 1 is now inserted in the bore of said socket until said end engages the screw-threads formed on the walls of the bore, as shown in Fig. 5 of the drawings. The shank or bolt is now screwed farther into the socket, and owing to the tapering or conical shape of the shank and bore the two halves of the cylinder will be forced apart, thereby forcing the teeth or prongs 6 into the walls of the hole in which the cylinder is placed, which will securely hold the cylinder in place, and the threaded connection between the end of the shank and the interior of the cylinder will securely hold the shank.

To remove the bolt or shank, all that is necessary is to reverse the movement by which it was inserted. Thus it will be seen that while the wedging action of the bolt or shank when turned in one direction tightly holds all the parts a slight reverse movement will enable the bolt to be withdrawn.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation will be clearly understood without requiring further explanation.

Having thus described the invention, what we claim, and desire to secure by Letters Patent, is—

In an attaching or holding device, the combination of a bolt having a smooth-surfaced tapering shank provided at its smaller ex-

tremity with screw-threads, a divided sleeve or socket having a smooth-surfaced tapering bore terminating at its reduced ends in screw-threads, whereby the parts of said sleeve are adapted to be forced apart by the bolt to a restricted extent, leaving their meeting edges in juxtaposition so as to form a nearly annular shield for the bolt, and teeth or prongs arranged in annular rows on the outer surface of said socket, said teeth or prongs being triangular in form, disposed with their major axes longitudinally of the sleeve and projecting at right angles thereto, to sink into the object in which the socket is inserted and present penetrating points having both end and side shoulders to hold the said socket when expanded against longitudinal and rotary movement, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

NELSON FILLMORE ANDERSON.
ELWOOD BEBLER.

Witnesses:
F. P. ERNEST,
H. STEPHENS.