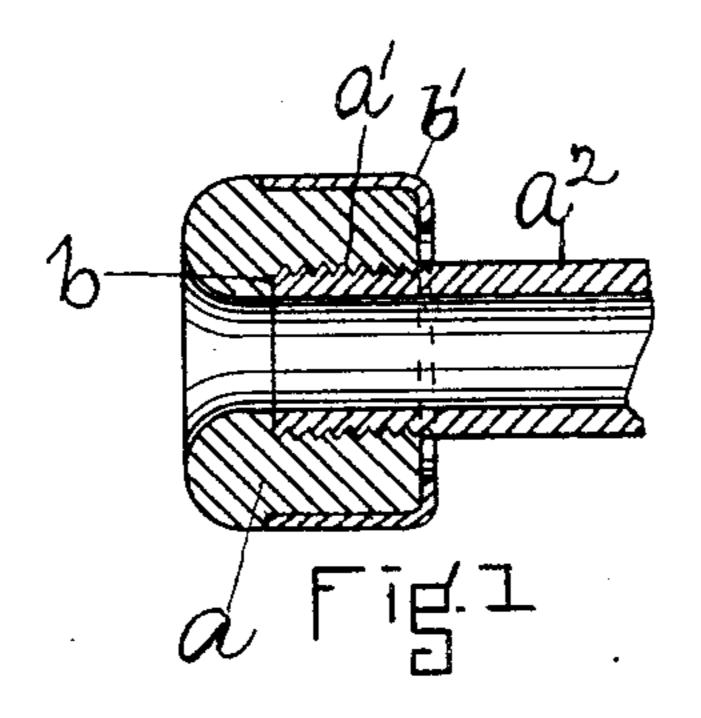
(No Model)

J. M. ANDERSEN.
OUTLET INSULATOR.

No. 582,514.

Patented May 11, 1897.



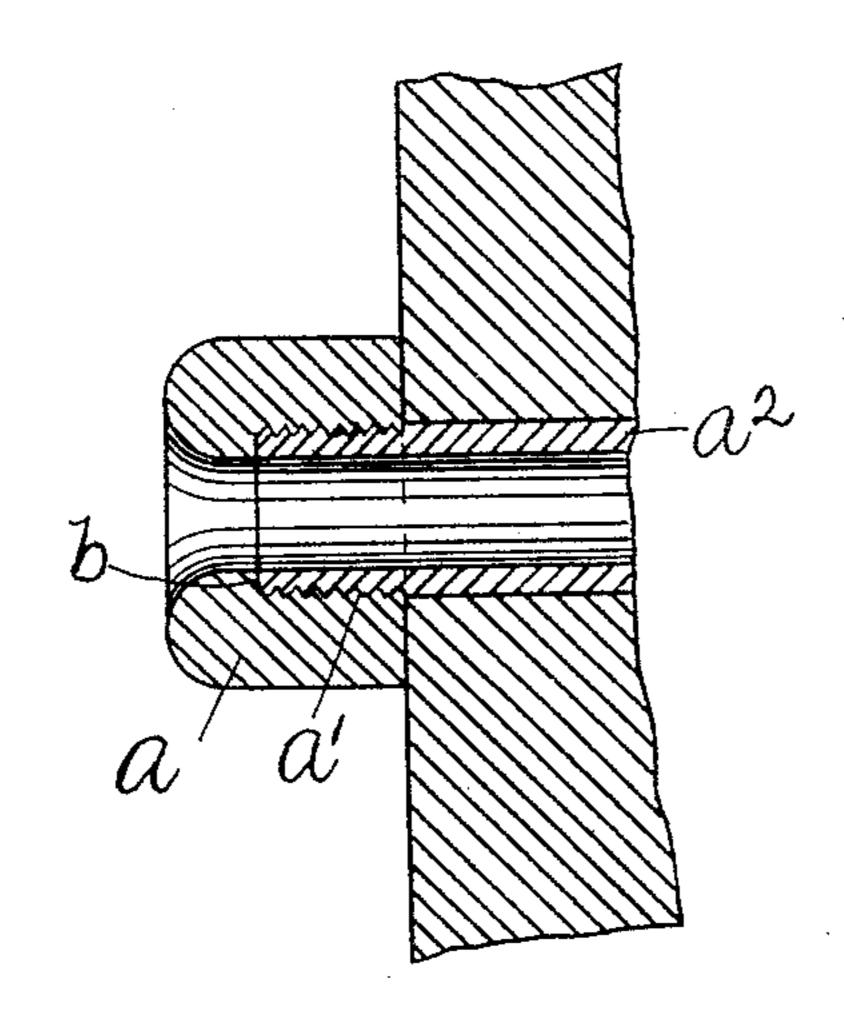


Fig.Z.

WITNESSES. Matthew M. Blunt. J. Murphy. INVENTOR. Johan M. Andersen Types. H. lehmehill

ATTY.

## United States Patent Office.

JOHAN M. ANDERSEN, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ALBERT ANDERSON, OF SAME PLACE.

## OUTLET-INSULATOR.

SPECIFICATION forming part of Letters Patent No. 582,514, dated May 11, 1897.

Application filed March 16, 1897. Serial No. 627,810. (No model.)

To all whom it may concern:

Be it known that I, Johan M. Andersen, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Outlet-Insulators, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to electric insulators of that class known as "outlet-insulators" and such as are now commonly employed in the interior-conduit system of wiring buildings.

My present invention has for its object to provide a simple, cheap, and efficient outlet-insulator which is adapted, if desired, to be secured onto the end of the pipe of the interior conduit or which may be secured onto a section of pipe which is screwed onto the end of the conduit-pipe.

In accordance with this invention the outlet-insulator comprises a sleeve of suitable insulating material provided on its inner circumference with screw-threads to engage corresponding screw-threads of the metal pipe of the conduit. The sleeve of insulating material may be provided with a metal ring or band to strengthen it and permit it to be turned onto the pipe with a wrench, if desired, without danger of crushing the said sleeve.

Figure 1 is a section of an outlet-insulator embodying this invention, and Fig. 2 a modification to be referred to.

Referring to the drawings, a represents a sleeve of insulating material, which is of suitable character or quality to permit it to be provided on its inner circumference with screw-threads a', which are adapted to engage corresponding screw-threads on the end of a pipe  $a^2$ . The pipe  $a^2$  may be the end of the pipe forming part of the interior conduit, or it may be a section of pipe which is adapted to be secured to the conduit-pipe.

The sleeve a is preferably provided on its inner circumference with an annular shoulder b, which is designed to abut against the end of the pipe  $a^2$  when the said sleeve is screwed thereon, the said shoulder acting as

a stop to limit the movement of the sleeve onto the pipe  $a^2$ . The sleeve a is preferably 50 reinforced or strengthened by a metal band or ring b', as shown in Fig. 1, so that, if desired, the said sleeve may be screwed upon the pipe  $a^2$  by means of a wrench or other tool with less liability of crushing or break-55 ing the said sleeves, but the ring or band may be dispensed with, as shown in Fig. 2.

The outer end of the sleeve of insulating material prevents the insulated wires (not shown, but which extend out through the in- 60 sulator) from making contact with the pipe  $a^2$  and avoids injury to the insulation on said wires, and consequently avoids short circuits and leaks from this cause.

The outlet-insulator herein shown and de- 65 scribed is simple, cheap, and highly efficient.

I claim—

1. As an improved article of manufacture, an outlet-insulator for interior-conduit systems, consisting of a sleeve of insulating ma-70 terial provided on its interior with screwthreads, substantially as and for the purpose specified.

2. As an improved article of manufacture, an outlet-insulator for interior-conduit systems consisting of a sleeve of insulating material provided on its interior with screwthreads, and a reinforcing ring or band on the outside of the said sleeve, substantially as and for the purpose specified.

3. As an improved article of manufacture, an outlet-insulator for interior-conduit systems, consisting of a sleeve of insulating material provided on its inner circumference with screw-threads to engage the threaded 85 end of a pipe, and with a shoulder to abut against the end of the said pipe, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 90 two subscribing witnesses.

JOHAN M. ANDERSEN.

Witnesses:

JAS. H. CHURCHILL, J. MURPHY.