No. 768,993. PATENTED AUG. 30, 1904.

W. B. HOPKINS.

WATERPROOF ENTRANCE BUSHING FOR WIRES.

APPLICATION FILED DEC. 22, 1903.

NO MODEL.

FIG. 1.

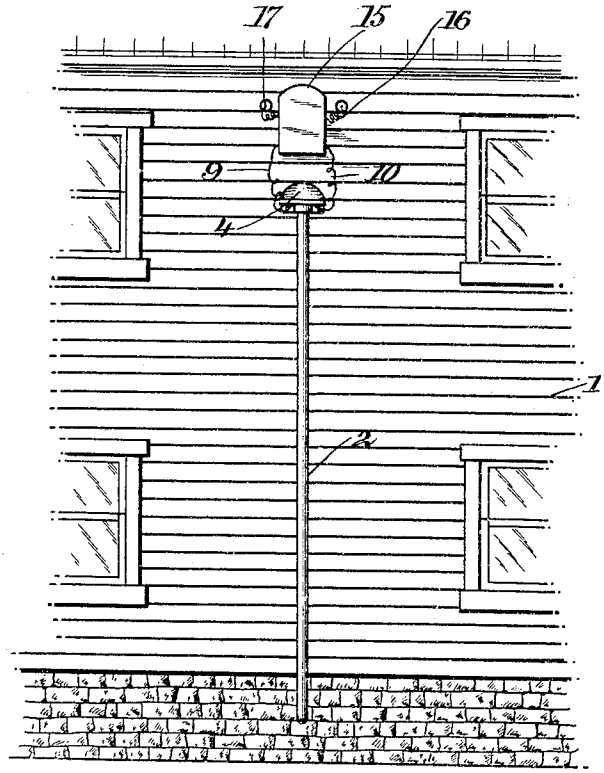



FIG. 2.

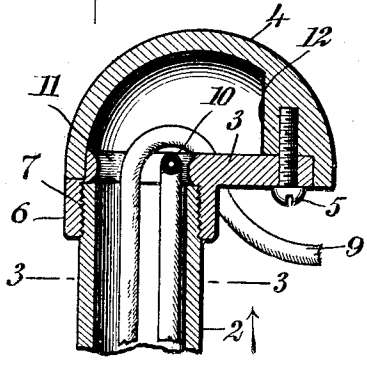
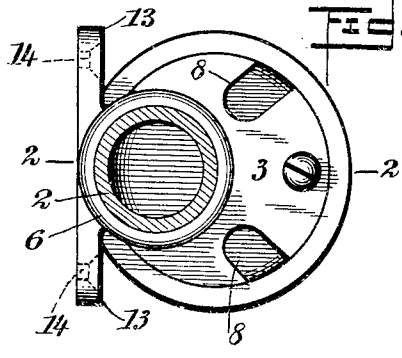



FIG. 3.




WITNESSES:

A. R. Appleman

Walton Harrison

INVENTOR

Walter B. Hopkins

BY

ATTORNEYS

No. 768,993. Patented August 30, 1904.

# UNITED STATES PATENT OFFICE.

WALTER BELL HOPKINS, OF PROVIDENCE, RHODE ISLAND.

## WATERPROOF ENTRANCE-BUSHING FOR WIRES.

SPECIFICATION forming part of Letters Patent No. 768,993, dated August 30, 1904.

Application filed December 22, 1903. Serial No. 186,177. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER BELL HOPKINS, a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Waterproof Entrance-Bushing for Wires, of which the following is a full, clear, and exact description.

My invention relates to waterproof entrance-bushings for wires—that is to say, to a device for running wires into buildings and closed spaces of various kinds without the possibility of water entering the conduits.

My invention also serves to prevent the abrasion of the wires and is provided with means whereby it may be readily mounted upon poles, buildings, &c., whereby the wires may be readily placed in position.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar charaters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation showing my invention as applied upon the exterior of a building. Fig. 2 is a vertical central section of the bushing and part of the conduit-pipe connected therewith, the view being taken upon the line 2 2 of Fig. 3; and Fig. 3 is a section upon the line 3 3 of Fig. 2 looking in the direction of the arrow, the wires being removed.

Disposed adjacent to a building 1 is a pipe 2, threaded at its upper end, as shown in Fig. 2. The bushing consists of two parts—to wit, a web 3 and a cap 4—these parts being secured together by means of a screw 5. The web 3 is provided with a collar 6, provided internally with a screw-thread 7, whereby it is secured upon the threaded end of the pipe 2, as described. The web 3 is provided with apertures 8, through which wires 9 10 are threaded upwardly. The web is further provided with a somewhat larger aperture 11, through which the wires are threaded in the opposite direction, as indicated in Fig. 2. These apertures are smooth, as indicated, and the surfaces immediately adjacent to the wire are preferably rounded, as indicated in Fig. 2. A bearing-block 12, integral with the cap 4, strengthens the cap at that portion engaged by the screw 5 and enables the screw to obtain a secure grip thereupon. The collar 6 is provided with ears 13, each having a screw-hole 14 for the purpose of securing the collar 6 directly upon a building, thereby supporting the web 3, which is integral with the collar, and the cap 4, which is secured thereto, as above stated.

With the construction above described it is impossible for water to enter the pipe 2 or any conduit or similar closure member connected therewith. The umbrella-like form of the cap causes the water to flow off readily, thus keeping the wires dry at the points where they pass through the web 3. It will be noted that the web 3 constitutes a bushing of a kind which will meet the requirements of the various insurance associations, in that it makes such a connection with the wires as will not cause abrasion of the wires, and that it admits of being fastened to buildings and otherwise complies with the various obvious requirements.

A fuse-box 15 is connected with the wires 16 17, leading directly into the building, and is of ordinary construction.

In order to assemble my apparatus, the cap 4 and the web 3 are secured rigidly together by means of the screw 5, as above described, and the collar 6 is then screwed upon the upper threaded end of the pipe 2, as indicated in Fig. 2. The wires may be threaded through the apertures 8 and 11 either before or after the parts are assembled, as desired.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a body portion provided with ears integral therewith, and also provided with apertures, said ears being provided with holes whereby said body portion may be mounted, and means for connecting a cap upon said body portion for the purpose of protecting the same from the weather.

2. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a body portion provided with ears integral therewith, whereby it may be secured upon a building, and also provided with a collar for engaging a pipe, said body portion being pro-

vided with apertures, one of them registering with said collar, and a cap for covering said body portion.

3. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a web portion provided with ears, said web portion being substantially circular in general outline and provided with apertures, means for fitting a pipe to said body portion comparatively near one of the edges thereof for the purpose of allowing said pipe to fit closely against the wall of a building, and a cap for covering said body portion, the arrangement being such that said cover projects outwardly from the wall.

4. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a web portion provided with apertures through which wires may be threaded, means for securing said web portion upon a wall, and a dome-like member connected with said web and adapted to shelter the same.

5. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a web provided with ears disposed adjacent with one of its edges and in alinement with each other for engaging a wall, a pipe for engaging said web, said pipe disposed comparatively near one of the edges of said web for the purpose of allowing said web to project laterally from the pipe a comparatively great distance in the opposite direction, and a cap mounted upon said web and concentric thereto, said cap being adapted to project outwardly from said wall a comparatively great distance so as to thoroughly protect the wires.

6. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a web provided with ears integral therewith whereby the same may be mounted upon a wall, and further provided with apertures and with means for securing a pipe to said web, said apertures having rounded surfaces to prevent the abrasion of wires threaded therethrough, a cap mounted upon said web, and means for connecting a pipe to said web independently of said ears.

7. As an article of manufacture, a waterproof entrance-bushing for wires, comprising a body portion provided with apertures, means for connecting said body portion upon a wall so that the same will be self-supporting, means for connecting a pipe to said body portion independently of the support therefor, said body portion being provided with apertures through which wires may be threaded, a cap provided with a lug and fitted upon said body portion, and a screw engaging said lug and said body portion for holding said cap secured thereupon.

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

WALTER BELL HOPKINS.

Witnesses:
WILLIAM J. HOPKINS,
WILLIAM W. HOPKINS.