(No Model.)

W. J. BOWEN.

ACOUSTIC AND ELECTRIC INSULATOR.

No. 286,681. Patented Oct. 16, 1883.

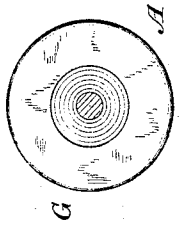


Fig. 4.

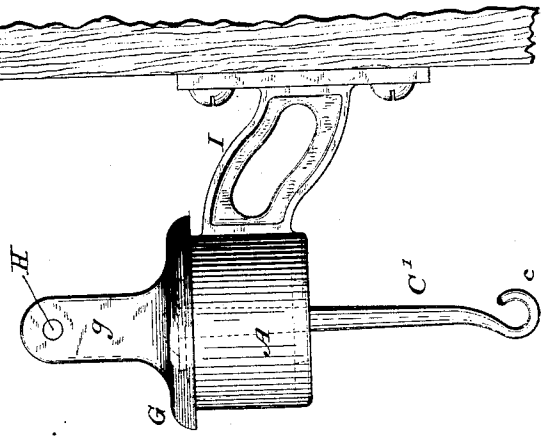


Fig. 3.

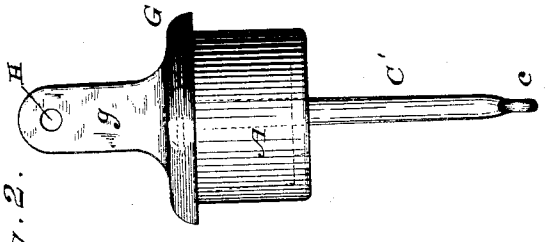


Fig. 2.

Fig. 1.

WITNESSES

Wm A. Skinkle

Alfred E. Newman

INVENTOR

William J. Bowen.

By his Attorney

Frankland Jannus.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM J. BOWEN, OF NORWALK, OHIO, ASSIGNOR TO HIMSELF, T. T. KECKELER, OF CINCINNATI, OHIO, AND Z. C. THIVING, OF MARSHALL, MICHIGAN.

ACOUSTIC AND ELECTRIC INSULATOR.

SPECIFICATION forming part of Letters Patent No. 286,681, dated October 16, 1883.

Application filed August 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. BOWEN, a citizen of the United States, residing at Norwalk, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Combined Acoustic and Electric Insulators; and I 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The present invention relates to improvements in devices for suspending and insulating electric conductors and for preventing the vibrations incident to air-strung wires being communicated to their support, the details whereof will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a sectional view of my improved acoustic electric insulator. Fig. 2 is a view in elevation thereof, the cap G being substituted for the ears B and wires C C of Fig. 1. Fig. 3 is a view in elevation, showing the insulator provided with a bracket for attaching same to buildings and walls generally. Fig. 4 is an inverted plan view, partly in section.

Similar letters denote like parts.

A represents the body of the insulator, which is in the form of a cup, tapering internally toward the bottom, and may be of galvanized cast-iron, porcelain, or any other suitable material. It should be of about uniform internal diameter, open at the top, and provided with an internal flange, *a*, at its lower portion. Its upper edge is extended into or provided with the ears B B, in which are secured wires C C, by means of which the device may be suspended by a wire or cord, D, connected by button E with cross-arm F. The cap G, also made of metal and provided with extension or ear *g*, may be fitted over the body A, and be secured thereto in any well-known manner—for instance, by means of screws or rivets passing through both cap and body—and when so secured the insulator can be attached directly to the cross-arm by means of a nail or bolt passing through aperture H therein.

Fig. 3 shows an obvious modification of my device, which consists in providing the body A with a bracket, I, to allow of the device being readily attached to walls, poles, &c. Within the said body A is placed a cushion, B′, consisting of a yielding or flexible non-conductor—as, for example, soft rubber, felt, or kerite. This rests upon and is permanently retained in position by the flange *a*. Through the cushion B′ extends a rod, C′, that terminates in a hook, *c*, within which the conductor is placed and supported. The rod C′ is provided with suitable head, *c′*, and, when found desirable, a washer, *d′*, may be interposed between the head *c′* and the cushion B′, in order to equalize and distribute the pressure thereon. The rod C′, being considerably removed from the flange *a*, is prevented from making contact therewith, and is, it will be seen, entirely supported by the elastic non-conductor, through which neither electricity nor the vibrations of the conductor itself can pass. It therefore constitutes a combined electric and sound insulator, and is, in addition to ordinary uses, especially adapted to carry the wires of the acoustic telephone.

The internal taper of the cup A renders it easier to put the parts together, since a slightly large cushion or inaccurately-molded cup are compensated for thereby, and when it is desired to separate the parts the rubber cushion, on account of the upwardly-increasing diameter of the cup, can be removed and replaced without difficulty.

Having described my invention, I claim—

1. A combined acoustic and electric insulator, consisting, essentially, of a cup or holder having an open upper and gradually-contracted lower portion and a suitable inwardly-projecting seat or flange at the bottom, and means, substantially as described, for attaching the same to its support, an elastic body placed within said cup and resting against its flange and tapering sides, and a hanger or rod extending through and supported by the elastic body, as set forth.

2. A combined acoustic and electric insula-

tor, consisting of a cup or holder having an open upper and contracted lower portion, a cap secured thereto, and provided with an ear having aperture therein for attaching the same to its support, an elastic cushion within said cup, and a hanger or rod passing through said cushion and extending from the body of the insulator, and provided with a hook within which the conductor is supported, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. BOWEN.

Witnesses:
G. W. BUTLER,
W. H. HUSTED.

Correction in Letters Patent No. 286,681.

It is hereby certified that in Letters Patent No. 286,681, granted October 16, 1883, upon the application of William J. Bowen, of Norwalk, Ohio, for an improvement in "Acoustic and Electric Insulators," the name of one of the assignees was erroneously written and printed "Z. C. Thiving;" that said name should have been written and printed *Z. C. Thwing;* and that the proper correction has been made in the files and records pertaining to the case in the Patent Office, and should be read in the Letters Patent to make it conform thereto.

Signed, countersigned, and sealed this 27th day of May, A. D. 1884.

[SEAL.]

M. L. JOSLYN,
Acting Secretary of the Interior.

Countersigned:

BENJ. BUTTERWORTH,
Commissioner of Patents.

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