(No Model.)

L. C. BALDWIN & J. C. THURSTON.

INSULATOR FOR TELEGRAPH WIRES.

No. 297,101. Patented Apr. 22, 1884.

Fig. 1.

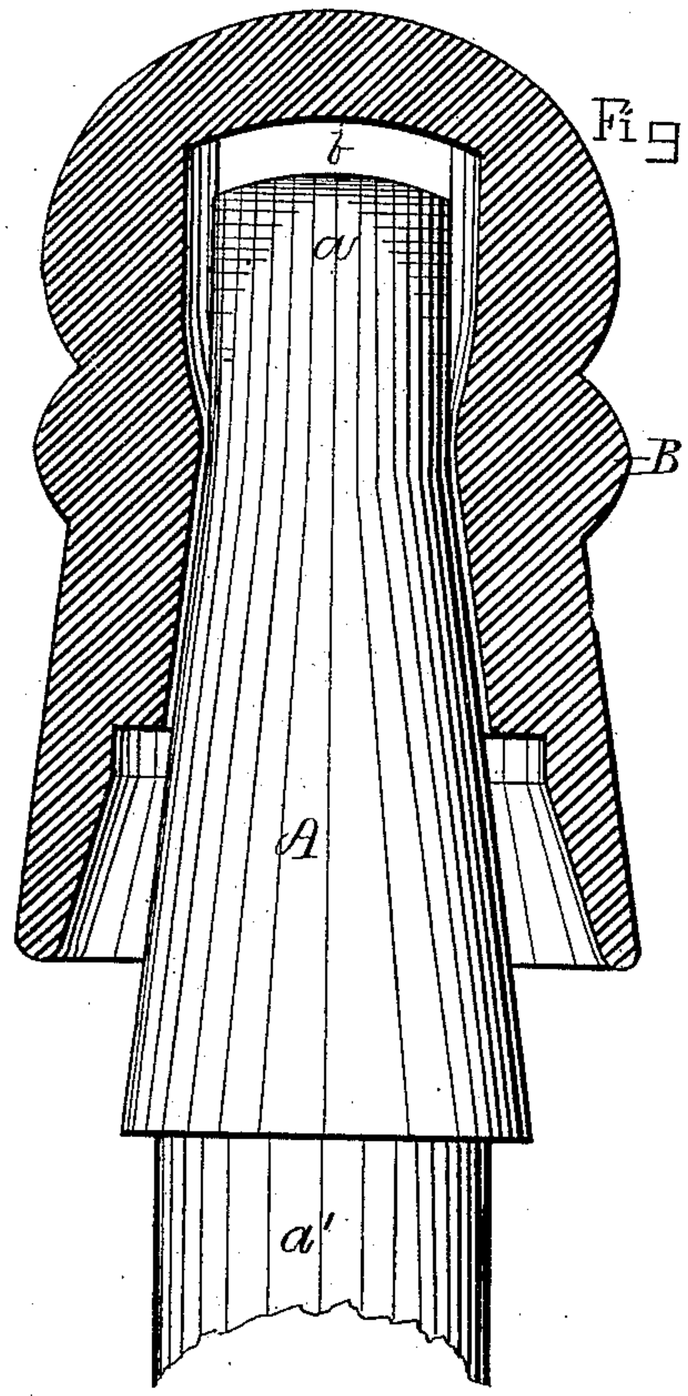


Fig. 2.

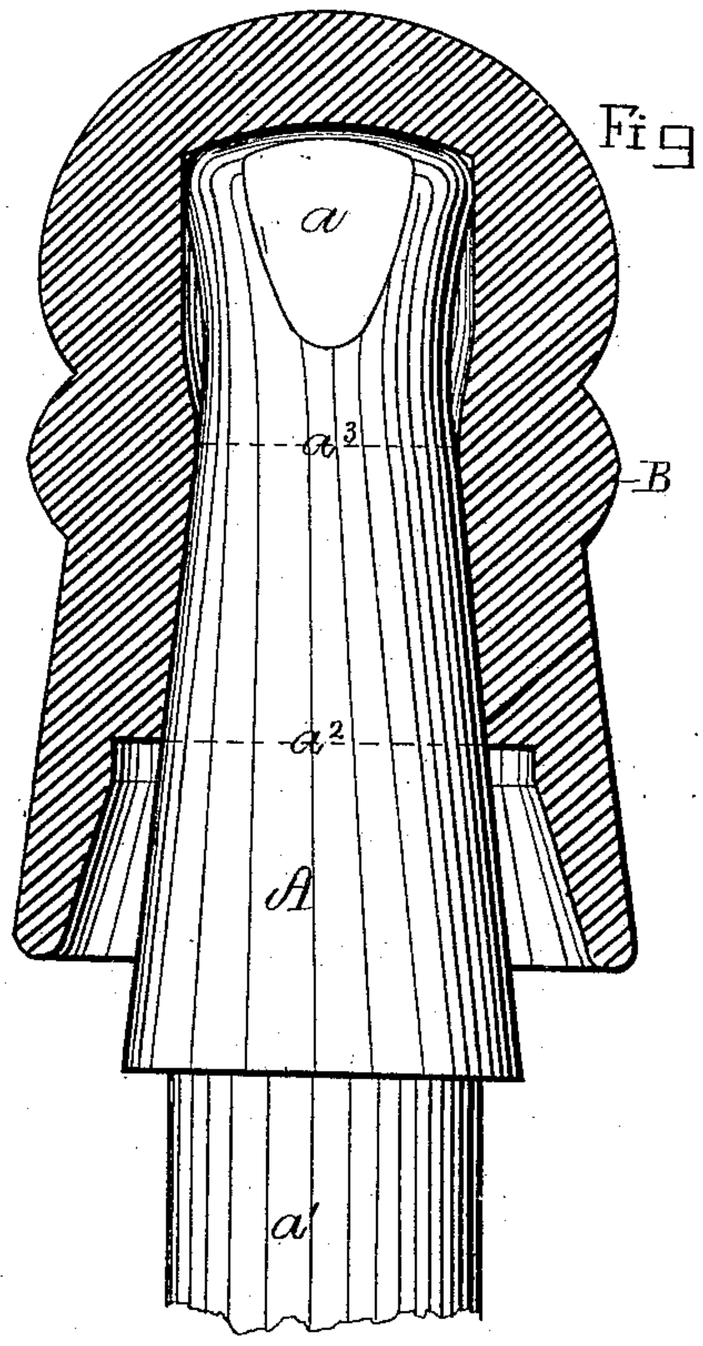


Fig. 3.

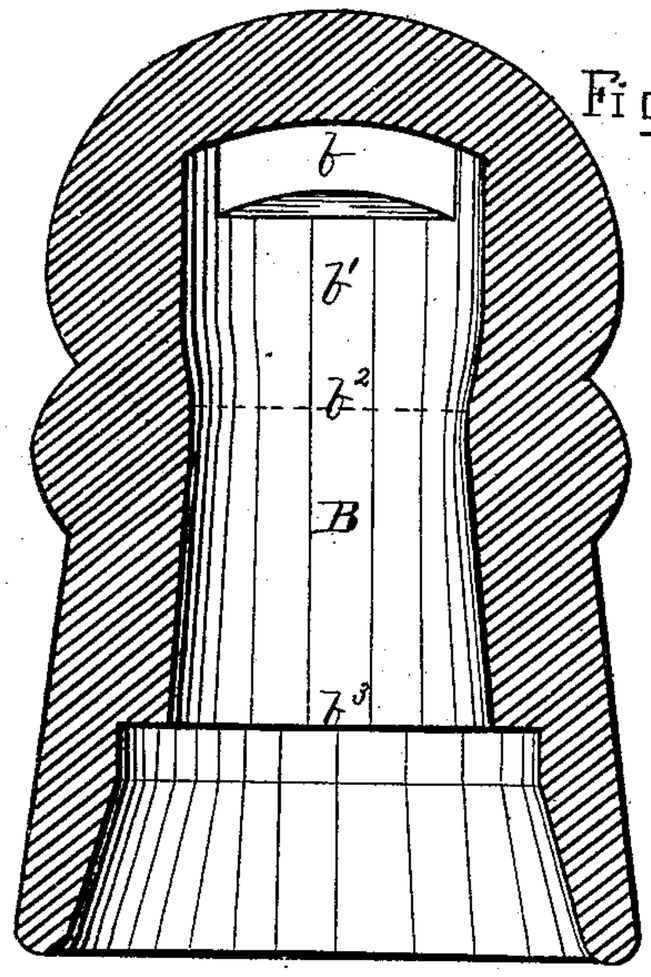
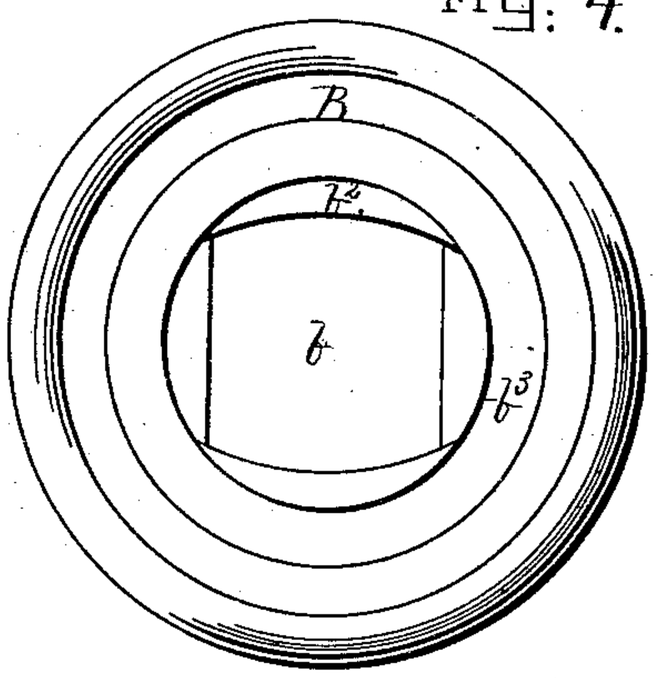


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

LUTHER C. BALDWIN AND JOHN C. THURSTON, OF MANCHESTER, N. H.

INSULATOR FOR TELEGRAPH-WIRES.

SPECIFICATION forming part of Letters Patent No. 297,101, dated April 22, 1884.

Application filed October 18, 1883. (No model.)

To all whom it may concern:

Be it known that we, LUTHER C. BALDWIN and JOHN C. THURSTON, both of Manchester, in the county of Hillsborough and State of New Hampshire, have invented a new and useful Improvement in Insulators for Telegraph-Wires, of which the following is a specification.

Our invention relates to improvements in insulators for telegraph-wires, in which the insulator is connected to the bracket-pintle or supporting-pin by partially turning the insulator after the supporting-pin is inserted therein, instead of by means of screw-threads.

The object of our invention is to provide means for preventing the insulator from being turned on its supporting-pin when they are put together for use.

Our invention consists in a cup of some non-conducting material, preferably glass, having its interior shaped to receive the supporting-pin, in combination with a pin adapted to be inserted and turned, and then farther inserted to lock and form a firm bearing for the inverted cup, substantially as hereinafter fully described, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation, with the insulating-cup in section, showing the pin inserted as far as it will go without being partially turned. Fig. 2 is a similar view, showing the pin in place, and so locking the cup as to prevent its being withdrawn without first partially separating the cup and pin, and partially turning one on the other. Fig. 3 is a longitudinal cross-section through the insulating-cup; and Fig. 4 is a bottom view of the insulating-cup.

The best way now known to us for carrying out our invention is to turn a knob or bulge, *a*, on the top of the pin A and make two sides of this knob flat. Turn the pin from the knob to near the lower part, *a'*, to a tapering form. The diameter of this tapering part at a^2 in Fig. 2 is greater than the longest diameter of the knob *a*. The lower part, *a'*, of the pin is made either in the usual round form or in a bracket shape for inserting into a hole or for being spiked to a post.

The upper part, *b*, of the interior of the insulating-cup B is made to fit snugly the upper end, *a*, of the pin A—that is, it is made into a shallow chamber having two straight sides and round ends. This chamber is best made as shallow as possible, since its depth determines the distance the insulating-cup may be moved on the pin by an upward strain before the knob in the pin arrests its further movement. Just below the chamber *b* a circular chamber, *b'*, is made, its diameter and depth being such as to allow the knob *a* to turn in it. Below the chamber *b'* the interior of the cup is made oval at b^2, the shorter diameter of the oval being the same as the diameter of the tapering part of the pin at the line a^3 in Fig. 2, and the longer diameter being slightly greater than the longest diameter of the knob *a* on the pin A. The oval shape at b^2 expands gradually until it forms a circle at b^3, the diameter of which is the same as the diameter of the tapering part of the pin at a^2 in Fig. 2, which, as above stated, is slightly greater than the longest diameter of the knob *a*. This shape gives the cup a firm bearing on the pin at a^2 and causes a partial contact between the two up to a^3 when the pin is in place, as shown in Fig. 2.

The manner of inserting the pin will be readily understood by referring to Fig. 1, in which it is shown in the position to allow the knob *a* to pass through the oval-shaped part of the cup, and the knob having passed this part and ready to be turned in the circular chamber *b'* before being pushed up into the chamber *b*, the straight sides of which prevent the cup from turning on the pin.

We claim as our invention—

1. A cup of non-conducting material having its interior shaped substantially as described, in combination with a pin which, when partially inserted, allows the cup to turn, and when fully inserted forms a bearing for and prevents the cup from turning, substantially as set forth.

2. A cup of non-conducting material having its interior formed into an upper chamber with flat sides, a middle circular chamber, and a lower tapering chamber oval at one end and circular at the other, in combination with a supporting-pin having a knob with flat sides at one end, its other end adapted to be secured to an arm or post, and a cylindrical tapering part between these ends, substantially as and for the purpose set forth.

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