(No Model.)

G. H. GRAHAM & T. GANNANE

ELECTRIC INSULATOR.

No. 448,956. Patented Mar. 24, 1891.

Fig. 2

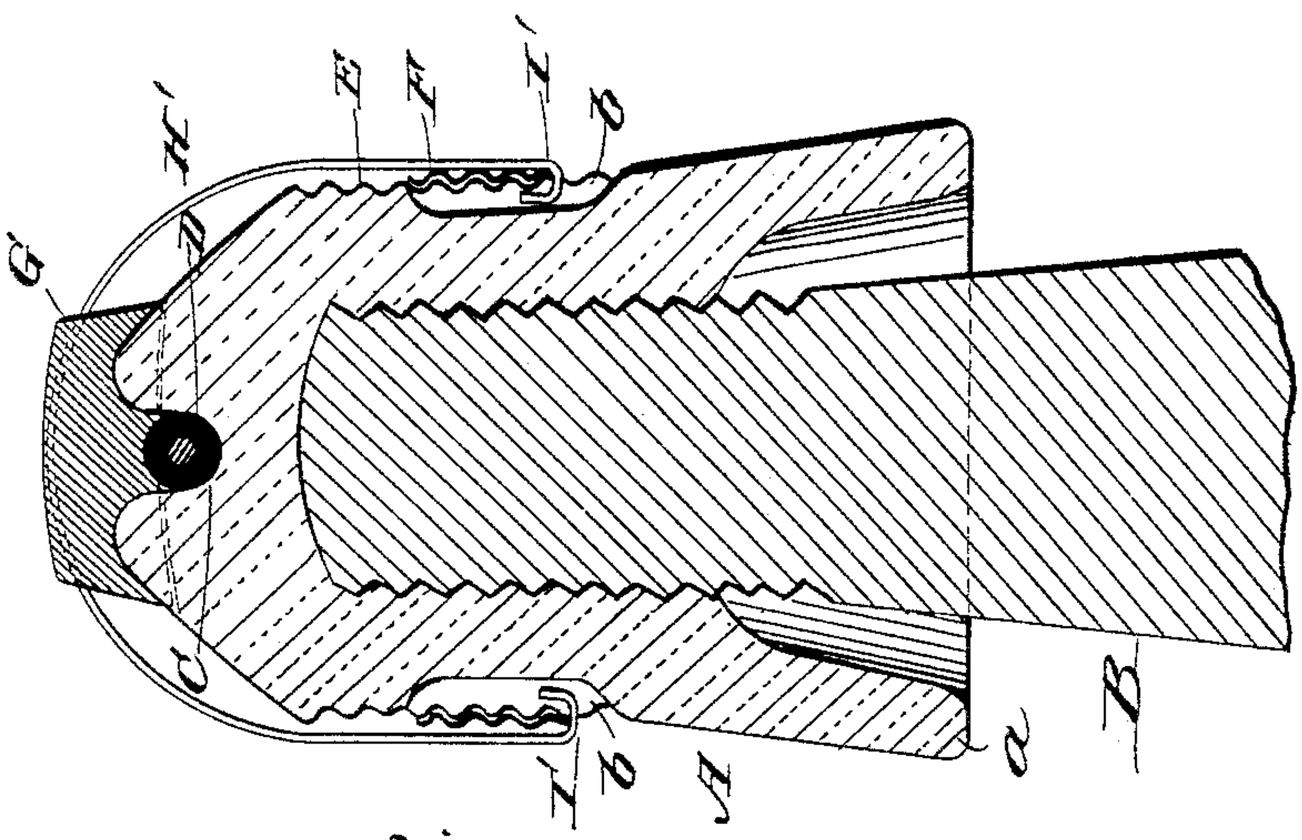


Fig. 3.

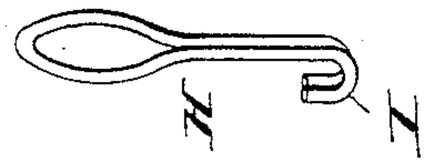
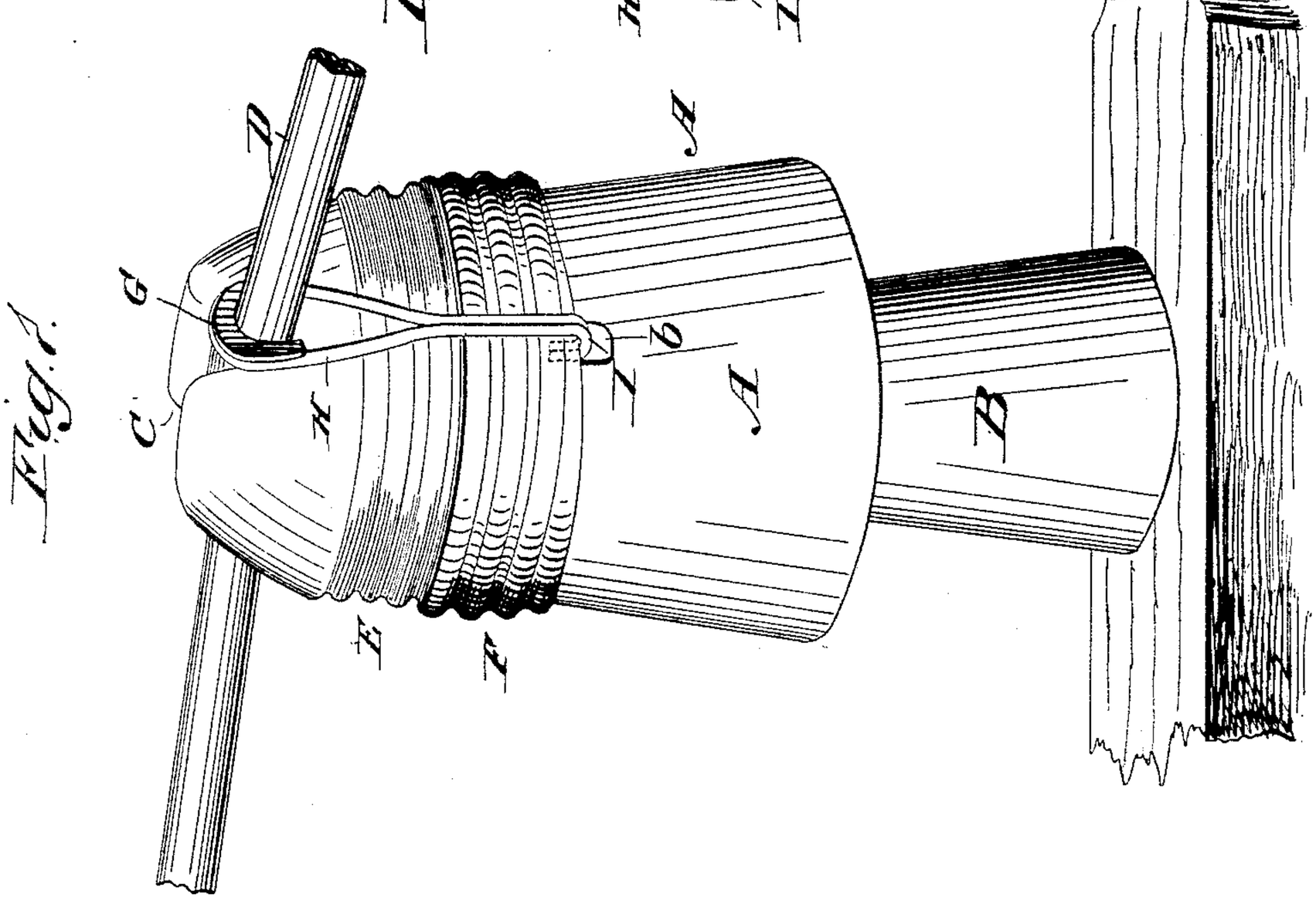


Fig. 1.



WITNESSES:

F. McArdle.

C. Sedgwick

INVENTOR:

G. H. Graham

BY T. Gannane

Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE H. GRAHAM, OF RIDGELAND, AND THOMAS GANNANE, OF CHICAGO, ILLINOIS.

ELECTRIC INSULATOR.

SPECIFICATION forming part of Letters Patent No. 448,956, dated March 24, 1891.

Application filed August 2, 1890. Serial No. 360,739. (No model.)

To all whom it may concern:

Be it known that we, GEORGE H. GRAHAM, of Ridgeland, and THOMAS GANNANE, of Chicago, both in the county of Cook and State of Illinois, have invented a new and Improved Insulator, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a perspective view of our improved insulator. Fig. 2 is a vertical transverse section of a modified form of the same, and Fig. 3 is a perspective view of the hook used for attaching the wire to the insulator.

Similar letters of reference indicate corresponding parts in all the views.

The object of our invention is to provide an insulator and support for telegraph, electric-light, and other electrical conductors.

Our invention consists in an insulator of glass or other suitable material adapted to screw on the usual wooden pin, and furnished in the end with a transverse groove for receiving the wire, the outside of the insulator being provided with a threaded portion for receiving a threaded ring, and in the combination, with the insulator thus formed, of a threaded clamping-ring, and a loop connected with the same for holding the conductor in place in the insulator.

The insulator-body A is provided with a threaded central aperture for receiving the usual insulator-supporting pin B, and the insulator is provided with a sleeve *a*, which is made larger in the internal diameter than the pin B, thus affording an annular space for dry air. In the upper portion of the insulator is formed a transverse notch C for receiving the conductor D. The body of the insulator is furnished near the upper end with a threaded portion E for receiving the threaded ring F. To the notch C is fitted a block G, preferably of insulating material, the ends of the said block being received in loops H, provided with hooks I, which engage the screw-threaded ring F. The insulator is provided with recesses *b* upon opposite sides for receiving the ends of the hook I. The loop H and the hook I are formed integrally of a single piece of wire. The extremities of the wire are bent up to form the hook I. The loop thus made is readily applied by springing its ends upon and passing it over the wire, allowing the wire to return to its original form by its own elasticity. By screwing down the ring F on the threaded portion of the insulator the conductor D is securely clamped. When it is desired to release the conductor, the ring F is unscrewed, when the loops H may be readily removed.

In the modification shown in Fig. 2 the block G is provided with a projection passing downwardly into the notch C and bearing upon the conductor D. In this case the block G is grooved transversely, and a single loop H′ provided with hooks I′ rests in the groove, and its hooked ends are received upon the edge of the ring F, as in the other case.

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

1. An externally-screw-threaded insulator provided with a transverse groove in the end thereof, a screw-threaded collar fitted to the threaded portion of the insulator, and a loop or loops for clamping the conductor in the groove of the insulator, substantially as specified.

2. A telegraphic insulator provided with the externally-screw-threaded portion E and a groove C, a collar fitted to the threaded portion, a block G, fitted to the groove C and adapted to bear upon the conductor, and one or more loops arranged to bear upon the block G and provided with hooks for engaging the ring F, substantially as specified.

GEO. H. GRAHAM.
THOMAS GANNANE.

Witnesses:
MARSHALL WAIT,
STEPHEN C. KNIGHT.