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C. K. KING & G. A. MEAD.

INSULATED SUPPORTER FOR ELECTRIC OR OTHER WIRES.

(Application filed June 29, 1898.)

(No Model.)

Fig. 1

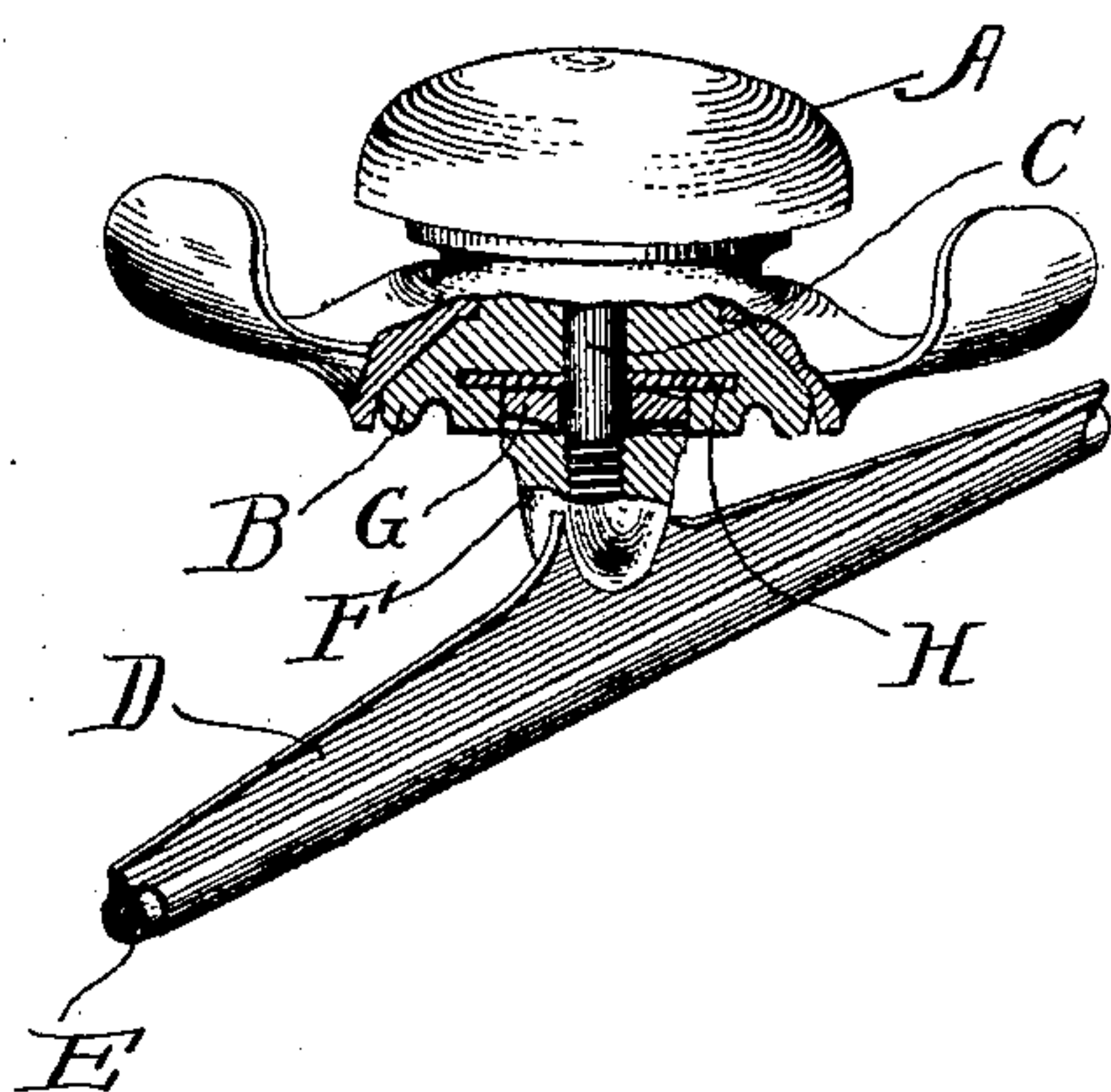


Fig. 2

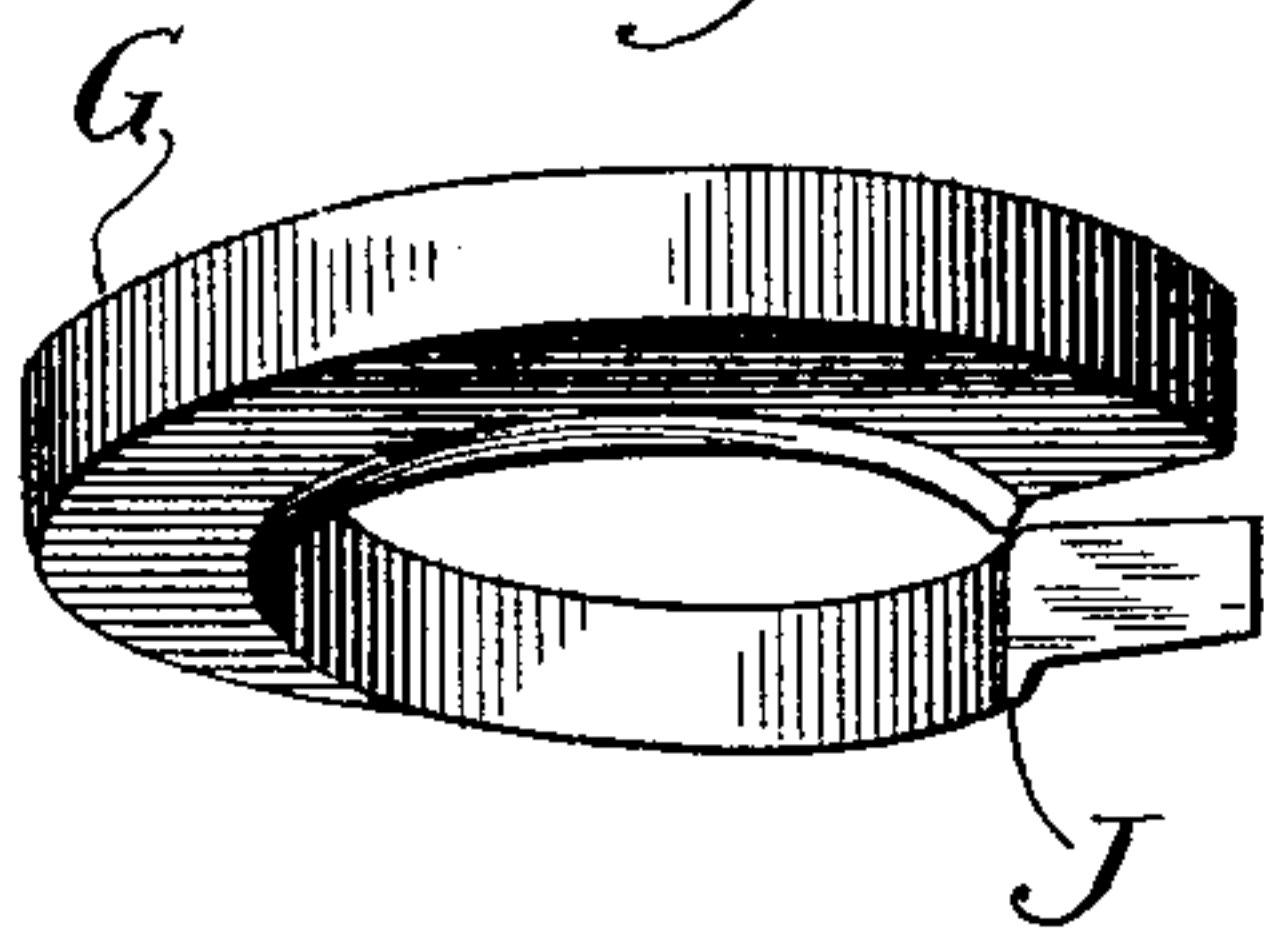
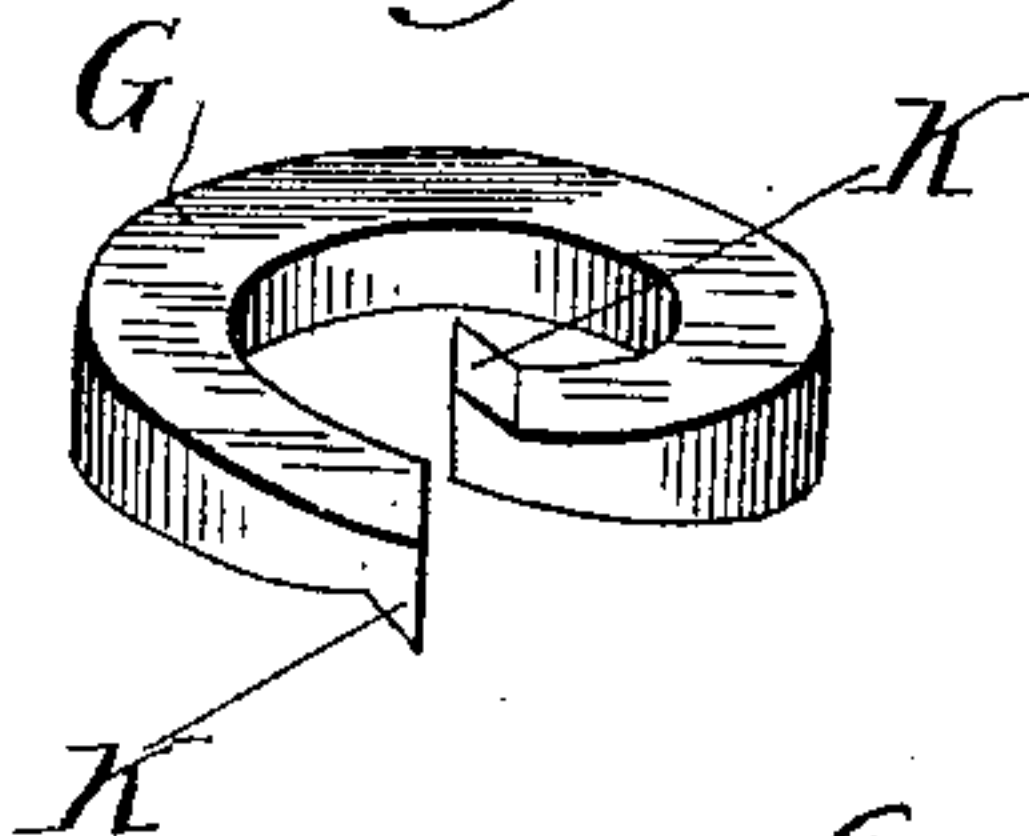


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

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INSULATED SUPPORTER FOR ELECTRIC OR OTHER WIRES.

SPECIFICATION forming part of Letters Patent No. 614,270, dated November 15, 1898.

Application filed June 29, 1898. Serial No. 684,713. (No model.)

To all whom it may concern:

Be it known that we, CHARLES K. KING and GEORGE A. MEAD, citizens of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Insulated Supporter for Electric or other Wires, of which the following is a specification.

This invention relates to insulated supporters for electric or other wires.

The object of the invention is to provide a supporter or hanger of simple and improved construction and arrangement and wherein danger of the parts becoming loosened or separated is avoided.

The invention consists substantially in the construction, combination, location, and arrangement of parts, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally specifically pointed out in the appended claims.

Referring to the accompanying drawings, Figure 1 is a view, slightly in perspective and partly in section, illustrating a trolley-wire hanger embodying in its construction the principles of the invention. Fig. 2 is a detached detail perspective view of the lock-washer. Fig. 3 is a similar view showing a slightly-modified form of washer.

In the construction of hangers or supports for trolley-wires and the like it is exceedingly desirable to prevent the parts of the hanger or support from working loose or becoming separated or detached from each other while in use, at the same time maintaining an efficient support and an efficient insulation. The tendency of the parts working loose and becoming detached arises from the swaying of the conductor in the wind or the passage thereof along of the trolley-wheel. It is the special purpose of the present invention to obviate this tendency and to provide an arrangement wherein an efficient hanger is produced and wherein the parts are so locked together as to prevent them from working loose.

The invention is shown as applied to a particular form of hanger; but we desire it to be understood that the invention is not to be limited to the particular type or construction of hanger shown, as the principle thereof is

equally well adapted for use in connection with hangers and supports of other specific constructions.

In the drawings reference sign A is the hanger-body casting and may be of any well-known, suitable, or convenient form of construction, in which is suitably arranged the insulating material B.

C is the threaded stud-bolt by which the trolley ear or clamp D is secured to the hanger-body casting. This trolley ear or clamp may be of any suitable or convenient construction adapting it to support the trolley-wire E or the like and may be provided with the usual boss F, having a threaded socket into which stud-bolt C screws.

The parts so far described may be of any suitable or convenient construction or arrangement, and our invention is not to be limited to the specific construction and arrangement of the details thereof.

In order to effect the locking of the parts together with the object of effectually preventing the hanger-body A or insulating-cap B from jarring loose and working off, while at the same time leaving the insulating material free to turn in the hanger-body casting, we interpose a suitable locking device G between the ear or clamp D and the hanger-body. In the particular form shown this locking device consists of a split washer possessing a sufficient amount of spring to serve the purposes in view. Preferably, and as shown, we provide the outer face of the insulator cap or material B with a recess in which the split washer is seated, said washer bearing at one side against the surface of the insulator cap or material B and at the other side against the boss upon the ear or clamp D or other article to be suspended or supported. If desired, a disk H may be suitably molded in the insulator material or cap B and arranged to receive the contact of said washer.

In the form of washer shown in Figs. 1 and 2 a rib J is provided on the upper or the under side thereof, or both. The purpose of this rib is to prevent any possible relative rotation of the insulator cap or material B and stud-bolt C, mounted therein, relative

to the trolley ear or clamp, this result being attained by reason of such rib burrowing or digging into the metal of the device with which it is used and against which it faces or bears. In Fig. 3 we have shown a slightly-modified arrangement wherein the same result is attained by providing the ends of the washer with ribs or prongs K, which ribs or prongs operate in the same manner as the rib J in the form shown in Fig. 2. It is obvious, however, that the particular means for preventing relative motion of the parts may be varied, but still fall within the principles of the invention.

In assembling the parts the split washer is seated in the recess formed for its reception in the insulator cap or material B and placed on the boss F of the ear or clamp D. The parts are then assembled by screwing the stud-bolt C into its socket in the boss. Sufficient pressure should be employed in order to bring the lower face of the insulator washer or material B flush, or substantially so, with the top surface of the boss of the ear or clamp, as clearly shown in the drawings, whereupon the lock-washer will effectually lock the parts together and prevent the same from working or jarring loose.

Many variations and changes in the details of construction and arrangement without departure from the spirit or scope of our invention would readily suggest themselves to persons skilled in the art. We do not desire, therefore, to be limited or restricted to the exact details of construction and arrangement shown and described; but,

Having now set forth the object and nature of our invention and a form of apparatus em-

bodying the same, what we claim as new and useful and of our own invention, and desire to secure by Letters Patent of the United States, is—

1. In a support for trolley-wires and the like, a clamp or ear, a hanger-body including an insulator-washer, a threaded stud-bolt mounted therein and adapted to be screwed into said clamp, and a lock-washer interposed between said insulator-washer and clamp, as and for the purpose set forth.

2. In a support for trolley-wires and the like, a clamp, an insulator-washer, a stud-bolt mounted therein and adapted to be screwed into said clamp, a disk arranged in said insulator-washer, and a spring locking-washer interposed between said insulator-washer and said clamp, said locking-washer bearing, on opposite sides respectively, against said disk and clamp, as and for the purpose set forth.

3. In a support for trolley-wires and the like, a clamp, an insulator-washer provided with a recess, means for attaching said insulator-washer to said clamp, and a locking-washer arranged in said recess and bearing respectively against said insulator-washer and said clamp, whereby the parts are locked and prevented from working or jarring loose, as and for the purpose set forth.

In witness whereof we have hereunto set our hands, this 22d day of June, 1898, in the presence of the subscribing witnesses.

CHARLES K. KING.
GEORGE A. MEAD.

Witnesses:

E. C. DAILY,
S. A. SLOANE.