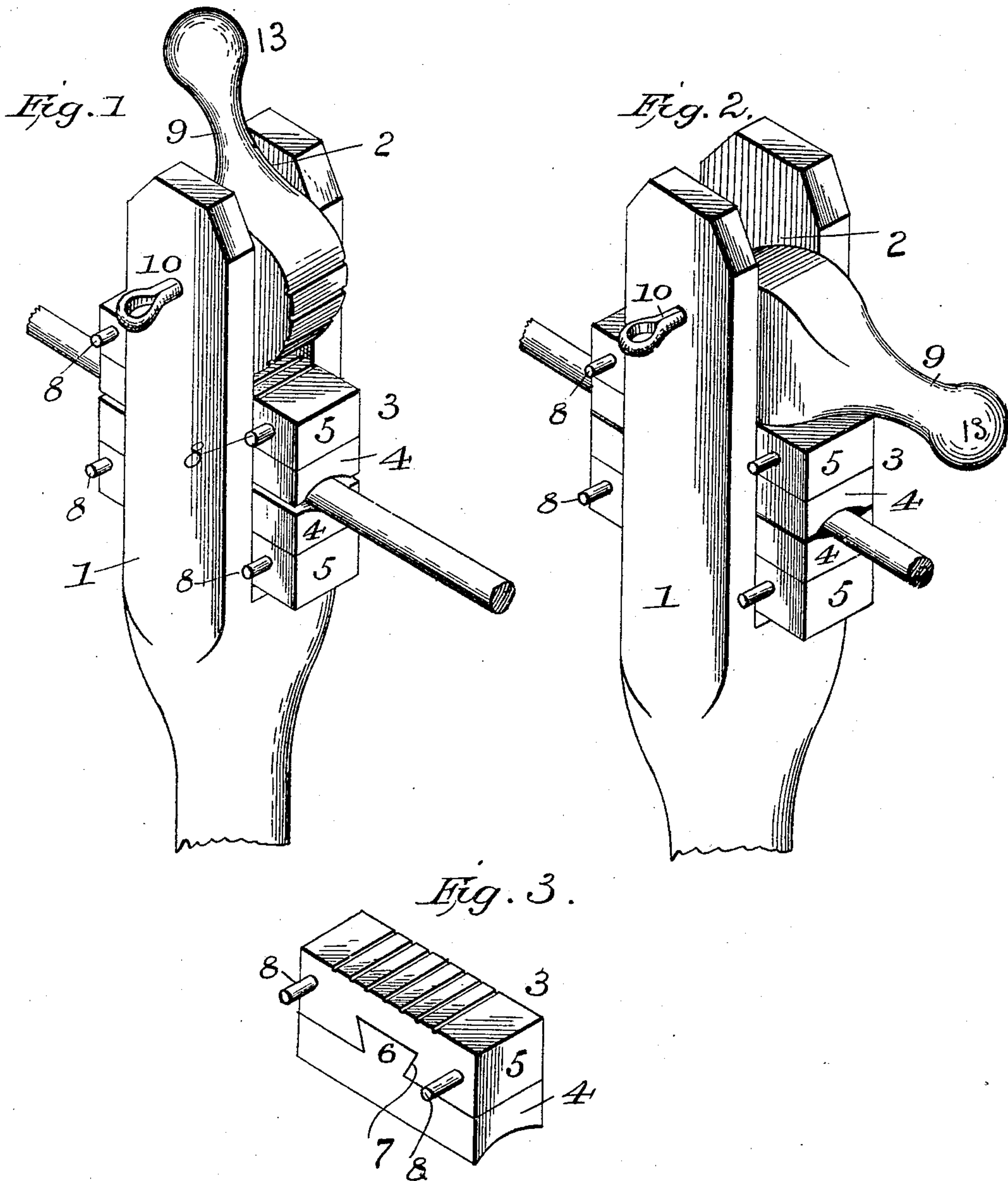


(No Model.)

C. H. SNIVELY.
INSULATOR.

No. 552,501.

Patented Dec. 31, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES H. SNIVELY, OF MOUNT CARMEL, PENNSYLVANIA.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 552,501, dated December 31, 1895.

Application filed March 20, 1895. Serial No. 542,566. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SNIVELY, a citizen of the United States, residing at Mount Carmel, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in 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.

My invention relates to insulators and more particularly to that class of insulators adapted to support electric conductor-wires.

The object of the invention is to provide an insulator of this character which will effectively retain the wire in place and stretch or take up the slack in the wire; furthermore, to provide an insulator which will prevent the wire from breaking, due to its contraction in cold weather and to sudden jars, and which will automatically clamp the wire, and, finally, to provide a device of this character which is simple of construction, durable in use and comparatively inexpensive of production.

With these objects in view the invention consists in certain features of construction and combination of parts which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved insulator, showing the locking-lever elevated and the wire between the insulator-blocks. Fig. 2 is a similar view showing the locking-lever depressed and the wire clamped thereby between the insulator-blocks. Fig. 3 is a detail perspective view of one of the insulator-blocks removed.

In the drawings, 1 denotes an arm adapted to be secured to a post, wall or other support from which it is desired to suspend the conductor-wire. This arm is preferably bifurcated, as shown at 2.

3 denotes the insulator-blocks, each of which consists of two parts, one part 4 being made of some well-known insulating material, such as glass or rubber, and longitudinally grooved to receive the conductor and the part 5, made of metal. One part of each block is provided with a transverse dovetail tenon 6 and the other part with a transverse dovetail

groove 7 adapted to receive the tenon. These blocks are inserted at the upper end between the members of the bifurcated arm, and each block is provided at each end with transverse stop-pins 8. Pivoted between the members of the bifurcated arm is a cam-lever 9, which when depressed will engage the metal part of the top insulator-block and clamp the conductor-wire firmly between the two insulator parts of the blocks. This lever is preferably pivoted on a movable pin 10, (shown in the present instance as a split key,) so that the lever and the upper block may be removed for the insertion of the conductor-wire. After the wire has been placed between the blocks and stretched by hand as tight as possible, there will remain, however, a certain amount of slack, which heretofore it has been necessary to take up by a wire-stretcher. I propose not only to securely bind the wire to the insulator, but also to provide the insulator with means for taking up the slack, thereby saving the time consumed and the trouble heretofore experienced.

To take up the slack in the wire, I provide the metal part of the top insulator-block with a series of transverse serrations or teeth 11 and the face of the cam-lever with corresponding teeth or serrations 12, so that when the blocks are in the position shown in Fig. 1 and the lever depressed the blocks in the act of being clamped together will, at the same time, be moved in the direction of the arrow, and in that way take up the slack in the wire.

It is a well-known fact that in cold weather the wires will shorten or contract and that, owing to this cause, they very frequently snap or break, and it is well known that trolley-wires will also break from this cause, as well as from sudden shocks given to them by the trolley. To prevent the breaking of the wire from these causes, I incline the outer faces of the metal parts of the insulator-blocks, so that when the wire is strained or accidentally shocked the inclines on the blocks will allow them to be slightly retracted, which of course will cause the handle of the lever to be correspondingly elevated. The handle is, however, provided with a weight 13, which will be sufficient to clamp the parts automatically after the wire has been strained or shocked and hold the cam firmly against the blocks,

and thereby prevent them from being forced out of the arm by the retraction of the wire and the movement of the cam.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination with suitably supported insulator blocks, of means for simultaneously clamping the wire between the blocks and stretching the wire, substantially as set forth.

2. The combination with suitably supported insulator blocks, of means for simultaneously clamping the wire between said blocks and stretching the wire, and for allowing the wire to be retracted, and for automatically clamping it between the blocks after it has been retracted, substantially as set forth.

3. The combination with a bifurcated arm, insulator blocks supported between the bifurcated portions of the arm, a cam lever pivoted to said arm, said cam lever adapted to simultaneously clamp the blocks about the conductor-wire and move the blocks longitudinally to stretch the wire, substantially as set forth.

4. The combination with a support, of insulator blocks carried thereby, the upper surface of one of the insulator blocks being provided with teeth or serrations, a cam lever pivoted to said support and provided with corresponding teeth or serrations to engage those in the block, substantially as set forth.

5. The combination with a bifurcated support, blocks supported by said support and provided with transverse stop pins, a cam le-

ver journaled between the members of the bifurcated support and adapted to clamp the insulator blocks about the conductor wire, substantially as set forth.

6. The combination with a support, of insulator blocks carried thereby and a cam lever adapted to clamp the said blocks around the conductor wire and move them longitudinally to stretch the wire, said lever provided with a weighted handle, substantially as set forth.

7. The combination with a bifurcated arm, of insulator blocks carried thereby, said insulator blocks being provided with transverse stop pins and the upper face of the upper insulator block being provided with teeth or serrations, a lever pivoted to the bifurcated arm and provided with corresponding teeth or serrations to engage those in the block, said lever being provided with a weighted handle.

8. The combination with a suitable support, of insulator blocks carried thereby, said blocks each consisting of two parts one part being of metal and the other of an insulating material or composition, one part having a dove-tail groove and the other part a dove-tail tenon to fit into said dove-tail groove, and means for clamping the two blocks about a conductor, substantially as set forth.

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

CHARLES H. SNIVELY.

Witnesses:

ROSCOE C. FAGLEY,
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