(No Model.)

M. GERST.

ANGLE HANGER FOR ACOUSTIC OR MECHANICAL TELEPHONES.

No. 353,489. Patented Nov. 30, 1886.

Fig. 1.

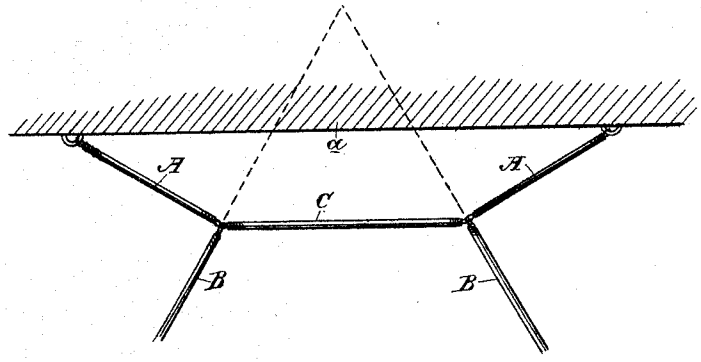


Fig. 2.

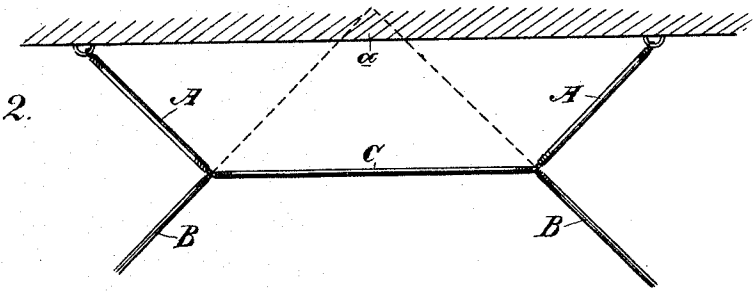


Fig. 3.

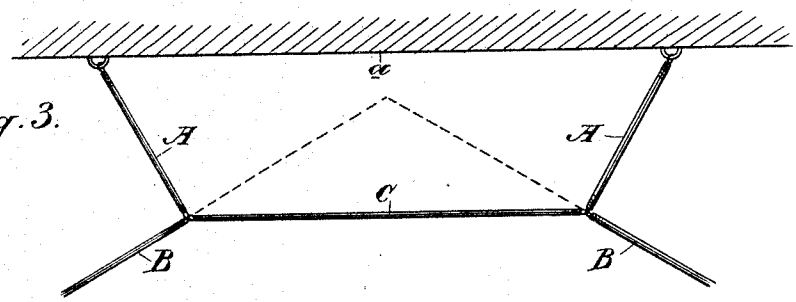
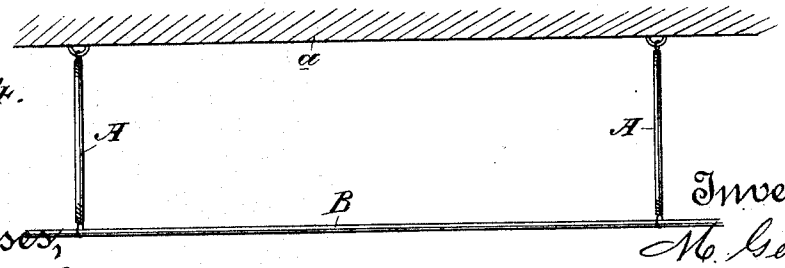


Fig. 4.



Witnesses,
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UNITED STATES PATENT OFFICE.

MICHAEL GERST, OF PASO ROBLES, CALIFORNIA.

ANGLE-HANGER FOR ACOUSTIC OR MECHANICAL TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 353,489, dated November 30, 1886.

Application filed May 21, 1886. Serial No. 202,918. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL GERST, of Paso Robles, county of San Luis Obispo, State of California, have invented an Improvement in Angle-Hangers for Acoustic or Mechanical Telephones; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of hangers which are used for suspending the wires of mechanical or acoustic telephones and for directing them around an angle; and my invention consists in two separate wires attached at one end to a solid bearing or support and at the other end to the severed ends of the inleading and outleading line-wires, and uniting with said wires at a true right angle, and in a separate wire attached at each end at the junction of the other wires, all of which I shall hereinafter fully describe.

The object of my invention is to provide for the carrying of the line-wire around any angle, great or small, in such a manner that the sound-waves may pass without loss to their intensity.

Referring to the accompanying drawings, Figure 1 is a view of my hanger, showing the line-wire directed about an acute angle. Fig. 2 shows the wire directed about a right angle. Fig. 3 shows it passing an obtuse angle. Fig. 4 shows my invention as a simple hanger for directing the line-wire in a straight line.

All who have had experience with acoustic or mechanical telephones are aware of the disadvantages in their operation when there is any great angle in the line-wire. These angles have, however, to be made in the lines, as they must turn corners, some of which are very acute. Sometimes the telephone will not work at all when a very great angle has to be passed by the line-wire. To obviate all difficulty of this nature, and to allow the sound-waves to pass any angle without loss of intensity, I have the two wires A. These are entirely independent of each other, and are secured at one end to any suitable solid support, *a*. This support must be a solid one, for a support of a yielding or flexible nature will not answer the purpose. The connection with the solid support may be by small hooks, staples, rings, or by the spiral loops herein shown.

B is the line-wire. It will be observed that this is not a continuous wire, but is in separate parts, forming the inleading and outleading wires, the end of one part being connected with one of the wires A, and the other with the other of said wires. The connection in this as in the other case may be by means of hooks, &c., or by the loops, as shown.

C is a separate wire, which forms part of the hanger at the same time that it forms part of the line, it being interposed in said line and having the sound-waves passing over it. The wire C is connected at each end, by loops or otherwise, to the junction-loops of the wires A of the hanger and the wires B of the line.

One essential feature of the hanger is, that the wires A must, in all cases, be at true right angles to the wires B of the line. This angle must be preserved, no matter from what direction the line-wire comes in, nor what direction it goes out. The connecting-wire C provides for this, as its length determines the direction of the wires A, and therefore they can be adjusted to the proper direction to meet the line-wire at a true right angle.

It will be observed that in all the figures, representing various angles which the line-wire passes, the wires A of the hanger meet the line-wire at right angles, and the same is true in Fig. 4, where the line-wire is straight. This arrangement in Fig. 4, though answering the purpose of an ordinary line-support, is far superior to a spring of any kind.

My angle-hanger is applicable to any position where the line-wire has to pass an angle, whether it be to provide for the most advantageous position of the telephone with which it is connected and its emergence therefrom, or outside of the telephone in any position.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an angle-hanger for acoustic or mechanical telephone wires, the separate wires A, secured at one end to a solid bearing or support and at the other to the severed ends of the inleading and outleading line-wires, meeting said wires at a true right angle, and the separate wire C, connecting the joined ends of the wires A and line-wires, substantially as described.

2. An angle-hanger for the line-wires of acoustic or mechanical telephones, comprising the solid support *a*, the separate wires A, con-

nected at one end with the solid support and at the other to the severed ends of the inleading and outleading line-wires, and meeting said wires at a true right angle, and the separate wire C, having its ends connected with the junction of the wires A and the line-wires, substantially as herein described.

In witness whereof I have hereunto set my hand.

MICHAEL GERST.

Witnesses:
HENRY ZINGG,
B. N. BOTTS.