

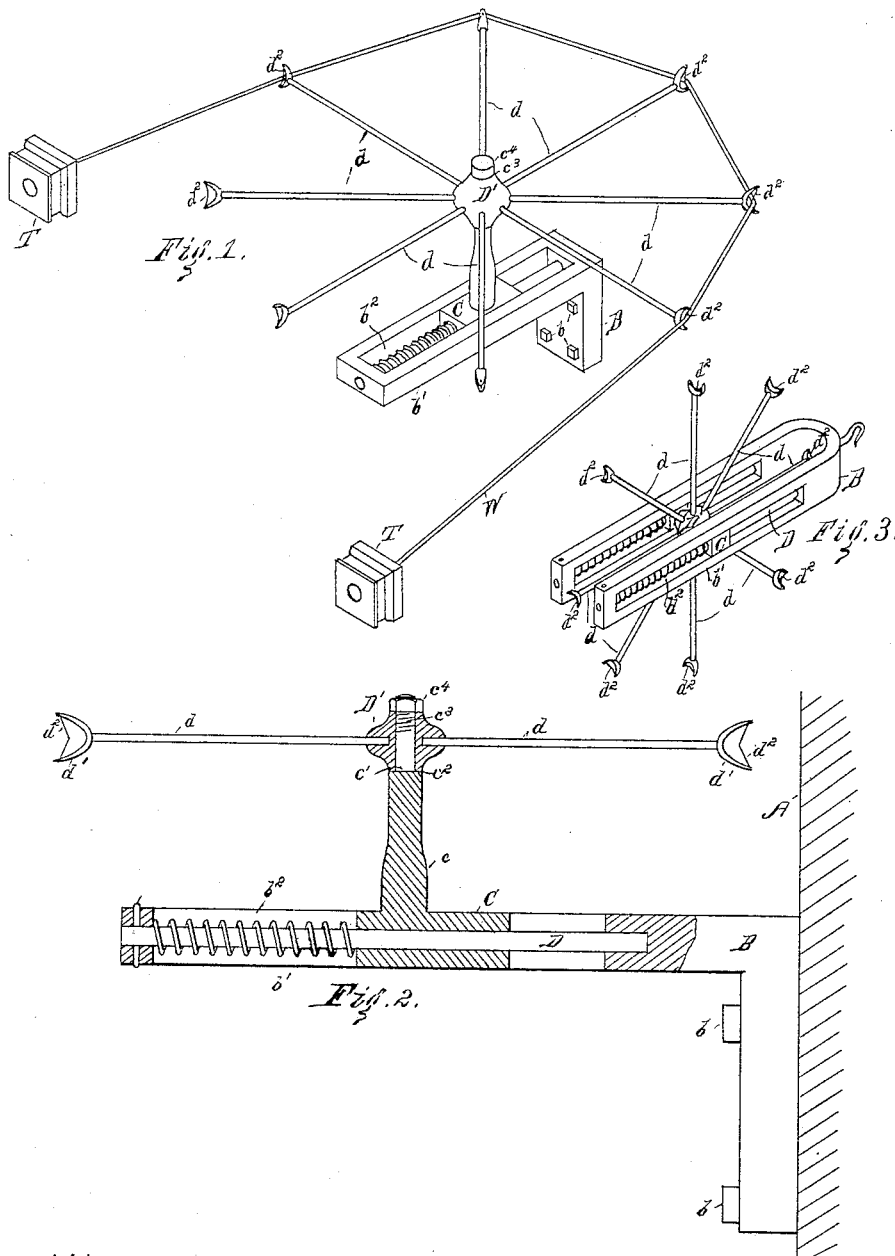
(No Model.)

A. W. S. DAVIS.

LINE HOLDER FOR ACOUSTIC TELEPHONES.

No. 347,325.

Patented Aug. 17, 1886.



Witnesses.
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INVENTOR-
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UNITED STATES PATENT OFFICE.

ARTHUR W. S. DAVIS, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO
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LINE-HOLDER FOR ACOUSTIC TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 347,325, dated August 17, 1886.

Application filed October 18, 1884. Renewed May 22, 1886. Serial No. 203,050. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. S. DAVIS, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Line-Holders for Acoustic Telephones, of which the following is a specification.

My invention relates to devices for supporting the transmitting-wires of mechanical telephones at the angles of said wires, and for maintaining a uniform tension of said wires, and to facilitate tightening the wires when necessary.

In the accompanying drawings, Figure 1 is an isometric view of my invention; and Fig. 2 is a central vertical section of the same attached to a wall, the wall-plate or vertical part of the bracket being in elevation. Fig. 3 shows a modified form of my invention, in which the wheel or hub provided with arms is adapted to revolve in a vertical plane.

W is the transmitting-wire of an acoustic telephone, and T T are telephones of any approved construction.

A is the wall of a building or other stationary object, to which is bolted (by bolts *b b*) or otherwise conveniently secured the bracket B at such point as it is desired to make a bend or angle in said wire.

The horizontal sole *b'* is provided with a rectangular slot, *b''*, the sides of which are vertical. A block, C, is fitted into the slot *b''*, and slides freely therein toward and from the wall on a rod, D, which runs lengthwise of the slot, and is supported in said sole-plate at each end of said slot, being held in place by a pin passing vertically through said sole and rod. A strong spiral wire spring surrounds said rod between the outer end of said slot and the block C, and crowds the block toward the end of the slot nearest the wall-plate.

The block C is provided with a vertical standard, *c*, the upper end of which is reduced at *c'* to form the shoulder *c''*, and screw-threaded at *c'''* at its upper end. On the reduced part *c'* of the standard *c* turns a hub, D', which may be of insonorous material provided with radial arms or spokes *d*, said hub being held in place by the nut *e'*, which engages with the screw-thread *c'''*. The arms *d* are preferably

of wrought-iron rods, and their outer ends are provided with arc-shaped pieces or forks *d'*, which are preferably of lead or other insonorous material and serve as insulators, and the ends of such forks are connected by a bridge of cord or wire, *d''*, secured to the ends.

Against the bridges *d''*, or against as many of them as may be necessary to secure the proper amount of deflection of the transmitting-wire W, is laid said wire. The wire, being attached at one end, may be stretched by pulling on the other end of the wire, and will cause the hub and the spokes to turn until the tension of the wire is alike on both sides of the bend. Whenever a part of the wire being exposed to the heat of the sun is thereby more expanded than another part of the same wire lying in the shade, the elasticity of the wire will cause the hub and spokes to revolve until the tension of the wire is equalized throughout. In case of a general contraction or expansion of the wire W throughout its length, consequent upon a change of temperature, the tension of the wire will be maintained nearly uniform by the spring, in the former case yielding to the outward motion of the block, and in the latter crowding the block inward and taking up the slack of the transmitting-wire.

The vibrations communicated to the transmitting-wire are prevented from being communicated to the building or ground through the hub and spokes by the non-vibratory nature of the forks *d'*. The fork prevents the wire from falling when the bridges are broken, and serves this purpose as well as a ring surrounding the wire, and at the same time the wire can be much more readily applied to the forks, as the wire must be slipped through such rings from an end of the wire.

In the modification shown in Fig. 3 the arms and the hub are of the same construction as those shown in the other figures; but the hub turns upon a horizontal axis, and the arms or spokes revolve in a vertical plane, and the holder is in shape similar to a horseshoe-magnet, the legs of which are parallel, each of said legs being slotted, and each having a block, C, which slides in the slot of said leg, each block C being crowded away from the free ends of the legs by a spiral spring, just as

the corresponding block is crowded toward the wall-plate in Fig. 1, each block sliding on a rod, D, which extends from end to end of the slot and guides said block. The holder is
5 attached in any convenient manner, as by a hook, to a wall, post, or other stationary object.

I claim as my invention—

1. In a mechanical or acoustic telephone-line supporter, the combination of the hub,
10 the spokes, forks of insonorous material secured to the outer ends of said spokes, and bridges of sonorous material connecting the ends of said forks, and means, substantially as described, for supporting said hub and spokes,
15 and of allowing the same to rotate, as and for the purpose specified.

2. In a mechanical or acoustic telephone-line supporter, the combination of the hub and spokes, forks of insonorous material secured to the outer ends of said spokes, and
20 bridges of sonorous material connecting the ends of said forks, and a bracket having an axis on which said hub and spokes may turn, as and for the purpose specified.

3. In a mechanical or acoustic telephone-line supporter, the combination of the hub and spokes, forks of insonorous material, secured to the outer ends of said spokes, and bridges of sonorous material connecting the ends of said forks, the bracket provided with
25 a slot, the standard provided with a block or base adapted to slide in said slot, and the spiral spring, as and for the purpose specified.

4. In a mechanical or acoustic telephone-line supporter, the combination of the hub
35 and spokes, forks of insonorous material secured to the outer ends of said spokes, and bridges of sonorous material connecting the ends of said forks, and the bracket provided with a slot, the standard provided with a block
40 or base adapted to slide in said slot, and the spiral spring and the line-wire, as and for the purpose specified.

ARTHUR W. S. DAVIS.

Witnesses:

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