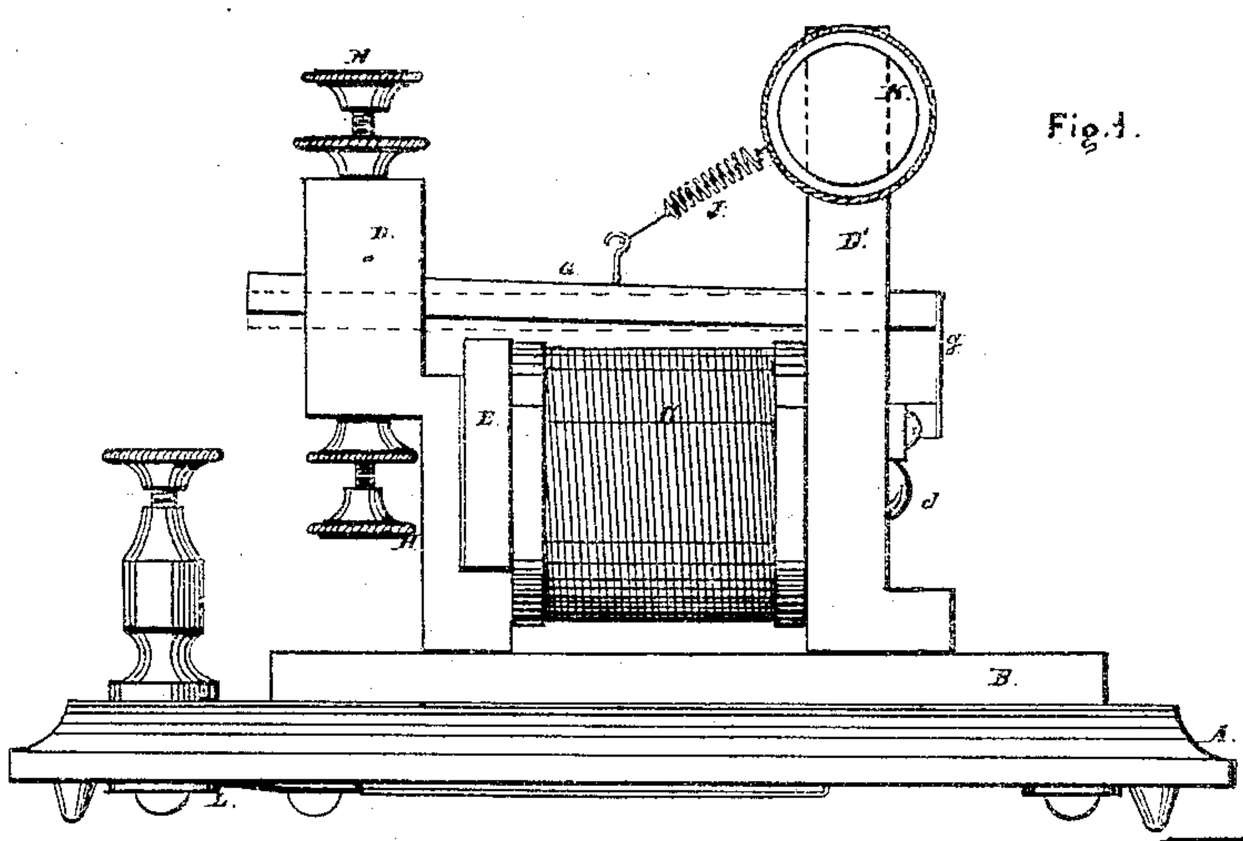
MILES W. GOODYEAR.

Improvement in Telegraph Sounders.

No. 125,806. Patented April 16, 1872.

Fig. 1.



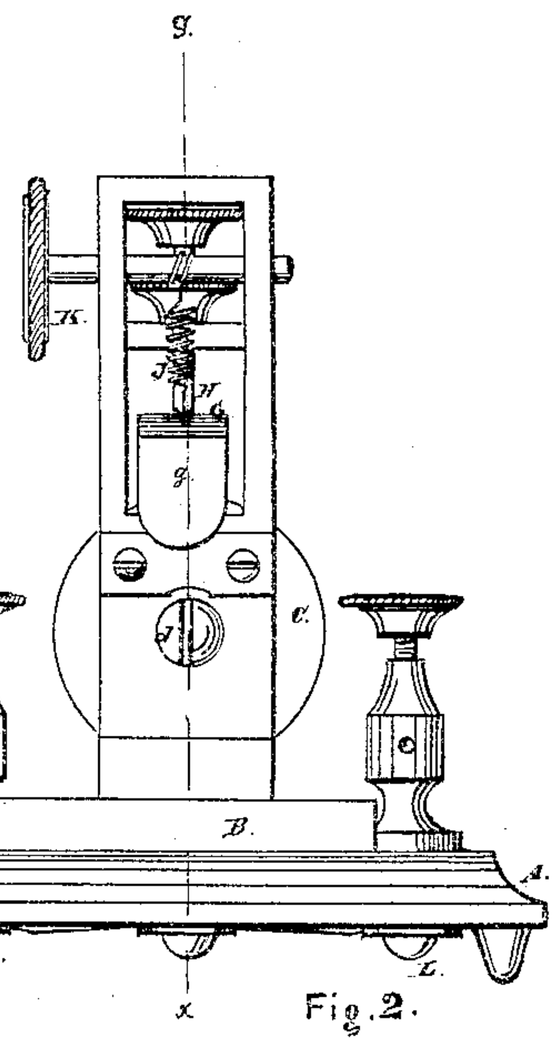


Fig. 2.

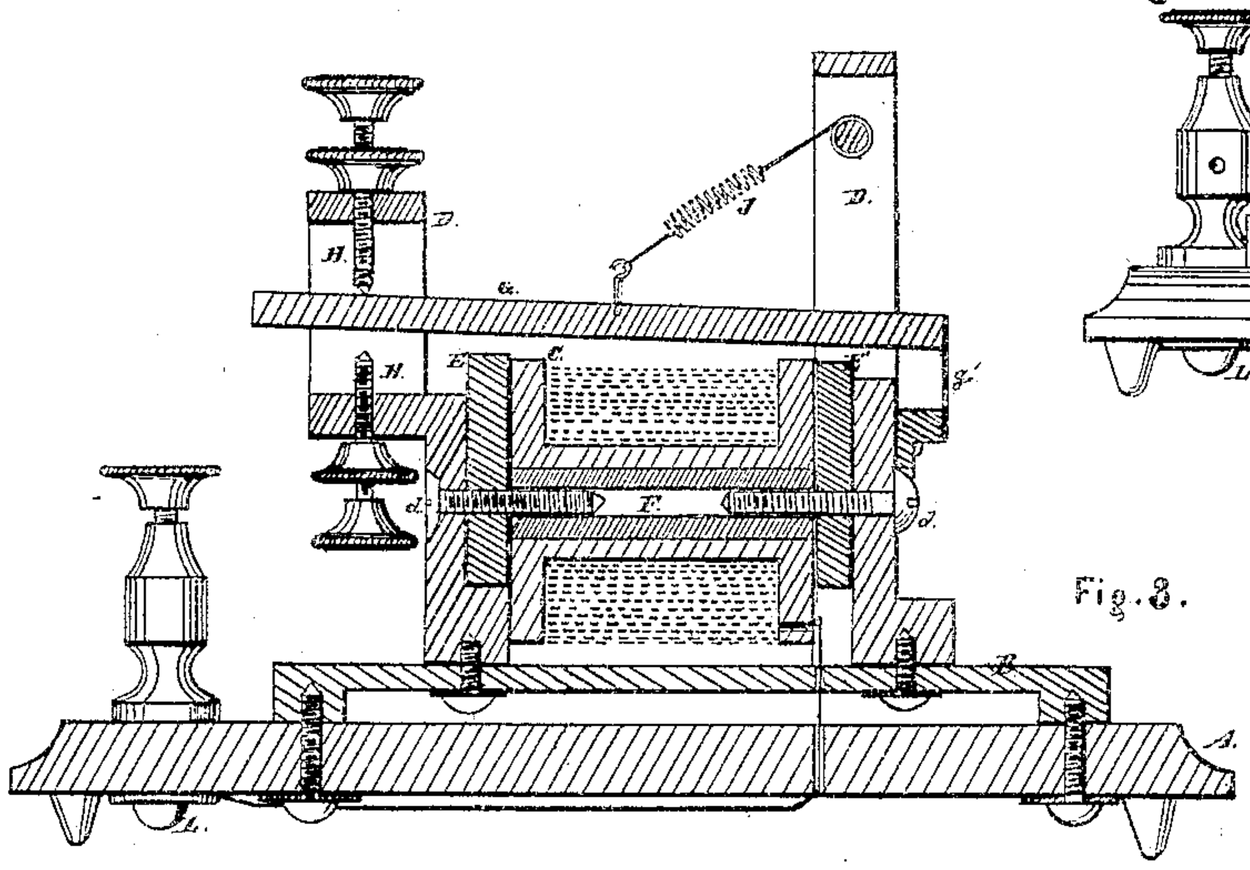


Fig. 3.

Witnesses:

Henr. F. Bruns

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by Coburn & Mumbay

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125,806

UNITED STATES PATENT OFFICE.

MILES W. GOODYEAR, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN TELEGRAPH-SOUNDERS.

Specification forming part of Letters Patent No. 125,806, dated April 16, 1872.

Specification describing certain Improvements in Telegraph-Sounders, invented by MILES W. GOODYEAR, of Chicago, in the county of Cook and State of Illinois.

Nature of the Invention.

The aim of this invention is to simplify and cheapen the cost of the mechanism employed in reading telegraphic messages by sound.

The sounder, as heretofore made, has usually consisted of a horizontal horseshoe magnet or core surrounded by two helices, one placed upon each limb, with an armature consisting of a horizontal bar attached to an arm or arms pivoted at a point below or above, and arranged to move up to both poles of the magnet in the same arc; and the present invention consists in greatly simplifying this construction by employing a single helix with a central core, at each end of which are attached, by screws, two bars, constituting the limbs of the magnet; and by suspending over these bars an armature, one end of which is attached by a spring to the frame of the mechanism at one side of the magnet, while the other end, projecting at the other side of the magnet, is allowed to vibrate between two set-screws, as will presently more at length appear.

I have ascertained by experiment that the fact that the armature in this construction moves in a greater arc over one pole of the magnet than over the other makes no practical difference in the operation of the mechanism.

In the accompanying drawing, which forms a part of this specification, Figure 1 is a side elevation of a sounder constructed in accordance with my invention. Fig. 2 is a rear view of the same; and Fig. 3 is a central vertical section of Fig. 2 on the line *x x*.

Like letters of reference made use of in the several figures indicate like parts.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with particularity, making use in so doing of the aforesaid drawing by letters of reference thereto.

General Description.

A is the wooden insulating platform, and B the bed-plate of the machine. C is the helix, supported between the two upright frames D D′ by the screws *d d*, which pass through the limbs or bars E E′ of the magnet, and enter the core F, thus uniting the limbs to the core. G is the armature, attached by the spring *g* to the frame D′, and lying just above the limbs or bars E E′ or the poles of the magnet, and arranged to vibrate between the set-screws H H in the frame D. J is the tension-spring, attached at about the center of the armature, and connected to a cord, which is wound around the shaft of the thumb-wheel K upon the frame D′. By means of this spring the armature is kept always clear of the magnet, and it is made adjustable to suit the amount of vibration of the armature. L L are the screws to secure the wires of a circuit to the instrument.

Claims.

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

1. The combination of the single helix C, core F, bars or limbs E E′, and armature G, arranged and operating substantially as specified and shown.

2. The construction and arrangement of the helix C, core F, bars or limbs E E′, armature G, springs *g* J, and frames D D′, substantially as set forth.

MILES W. GOODYEAR.

Witnesses:

JOHN W. MUNDAY,

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