R. KOENIG.

TELEGRAPH SOUNDER.

APPLICATION FILED AUG. 14, 1916.

1,226,775. Patented May 22, 1917.

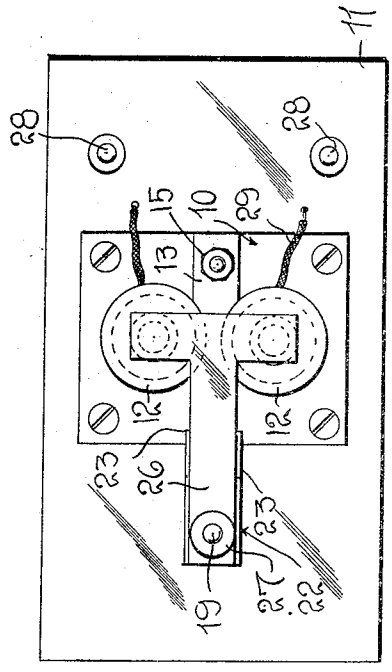


Fig. 1

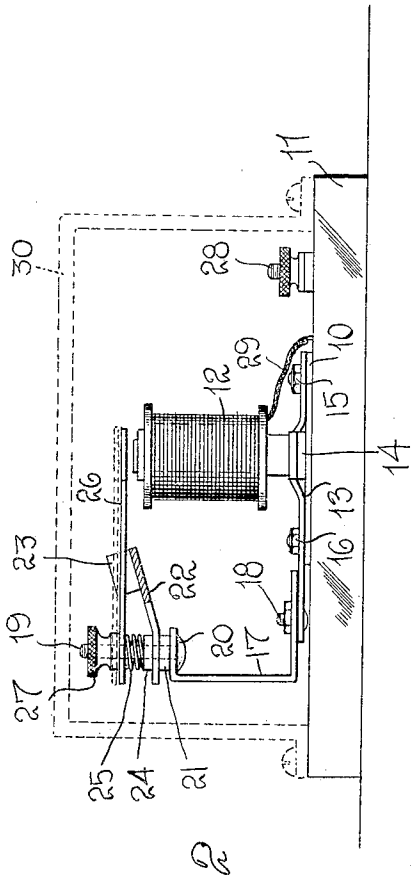


Fig. 2

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TELEGRAPH-SOUNDER.

1,226,775. Specification of Letters Patent. Patented May 22, 1917.

Application filed August 14, 1916. Serial No. 114,819.

To all whom it may concern:

Be it known that I, RALPH KOENIG, a citizen of the United States, residing at Newburg, in the county of Washington and State of Wisconsin, have invented certain new and useful Improvements in Telegraph-Sounders, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to telegraph sounders or like devices and one object of the invention is to provide a very simply and cheaply constructed sounder so formed that it may be readily taken apart and so constructed that the armature may be adjusted nearer to or farther from the poles of the magnets and be resiliently supported above these poles.

A further object is to provide very simple means for holding the armature in proper position with relation to the magnets.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a top plan view of my improved sounder; and

Fig. 2 is a side elevation thereof, the figure showing in dotted lines the housing for the sounder which may be used if desired.

Referring to these figures 10 designates a base plate which is adapted to be attached to a base 11 which may be made of wood, vulcanite, or other insulating material. Mounted on the base plate 10 are the electromagnets 12 of any usual or suitable construction, these magnets being held upon the base by means of a metallic strip 13 which extends across the cross bar 14 of the magnets and is connected at its forward end by means of a screw 15 and adjacent its rear end by means of a screw 16. Mounted upon the extremity of the strip 13 is an upwardly extending angular metallic strip 17 which is resilient, this strip 17 being held to the strip 16 by means of a bolt 18. Extending upward from the upper inwardly turned end of the metallic strip 17 or resilient support is a bolt 19. This bolt has a head 20 at its lower end and engaging with the bolt is a nut 21 which also acts as a spacing member. Disposed upon this nut is a metallic strip 22 which forms an arm and which extends upward and toward the magnets 12. The extremity of this arm 22 is formed with the laterally upwardly projecting wings 23. Engaging the bolt 19 and holding the arm 22 in place against the nut 21 is a nut 24, and surrounding the bolt 19 above this nut 24 is a coil spring 25. Resting upon the coil spring is the outer end of an armature 26. This armature is formed of a T-shaped strip of metal, the body of the strip being perforated at its extremity for the passage of the screw 19 and being just wide enough to be received between the wings 23. A thumb nut 27 is mounted upon the screw 19 and when this thumb nut is turned in one direction, it will urge the armature downward against the force of the spring 25 and when it is turned in the opposite direction, the spring 25 will force the armature upward, thus spacing the armature from the pole of the magnet.

The base 11 is to be provided with the usual binding screws 28 from which conductors 29 extend to the magnets. In the practical use of my invention, the energizing of the magnets 12 will draw down the armature, causing the spring support 17 to flex. As soon as the magnets are deënergized, the resilience of the support 17 will cause the armature to lift. The armature may be adjusted nearer to or farther from the poles of the magnet by rotating the thumb screw 27. The armature cannot turn upon the screw 19 because it is held by the arm 22 and the wings 23. The instrument may be inclosed within a housing 29 if desired.

While I have illustrated my invention as particularly applied to a sounder, it will be obvious that it may be also adapted for other purposes where a metallic armature such as the member 26 is to be resiliently supported with relation to some other member, as for instance, the magnets 12.

Having described my invention, what I claim is:

1. In a device of the character described, a support formed of a strip of resilient material, a screw extending upward from the support, springs surrounding the screw, a member mounted on the screw and bearing against the spring, and a nut mounted on the screw and bearing against said member and adapted when turned in one direction to compress the spring.

2. In a device of the character described, a support formed of a strip of resilient material, a screw extending upward from the support, springs surrounding the screw, a member mounted on the screw and bearing

against the spring, a nut mounted on the screw and bearing against said member and adapted when turned in one direction to compress the spring, and an arm mounted on said screw extending upward beneath the member and having wings embracing the side edges of the member.

3. A sounder including a base, a magnet mounted on the base, a supporting member consisting of a strip of resilient material mounted upon the base extending upward therefrom and angularly bent at its outer extremity, a screw extending from said angular extremity, a pair of nuts mounted on the screw, an arm disposed between the nuts and extending toward the magnet and having lateral wings at its extremity, a coiled spring surrounding the screw bearing against one of the nuts, an armature through one end of which the screw loosely passes, the armature coacting with the magnets, the wings on said arm extending on each side of the armature, and the end of the armature bearing against said spring, and a thumb nut mounted upon the screw and bearing against the armature whereby the tension of the spring may be increased or decreased.

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

RALPH KOENIG.

Witnesses:
B. H. MERTES,
JNO. B. BOEHM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."