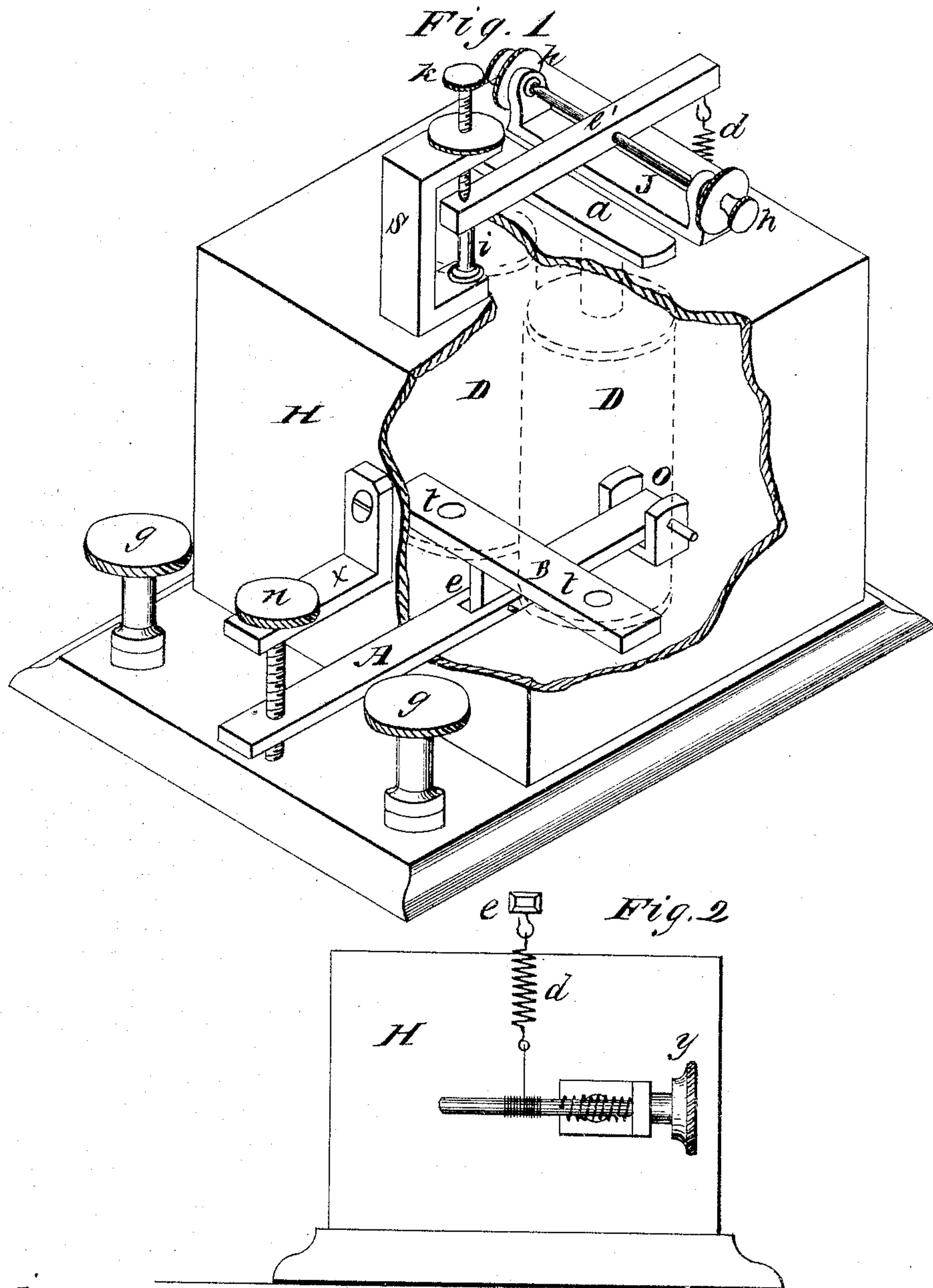


W. S. ROSE.

Telegraph Relays and Sounders.

No. 157,764.

Patented Dec. 15, 1874.



Witnesses:

Thos J. Price
O. S. Piper

Inventor:

William S. Rose

UNITED STATES PATENT OFFICE.

WILLIAM S. ROSE, OF COLCHESTER, ILLINOIS.

IMPROVEMENT IN TELEGRAPH RELAYS AND SOUNDERS.

Specification forming part of Letters Patent No. **157,764**, dated December 15, 1874; application filed April 13, 1874.

To all whom it may concern:

Be it known that I, WM. S. ROSE, of Colchester, in the county of McDonough and State of Illinois, have invented a new and useful Improvement in Telegraph-Instruments; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention relates to that class of telegraph-instruments known as sounders; and it consists in the combination of a horizontal bar attached to the base of the box by a hinge, and provided with a cross-bar hinged thereto and supporting the magnets, for readily supporting and adjusting them.

In the drawings, Figure 1 represents a perspective view, with a part of the box cut away for the purpose of showing the interior. Fig. 2 is an elevation showing the adjusting-spring.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction. A is a horizontal bar attached to the base of the box H by a hinge, *o*. B is a cross-bar placed at right angles with the bar A, to which it is attached by means of a hinge, *e*. The magnets D D, shown in dotted lines, are firmly attached to the cross-bar B at *t t*. Through the front end of A passes a set-screw, *n*, guided loosely in a bracket, *x*, projecting from the case. The lower end of this set-screw rests upon the base of instrument, and, accordingly as it is turned, it raises or lowers the lever A, and consequently the magnets D D, thereby adjusting them. *e'* is a lever, to which the armature *a* is attached just above the cores of the magnets D D. At

one end of the lever *e'* is a spiral spring, *d*, attached to the thumb-screw *y*, shown in Fig. 2. At the other end of the lever *e'*, and attached to the box H, is a standard, *s*, which has projections at right angles, the lower projection forming a base for the sounding-post *i* and the upper a bearing for the set-screw *k*. J is the frame, to which the lever *e'* is pivoted by set-screws *h h*.

The operation is as follows: The line-wires are attached to the instrument at the binding-posts *g g*. The horizontal bar A receives the proper adjustment by means of the thumb-screw *n*, which passes through an arm, as shown, and through the bar A, in which a proper screw is cut. The head of the thumb-screw *n* rests on the arm, as shown, and when turned to the right or left the horizontal bar A is raised or lowered, as may be desired, until the cores of the magnets are brought to the desired distance from the armature *a*. The set-screw K is raised to give the lever *e'* the necessary amount of vibration required to give a proper sound.

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

The combination of the horizontal bar A, provided with cross-bar B and adjusting-screw *n*, with the magnets D D and their armatures, substantially as shown and described, and for the purpose set forth.

WILLIAM S. ROSE.

Witnesses:

THOS. J. PRICE,
D. G. PRICE.