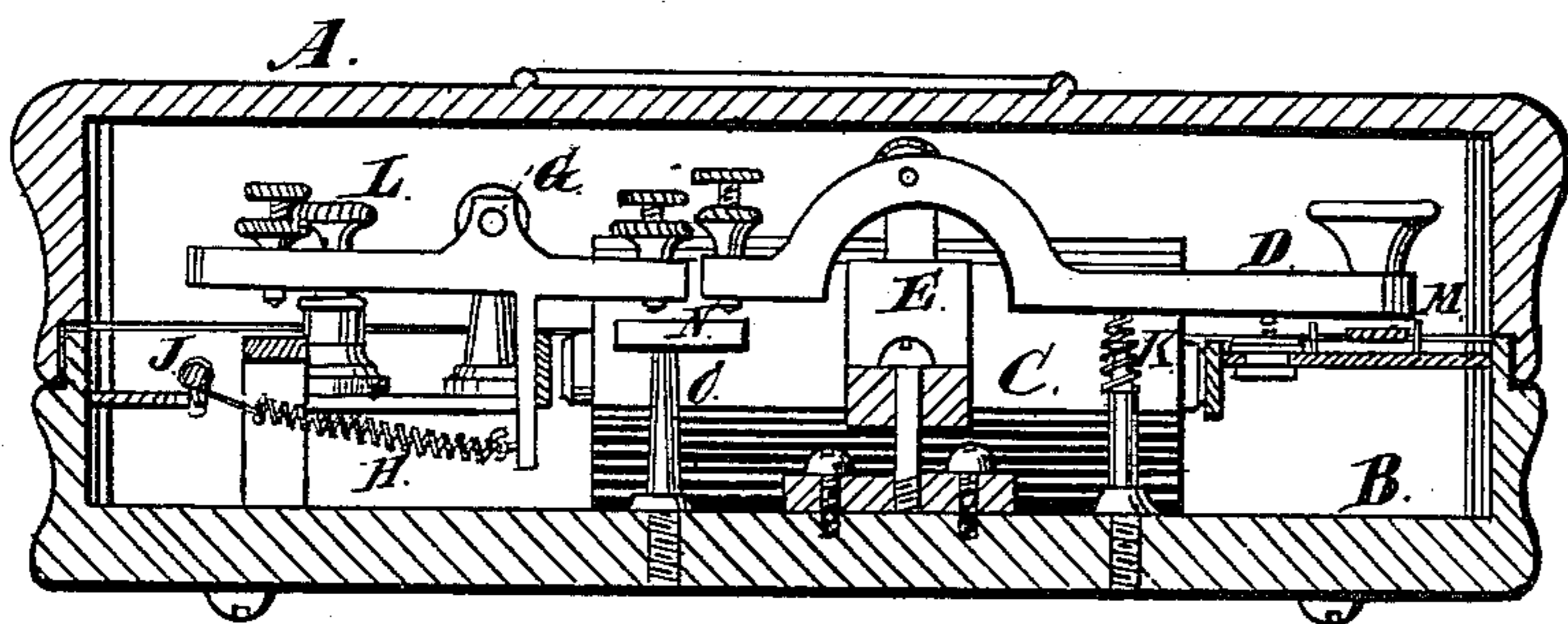
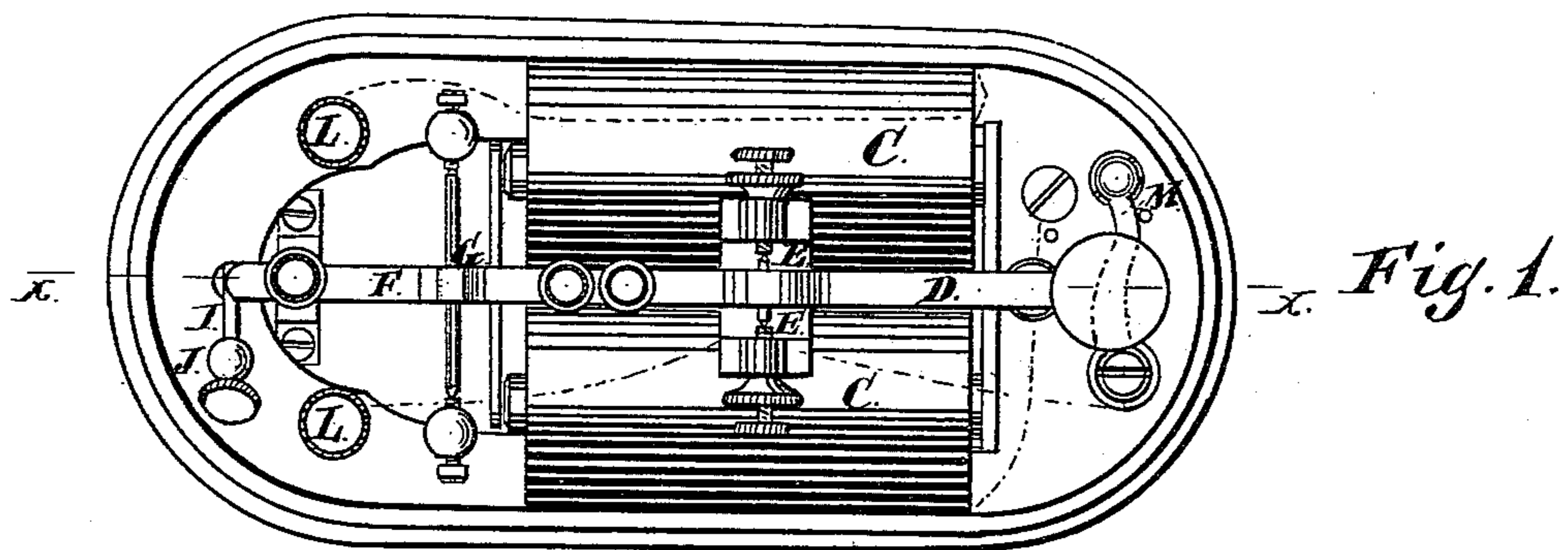


E. A. HILL & H. J. SCHNEIDER.

Pocket Telegraph Relay.

No. 165,578.

Patented July 13, 1875.



Witnesses:

Heinrich L. Bruns.
H. Coburn

Inventors:

Edward A. Hill
Hermann J. Schneider
by Lewis L. Coburn
att'y.

UNITED STATES PATENT OFFICE

EDWARD A. HILL, OF CHICAGO, ILLINOIS, AND HERMANN J. SCHNEIDER,
OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO EDWARD A. HILL,
OF CHICAGO, ILLINOIS.

IMPROVEMENT IN POCKET TELEGRAPH-RELAYS.

Specification forming part of Letters Patent No. **165,578**, dated July 13, 1875; application filed
June 18, 1875.

To all whom it may concern:

Be it known that we, EDWARD A. HILL, of Chicago, county of Cook and State of Illinois, and HERMANN J. SCHNEIDER, of Philadelphia, in the State of Pennsylvania, have invented a Pocket Telegraph - Instrument, of which the following is a specification, reference being had to the accompanying drawings, which form a part hereof.

The object of our invention is to make a more compact, convenient, and effective pocket-relay; and our invention consists in the combination of the different parts with each other and with the case, as hereinafter fully described.

In the accompanying drawings, Figure 1 represents a top or plan view of the instrument with the top of the box or case removed. Fig. 2 represents a vertical sectional view of the same, taken at the line *xx* in Fig. 1.

A is the top of the case; B, the bottom of the case. The different parts which constitute the instrument are attached to the bottom B of the case. C is the magnet. D is the key, with its trunnion shown at E. The piece E performs the double purpose of holding the magnets in the case, and making a trunnion-bearing for the key D of the instrument. F is the sounder-lever, with its trunnion at G. H is the spring attached to the lower end of the armature-lever, and its tension is regulated by the inclined thumb-piece spindle I, which

has a bearing in the post J. This spindle enables one to adjust this spring readily, and easily reach it. K is the key-spring. L are the ordinary binding-posts, to which the wires are attached when the relay is put in a circuit for operation. M is the circuit-breaker. N is a stop-plate for the back stroke of the key, and also for the sounder-lever. This anvil is supported on the post O between the magnets. These various parts are all secured, by means of screws, to the bottom part B of the case; and they are so combined and arranged, relative to each other, as to occupy but a very little space. They are accessible, and of sufficient size to be effective in their operation.

When detached from the circuit the cover A is put on, as shown in Fig. 2, and the instrument can be carried with little danger of being injured.

I claim—

1. The combination of the magnets C, piece E, for securing the magnets, and making a trunnion-support for the key, the stop-plate N, and the key G, as specified.

2. The combination of the magnets C, stop-plate N, sounder-lever F, spring H, and inclined thumb-piece spindle I, as specified.

EDWARD A. HILL.

HERMANN J. SCHNEIDER.

Witnesses:

HEINRICH F. BRUNS,
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