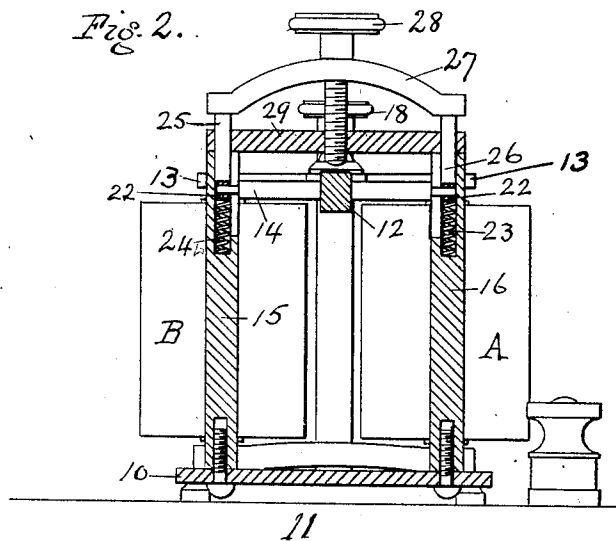
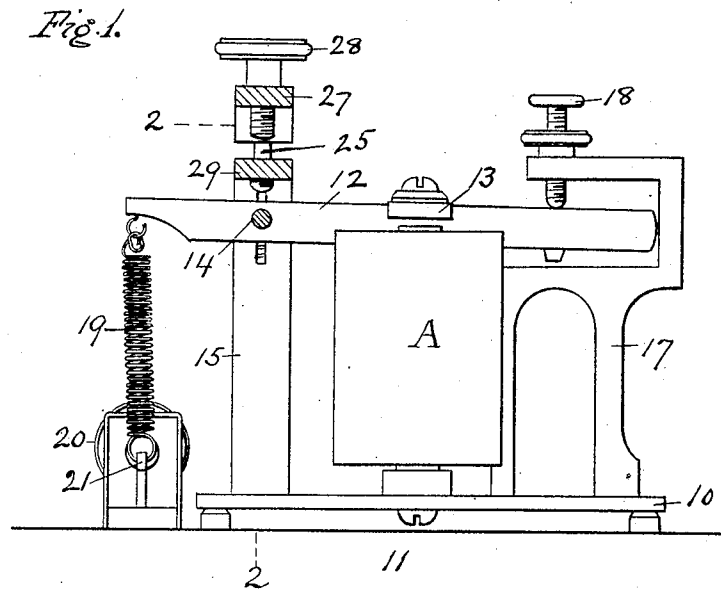


G. A. ZUNDEL.
TELEGRAPHIC INSTRUMENT.
APPLICATION FILED DEC. 7, 1910.

1,000,314.

Patented Aug. 8, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

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TELEGRAPHIC INSTRUMENT.

1,000,314.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed December 7, 1910. Serial No. 595,995.

To all whom it may concern:

Be it known that I, GUSTAVE A. ZUNDEL, a citizen of the United States of America, and residing in the city, county, and State of New York, have invented a certain new and useful Improvement in Telegraphic Instruments, of which the following is a specification.

My invention relates to telegraphic instruments and particularly to the sounder, the particular object of my invention being to provide improved means for adjusting the sounding lever.

In the accompanying drawings, Figure 1 is a side elevation of a sounder partially in section; and Fig. 2 is a section on the line 2—2, Fig. 1.

In its main features the present device is of common construction, comprising the usual electromagnetic coils A and B mounted on the base 10 carried by the support 11. The sounder lever 12 carries the usual magnet bar 13 lying above the magnet cores and rocks on the axis 14 which has its bearing in the two uprights 15—16. One end of the lever 12 is confined between the upper and lower bends of the goose-neck resonator 17, the screw 18 adjustably limiting the extent of its oscillation. The other end of the lever is subjected to the action of the spring 19, the tension of which may be adjusted by tilting, by means of the screw 20, the lever 21 to which the lower end of the spring is secured in well known manner.

My invention relates particularly to the bearing for, and means for vertically adjusting, the axis 14 on which the lever 12 rocks. As will be seen in Fig. 2, which illustrates the preferred form of my device, the axis 14 has its ends reduced to enter bearing blocks 22 which slide vertically in holes drilled in the upper ends of the uprights 15—16. Coil springs 23—24 inserted in these holes resiliently support the bearing blocks and permit the displacement of the latter under the

pressure of the plungers 25—26 carried at the ends of the bridge 27. The position of the latter is controlled by the screw 28 which, passing through the same, engages a threaded perforation in the cross pin 29 rigid with the uprights.

It is obvious that when the screw 28 is turned down the axis 14 is lowered and when the screw is raised the springs 23—24 lift the axis again. The added delicacy of adjustment which is thus secured for the sounder lever enables the instrument to be more perfectly adapted to varying line conditions and to the individual peculiarities of the operator. It will be noted also that the use of the bearing blocks 22 relieves the axis from the frictional binding to which it would be subjected were it to be engaged directly between the plungers and the springs, and its freedom of oscillation is thus unimpeded.

I do not limit myself to the precise details of construction illustrated which may obviously be varied without departing from the scope of my invention as claimed.

I claim—

1. A telegraph sounder lever, uprights supporting the same, springs carried by the latter on which said lever has its bearings, and means for depressing said lever against the action of said springs to vertically adjust its axis of oscillation.

2. A telegraph sounder lever, a spindle axis therefor, bearing blocks at the opposite ends of said axis, springs on which said bearing blocks are supported and means for depressing said blocks against the action of said springs to vertically adjust said axis.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

GUSTAVE A. ZUNDEL.

Witnesses:

JOHN J. GHEGAN,
E. FABRI.

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