(No Model.)

C. G. BURKE.

TELEGRAPH INSTRUMENT.

No. 405,988. Patented June 25, 1889.

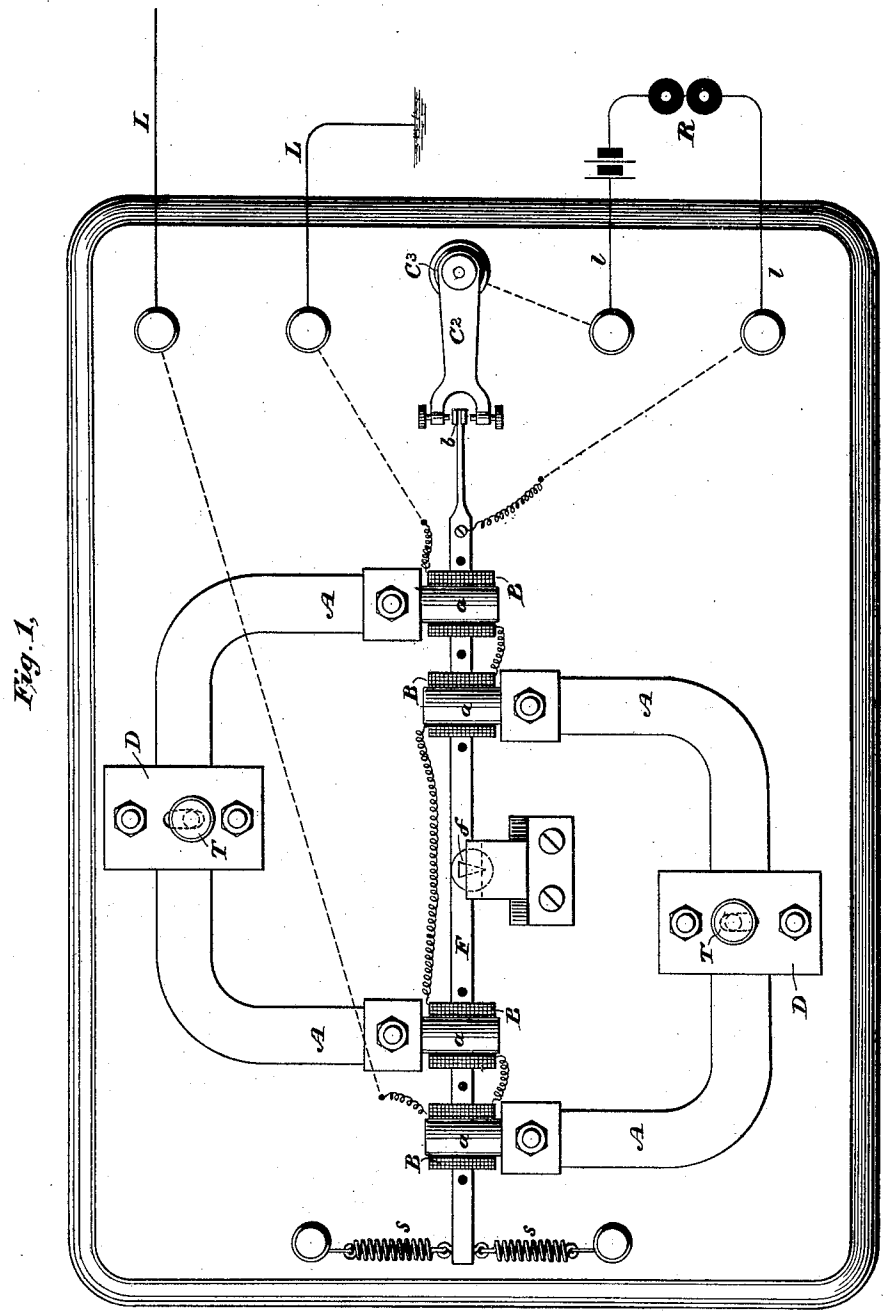


Fig. 1.

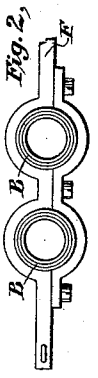


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

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TELEGRAPH-INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 405,988, dated June 25, 1889.

Application filed January 18, 1889. Serial No. 296,717. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. BURKE, a citizen of the United States, residing at Richmond Hill, in the county of Queens and State of New York, have invented certain new and useful Improvements in Telegraph-Instruments, of which the following is a specification.

The object of the invention is to provide a sensitive receiving telegraphic instrument suitable for cables and other lines where feeble currents are used.

The invention will be readily understood by those skilled in the art by inspection of the accompanying drawings, in which—

Figure 1 is a plan of an instrument partly in section, and Fig. 2 is a top view of a part thereof.

The moving part of the instrument consists of the bar F, pivoted at *f* and carrying four coils or solenoids B, two upon each side of the pivot. The main line L passes through these solenoids in series, as shown. Two magnets A A are arranged, one above and one below the bar F, so that their pole-pieces *a a* enter within the solenoids, the magnets spanning the point of support *f* and having their opposite poles on opposite sides thereof. These magnets create magnetic fields of high intensity, and when a current passes through the main line L the bar F is moved in one direction or the other, according to the direction of the current. It will readily be seen that the poles of the magnets should be arranged in such a way as to act unitedly upon the solenoids. One end of the bar F carries the contact-points *b*, which play between the jaws of the arm C^2, which is frictionally attached to a standard at C^3. Delicate springs *s s* hold the bar steadily in equilibrium.

The local circuit can readily be traced from the battery through the lines *l* and arm C^2, a portion of the bar F, and sounder R.

The brackets D hold the magnets securely in place, and by means of slots, as shown, in the brackets, and the set-screws T, which extend through into the magnets, the latter may be adjusted to the best positions.

I claim as my invention—

1. In a telegraphic instrument, two pairs of coils or solenoids connected in the line, said coils being affixed to a pivoted bar, one pair upon each side of the pivot, and two magnets having their poles on each side of the pivot and extending within said coils, as described.

2. In a telegraphic instrument, two pairs of solenoids affixed to a pivoted bar, one pair upon each side of the point of support, and two magnets each spanning said pivot or point of support, with their pole-pieces entering said solenoids.

3. The combination of the pivoted bar F, carrying the coils B, which are in the circuit of the main line, the magnets A A, each having one of its poles entering a coil on one side of the point of support of said arm F, the arm C^2, and contact-points *b*, which are in the local circuit.

4. In a telegraphic instrument, two pairs of solenoids affixed to a pivoted bar, one pair upon each side of the point of support, two magnets each spanning said pivot or point of support, with their pole-pieces entering said solenoids, and means, substantially as described, for adjusting the position of said magnets.

In testimony whereof I have hereunto subscribed my name this 16th day of January, A. D. 1889.

CHARLES G. BURKE.

Witnesses:
DANL. W. EDGECOMB,
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