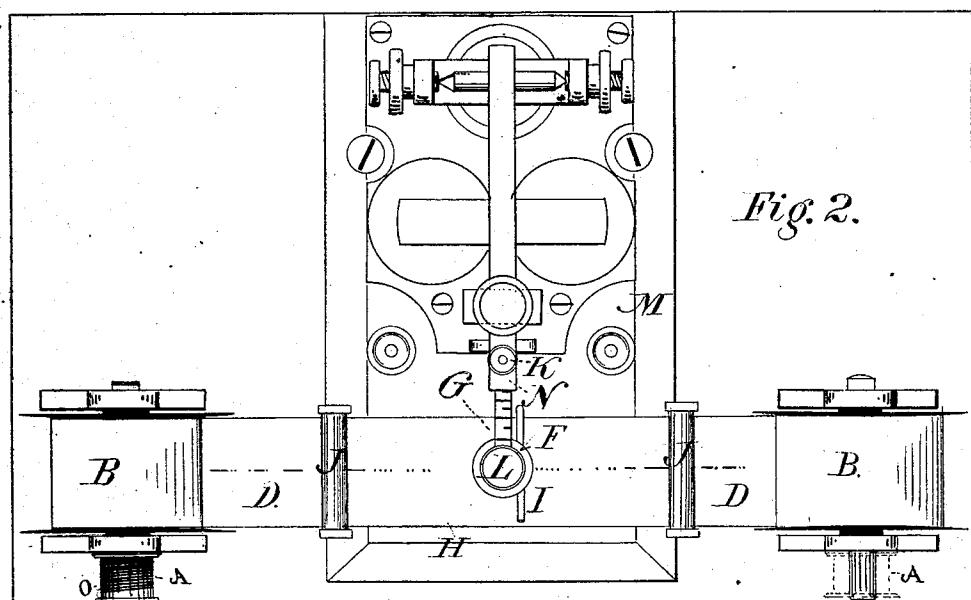
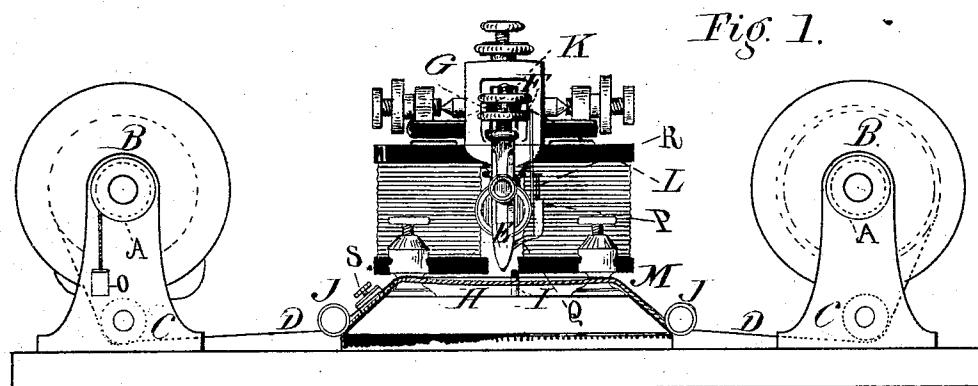


D. F. LEAHY.

Telegraph Sounder and Recorder.

No. 160,271.

Patented March 2 1875.



Witnesses.

Patrick Morris
Geo. Amisworth

Inventor.

Daniel F. Leahy

UNITED STATES PATENT OFFICE.

DANIEL F. LEAHY, OF PORTLAND, OREGON.

IMPROVEMENT IN TELEGRAPH SOUNDERS AND RECORDERS.

Specification forming part of Letters Patent No. **160,271**, dated March 2, 1875; application filed July 17, 1874.

To all whom it may concern:

Be it known that I, DANIEL F. LEAHY, of Portland, Oregon, have invented certain new and useful Improvements in Telegraph Instruments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a front elevation; Fig. 2 is a plan view.

My improvement relates to telegraph instruments used for the transmission of messages; and it consists in the combination of devices hereinafter described and explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A A' represent spools attached to shafts in reels B B. On these reels the ribbons of paper are coiled in such manner that when the weight O attached to the spool A is started, the paper is wound off one reel and onto the other. The paper in the mean time passes over a concave metal plate, H, and under the rollers J and C. The concave surface of the plate H allows the paper D to spring slightly away from the pen E on the descent of the sounding-bar attached to

the magnets. The plate H may be made flat, but a better effect is produced by the concave form. The pen E is a common right-line pen, adjusted vertically by the screws L F on the horizontal slide G, which is made to slide freely in or out of the end of the sounding-bar N. It is also graduated so as to regulate the distance between the lines of letters made by the pen, thus enabling me to use the same paper until its surface becomes filled. P is a feeder filled with ink, which passes through a small trough, Q, to the pen, keeping the pen always supplied. S is a brake to arrest the movement of the paper.

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

1. The adjustable pen E, provided with the inking attachment P and the supplying-trough Q, in combination with sounder N, substantially as and for the purpose set forth.
2. In combination with the sounder N and pen E, the concave plate H, substantially as and for the purpose set forth.

DANIEL F. LEAHY.

Witnesses:

SHUBRICK NORRIS,
HENRY W. WINCH.