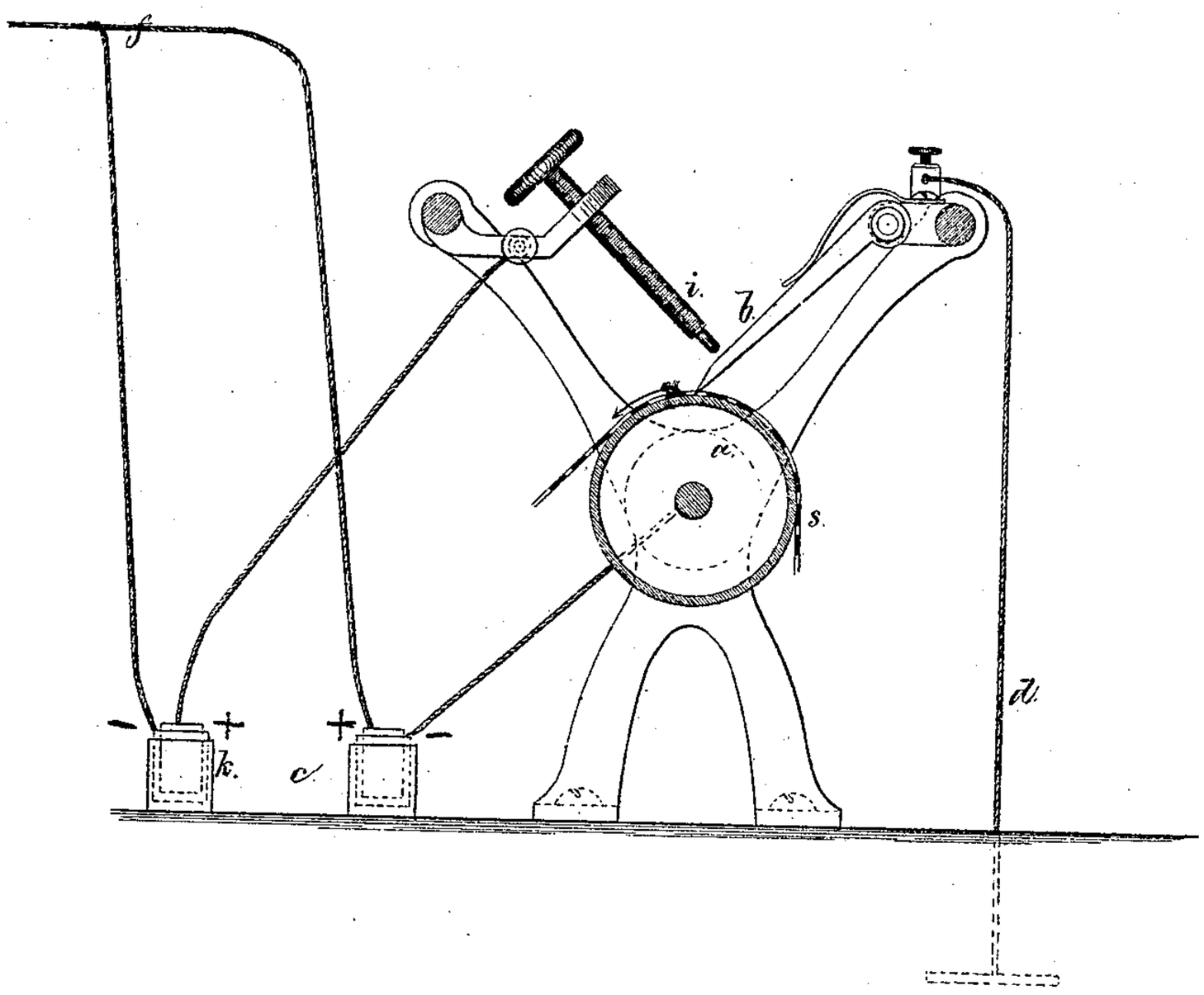
T. A. EDISON.

TELEGRAPHIC TRANSMITTING INSTRUMENT.

No. 114,656. Patented May 9, 1871.



Witnesses,

Chas. H. Smith

Geo. D. Walker

Thomas A. Edison

United States Patent Office.

THOMAS A. EDISON, OF NEWARK, NEW JERSEY.

Letters Patent No. 114,656, dated May 9, 1871.

IMPROVEMENT IN TELEGRAPHIC TRANSMITTING INSTRUMENTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Newark, it the county of Essex and State of New Jersey, have invented and made an Improved Telegraphic Transmitting Instrument; and the following is declared to be a correct description of the said invention.

In telegraphing, a perforated strip of paper has been employed to make and break the electrical circuit in transmitting the message.

In transmitting instruments adapted to said paper there is a small disk or wire brush that closes the metallic circuit through the perforations, and the circuit is broken by the paper when the unperforated portion intervenes between the roller or plate and the disk or wire brush.

The transmission of pulsations of electricity being very rapid in this system of telegraphing, there is a difficulty that sometimes arises from the wire not clearing itself, and the pulsations are attenuated and do not distinctly reach the distant station.

My invention consists in arranging the connections and portions of the instrument in such a manner that a reverse current shall be thrown upon the wire of the circuit by a motion derived from the thickness of the paper when the same is drawn in between the plate or roller and the brush or disk.

In the drawing the device in question is represented by a side view.

Let *a* represent a plate, roller, or metallic surface, over which the strip of perforated paper *s* is drawn, and

b represent a wire brush, stilus, or roller, these parts being of any known character, for sending pulsations of electricity to a distant receiving instrument.

The battery is represented at *c*, and the ground-wire at *d*, and the line-wire at *f*.

The current will therefore be sent, when the circuit is closed, through the perforation of the paper; and when the unperforated portion of the paper is beneath the brush or stilus *b* the end is lifted sufficiently to touch, or nearly so, the point *i*, that is adjustable and mounted in any convenient manner.

By the said movement the battery *k* is brought into action by closing the circuit between *i* and *b*, and a reverse current is thrown upon the telegraph-line, thereby preventing the attenuation of the previous pulsation, clearing the wire, and causing the mark at the receiving-station to be clear and distinct.

I claim as my invention—

A circuit-closer operated by the movement of the perforated paper in a telegraph transmitting instrument to throw a reverse circuit on the line, substantially as set forth.

Signed by me this 22d day of June, A. D. 1870.

THOMAS A. EDISON.

Witnesses:

CHAS. H. SMITH,

GEO. T. PINCKNEY.