

GEORGE LITTLE.

Improvement in Transmitter for Automatic Telegraphs.

No. 120,288.

Patented Oct. 24, 1871.

Fig. 1.

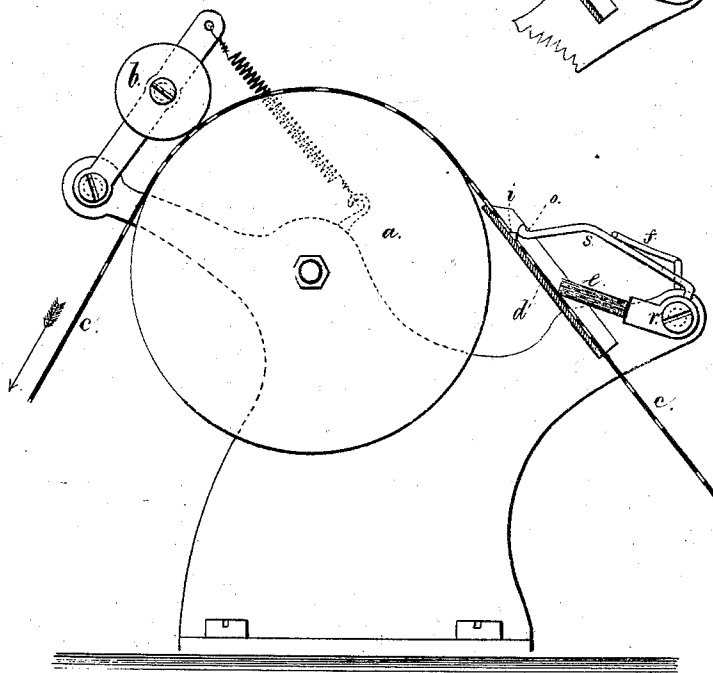
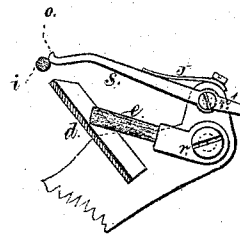


Fig. 2.



Witness,

Charles Smith
Geo. E. Pickney

George Little,
Lemuel M. Tenell atty.

UNITED STATES PATENT OFFICE.

GEORGE LITTLE, OF RUTHERFORD PARK, NEW JERSEY.

IMPROVEMENT IN AUTOMATIC TELEGRAPHIC TRANSMITTERS.

Specification forming part of Letters Patent No. 120,288, dated October 24, 1871.

To all whom it may concern:

Be it known that I, GEORGE LITTLE, of Rutherford Park, in the county of Bergen and State of New Jersey, have invented an Improvement in Transmitters for Automatic Telegraphs; and the following is declared to be a correct description of the same.

In automatic telegraphs the strip of perforated paper has been drawn along over a metal roller and beneath a roller or brush of metal to close the circuit through the perforations. In these instruments small fibers of the paper may accumulate upon the brush or adhere to the surface of the metal roller and interfere with the closing of the circuit. Besides this, the metal brush wears away with rapidity, and has to be adjusted or replaced. My present invention is to remove these risks and keep the circuit-closing points clean and bright. The strip of perforated paper is drawn along between two fixed but slightly yielding and rounded surfaces, so that the paper rubs such surfaces and keeps them clean, and they yield to the thickness of the paper as that passes, but spring together as the perforation in passing allows the circuit to close.

In the drawing, *a* and *b* represent the rollers that are employed to draw the strip *c* of paper along. *d* is the guiding-trough for the paper, and *e* a brush to produce friction. The paper

passes between the stationary rounded surface *i* and the yielding rounded surface *o*, and the contact of these through the perforations closes the circuit of the main line, and the paper intervening breaks such circuit. The rounded surface *i* may be an egg-shaped projection in the trough *d*, as seen in Fig. 1, or a round bar or rod, as seen in Fig. 2. The rounded yielding surface *o* may be at the end of an arm, *s*, swinging on the center *r*, that also supports the brush *e*, and a spring, *f*, may be provided to give the desired pressure; or the arm *s* may be attached upon an independent center, *r'*, as in Fig. 2; and, if desired, the arm *s* may itself form the spring. One or more of these rounded circuit-closers *i o* may be employed and stand in line with each other, or be otherwise positioned, according to the character of perforations in the paper.

I claim as my invention—

The rounded circuit-closing points *i o*, combined with mechanism for drawing along a strip of perforated paper, substantially as and for the purposes set forth.

Signed by me this 25th day of September, A. D. 1871.

GEO. LITTLE.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.

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