

T. A. EDISON.  
TELEGRAPH APPARATUS.

No. 171,273.

Patented Dec. 21, 1875.

Fig. 1.

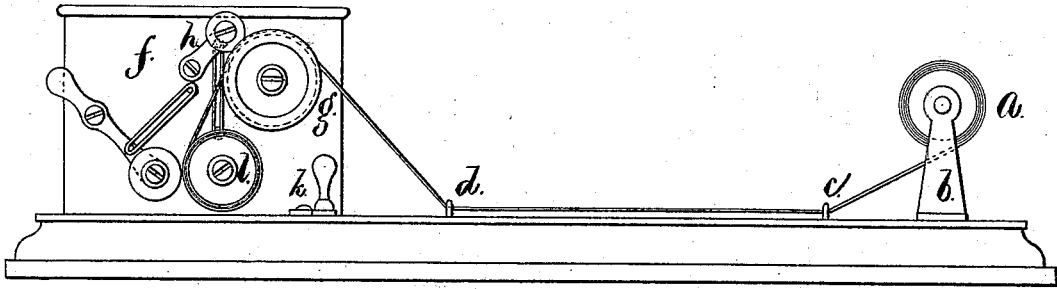
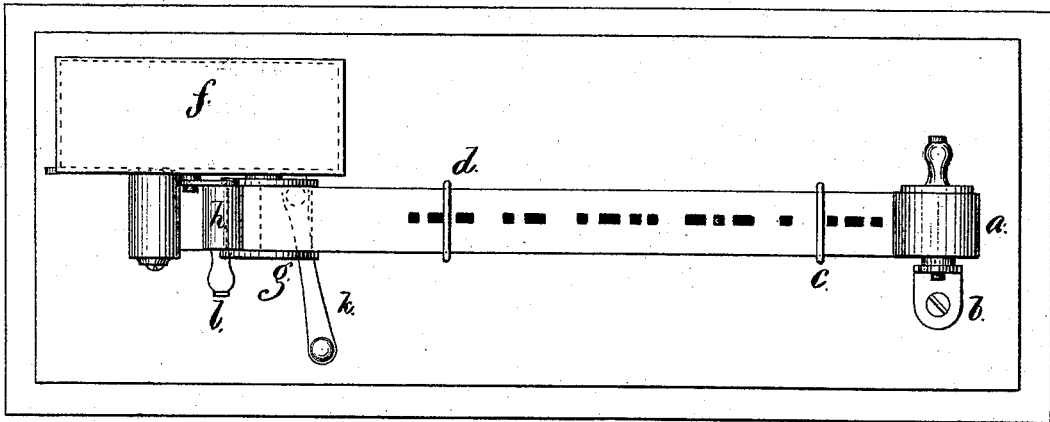


Fig. 2.



Witnesses  
Geo. D. Walker  
Geo. T. Pinckney

Inventor.  
Thomas A. Edison.  
per. Lemuel W. Serrell  
att'y.

# UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF  
AND GEORGE HARRINGTON, OF WASHINGTON, D. C.

## IMPROVEMENT IN TELEGRAPH APPARATUS.

Specification forming part of Letters Patent No. **171,273**, dated December 21, 1875; application filed  
February 16, 1875.

CASE 110.

*To all whom it may concern:*

Be it known that I, THOMAS A. EDISON, of Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Telegraphic Apparatus, of which the following is a specification:

In the chemical telegraph it is usual to write out the messages either by hand or by a type-writing machine, and the person performing this work has to draw the strip along with one hand from time to time as the transcribing progresses. The same is true with the Morse system, where the message is not written out as it is received. With the damp chemical paper great inconvenience is experienced in handling loose hanks and bunches.

My improvements contemplate the use of a roll of paper. As the message is received the strip of paper is to be wound upon a roller, and then rewound to bring the commencement of the message outward upon the roll. The strip of paper is then drawn along in front of the operator at the average speed at which the copying can be effected, and the paper is wound upon a roller, so as to be in a compact form for storage, if it is necessary to keep them.

In the drawing, Figure 1 is an elevation, and Fig. 2 is a plan, of the improved apparatus.

The roller *a*, upon which the strip of paper containing the message is wound, is placed upon a gudgeon or shaft supported by a standard, *b*, and the strip of paper is passed beneath the guide-loops *c d*, that allow such strip to be drawn along freely from right to left, and in front of the operator that transcribes or writes out the message upon the table or rest contiguous to such strip. The paper is drawn along by a train of gearing or clock-work contained within a suitable frame or box, *f*, and driven by a weight or spring, and *g* is a drum moved by one of the shafts of such train of gearing, and *h* is a yielding contact-roller, so that the strip of paper which passes between *g* and *h* will be moved along regularly, and a lever, *k*, is provided to oper-

ate a friction-clamp, by means of which the speed may be regulated to suit the operator. If desired, the strip of paper might be delivered into a basket; but I prefer to wind it automatically by a roller, *l*, that is placed upon the projecting end of one of the shafts and driven by friction, so as to wind upon itself the strip of paper as delivered. It is preferable to employ a yielding contact-roller to press the paper upon the said roller, and if there are a few points upon the surface of this roller *l* the advancing end of this strip of paper will be caught and wound up without requiring the attention of the operator.

It will be apparent that the power employed for revolving the roller upon which the paper is wound may be derived from an electric engine, or from any other source, such as a treadle or other device worked by the foot.

When the perforated strip of paper used at the transmitting end is introduced with the last end of the message first the message received will not require to be rewound, and will be in position for use.

I am aware that mechanism has been employed for moving a panoramic web and winding the same upon one roller as it is unwound from another; but this is not adapted to a strip of telegraphic paper that is removable and drawn through only once.

I claim as my invention—

1. The combination, with the rollers *g h*, actuated by a train of gearing, of guides for a strip of telegraphic paper, and a table or rest contiguous to such strip, upon which the message is transcribed, as set forth.

2. The combination, with the rollers *g h* and the removable winding-roller *l*, of the guides for the strip of telegraphic paper, and the paper-roller *a*, substantially as set forth.

Signed by me this 11th day of February, A. D. 1875.

THOS. A. EDISON.

Witnesses:

GEO. T. PINCKNEY,  
GEO. D. WALKER.