

# UNITED STATES PATENT OFFICE.

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

## IMPROVEMENT IN SOLUTIONS FOR CHEMICAL TELEGRAPH-PAPER.

Specification forming part of Letters Patent No. **160,580**, dated March 9, 1875; application filed  
June 1, 1874.

*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 Solutions for Chemical Telegraphic Paper, of which the following is a correct description:

I make use of about five pennyweights of aurichloride of sodium (double chloride of gold and sodium) to a pint of water, and about an ounce of nitrate of ammonia.

A small amount of bichloride of mercury increases the sensitiveness of the paper. This, however, may be omitted, and, in place of nitrate of ammonia, any other salt may be employed having a corresponding reaction with the aurichloride of sodium.

When an iron pen is used with the above solution, the mark on the paper is of a bluish tinge, and with a tin pen or stylus the mark is purple of cassius.

The above-mentioned solution is very sensitive to electric action, and is available in chemical telegraphs.

I claim as my invention—

The solution for chemical telegraph-paper prepared with aurichloride of sodium, substantially as set forth.

Signed by me this 14th day of October, 1873.

THOMAS A. EDISON.

Witnesses:

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