

UNITED STATES PATENT OFFICE.

JOSIAH L. YOUNG, OF NEW YORK, N. Y.

IMPROVEMENT IN METHODS OF PREPARING TELEGRAPHIC MESSAGES FOR FAC-SIMILE TRANSMISSION.

Specification forming part of Letters Patent No. **183,831**, dated October 31, 1876; application filed March 28, 1874.

To all whom it may concern:

Be it known that I, JOSIAH L. YOUNG, of New York city, and State of New York, have invented a new and Improved Method of Preparing Telegraph-Messages for Transmission by Autographic or Fac-Simile Apparatus, of which the following is a specification:

Instead of paper, I use a strip of tin-foil, or other metallic surface, made smooth, and washed over with varnish of bees-wax, or other non-conducting substances. Upon this prepared tin-foil or smooth metallic surface, washed over with a non-conducting substance, the message is written with a fluid composed of colored caustic soda. After the message is written, a wet sponge easily washes away the varnish from the letters or message, leaving the writing metallic on a non-conducting surface of varnish. The tin-foil or metallic plate is in communication with one pole of the battery or instrument; the opposite pole of the battery passes over the surface of the tin-foil or metallic plate in the shape of a steel point, or a number of points passing over the plate or foil covered or washed with the non-con-

ducting varnish. The electrical current or connection is broken; but in passing over the letters or symbols written on the plate or tin-foil the current is instantly connected. This connection is instantly indicated on the receiving-instrument by blue marks on a prepared paper soaked in prussiate of potassa, transmitting the exact shape or form of the written characters or symbols.

While I have mentioned caustic soda, it is evident that any caustic alkali may be used as the writing-fluid.

What I claim as my invention, and desire to secure, is—

The method of preparing messages for transmission, which consists in first coating a metallic surface with a non-conductor, then writing upon the same with a solution of caustic alkali, and finally washing with water, substantially as set forth.

JOSIAH L. YOUNG.

Witnesses:

H. W. MYERS,
WM. THOMPSON.