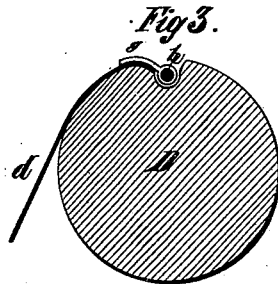
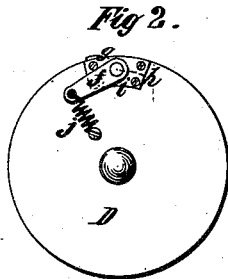
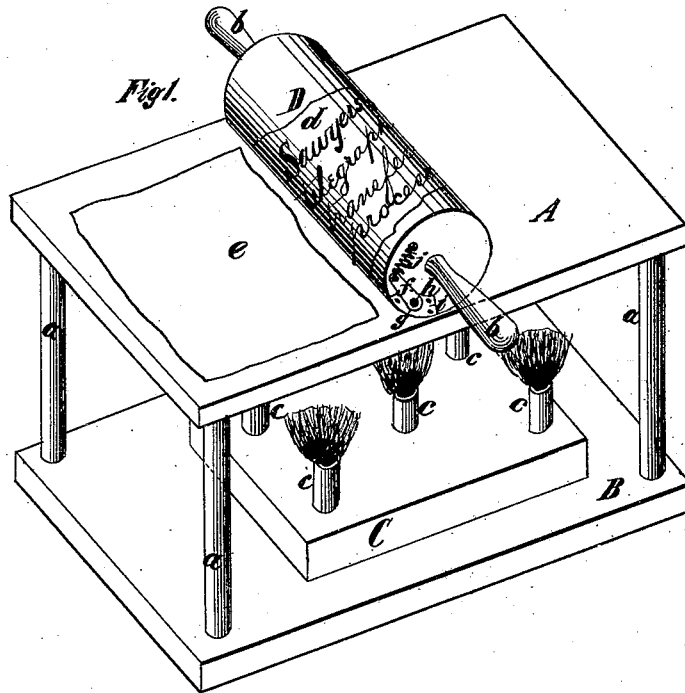


W. E. SAWYER.

AUTOGRAPHIC TELEGRAPH TRANSFER PROCESSES.

No. 195,237.

Patented Sept. 18, 1877.



Witnesses.
Clendox Hall
Jas. G. Smith

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IMPROVEMENT IN AUTOGRAPHIC TELEGRAPH-TRANSFER PROCESSES.

Specification forming part of Letters Patent No. 195,237, dated September 18, 1877; application filed July 9, 1877.

To all whom it may concern:

Be it known that I, WILLIAM EDWARD SAWYER, of the city, county, and State of New York, have invented certain new and useful Improvements in Autographic Telegraph-Transfer Processes, of which the following is a full, clear, and exact description.

My invention relates to the preparation of messages for autographic transmission by any of the well-known copying-telegraph systems which require a metallic conducting-blank and insulating-lines of writing to direct the course of the reproducing battery or batteries.

In Letters Patent heretofore granted to Andrew Joseph Russell and to me, methods of transferring messages, written upon ordinary paper, to metallic blanks or plates, have been described; and my present invention has for its object the facilitating of the work of such transferring.

The message to be transferred, written upon ordinary paper, has its lines of writing charged with an insulating material readily liquefiable by heat. To get the message into this condition, I prefer the following process: I first write the message with an ink containing a little glycerine or other oily matter. Over the same I then sprinkle impalpably-powdered gum-shellac, which adheres to the greasy lines of writing, leaving the blank portions of the message clean and clear. The blank thus filled with writing I place upon or around a roller, with the writing outward. A thin sheet of metal, preferably composed of lead and tin, is laid upon a heated metal plate, from which it absorbs the degree of heat requisite to liquefy the lines of writing. The roller holding the message-blank is then rolled quickly over the hot metallic sheet, whereby the lines of writing are momentarily brought into contact with the same, and the insulating substance with which the lines of writing are charged is liquefied, and, leaving the original paper blank, adheres to the metallic sheet, the transferred message being, of course, in reverse.

This metallic sheet, containing the insulating-lines of writing, is then put into the apparatus connected with the telegraph-line for transmission.

In the drawings accompanying and forming a part of this specification, Figures 1, 2, and 3 are views of the apparatus and parts of the apparatus by means of which the transfer is effected.

D is the roller, which is preferably constructed of wood, and may be surrounded, if desired, with any yielding substance, *b b* being handles therefor.

In a recess running the entire length of the roller is a clip, *g*, pivoted at *h* in piece *i*, and held to a bearing upon the edge of the message-blank *d* by a spiral spring, *j*, attached to lever *f*, which is fixed to the clip.

The clip may be in any other convenient form, its purpose being simply to hold the message-blank in place while the roller is being rolled over the metallic sheet *e*, as hereinbefore described.

A is the metal plate, supported by four standards, *a*, on base B. This plate is heated by burners *c c c c c* of lamp C, which may be filled with any burning-fluid.

Wherever gas is procurable I prefer to heat the plate by gas-jets; but the method of heating forms no essential part of my invention.

Having thus described my invention, what I claim as such, and desire to secure by Letters Patent, is—

The method of preparing a message or messages written upon ordinary paper for autographic telegraph transmission, consisting in subjecting the same to momentary pressure against a sheet of metal while the latter is bearing upon a heated surface, whereby the lines of writing are liquefied, and, leaving the original blank, adhere to the sheet of metal.

WILLIAM EDWARD SAWYER.

Witnesses:

JAS. G. SMITH,
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