

T. A. EDISON.
Method of Preparing Autographic Stencils for Printing.

No. 224,665.

Patented Feb. 17, 1880.

Fig. 1.

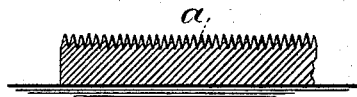


Fig. 2.

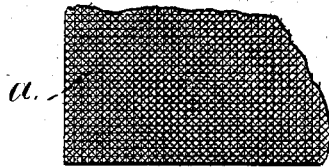


Fig. 3.

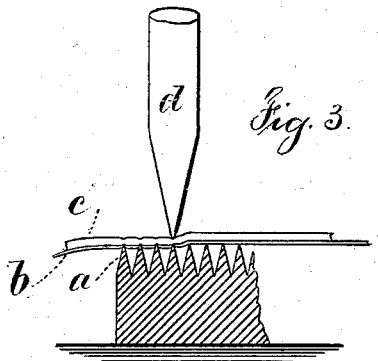
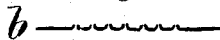


Fig. 4.



Witnesses

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att'y

UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY.

METHOD OF PREPARING AUTOGRAPHIC STENCILS FOR PRINTING.

SPECIFICATION forming part of Letters Patent No. 224,665, dated February 17, 1880.

Application filed March 17, 1879.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the State of New Jersey, have invented an Improvement in Preparing Stencils for Printing, (Case No. 173,) of which the following is a specification.

In Letters Patent No. 180,857, granted to me, means for perforating paper by a rapidly-reciprocating needle are set forth; also, a method of printing by forcing a semi-fluid ink through the perforations.

My present invention relates to a peculiar stencil-sheet, and to the method of and a means for preparing the perforated stencil of paper or similar material.

I make use of a slab or plate with a surface of numerous sharp points. Such surface is represented at *a* composed of needle-points set closely together, or wire points, the extreme ends of which are in the same plane and the bodies united by solder or cast metal; or the said surface may be a metal plate with its surface scored with grooves that leave the intervening sharp points projecting, as shown in the section, Figure 1, and plan, Fig. 2. A steel plate thus prepared and hardened is preferred.

Upon this slab the sheet of paper *b* is placed, and upon it, by preference, a sheet of blotting-paper, *c*, or other soft paper or material, is laid, and the person that writes or draws makes use of a stylus or blunt point, *d*, and writes or draws upon the surface of the paper *c* by pressing the same by hand thereon with a force that is sufficient to cause the points of the slab *a* to penetrate the paper *b* upwardly in the lines beneath the stylus. The sectional view, Fig. 3, illustrates this method of preparing the stencil.

The perforations in the paper will have their largest diameter at the under side of the sheet, as shown in the section, Fig. 4, in consequence of each point in the slab *a* being tapering; hence, when the paper stencil is made use of in printing with a semi-fluid ink, such ink will pass in at the smallest part of each hole to the broader part of the hole adjacent to the paper, and the lines of dots will be sufficiently heavy

and distinct when printed upon the surface that is printed.

I do not limit myself to the use of the sheet of soft paper *c*, as the writing may be done directly upon the surface of the sheet *b*, and any suitable blunt pencil or stylus may be used. In some instances the pencil may be of wood or other yielding material; or a lead-pencil may be employed.

A method of printing by a perforated stencil having been set forth in my aforesaid patent does not require to be repeated herein. I remark that the ink may be rubbed into or forced through the perforations of the stencil in any desired manner, so as to print upon a sheet of paper laid beneath the perforated stencil.

The stylus may be provided with a small roller at the lower end or a ball in a socket. This roller or ball should be of yielding material, such as leather or rawhide.

I claim as my invention—

1. The method herein specified of preparing stencil-sheets for printing, consisting in pressing the sheet in the lines to be printed against the numerous fine perforating-points of a slab by means of a blunt stylus that is passed over the sheet at the lines to be perforated and forces such sheet upon the points, substantially as set forth.

2. As an appliance for puncturing stencil-sheets by the aforesaid method, the slab *a*, having a surface composed of numerous and closely-proximate penetrating-points, in combination with a blunt stylus adapted to be moved by hand over the paper to be perforated, substantially as set forth.

3. An autographic stencil-sheet, substantially as described, for multiply printing, having perforations that are the largest at the side next the surface to be printed, substantially as set forth.

Signed by me this 10th day of March, A. D. 1879.

THOMAS A. EDISON.

Witnesses:

S. L. GRIFFIN,
G. E. CARMAN.