

UNITED STATES PATENT OFFICE.

CHARLES FLAMANT, OF PARIS, FRANCE, ASSIGNOR TO THE FIRM OF
HERMANN HURWITZ & CO., OF BERLIN, GERMANY.

PROCESS FOR PRODUCING HECTOGRAMS.

No. 835,105.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES FLAMANT, a citizen of the Republic of France, and a resident of 19 Boulevard Poissonnier, Paris, in the Republic of France, have invented certain new and useful Improvements in the Process for Producing Hectograms, of which the following is an exact specification.

The present invention relates to improvements in a process for producing hectographic copies, and more especially to the production of the hectographic negative upon a hectographic plate.

In the processes hitherto employed an original written upon with hectographic ink was first produced and used as ink-carrier. This latter was pressed with the written side upon the hectographic mass, thereby transferring the color upon the hectographic layer.

The advantages of the hereinafter-described process consist therein that the hectographic color is transferred to the hectographic plate by means of a pattern.

The process is practiced in the following manner: The subject (drawing, letter, or the like) to be multiplied is first produced in the manner known with the cyclostyles and mimeographs or upon stencil-paper by hand or by means of a type-writing machine or the like, so that the lettering will be seen in known manner on the paper in partly-perforated lines or surfaces. This original, the production of which does not form part of the present invention, is now placed with its side carrying the lettering upon the hectographic surface. The back side of this original serves now as a pattern and is rolled or dusted in with hectographic ink by means of tampoons or the like, so that the hectographic ink passes through the perforation of the original pattern. It is understood that the stencil-paper consists of fibrous material coated or covered with wax. In producing the lettering on this paper the wax is caused, for example, by passing through a type-writing machine yet to adhere to a convenient surface, as silk, so that perforations result which are still crossed or traversed by the fibers carrying the wax layer. Now the hectographic ink has the property of flowing also over those parts of the hectographic layer where the letters are crossed by these fibers. By the present process the lettering obtained

upon the hectographic layer therefore consists of full lines and not of hatched or dotted lines, as obtained by the hitherto-known processes according to which the lettering is applied to a paper sheet by means of a hectographic ink and then transferred therefrom to a special hectographic mass from which the copies are made in the usual manner. As known, the paper is crossed by fine fibers and the same do not absorb ink, thus causing that the lettering on the hectographic mass is crossed by such fine lines in accordance with the fine fibers crossing the original. In the case of pressing the ink directly through the perforations of the stencil-paper on the hectographic layer the ink will flow over those parts which are covered by the fine fibers, owing to the absorbing properties of the gelatin. After taking off the pattern the hectographic plate is ready for making copies in known manner.

The flowing together to full lines of the colored characters brought by the pattern upon the hectographic plate is further promoted by the treatment of the pattern with an alcoholic liquid, preferably with alcohol acidified by acetic acid. By being soaked with such a liquid the fibers are made soft, so that the ink pressed through the perforation of the stencil is permitted to flow more easily over the hectographic layer, thus promoting the formation of full lines.

It may further be remarked that in this process the original pattern can be repeatedly used, whereas the original was in the processes hitherto known lost for further use. By this present process an unlimited number of copies therefore can be obtained by means of one pattern.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is—

1. Process for producing hectographic copies, consisting in first making a stencil carrying the desired lettering or drawing, placing this stencil with its front side upon the hectographic surface, applying a hectographic color upon the back side of the stencil, and then making the copies from the hectographic layer in the usual manner, as described and for the purpose set forth.

2. Process for producing hectographic copies, consisting in first making a stencil carrying the desired lettering or drawing,

placing this stencil with its front side upon
the hectographic surface, moistening the back
side of the stencil with an alcoholic liquid
and applying a hectographic color upon the
5 back side of the stencil, and then making the
copies from the hectographic surface in the
usual manner.

In witness whereof I have hereunto set my
hand in the presence of two witnesses.

CHARLES FLAMANT.

Witnesses:

FREDERIC FIEDLEY,
AIMALLEE HALLEN.