

UNITED STATES PATENT OFFICE.

JOHN BRODRICK, OF NEW YORK, N. Y.

APPARATUS FOR PRODUCING STENCILS.

SPECIFICATION forming part of Letters Patent No. 563,355, dated July 7, 1896.

Application filed April 3, 1888. Serial No. 269,488. (No model.)

To all whom it may concern:

Be it known that I, JOHN BRODRICK, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Apparatus for Producing Stencils, of which the following is a description in such full, clear, concise, and exact terms as will enable any one skilled in the art to which my invention relates to make and use the same.

My present invention relates to the art of making autographic stencils, or transmitting printing-sheets, by means of a stylus, type-writer, or other suitable implement.

In a patent granted to me February 7, 1888, No. 377,706, I have specifically described a certain novel stencil consisting of a sheet of open veil-like paper, through which ink is readily transmitted, such as the paper commonly known in Japan as "yoshino," and as "dental," or "bibulous," or "absorbent" paper here, covered with an ink-proof substance, such as wax or paraffin—preferably soft paraffin—having said coating removed at the lines or points of printing, so that the paper at such lines or points becomes open to freely transmit ink through the interstices between the fibers. In a patent issued September 4, 1894, No. 525,675, I have more fully described a novel process of making stencils from such sheets, the essential features of said process, broadly stated, consisting in removing said coating or filling therefrom at the points or lines of printing without perforating the sheet. A fuller description of this and other processes, being specifically pointed out in said pending application, is deemed unnecessary here.

My present invention is of an improved backing, especially designed to be employed in the processes substantially described in my said pending application, which backing, speaking in general terms, consists of a sheet of material having alternate projections and depressions on its face, which receive and retain the wax expressed from said transmitting printing-sheets by the pressure applied to the stylus or type in the process of removing the ink-proof coating therefrom. The form in which I prefer to embody my said improvement is that of a sheet of paper or cardboard,

sized or unsized, embossed or stamped with lines or ridges of suitable depression or elevation, either crossed or all parallel, as may be preferred. My invention may be, however, embodied in other forms, such as an irregular roughened surface, or a woven fabric. The backing which I now prefer to use consists of a sheet of embossed paper having about one hundred lines, parallel or crossed, to the inch; but, of course, my invention is not limited to such backing-sheets.

One of the advantages attending the use of a rough backing is the production of a stencil the imprint from which more closely imitates type-writer work done on a machine employing an inking-ribbon. It also, among other things, aids in preventing the loops of certain letters being stamped out by unskilled operators, or when the work is done under unfavorable conditions.

In employing my present invention in making an autographic stencil by handwriting, a blunt stylus—either round-pointed or truncated-cone shaped—may be employed.

Any abrasion which may occur in the act of printing or writing on said dental paper is incidental, since by merely removing the ink-proof coating and without abrasion such dental paper readily transmits ink through its interstices. To avoid possible misconception, I desire to say that when I say that the ink-proof coating is to be removed without perforating the sheet I mean that the operation of making the stencil is not dependent upon perforations or ink-passages then made, (as is the sandpaper process, &c.,) but upon removing the coating and exposing the openings already existing in the sheet. In practice fibers here and there are broken when the sheet is made up of delicate and isolated fibers, as is yoshino; but this action is not relied on to make the stencil, nor does it improve it. Indeed, it is an injury, as every fiber broken unnecessarily weakens the stencil by just so much.

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

1. The combination of a sheet of open veil-like material, impregnated or coated with an ink-proof substance and a backing having a

broken or uneven surface, to which said ink-proof substance will adhere, such materials being superimposed, substantially as described.

2. The combination of a sheet of open, veil-
5 like material, impregnated or coated with an ink-proof substance and a backing of fibrous material having a broken or uneven surface, to which said ink-proof substance will adhere, such materials being superimposed substan-
10 tially as described.

3. The combination of a sheet of open, veil-like material, impregnated or coated with an ink-proof substance and a sheet of embossed paper to which said ink-proof substance will adhere, such sheets being superimposed, sub- 15
stantially as described.

JOHN BRODRICK.

Witnesses:

J. EDGAR BULL,
R. A. CORINALDI.