

(No Model.)

McI. J. D. CARTER.

DIAPHRAGM TO BE USED IN STENCIL PRINTING.

No. 405,198.

Patented June 11, 1889.

Fig. 1.

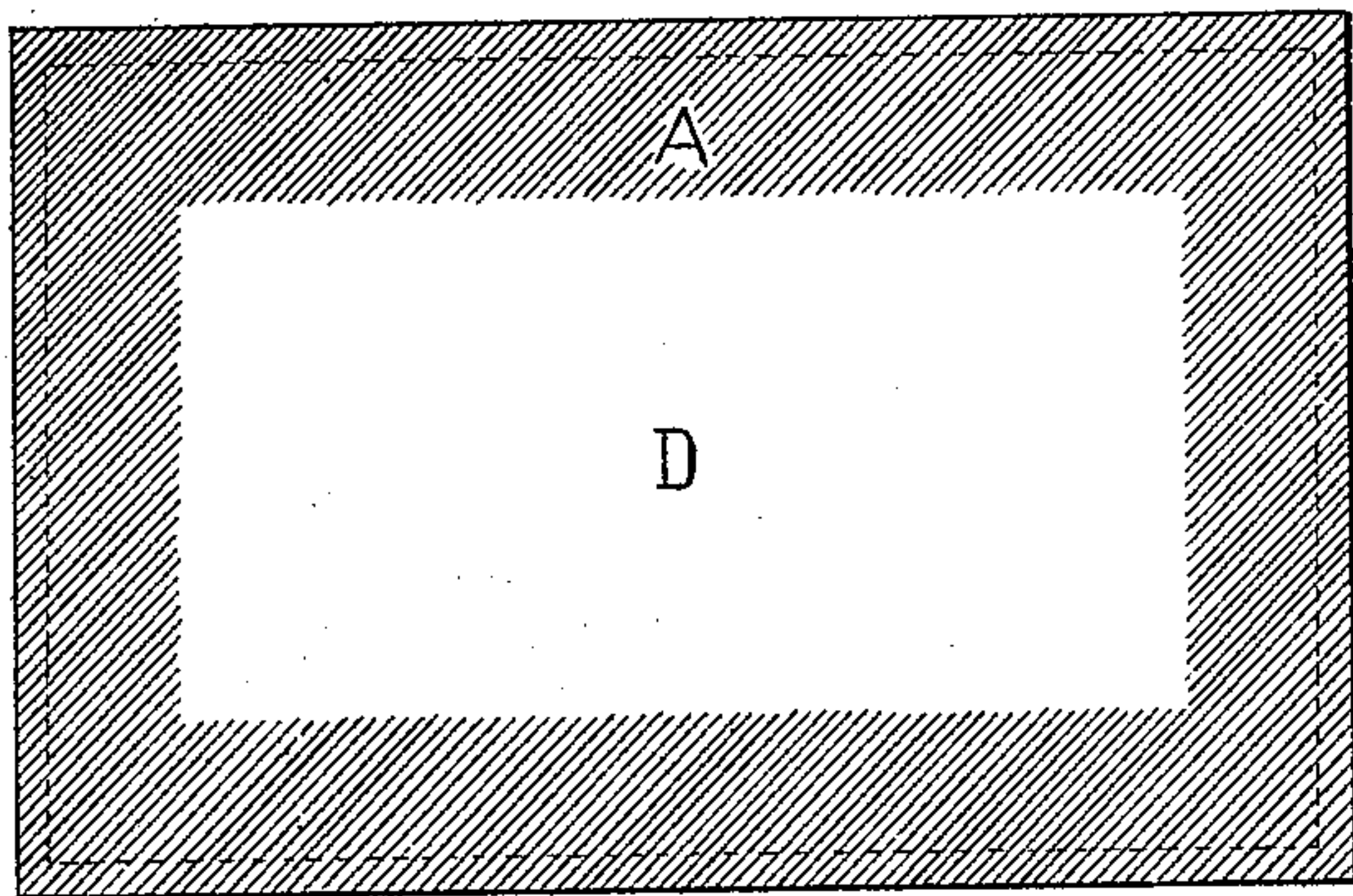


Fig. 2.

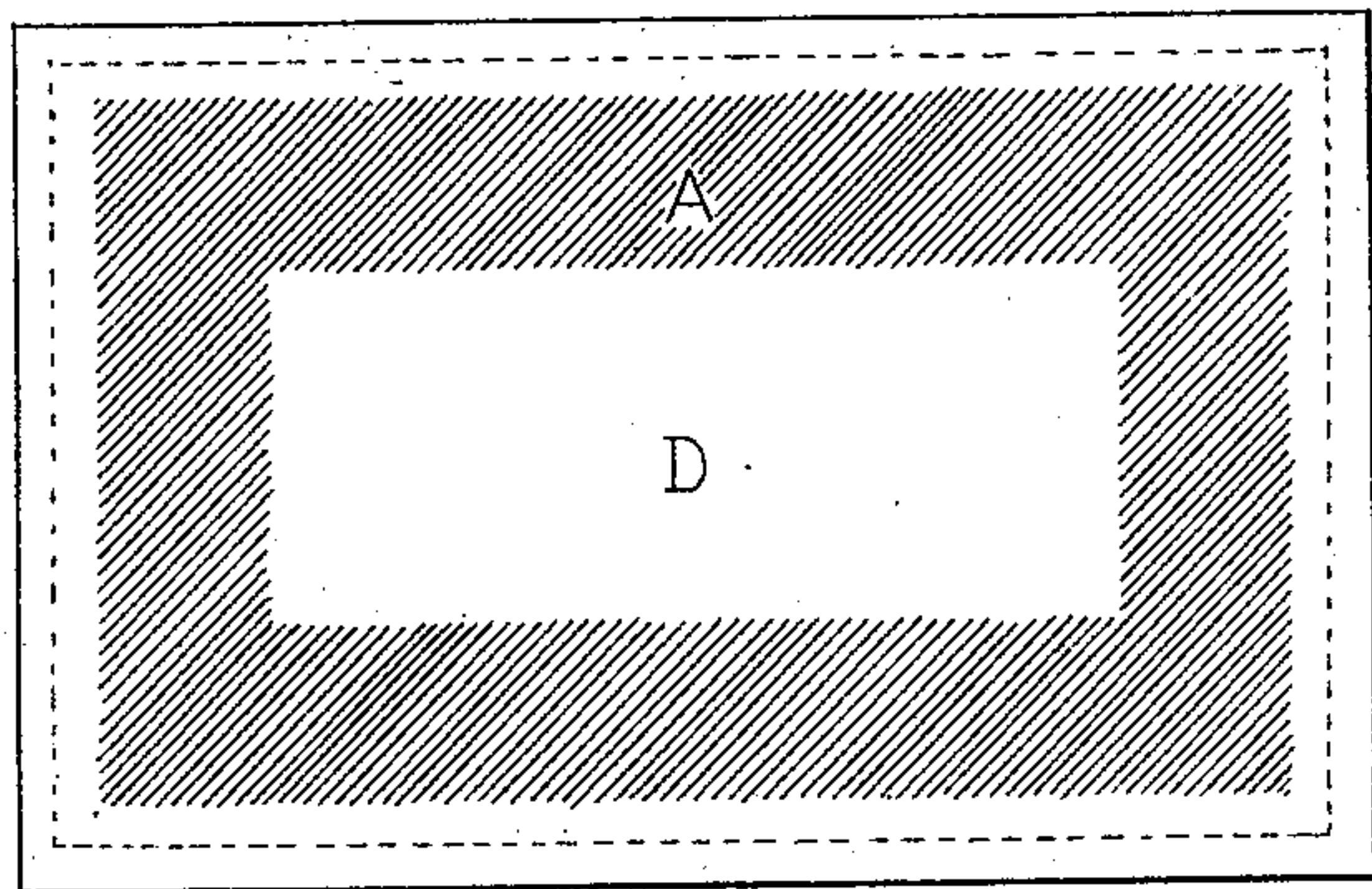
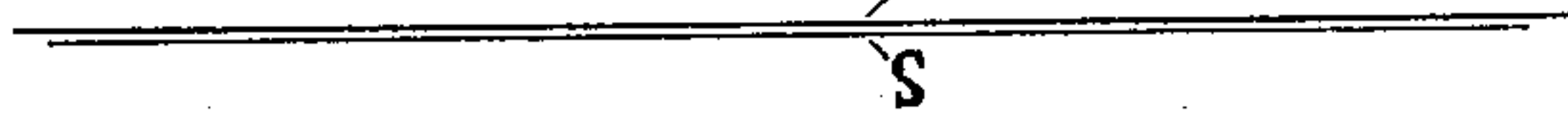


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

McION JAMES D. CARTER, OF NEW YORK, N. Y., ASSIGNOR TO AUGUSTUS
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DIAPHRAGM TO BE USED IN STENCIL-PRINTING.

SPECIFICATION forming part of Letters Patent No. 405,198, dated June 11, 1889.

Application filed January 6, 1888. Serial No. 260,006. (No model.)

To all whom it may concern:

Be it known that I, McION JAMES D. CARTER, a subject of the Crown of Great Britain and Ireland, residing at 306 East One hundred and
5 twenty-fifth street, New York, in the county and State of New York, have invented a new and useful Improvement in Diaphragms to be Used in Stencil-Printing, of which the following is a specification.

10 The object of my invention is to supply a diaphragm D, that will protect the stencil while printing and prolong its life, that will allow the ink to go through the perforated parts of the stencil and prevent the ink from
15 going through at the margins.

In printing from ordinary paper stencils the edges of the paper on which the impressions are taken will in time crack the stencil S by being constantly pressed against same
20 by the inking-roller in the act of printing. The ink will then force its way through this crack onto the margin of the copies. The number of clear copies is thus limited.

In the accompanying drawings, Figure 1 is
25 a view of a sheet having a coating on all sides extending to the edges of the sheet. Fig. 2 is a view of a sheet having a coating on all sides not extending to the edges of the sheet. Fig. 3 is a side view of the combined printing-
30 stencil and diaphragm.

In printing from type-written stencils the same objection is found. It is necessary to fold the stencil-sheet so that it goes into the carriage of certain type-writers; also at times
35 folded top and bottom over a rough or smooth surface. The folding of the sensitive waxed paper breaks the surface of same, and in printing the ink will very soon force its way through this crack onto the margin of the
40 copies.

The invention consists in providing a porous diaphragm with a waxed edge or an ink-proofed edge to one side of the center, at one, two, three, or four sides of the center, at the edge of the sheet, or between the edge of the
45 sheet and the center, as may be found desirable.

In carrying my invention into use the diaphragm D may be stretched permanently in a suitable printing-frame and the stencil S subsequently placed under same. The suction of
50 the ink will keep the stencil S in its place; or it may be more permanently fixed by means of a suitable frame or with mucilage.

In printing, the diaphragm D receives the
55 friction of the roller, and consequently all the wear and tear. The waxed edges A of diaphragm D prevent the ink from getting onto the margins of the copies, the center of the diaphragm D allowing the ink to go through
60 the perforations of the stencil S; or, when using cheap paper diaphragms D, the same may be stretched, together with stencil, in any suitable printing-frame. The edges of the diaphragm D will protect the margins of sten-
65 cil, the porous paper allowing the ink to permeate the perforations of stencil.

I claim—

The combination, with a printing-stencil, of a porous diaphragm having a portion thereof
70 coated with an impermeable substance, substantially as described, and for the purposes set forth.

Signed at New York, in the county and State of New York, this 20th day of December, A.
75 D. 1887.

McION JAMES D. CARTER.

Witnesses:

C. HY. JÉUANE,
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