

(No Model.)

W. SMITH, Dec'd.

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MANUFACTURE OF IMPRESSION PAPER.

No. 273,772.

Patented Mar. 13, 1883.

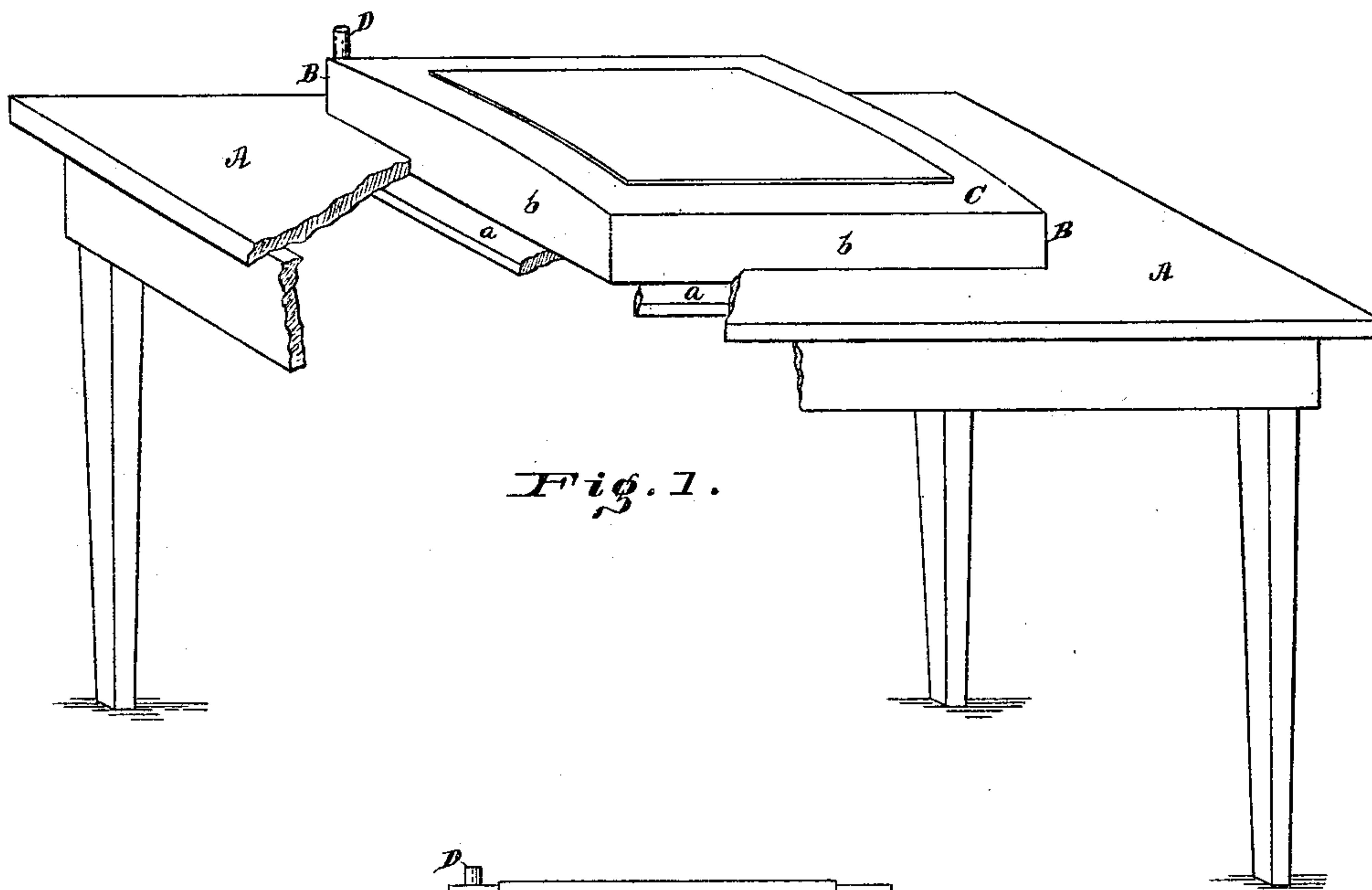


Fig. 1.

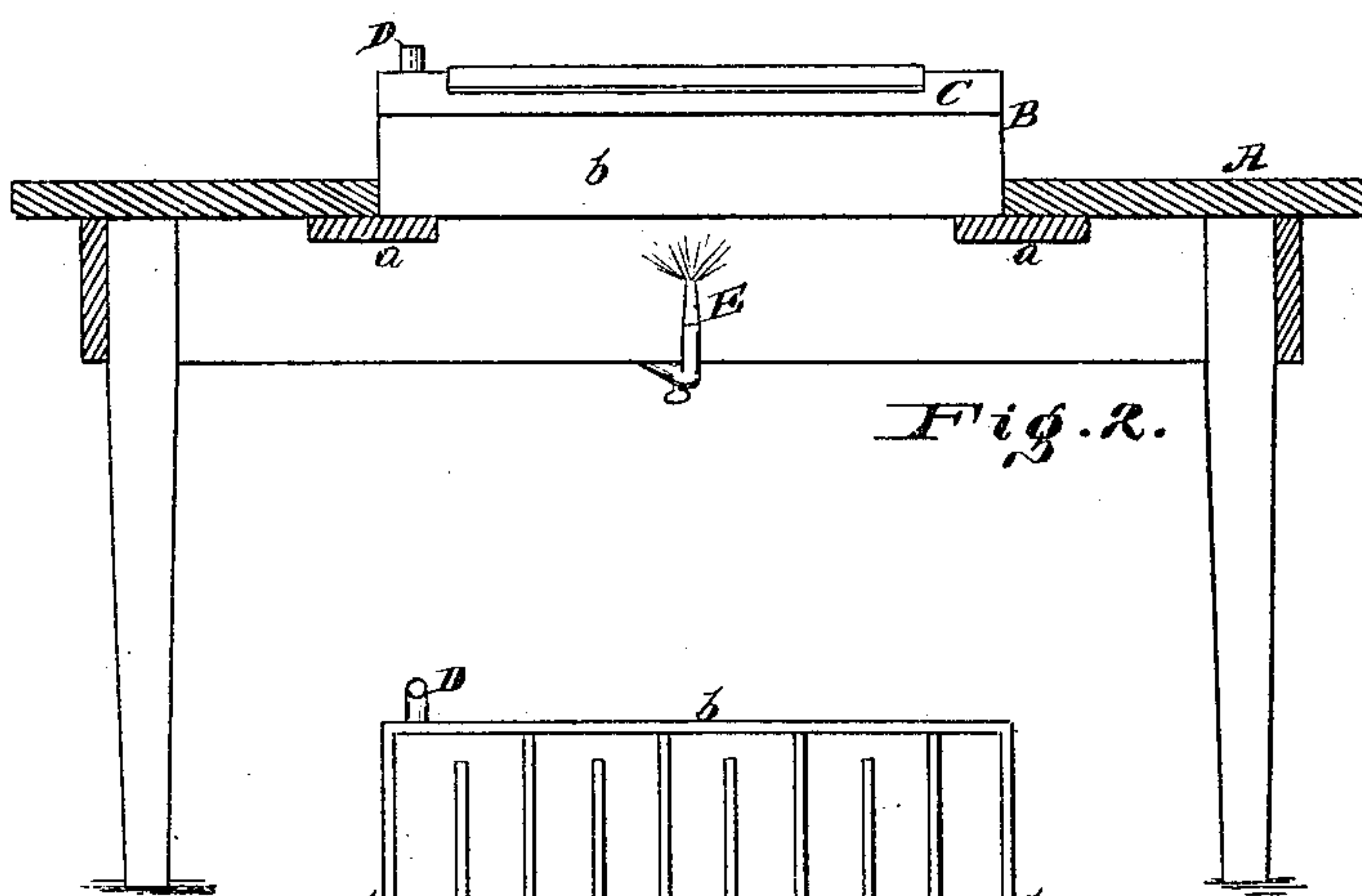


Fig. 2.

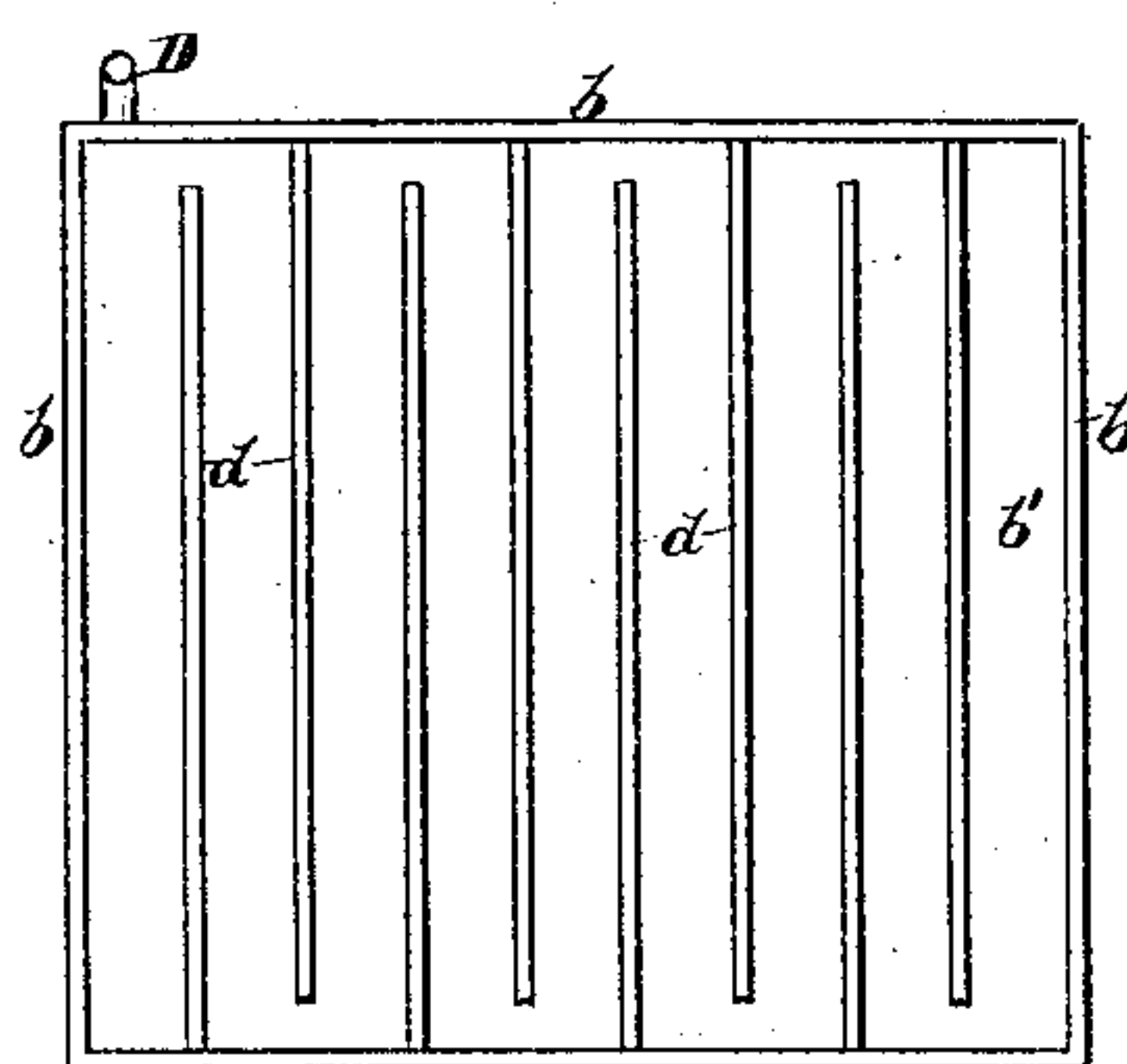


Fig. 3.

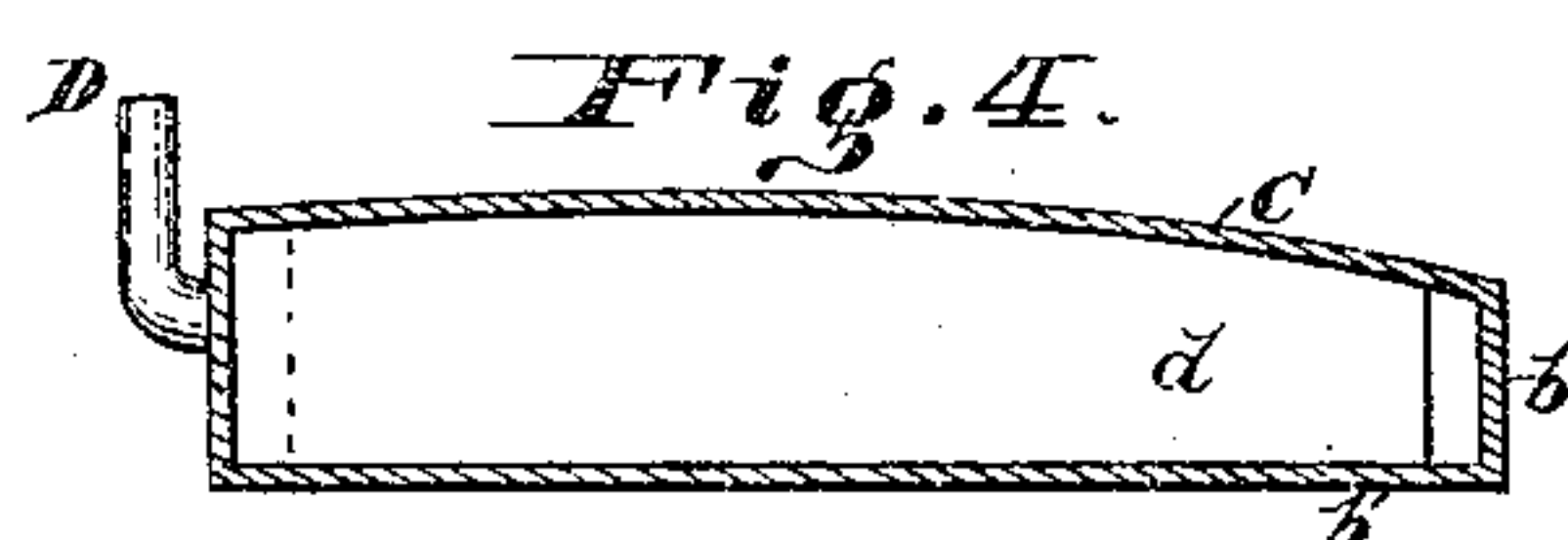


Fig. 4.

Witness:

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UNITED STATES PATENT OFFICE.

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MANUFACTURE OF IMPRESSION-PAPER.

SPECIFICATION forming part of Letters Patent No. 273,772, dated March 13, 1883.

Application filed November 16, 1882. (No model.)

To all whom it may concern:

Be it known that WM. SMITH, of Cincinnati, Hamilton county, Ohio, did invent certain new and useful Improvements in the Manufacture of Impression-Paper, of which the following is a specification.

This invention relates to the means by the aid of which the paper may be more thoroughly and readily impregnated with a carbon compound than by the means heretofore employed; and it consists, in general, in working the carbon compound into and through the paper by the aid of heat in the manner hereinafter mentioned, the paper being laid upon a heated surface, and while on this surface being thoroughly impregnated with the carbon. Any of the usual compounds of carbon may be employed for impregnating the paper; but a compound of the inventor's own production is preferably employed, which compound is not herein described, as it forms no part of the present invention.

Referring to the drawings forming part of this specification, Figure 1 is a perspective view of the preferred form of heating apparatus, part of the table upon which it rests being broken away. Fig. 2 is an end elevation of the heating device shown in position on the table, the latter being shown in sectional elevation. Fig. 3 is a plan view of the preferred form of heating device, the top or tablet being removed. Fig. 4 is a vertical longitudinal section through the heating device.

A is a table of any desired construction, the top of which has an opening in which is placed a box or can, B, which is preferably made of sheet metal. Cleats *a* are secured to the under side of the top of the table A. Upon these cleats the box B rests to prevent it from going too far through the top of the table. This table forms a convenient and cheap support for the box B; but any other desired form of support may be employed. This box B consists of four sides, *b*, a bottom, *b'*, and a top or tablet, C, which latter is preferably convex, as shown, and upon which the sheet of paper to be carbonized is laid, as shown in Fig. 1. Inside of this box are located a number of partitions, *d*, whose principal purpose is to add strength to the box and give a firm support to

the tablet C. A space is left between one end of each of the partitions *d* and the side of the box to permit of a free circulation of fluid or vapor within the box. At some portion of the box is an inlet and outlet tube, D. Below the box B is located means for heating the contents of said box, the means here shown being a gas-burner, E; but a lamp or other means may, if desired, be employed.

The manner in which this invention as above described operates is as follows: The box B is partly filled with water through the tube D, and heat is applied below the box, by which means the tablet C is heated. The paper to be carbonized is now laid on the tablet, and the carbon compound is thoroughly rubbed and worked, by suitable pads or brushes, into the upper surface of the paper, after which the paper is turned over and the compound worked into the other surface in a similar manner. The heat of the tablet C causes the paper to absorb more of the carbon compound than it would if laid on a cold or unheated surface, as has heretofore been the custom, and for this reason the impression-paper prepared by the foregoing process is much richer in the compound and more durable than that prepared by the process heretofore employed.

Instead of water, steam may be introduced into the box B for heating the tablet C.

The tablet C may be flat or convex, and of stone or metal, or any suitable material, as desired, and while a box, as B, is the preferred form for sustaining the tablet and for enabling the heat to be applied to it, other modes of sustaining the tablet and enabling heat to be applied thereto may be employed, and will, in connection with the tablet, be included under this invention.

What is claimed as new and of the invention, and desired to be secured by Letters Patent, is as follows:

1. In the manufacture of impression-paper, the application of a heated tablet to one side of the paper while the carbon compound is being worked into the paper at its other side.

2. In the manufacture of impression-paper, the tablet C, supported upon a hollow receptacle, as B', containing heated water or steam, substantially as and for the purposes specified.

3. The tablet C, located upon the box B, provided with the partitions *d*, arranged substantially as described, and for the purposes specified.

5 4. The combination of the tablet C and the box B for containing either heated water or steam, and table A, having cleats *a*, substantially as and for the purposes specified.

5. The combination of the tablet C and box

B, and table A, having cleats *a*, and a suitable heating device applied to the under side of the box for heating the table A, substantially as and for the purposes specified.

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