

(No Model.)

M. CRANE & J. L. FIRM.

STEREOTYPE PLATE.

No. 311,175.

Patented Jan. 27, 1885.

Fig. 1.

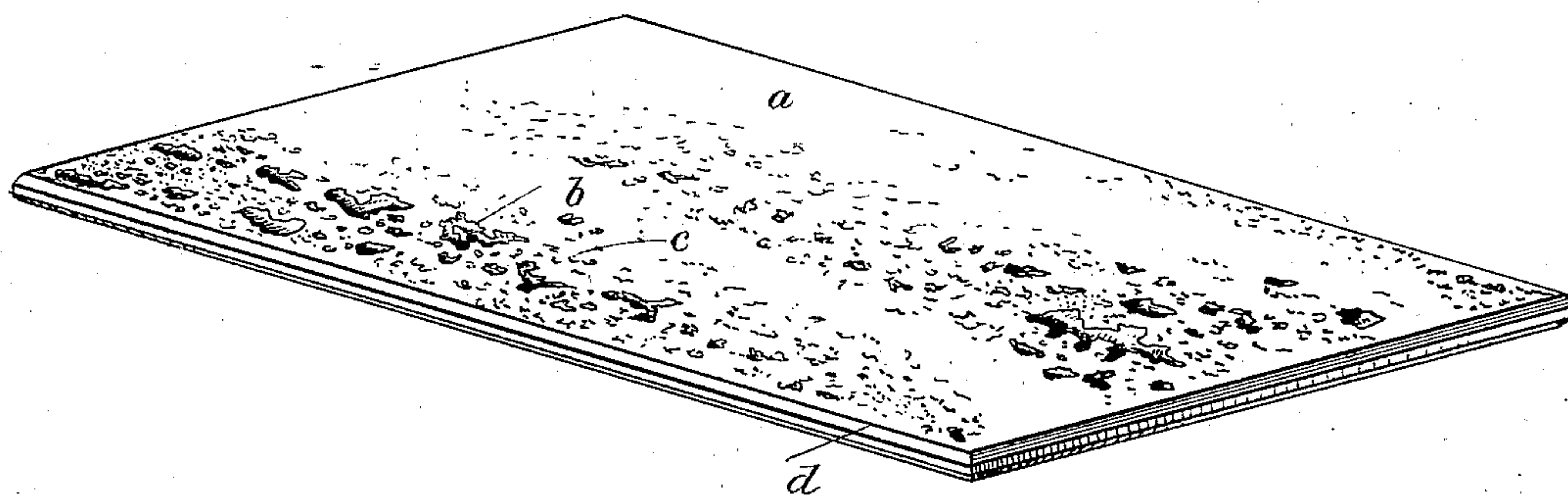


Fig. 2.

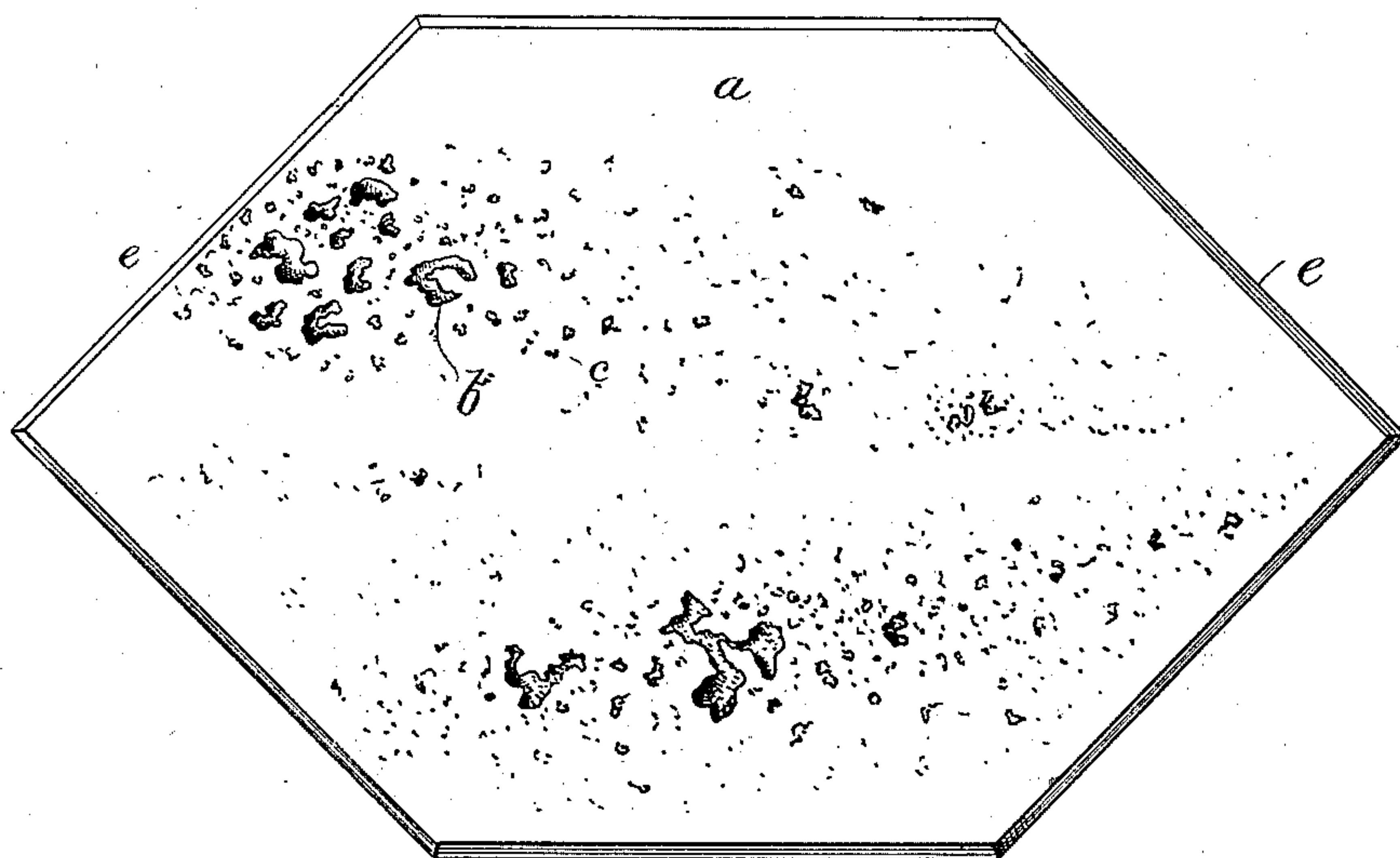


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

MICHAEL CRANE, OF BROOKLYN, NEW YORK, AND JOSEPH L. FIRM, OF  
JERSEY CITY, NEW JERSEY.

## STEREOTYPE-PLATE.

SPECIFICATION forming part of Letters Patent No. 311,175, dated January 27, 1885.

Application filed October 5, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, MICHAEL CRANE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, and JOSEPH L. FIRM, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and useful Stereotype-Plate, of which the following is a full, clear, and exact description.

This invention is in the nature of improvements in stereotype-plates for producing variegated, tinted, or other ornamental backgrounds or borders for color-printing and the like.

The invention consists in a honey-combed casting, constructed and adapted for use as hereinafter specifically set forth and claimed.

In the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of our plate; Fig. 2, a top plan view of another form, and Fig. 3, a longitudinal section applicable alike to both.

The plate *a* has a surface made up of purely accidental depressed portions, cavities, or holes *b* and solid portions *c*, which in the printing-press, with suitable inks, give an exceedingly variegated and pleasing effect as tint or background or outline for other matter. The plates are made with beveled edges *d*, to fit the cylinder or bed and permit reversal, and they are also, to this end, preferably made with V-shaped sides or ends. They may be made of any suitable metal, and their surfaces can be changed at pleasure by scraping or planing them. Their configuration will conform to that of the press in which they are to be used, in accordance with the known ways of making other stereotype-plates, and they may be blocked as are other stereotype-plates. These plates are produced in manner following: A frame or form is made on a flat iron or other table of iron, lugs laid at right angles to form a square, and paper moistened with alum-water is laid on the face of the table, within the space inclosed by said lugs, the lugs holding the paper in position. The usual stereotyping

metal or other metal is then poured in a molten state into the form made of these lugs, and as the metal comes in contact with the paper the moisture of the alum-water will throw it into agitation or ebullition more or less violent, and on cooling the metal will set with its body and surface completely honey-combed. When the casting is cold, its faces are planed and give a most excellent tint-plate of very unique effect.

Instead of making the molds or forms as just described, they may be constructed of plaster-of-paris set with alum-water, and retaining sufficient moisture to cause the ebullition referred to, and when dried by use such molds may be again dampened with alum-water.

The plates may be quite thick, so as to be capable of being planed or shaved off repeatedly to obtain new impression-surfaces. These plates, as already said, may be used for a variety of purposes, and will be found specially advantageous in preparing safety-paper for bank notes, checks, &c., and for wall-paper, calico-printing, book-binders' covers, fly-leaves and liners for book-binding.

The beveling of the edges of the plates permits their use on blocks for printing on a flat-bed press or a curved-bed cylinder-press, the hooks thereby more readily engaging and more securely holding them.

What we claim is—

The improved printing-plate consisting of a honey-combed casting having beveled edges to admit of its ready attachment to the impression bed or cylinder of a printing-press, and reversible for use on both faces, which faces are variable at pleasure to obtain new and different printing-surfaces, substantially as shown and described.

In testimony whereof we have hereunto set our hands this 3d day of October, A. D. 1883.

MICHAEL CRANE.  
JOSEPH L. FIRM.

Witnesses:

ALEXANDER SUTHERLAND,  
JAMES GILMER, Jr.