

(No Model.)

W. H. BELL.
METHOD OF PRODUCING STENCILS.

No. 485,602.

Patented Nov. 8, 1892.

Fig. 1.

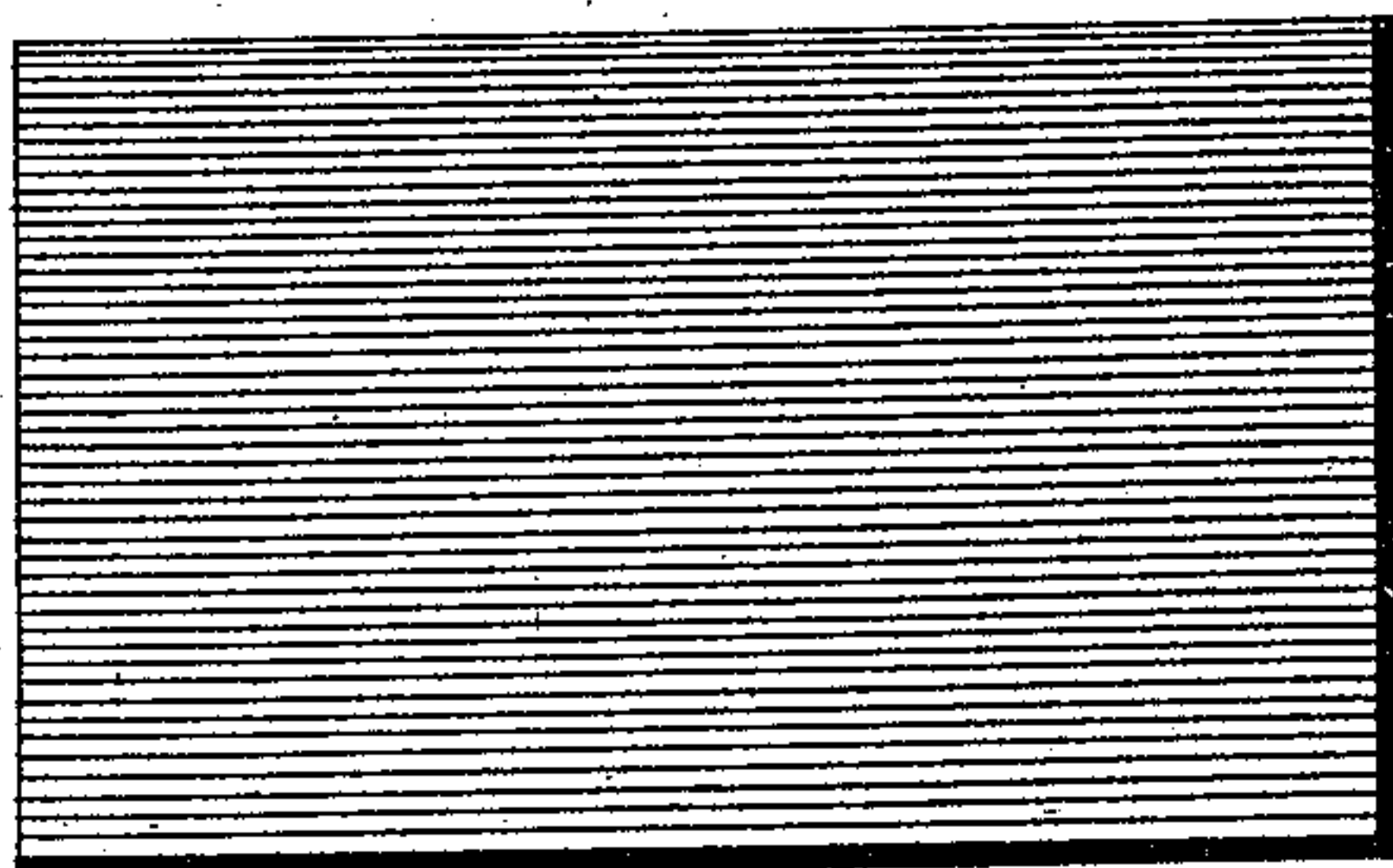


Fig. 2.

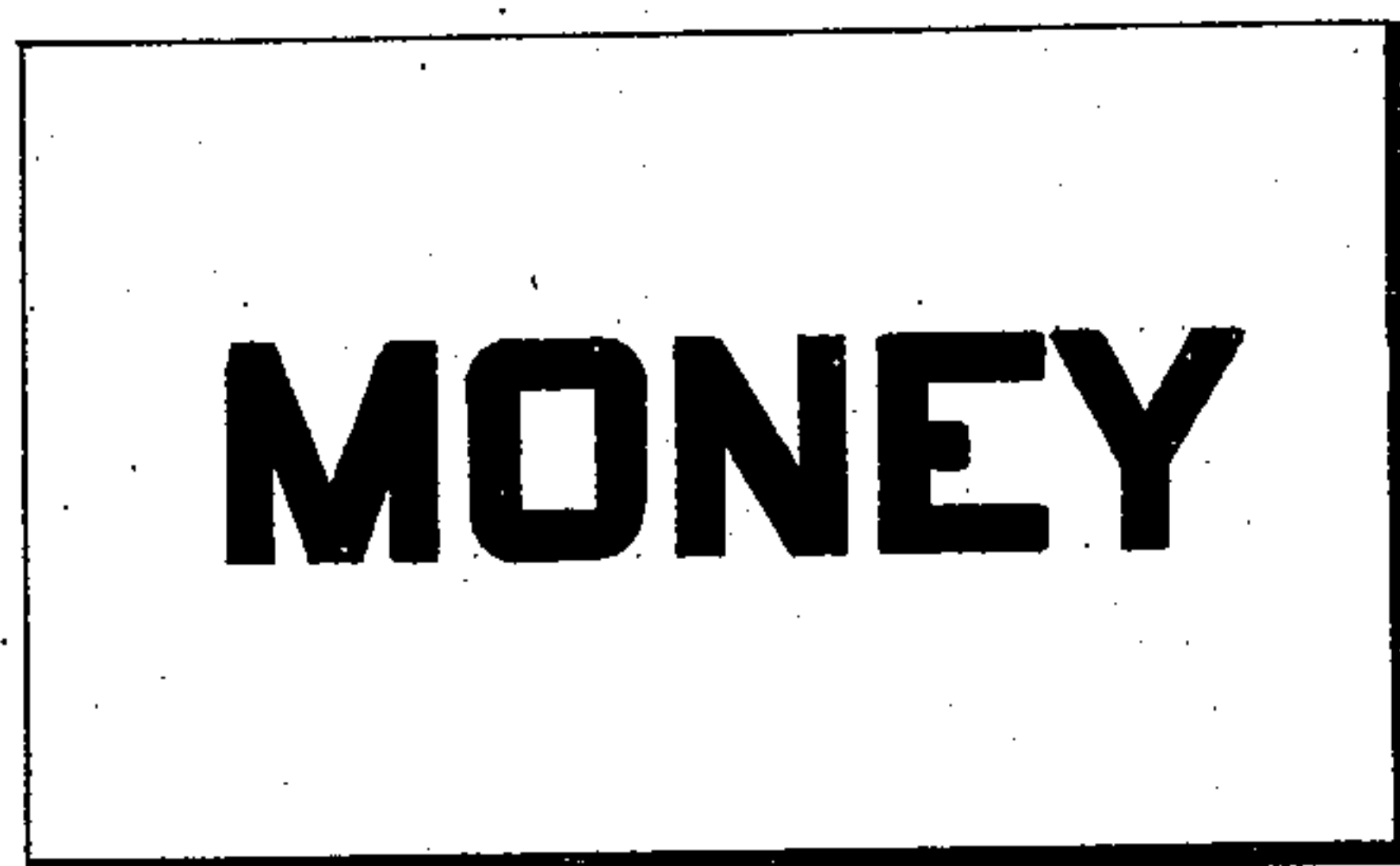


Fig. 3.



Witnesses.

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METHOD OF PRODUCING STENCILS.

SPECIFICATION forming part of Letters Patent No. 485,602, dated November 8, 1892.

Application filed April 4, 1892. Serial No. 427,774. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM H. BELL, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented an Improved Method of Producing Stencils, of which the following is a full and clear description.

The object of my invention is to provide a simple and efficient method of producing stencils for stencil-printing which may be used with an ordinary inking-roller, the paper to receive the copy being placed beneath it. Stencils of this general description have heretofore been produced by the electric pen and other specially-constructed machinery, and also from waxed paper. These methods have many disadvantages in use—such as cost, difficulty in operation, &c.—which it is the object of my invention to avoid.

In my improved method a gelatinous plate is employed. I will first describe my invention in detail, with reference to the drawings, and afterward point out its novelty in the claim.

In the drawings, Figure 1 represents a gelatinous plate showing the gelatine surface. Fig. 2 represents a sheet of paper on which is printed the word "Money," for illustration, printed with ordinary printer's ink. Fig. 3 illustrates the same plate shown in Fig. 1 after the word "Money" has been reversely reproduced thereon in stencil by removing the gelatine where the letters exist, showing the letters in the porous material through the gelatine.

The plate in which the stencils are to be produced is composed of a sheet of paper or other porous material, saturated and thinly coated with a clear solution of gelatine heated to 104° Fahrenheit or its equivalent, as shown in Fig. 1. No precise proportions of water and gelatine are required; but it is suggested to use one part gelatine and eight parts water.

The copy shown in Fig. 2 is placed on the gelatine of the plate shown in Fig. 1 with the ink of the copy downwardly directly in contact with the gelatine. For this purpose ordinary printer's ink is used or ink of an analogous character. The copy-paper is then soaked with a solution of alum from its blank side and subjected to pressure upon the plate, whereby the gelatine not covered with the ink is penetrated by and becomes hardened

from the alum. The copy-paper is then removed and the plate is washed with warm water or other proper preparation. Thereby the unhardened part of the gelatine is removed, exposing the porous material that was beneath the parts covered by the ink, as shown in Fig. 3. The plate thus constructed when reversed is ready to be used as a stencil, and therefrom by the use of proper ink an impression is reproduced on paper or other material.

It will be seen that the chief novel feature of my process consists in the arrangement of ink impressions between a gelatinous plate and an alum-soaked sheet of paper.

Although I regard the method I have described of carrying my invention into effect as the best, modifications might yet be introduced without departing from the spirit of my said invention.

If when making the plate a more continuous pliant condition is required, molasses or other like ingredient is added to the gelatine and water.

In the drawings I have shown the ink impression upon the sheet of paper; but it can be made directly upon the plate with as good result.

I do not in producing stencils by my method rigidly confine myself to the specific arrangement of parts herein set forth, but vary the same as would be done by any one skilled in the art to suit special conditions and requirements without departing from the principles of my invention, as herein shown, described, and claimed.

What I claim as new, and desire to secure by Letters Patent, is—

The within-described method of producing a stencil for printing, consisting in arranging ink impressions between an alum-soaked sheet of paper and the described gelatinous plate, then by pressure causing the alum to penetrate the gelatine, thereby hardening the gelatine not covered with the ink, and then removing the sheet of paper and washing the plate, thereby removing the gelatine beneath the ink and producing the stencil, substantially as described.

WILLIAM H. BELL.

Witnesses:

E. SATTENIUS,
W. N. KEMPSTON.