

(No Model.)

L. C. TIMROTH.
MATRIX.

No. 578,278.

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Fig. 1.

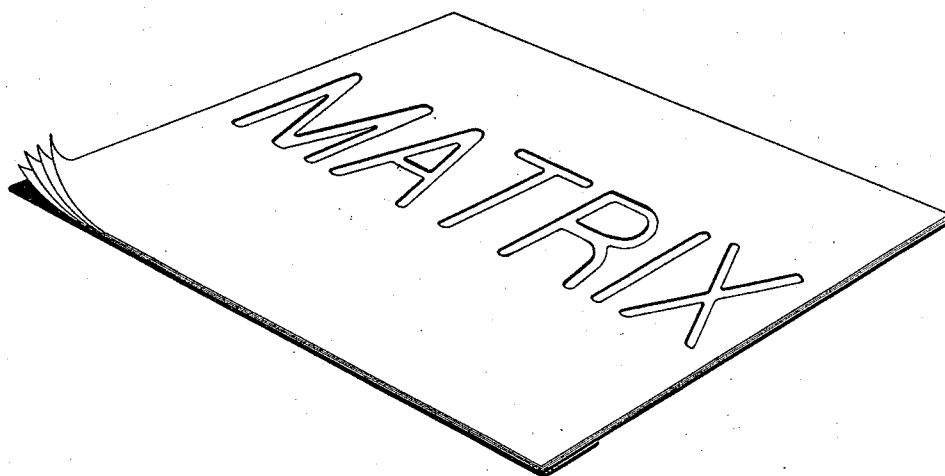


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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MATRIX.

SPECIFICATION forming part of Letters Patent No. 578,278, dated March 2, 1897.

Application filed November 19, 1896. Serial No. 612,692. (No specimens.)

To all whom it may concern:

Be it known that I, LOUIS C. TIMROTH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Matrices and the Method of Producing the Same, of which the following is a specification.

My invention relates to a new and useful improvement in matrices for the casting of type and half-tone plates for printing purposes, and has for its object to improve upon the manufacture of matrices as now used, and also to produce a matrix that may be more readily and quickly prepared for use and which will last indefinitely without souring or otherwise deteriorating.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, its construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective of a matrix made in accordance with my method, one end thereof being separated in layers to show its composition; and Fig. 2, a section thereof.

In carrying out my invention I take a certain amount of tissue-paper and paste the same together with the specially-prepared paste, hereinafter described, and unite the same to a sheet of sixty-pound dry backing. As soon as these are pasted together they can be used at once without sweating or penetration of water by blankets, as per old process, or may be stored and kept for an indefinite length of time without liability of souring or otherwise deteriorating.

When it is desired to use a matrix-blank made in accordance with my improvement, a piece thereof is cut from the sheet of a size about one inch larger than the form to be embedded therein, and this blank is moistened upon its face and back and then applied to

the form and molded thereto with brush or molding-press. After this the matrix may be dried in a steam-press in about two minutes, thus greatly reducing the usual time for such operation, and thereafter the matrix is ready for the casting process and requires no backing or filling and reproduces the finest possible lines, such as are found in half-tones, which cannot be reproduced by the old processes.

In the use of my prepared matrix it is not required to be sweated or soaked, and yet produces a much sharper face and a greater number of casts than any other known process.

Another of the advantages of my improvement is that the prepared sheets may be stored after the manner of cardboard, rolled or mailed without the liability of injury, and when desired for use may be quickly prepared therefor, which, as is well known, is of great advantage in this art.

The paste which is especially adapted for use in the formation of the matrices, as above described, is as follows: Dissolve a teaspoonful of alum in a pint of warm water, one and one-half table-spoonfuls of white flour, one-half teaspoonful of ocher, one-half teaspoonful of dissolved rosin, one-half teaspoonful of ground cloves, one-half teaspoonful of sugar, two table-spoonfuls of starch, three ounces of gum-arabic, and two ounces of white glue. When the alum-water is cold, mix the flour therein, being careful to beat all lumps until all becomes smooth. Gum-arabic and glue are dissolved together, with water sufficient to form a cream thickness. Mix sugar, ocher, starch, and cloves together, mixing together until smooth. Then unite all together and boil in a pint of boiling water, stirring continually until thick. Then let same boil slowly five minutes on the back of the stove. Remove when cold, and cover same air-tight by putting in a jar or earthen pot. Whenever you wish to use same, dissolve it in cold water and proceed. Warranted to keep one year.

Having thus fully described my invention, what I claim as new and useful is—

1. A paste as described, consisting of water, alum, flour, ocher, rosin, ground cloves, sugar,

starch, gum-arabic, white glue, in the proportions specified.

2. A matrix formed of a number of layers of tissue-paper held together by a paste composed of water, alum, flour, ocher, rosin,
5 ground cloves, sugar, starch, gum-arabic and white glue substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

LOUIS C. TIMROTH.

Witnesses:

S. S. WILLIAMSON,
THOMAS O. JONES.