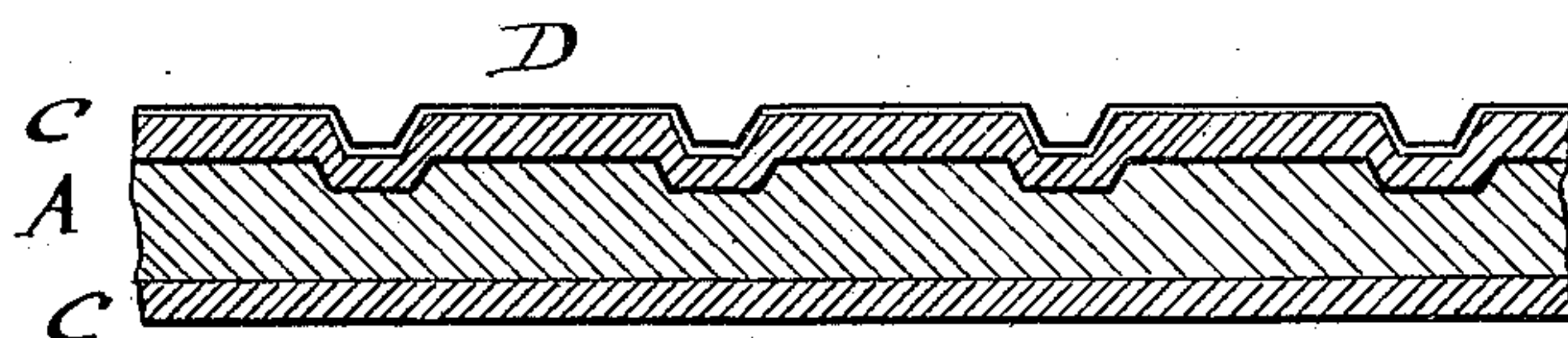


(No Model.)

F. SCHREINER & A. SCHOTT.
STEREOTYPING MATRIX.

No. 427,803.

Patented May 13, 1890.



WITNESSES:

Henry Huber
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UNITED STATES PATENT OFFICE.

FRIEDRICH SCHREINER AND ARNOLD SCHOTT, OF PHILADELPHIA, PENNSYLVANIA.

STEREOTYPING-MATRIX.

SPECIFICATION forming part of Letters Patent No. 427,803, dated May 13, 1890.

Application filed November 4, 1889. Serial No. 329,207. (No model.)

To all whom it may concern:

Be it known that we, FRIEDRICH SCHREINER and ARNOLD SCHOTT, both of the city and county of Philadelphia, and State of Pennsylvania, citizens of the United States, have invented certain new and useful Improvements in Stereotyping-Matrices, of which the following is a specification.

This invention relates to certain new and useful improvements in the matrix for stereotyping for which Letters Patent No. 376,348 of January 10, 1888, and Letters Patent No. 404,564 of June 4, 1889, were issued to us; and the object of our invention is to simplify the manufacture of the matrix, and at the same time to increase its elasticity and to strengthen the blank spaces and interstices, so as to adapt them to better resist the weight of the hot metal while in the casting-box, and also to shorten the time required for the purpose of stereotyping.

In the accompanying drawing a transverse sectional view of our improved matrix for stereotyping is shown.

We use a sheet of fabric, as described in our Patent No. 376,348 of January 10, 1888, and No. 404,564 of June 4, 1889, which sheet A is impregnated to a certain extent with a semi-dry plastic mass consisting of a mixture of equal parts of dextrine, asbestos, and rye-flour, or starch boiled with water to form a thick paste. The sheet thus prepared is covered on the front and back with a layer C of wood pulp, or any other suitable material, impregnated with the said semi-dry plastic mass, and the matrix then prepared is exposed to the air for the purpose of drying it. A layer of any other pulp or soft paper may be used. When dry, the matrix is ready for use and can be kept before being used for an indefinite period of time.

A short time before the stereotyper intends to use the sheet for the purpose of stereotyping the same must be rendered mellow, and to accomplish this the face of the sheet is covered with the semi-dry plastic mass, and one or more sheets of fine tissue-paper D are spread over this cover on the face of the sheet. The semi-dry plastic mass softens the matrix and the sheets of tissue-paper applied assist in producing a yielding surface on the matrix. The sheet thus prepared is placed

upon the type-form and a suitable pressure is exerted by some suitable means, so as to impress the type into the plastic mass and the wood pulp below the same. The matrix is then removed from the type-form, which need not be heated, and then the matrix is subjected for a few moments to a current of hot air for the purpose of hardening it.

Our improved matrix will neither warp nor shrink, nor are the depressions defaced or injured by the hardening process, nor by taking casts of the impressions. The spaces or interstices are of sufficient strength to bear the pressures of the molten metal, and, finally, the matrix is not scorched by the heat of the metal.

Our improved matrix retains its pliability even after a number of casts have been taken from the same. The time of making stereotype by means of our improved matrix is reduced to a minimum, as the matrix is at all times ready for use, and a single impression from the type-form is sufficient for producing a clear imprint of the type in the matrix. The type are not injured or damaged in any way, as they need not be heated in order to dry the matrix, as has been necessary and customary heretofore.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A matrix for stereotyping, composed of fabric coated and partly impregnated with a semi-dry plastic mass and provided on both faces with a covering of wood pulp impregnated with a semi-dry plastic mass, substantially as set forth.

2. A matrix for stereotyping, composed of a fabric coated and partly impregnated with a semi-dry plastic mass and covered on both faces with wood pulp impregnated with a semi-dry plastic mass, and a sheet or sheets of tissue-paper on one of the faces covered with wood pulp, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

FRIEDRICH SCHREINER.
ARNOLD SCHOTT.

Witnesses:

ALEX. REINSTINE,
A. ROSENBAUM.