

UNITED STATES PATENT OFFICE.

WILLIAM MEARS, OF PHILADELPHIA, PENNSYLVANIA.

STEREOTYPING.

SPECIFICATION forming part of Letters Patent No. 285,643, dated September 25, 1883.

Application filed October 31, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM MEARS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Stereotyping, which improvement is fully set forth in the following specification.

The object of my invention is to simplify and expedite the method or process by which stereotype-plates are produced, and correspondingly to cheapen them.

My invention consists of—

First. Treating thick porous or bibulous paper with a solution of gun-cotton, not quite saturated, or collodion, applied either by a brush or by immersion, the latter being the preferable mode of treatment. The effect of this treatment is to impart to the paper the quality of being easily impressed upon the form to be reproduced in stereotype and of retaining the impressions received into it without change.

Second. Backing up the paper so saturated with gun-cotton, as above described, after placing it on the form preparatory to making the impression of the matter to be reproduced in stereotype, with a layer of paper saturated with shellac or any similar gum soluble in alcohol, to be thoroughly dried before using.

The necessary pressure to fix into the prepared paper the form to be stereotyped being applied, it will be seen that the excess of alcohol and ether contained in the solution of gun-cotton is forced through to a contact with

the gum, thus combining with it and cementing the second layer of paper to the matrix, the compound thus formed at the same time absorbing most of the moisture remaining in the matrix-paper proper. The pressure being removed, after a few minutes exposure in the open air, or, if great haste is required, drying in an oven, the matrix is ready for the casting-box.

If it is desired to prepare the paper in quantity for continual use, it may be preserved by laying the prepared sheets one upon another, and at the bottom and top of the pile a glass or tin plate sufficient not only to cover the sheets, but to extend over the edges an inch or more. The action of the atmosphere is thus confined to the edges of the prepared paper and very slightly affects it, even through a considerable period of time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The improvement in the art of making paper matrices for stereotype-molds, which consists in treating the paper with a solution of gun-cotton, substantially as and for the purposes set forth.

2. A matrix formed of paper treated with collodion, substantially as and for the purposes set forth.

WM. MEARS.

Witnesses:

AUG. H. MOORE,
J. W. SCHUCKERS.