

UNITED STATES PATENT OFFICE.

LEOPOLD ELIAS, OF BRESLAU, GERMANY.

ASBESTOS STEREOTYPE.

SPECIFICATION forming part of Letters Patent No. 709,398, dated September 16, 1902.

Application filed May 14, 1901. Serial No. 60,224. (No specimens.)

To all whom it may concern:

Be it known that I, LEOPOLD ELIAS, manufacturer, of 27 Kaiser Wilhelm Strasse, Breslau, in the Empire of Germany, have invented
5 some new and useful Improvements in Asbestos Stereotypes, of which the following is a full and clear description.

According to this invention a stereotyping-matrix is made of pure or almost pure asbestos.
10 This material requires little trouble and dexterity on the part of a person making the matrix, and, furthermore, it enables sharp outlines to be obtained which do not alter, it does not injure the type material, and it does
15 not crumble off. It admits of repeated use, as a new matrix may be formed by moistening the back of the matrix and taking a fresh impression from the type. The improved matrix produces much sharper and clearer
20 castings than those made of materials such as hitherto used for this purpose. It may be bent or curved without difficulty for the production of stereotype-plates for rotary presses and can be stored for an unlimited period.
25 The asbestos is preferably used with felted fibers. The felting operation may be effected by means of a sieve in the manner adopted in paper manufacture. When it is desired to add other materials to the asbestos to form
30 more body, such additional material must be thoroughly free from sand, so as to obtain a sharp and true matrix and to prevent injury to the type material. By felting the asbestos fibers it will be easier to obtain a homogeneous

material of sufficient strength from the fibers 35 alone without the aid of filling or binding media. The material is used in a wet condition, and it suffices to moisten the asbestos material with clean water, and this only at the moment when ready for use. The use of
40 adhesive substances is superfluous with this material, and the adherence of the asbestos fibers enables the material to be used direct for forming the matrix without having to place it upon a supporting-surface. 45

In order to prevent the standing erect of fibers when lifting off the case-plate when using asbestos mass as a matrix-sheet, a thin solution of plant-glue is spread upon the matrix-plate by means of a brush or the like. 50 This solution of plant-glue forms a very thin layer on the matrix-sheet. As a plant-glue we may use, for example, a five to ten per cent. solution of gum-arabic, which may, if desired, have a small addition of glycerin in
55 order to prevent the layer which forms from being brittle.

I claim—

A stereotype-matrix composed of asbestos covered with a thin coating of plant-glue, 60 substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

LEOPOLD ELIAS.

Witnesses:

RUDOLF FRIESS,
HERMANN WARTSCH.