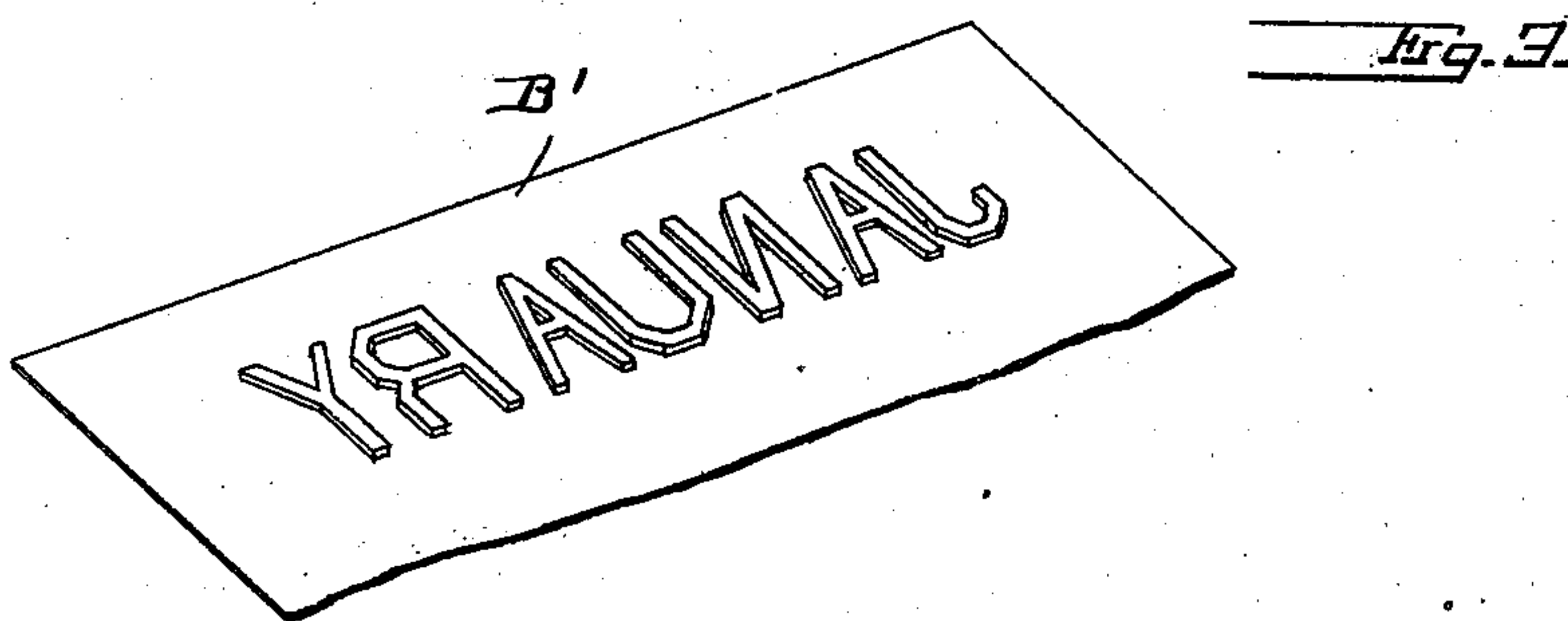
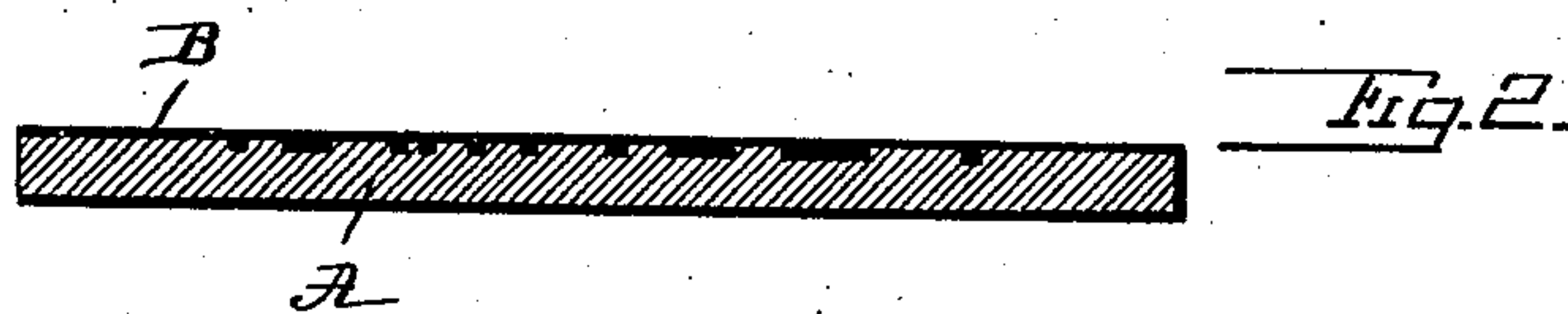
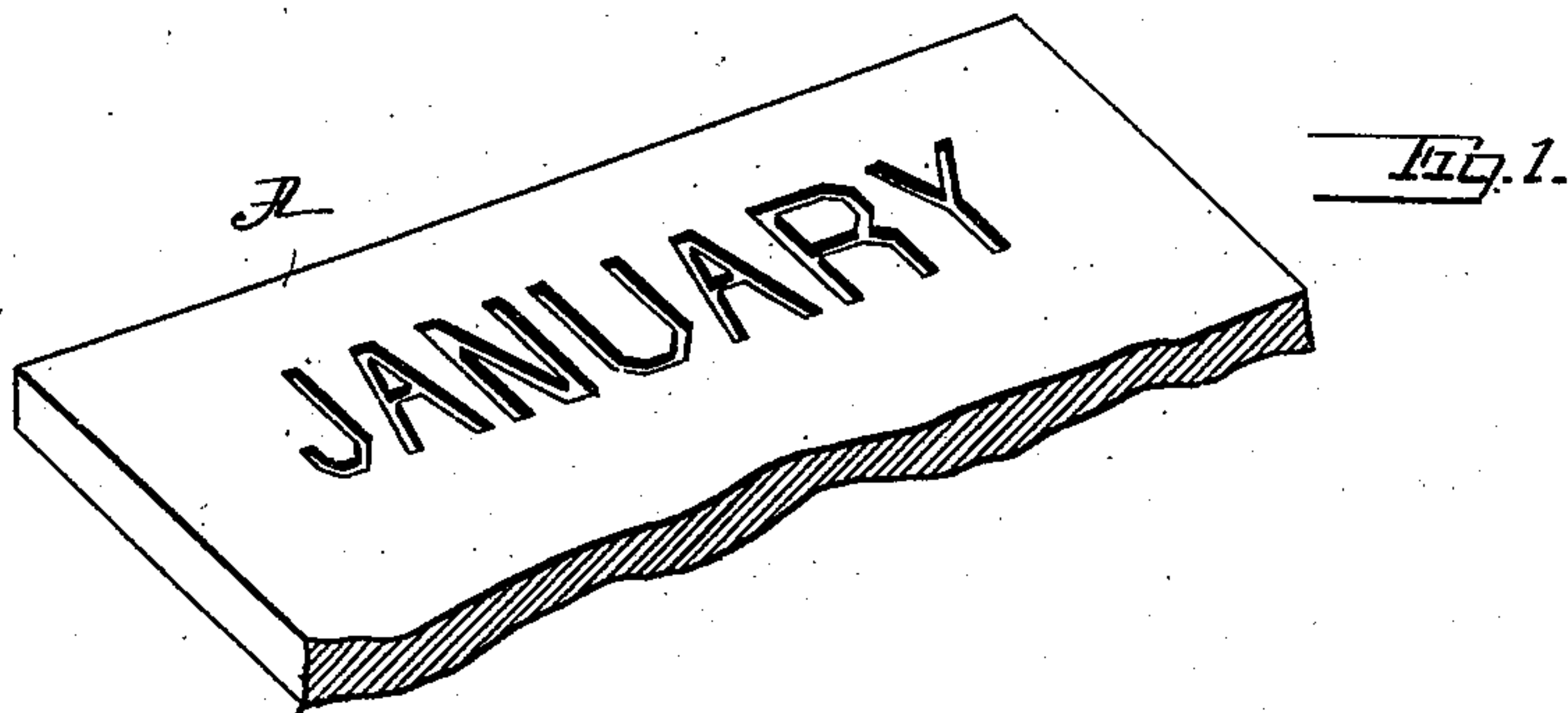


(No Model.)

I. KITSEE.  
ART OF STEREOTYPING.

No. 583,686.

Patented June 1, 1897.



Witnesses.

Jesse B. Heller,  
Wallace B. Eldridge

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# UNITED STATES PATENT OFFICE.

ISIDOR KITSEE, OF PHILADELPHIA, PENNSYLVANIA.

## ART OF STEREOTYPING.

SPECIFICATION forming part of Letters Patent No. 583,686, dated June 1, 1897.

Application filed March 12, 1896. Serial No. 582,942. (Specimens.)

To all whom it may concern:

Be it known that I, ISIDOR KITSEE, of the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in the Production of Stereotype-Plates, of which the following is a specification.

My invention relates to the production of stereotype-plates.

10 The object of my invention is to produce stereotype-plates in a simpler and more efficient manner than was heretofore the case.

It is immaterial for the object of my invention through what process the molds or matrices are prepared, but the great advantage of this my invention is noticeable in the so-called "paper process" where the molds are of papier-mâché.

20 I will describe the process of making stereotype-plates from molds made according to the paper process. It will then be obvious to persons versed in the art that the steps taken in this process can be identical with the steps necessary in processes where the matrix is of other material or procured by other processes.

30 It is well known that a mold or matrix made of paper cannot withstand the great pressure necessary in such processes where the material for the plate has to be forced into the crevices of such molds, and where heat and pressure are to be combined and the matrix has to be subjected to it for a considerable time it was found necessary to prepare special materials capable of withstanding such strains, and it is one of the special features of my invention that neither heat nor pressure need be applied in the casting of the plate.

40 Referring to the drawings, Figure 1 is a perspective view of a matrix. Fig. 2 is a vertical longitudinal section of the same matrix having the paint, as later on to be described, on its surface. Fig. 3 is a perspective view of the stereotype-plate or, as I call it, "stereotype-film" removed.

In the figures, A is the matrix, B the paint, and B' the same after being hardened through the removal of the solvent.

50 I have illustrated the matrix as to contain

the impressions for the word "January," it being obvious that the film will contain such word in raised letters.

The *modus operandi* and the material to be used are the following: A very fluid paint 55 is prepared of celluloid dissolved in either ether and alcohol combined or other suitable solvent. The matrix is then placed face upward on a flat level surface, and preferably with the aid of a soft hair-brush a very thin 60 coating of this fluid paint applied to the upper surface. If the paint is in its proper state—that is, if no solid particles are floating in the liquid—the same will, if properly applied, fill all the crevices and spread over the surface 65 in one continuous film. The painted matrix should be left standing for about five or ten minutes and then be placed into a receptacle filled with cold water. In this receptacle it should be left about the same time. The ac- 70 tion of the water softens and tends to separate the different layers of the papier-mâché matrix and at the same time hardens the celluloid paint, which after the removal of the matrix remains as a very thin tenacious film, 75 having upon its lower surface in relief a counterpart of the matter formerly impressed in intaglio on the surface of the matrix.

If it is desired to save the matrix, water may only be applied to the painted surface. 80

It is obvious that to print from this stereotype-film it is necessary to provide the same with a backing. For this purpose the adjustable blocks or plates commonly used in stereotypy may be used. The film itself may be 85 secured to such blocks or plates by either cementing or other known method of fastening, but I have found in practice that it is best to provide the blocks with a slight coating of cement and just at the moment of "setting" 90 to place the film with a slight pressure upon this so-prepared surface.

I have prepared stereotype-films of the above description from (besides others) papier-mâché matrices in incredulous short 95 time. It may safely be stated that one operator, if the necessary matrices are at hand and the fluid paint is prepared, can with only one assistant "stereotype-film," as I call this process, in one hour matter enough to cover 100



the contents of an eight-page newspaper and this without necessitating the application of heat or pressure in any form whatsoever.

As to the material necessary for the film  
5 it was found that to stereotype-film eight matrices, each about twenty-two by two and one-half, not more than three ounces of same are needed; but the weight, as is self-evident, will vary according to the thickness with  
10 which the paint is laid on.

It is unnecessary to dwell upon the ease of manipulation of this process, the absence of the least possibility of failure, the lightness of the product, its adaptability to all kinds of  
15 high or low printing, and its great economy, but it may be stated that this process is equally adaptable to the reproduction of the imprint of type matters as of the most delicate artistical work.

20 I have above described the method of preparing the stereotype-film and set forth the time necessary for preparing such film, but it is to be understood that such time will vary according to the thickness of the paint, and  
25 a shorter or longer time may be required according to the temperature of the room.

Repeated trials will soon teach the operator what particular degree of fluidity is required

for his special work or what length of time is necessary to remove the solvent; but I may 30 add that where heavy layers are required it is best to paint first a thin layer and after leaving it stand for a few minutes to repeat the process till the required thickness is reached.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is— 35

1. The process of manufacturing stereotype plates or films which consists in painting 40 the matrix with a liquid solution of celluloid; and removing the matrix after the solidification of said paint.

2. The method of producing stereotype plates or films, which consists in covering the 45 matrix-surface with a liquid mass containing celluloid in solution, and after solidifying said liquid mass, removing the same from the matrix.

In testimony whereof I sign my name, this 50 7th day of March, 1896, in the presence of two subscribing witnesses.

ISIDOR KITSEE.

Witnesses:

WALLACE B. ELDRIDGE,  
LEO J. TIERNEY.