

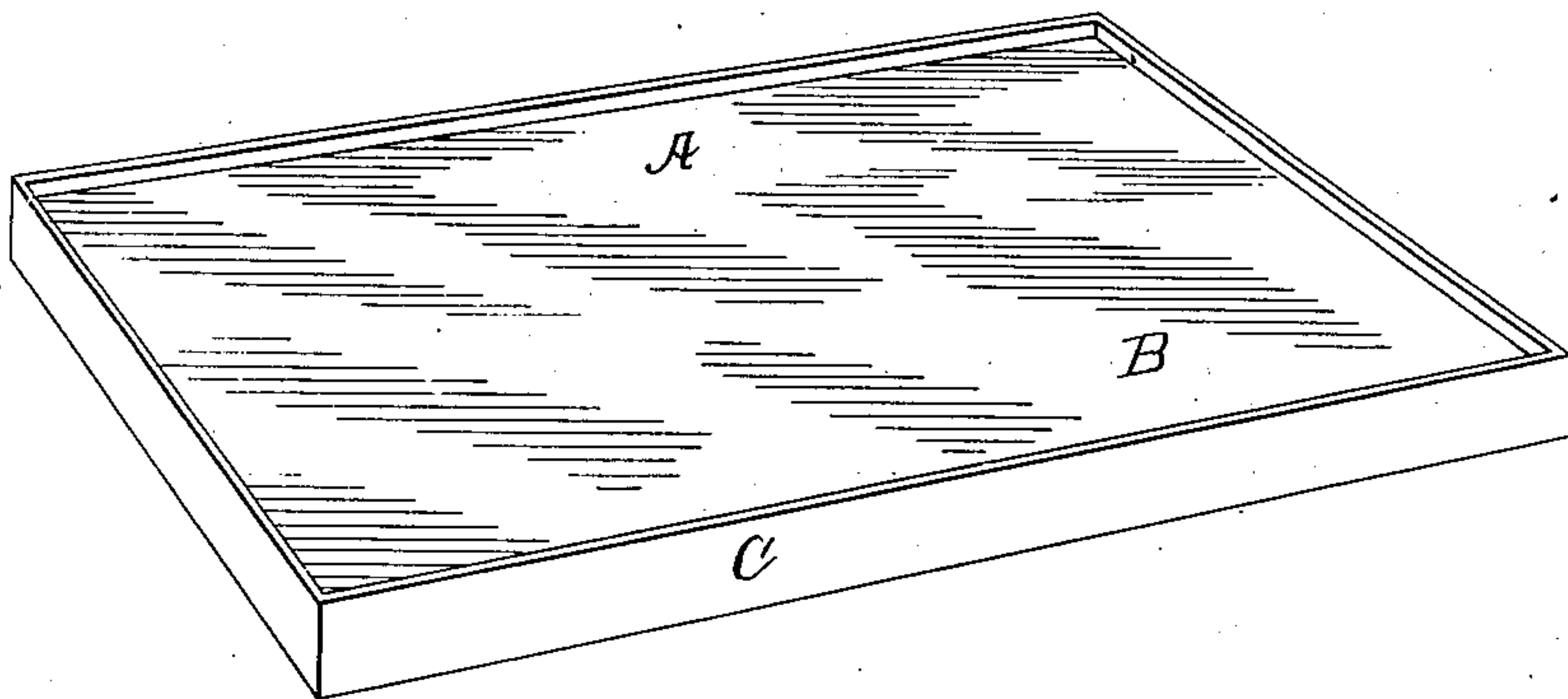
(No Model.)

H. S. MYERS.  
COMPOSITION FOR COPYING.

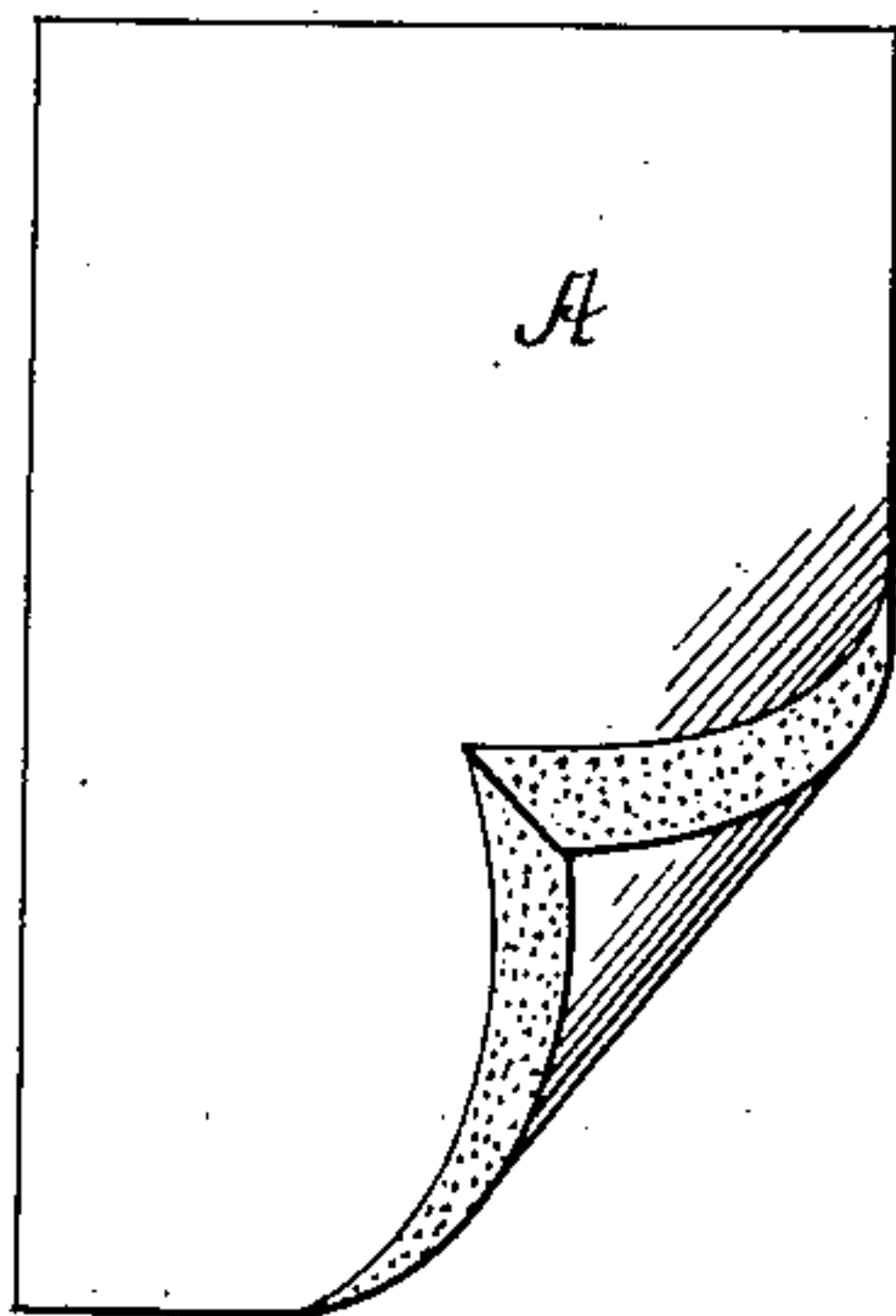
No. 287,457.

Patented Oct. 30, 1883.

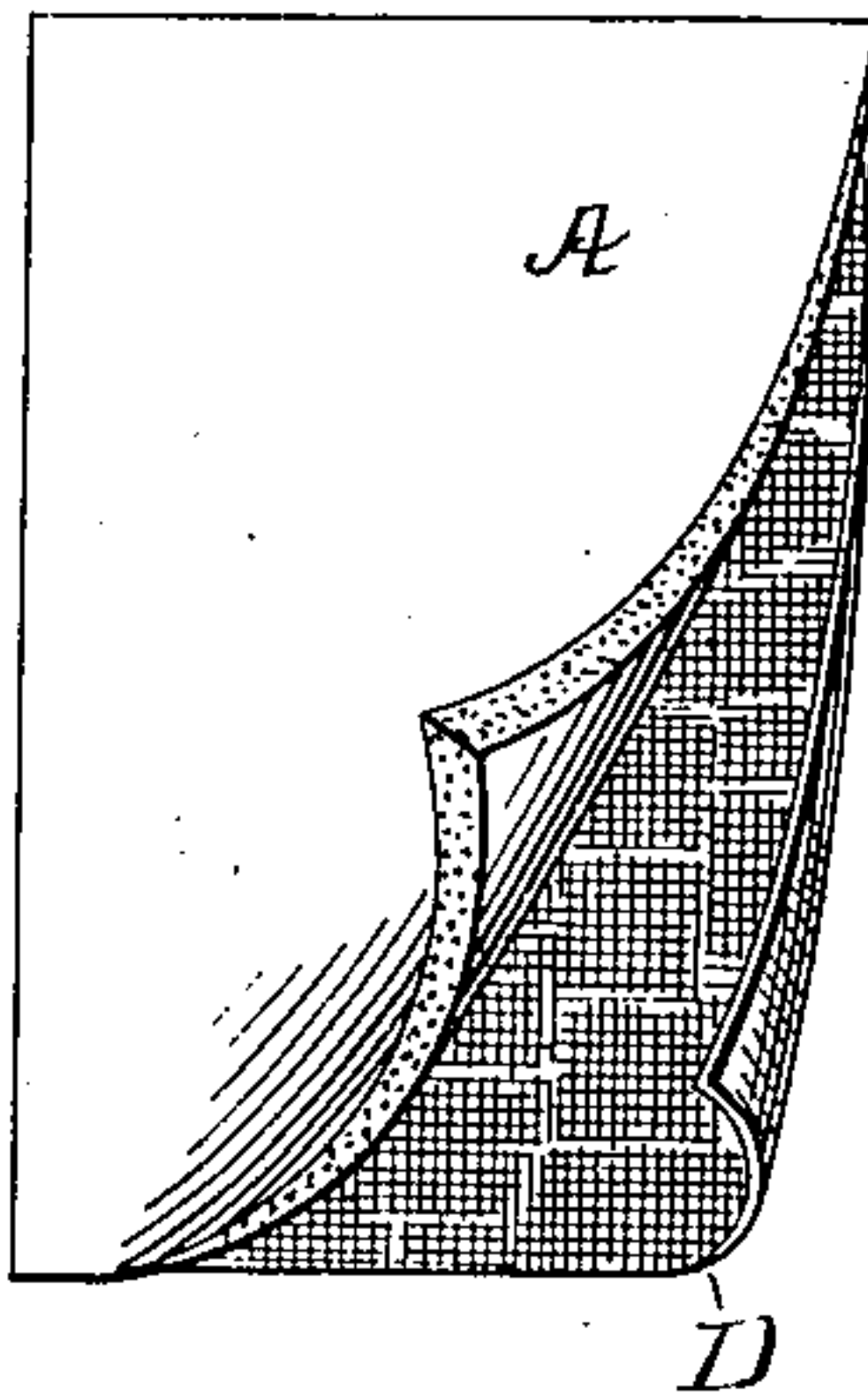
*Fig. 1.*



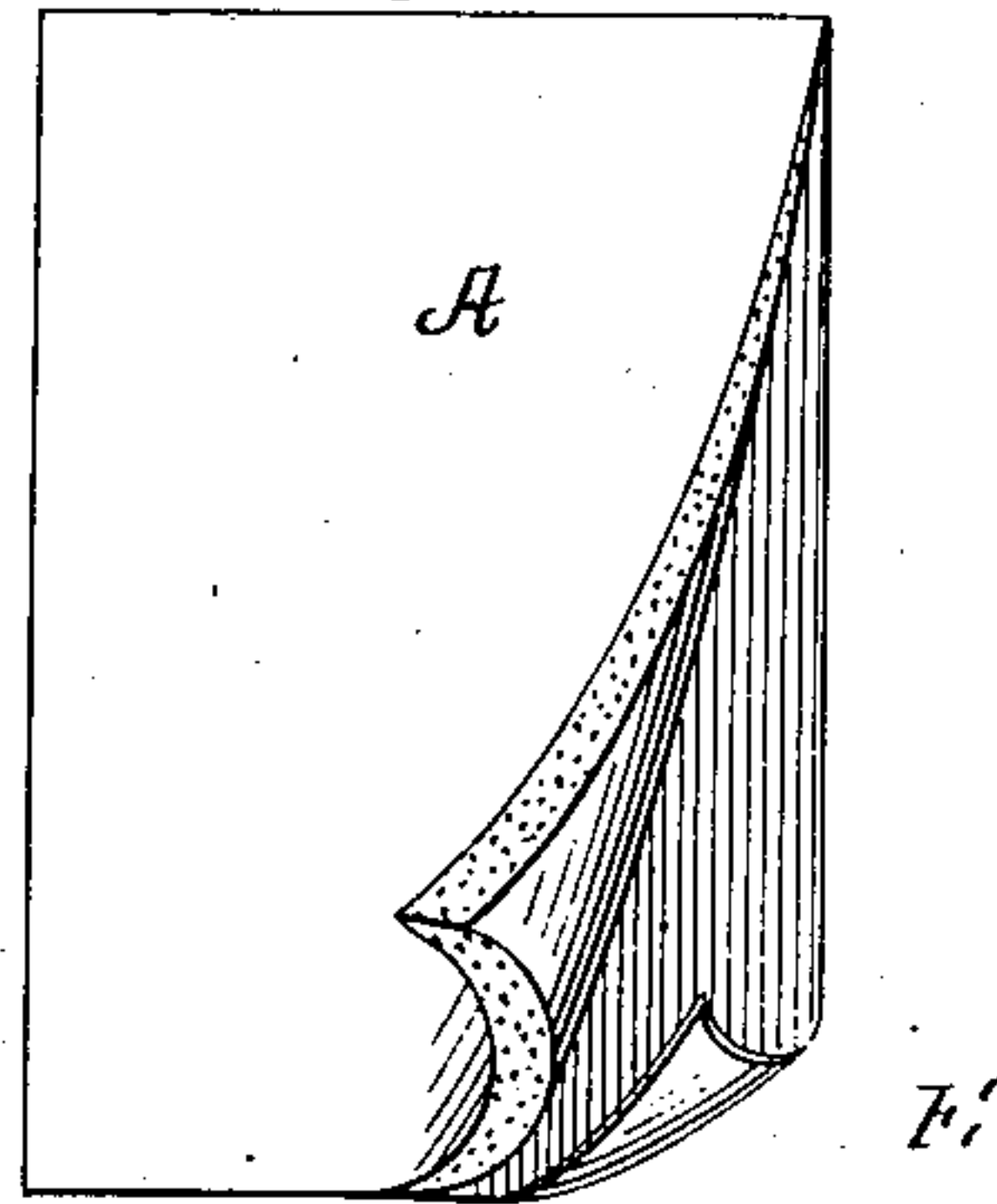
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:  
Henry A. Parker.  
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Inventor:  
Henry S. Myers  
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Attorney.

# UNITED STATES PATENT OFFICE.

HENRY S. MYERS, OF NEW YORK, N. Y.

## COMPOSITION FOR COPYING.

SPECIFICATION forming part of Letters Patent No. 287,457, dated October 30, 1883.

Application filed February 16, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY S. MYERS, of New York city, New York, have invented certain new and useful Improvements in Composition for Copying, set forth in this specification and the drawings thereof.

The invention relates to the transfer and printing surface for producing copies of writing, pictures, and the like from a negative of the original.

Figures 1, 2, 3, 4 are views of different forms of the transfer and printing surfaces.

To make copies by this process it is necessary to have a body or mass, A, which furnishes a surface, B, capable of receiving and retaining a transfer of the original, and which will also serve as a printing-surface from which impressions can be made or printed. Such a surface is produced by depositing the compound named hereinafter upon tin, C, cloth, D, paper, E, or any material prepared to receive it. The deposit so made may be of the depth of half an inch or more, or of no greater thickness than a sheet of ordinary newspaper, according to the amount of work and durability required.

The body or mass to form a printing-surface, as mentioned, (upon which to produce the transfer and from which to print,) can be made from materials which can be saponified and substances which will unite with saponified materials and form a hard or semi-hard mass. Any grease, oil, resin, or other substance which can be converted into a soapy mass and hardened like ordinary soap will answer. To give such a mass, whether consisting of pure soap or soap mixed with other matters, the necessary tenacity and fit it for the better reception of color, saccharine, starchy, gummy, albuminous, and similar substances, and also some of the clays and alkaline earths answer the purpose. To secure the degree of moisture required, different liquids may be used, such as water, glycerine, compounds of water and hygroscopic salts, &c. The materials most conveniently obtainable and most readily manipulated are ordinarily hard soap, (preferably such as is nearly neutral,) grape-sugar or glucose, and water or glycerine; hence I make the body or mass forming the printing-surface indifferently of any hard soap, grape-sugar,

however derived, and water or glycerine, using water, where special inks are to be employed and frequent copying is required, in preference to glycerine. The proportions can also be varied almost indefinitely and still make a good transfer and printing surface. For ordinary uses I employ two parts hard soap, three parts grape-sugar in saturated solution, and two parts glycerine. The soap and glycerine are melted together in a water-bath, (it being desirable with some soaps to add a little water to promote solution, which afterward evaporates,) and when melted the grape-sugar is stirred in, and the whole is poured upon the material designed to receive it. When I use water only, (the glycerine and other liquid compounds being omitted,) the printing-surface is kept in condition by being closely boxed, or the box is lined with cloth impregnated with a solution of some hygroscopic salt.

To produce copies from the printing-surface thus prepared, the original instrument of writing or drawing, or whatever it may be, is laid on the printing-surface, written side down, and smoothly pressed, so that every part of the writing lies flat upon and touches the printing-surface, and then, if it be desired to leave as much color as possible on the surface, a rag or sponge very slightly moistened with water, alcohol, or other liquid is smoothly and carefully rubbed over the back of the instrument of writing, being careful to go over all the written or inked parts underneath. This serves to loosen the ink and to throw it on the printing-surface, so that when the instrument of writing is now taken off a clear and perfect transfer in reverse is left on the printing-surface. From the transfer thus produced a number of copies can be made, one after another, by laying a sheet of paper or other suitable material, of any convenient size, upon the transferred ink, then smoothly pressing it down, and then gently pulling it off, repeating this operation until the transferred ink is exhausted. After acquiring a little skill in the manipulation, fifty copies of a good color, and fifty more fainter in color, but still readable or perceptible, can be made from one original, according to the size of and the character of the ink used on the original.

The printing-surface made as described is



not affected by the acids or alkalies usually employed in the manufacture of writing-inks; hence inks made of tannic or gallic acid and sulphate of iron, or of logwood or other vegetable coloring-matter and alkalies, or inks containing indigo rendered soluble by conversion into a sulphate, may be employed by concentrating them and adding either sugar or glycerine to convert them into copying-inks.

10 Inks of this class made by different manufacturers, upon being concentrated by evaporation, and then rubbed up with Chinese or india ink or fine ivory-black, produce a number of copies. A good ink, producing about

15 thirty fair copies, is made of extract of logwood rubbed up with a carbon ink made as follows: To each dram of the sirup produced by equal parts of sugar and water add a few drops of concentrated sulphuric acid, and heat

20 just enough to thoroughly carbonize the sugar. Many of the water-colors also serve as a basis for good copying-ink by being made into copying-inks. Any of the aniline colors soluble in water furnish inks producing numerous copies

25 by simply making a thick solution of them and adding a little sugar or glycerine. Whatever ink remains on the printing-surface after making the required number of copies is readily washed off with a sponge and water with-

out soiling the hands, and soon thereafter the surface is ready for use again.

The details of construction may be varied within the scope of the improvement. For example, for any of the substances mentioned in the claims hereto, any of the substances indicated herein as interchangeable therefor, or any equivalents of the same, may be substituted.

I claim as my invention—

1. A printing-pad consisting of a compound of soap, glucose, and glycerine, in the proportions indicated, adapted to receive a transfer of ink or color from an original, to be unaffected by the acids or alkalies in the ink or colors, and to be easily washed without staining, substantially as set forth.

2. A printing-pad consisting of a compound of soap, glucose, and glycerine, substantially as set forth.

In testimony whereof I hereunto subscribe my signature, in the presence of two witnesses, in the city, county, and State of New York, February 6, 1883.

HENRY S. MYERS.

Witnesses:

CARRIE BING,  
HENRY F. PARKER.