# UNITED STATES PATENT OFFICE.

ANTONIUS LAURENTIUS DE ROOIJ, OF WATERGRAAFSMEER, NETHERLANDS.

## TRANSFER PROCESS.

1,396,409. Specification of Letters Patent. Patented Nov. 8, 1921.

No Drawing. Application filed January 30, 1920. Serial No. 355,215.

*To all whom it may concern:*

Be it known that I, ANTONIUS LAURENTIUS DE ROOIJ, subject of the Queen of the Netherlands, residing at Koninginnelaan 6, Watergraafsmeer, in the Province of North Holland, Netherlands, have invented certain new and useful Improvements in Transfer Processes of which the following is a specification.

This invention relates to a method for transferring pictures printed in black or in colors on paper, or photographs on paper, to another ground of different material, such, for instance, as a film or a tile of porcelain or other material. The invention consists in covering the picture or photograph, printed for instance on paper, first with a solution of collodion. The picture or photograph is then dried and afterward soaked in a bath of warm water. The printer's ink or the color together with the layer of collodion is then carefully removed from the paper on which the picture was printed and transferred on the new ground.

In applying the new method to colored pictures or the like, it is advisable to brush these pictures first with a solution of gelatin for the purpose of preventing an alteration of the colors.

According to the invention before applying the layer of collodion on the picture or the like, the latter can be covered with a solution of Pará rubber in benzol. The appliance of said layer of Pará rubber in most cases, however, is not necessary.

It may further be advisable to add to the collodion-solution, with which the pictures are treated, a mixture of castor-oil and turpentine.

In order that the present invention may be sufficiently understood, an example of the realization of the invention is given hereunder:

Example: The picture or photograph to be transferred is thoroughly brushed first with a solution of pure Pará rubber in coal tar benzin and then with a solution of one part collodion with two parts alcohol of 96%. In order to make the collodion more elastic, it may be mixed with castor-oil and turpentine, preferably in the proportion of 94 parts collodion, one part castor-oil and 5 parts turpentine. The picture being not yet entirely dry is then covered with a second layer and is then well dried. If necessary this treatment may be repeated. In this way a varnish like sticky layer is obtained which is united with the colored layer or ink of the picture. In most cases the layer of collodion only is sufficient for this purpose, so that the Pará rubber can be omitted. After the last treatment, the picture is well dried, and is then cut off and soaked during some hours in a bath of water. Thereupon the picture is placed with its front side on a glass plate or upon a glazed tile, after which all the superfluous water and any creases which may be present are removed by means of a hard rubber roller. The paper or other packing of the picture or photograph can then be carefully removed, so that only the layer of collodion with the adhering color or ink and the layer of bromid of silver of the photograph is retained. The latter can be transferred by hand to the other ground to which it is to be applied. The layer can also be transferred by simply placing the film or the like upon its back side on a new ground of the desired material without anything further or with the aid of a sticky material.

The new picture obtained may be a positive or a negative of the original picture, as it is desired. The invention can, for instance, be employed in obtaining diapositives from photographs on paper, without using for this purpose a plate sensitive to light.

What I claim is:

1. A method of transferring pictures and photographic prints printed in black or in colors from their original supporting backing to a support of different material, comprising the steps of coating the picture or print with a mixture of collodion, castor oil and turpentine in solution; drying the coated picture or print; then soaking it in a water bath to loosen the backing from the collodion layer; then removing said layer; and finally applying it to the new support.

2. A method of transferring pictures and photographic prints printed in black or in colors from their original supporting backing to a support of different material, comprising the steps of coating the picture or print first with a rubber solution and then with collodion; drying the coated picture or print; then soaking it in a water bath to loosen the backing from the composite layer of rubber and collodion; then removing said

layer; and finally applying it to the new support.

3. A method of transferring pictures and photographic prints printed in black or in colors from their original supporting backing to a support of different material, comprising the steps of coating the picture first with a rubber solution and then with a mixture of collodion, castor oil and turpentine in solution; drying the coated picture or print; then soaking it in a water bath to loosen the backing from the composite layer of rubber and collodion; then removing said layer; and finally applying it to the new support.

4. A method of transferring pictures and photographic prints printed in black or in colors from their original supporting backing to a support of different material, comprising the steps of initially brushing the printed surface of the print or picture with a solution of gelatin; then coating said surface with collodion; drying the coated picture or print; then soaking it in a water bath to loosen the backing from the collodion layer; then removing said layer; and finally applying it to the new support.

5. A method of transferring pictures and photographic prints printed in black or in colors from their original supporting backing to a support of different material, comprising the steps of coating the picture with collodion; drying the coated picture; soaking it in a water bath to loosen the backing from the collodion layer; placing it while wet face downward on a glazed surface; rolling it with a roller to remove superfluous water and air bubbles; removing the backing, leaving the collodion layer with the picture thereon adhering to the glazed surface; and finally transferring said layer from said surface to the new support.

In testimony whereof I have affixed my signature.

ANTONIUS LAURENTIUS de ROOIJ.

Witnesses:
D. KLEIJN,
M. ALVARADE.