

UNITED STATES PATENT OFFICE.

HECTOR DE GROUSILLIERS, OF BERLIN, GERMANY.

TRANSFER.

SPECIFICATION forming part of Letters Patent No. 469,898, dated March 1, 1892.

Application filed November 5, 1891. Serial No. 410,986. (No specimens.)

To all whom it may concern:

Be it known that I, HECTOR DE GROUSILLIERS, a subject of the King of Prussia and German Emperor, residing at Berlin, in the Kingdom of Prussia and German Empire, have invented certain new and useful Improvements in Papers for Making Transfer-Pictures from Photographs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

It is well known that transfer-pictures are made by taking the impressions in question on the prepared side of a piece of paper which is coated with a layer of some substance soluble in water—starch, dextrine, and the like—and when the pictures are colored with the colors in reversed order. The colors adhere, in fact, not to the paper, but to the film, which is soluble in water. If such a transfer-picture be pressed with its imprinted face on the article to be decorated and moistened on the back, the soluble coating dissolves off, the paper may be drawn off, and the picture then adheres to the article to be decorated. As the colors of such transfer-pictures often become so dry that they no longer adhere, it is of benefit to give the article to be decorated a thin coat of varnish or lacquer, which firmly retains the color.

Paper prepared in a suitable manner may be employed for almost all possible kinds of impressions, with hitherto almost the sole exception of photographs. The film of gelatine, which in this kind of print forms the printing-negative, must, during the printing, be kept thoroughly moistened, and is at the same time very adhesive. This latter quality is also further possessed to a large extent by those substances which are employed for the preparation of transfer-pictures as soon as they become moist, apart from the fact that they then also easily lose their coherency. If such paper be then laid on a rolled-up photographic negative film in order to be printed, the moisture of the layer which covers the paper is communicated thereto in consequence of the pressure exerted by the pressing-frame. It becomes damp, sticky, and ceases to adhere. The great stickiness of the gelatine does the rest. Both the layers of the gelatine impres-

sion-film and the transfer-paper stick together, and on the drawing off of the paper one or the other is so damaged that it is impossible to produce transfer-pictures by means of photography in this manner. A process for producing transfer-pictures by photographic means must, however, be of very great industrial importance in view of the beauty of photographs, as these latter reproduce the originals with all their half-tones after almost merely mechanical preparation.

By this invention the drawback, which hitherto rendered impossible the production of transfer-pictures from photographs, is obviated by the insertion of a layer of grease between the soluble coating of the transfer-paper and the gelatine film of the original negative. This layer of grease allows the color of the original to penetrate to the prepared transfer-paper, but permits the transfer-paper to be drawn off without either being injured itself or injuring the original photograph. The transfer-picture obtained in this manner can be used in the usual way for transfer onto other articles. The paper is for this purpose, after having been coated in the usual manner with a thin layer of a substance soluble in water, further prepared by placing over the layer of the soluble substance, as thin as possible, a coating which consists of fat, oil, or resin, or a mixture of these substances. The picture is imprinted on this layer of fat, the colors being very well taken up thereby. As the damp gelatine film adheres neither to the layer of grease nor to the paper, and the layer of grease also prevents the moisture of the gelatine from penetrating to the soluble substance, in this manner very complete prints are easily obtained.

The application of the layer of grease is performed either by coating the already-prepared paper, according to the hardness and the kind of fat, oil, or resin, or the mixture of these latter, or, in case the substances employed have a solid condition as a whole, by rubbing it with a powder composed of these substances or by dissolving the substance of which the layer is to consist in alcohol, ether, benzine, or any similar easily-evaporated substance and coating the prepared paper with such solution. The paper is very valuable from the fact that it is possible to print on it

direct from the photographic negative with soluble colors, which, when rubbed with varnish, become printing-colors. In this manner pictures are obtained which reproduce the tones and tints of the original far sharper and finer than the so-called stenciled pictures.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim, and desire to secure by Letters Patent of the United States, is—

The herein-described paper for the produc-

tion of transfer-pictures from negatives, consisting of paper provided with a thin coating of a substance soluble in water, such as described, and a coating consisting of a mixture of fat, oil, and resin over said soluble coating, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HECTOR DE GROUSILLIERS.

Witnesses:

MARC G. RUTTER.

SIEGFRIED HAMBURGER.