

# UNITED STATES PATENT OFFICE.

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## PROCESS OF TRANSFERRING PRINTS, &c.

SPECIFICATION forming part of Letters Patent No. 406,720, dated July 9, 1889.

Application filed May 15, 1889. Serial No. 310,870. (No specimens.)

*To all whom it may concern:*

Be it known that I, JOHN JOSEPH FOX, a resident of Flushing, in the county of Queens and State of New York, have invented certain new and useful Improvements in the Process of Transferring Prints, &c.; 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 use the same.

My invention relates to the process of transferring prints of any description having a surface sufficiently smooth to effect adhesion to oil-painted or equivalent surfaces; and it consists of certain improvements (on the process described in the application for patent filed by me September 1, 1888, Serial No. 284,366,) which I will now proceed to describe.

The surfaces intended to receive the prints should be smooth, oil-painted, oil-dried, or oil-hardened, such as oil-cloth, oil-silk, oil-cotton, or their oiled composition when in like manner spread over other surfaces, such as paper or parchment.

My improved method of preparing the surfaces above referred to consists in pouring alcohol on the surface (methylic included) and then allowing it to evaporate, when the surface, without any rubbing whatever, is in condition to receive the print, and this treatment also prevents the surface from being stained or otherwise changing color on exposure.

Although I prefer the above-named method of preparing the surfaces, either of the following methods may be employed, viz: First, rub the surface gently with acetic acid; second, rub it with fusel-oil; third, rub it with a solution of any of the well-known acids, one part of the acid to nineteen parts of alcohol; fourth, rub it with a mixture of nine parts alcohol (methylic included) to one part of oleic acid; fifth, rub it until it appears dry with a saturated solution of camphor, (methylic included,) seven parts, oil—such as linseed or olive oil—three parts; sixth, rub it with methylic alcohol or alcohol, nineteen parts, and lactic acid one part; seventh, rub it with a mixture of one part sugar, molasses, or honey, four parts water, and five parts acetic acid.

Having prepared the oil-painted surface as

above described I smear the surface with any kind of grease, fat, or oil, to prevent the paper containing the print from adhering too firmly during the stripping process and to prevent small fibers of the print from adhering subsequent to the stripping process, and also to act in a measure as a solvent on the ink during the process of transferring. After the oil-painted surface has been smeared with the fat or oil, I then pour over the surface either a saturated alcoholic solution of camphor, one part, alcohol, nine parts, or a mixture of methylic alcohol, eight parts, saturated methylic alcoholic solution of camphor, one part, and oleic acid, one part, the latter, when oil is used, to be preferred in a quantity sufficient to cover the fat or oil.

The print is applied to the prepared surface intended to receive the print previous to stripping, face downward, following which I apply direct pressure, friction, or frictional heat, or all combined, sufficiently to cause the print to adhere firmly to the surface. When the print is large, before it is laid on the surface, it should be saturated with a mixture of alcohol, (methylic included,) eight parts, saturated alcoholic solution of camphor, (methylic included,) one part, and oleic acid one part, in order to prevent it from wrinkling. The print having been rubbed in and made to adhere to the prepared surface it is remoistened and stripped from the said surface. During the stripping process if any part has failed to be nicely and completely transferred, the print should be carefully laid back again on the surface and either friction or pressure applied, or both. This should be repeated until the transfer has been completed. When, however, the paper containing the print is highly sized and glossy, water only is to be used to moisten the back of the paper as it adheres to the prepared surface. This may be followed by either direct pressure or friction. I prefer, however, to moisten the back of the print with water and let it stand for a short time and then strip.

When the print is old or colored, it should be made to adhere, as above directed, after which the paper containing the print should be moistened with water and carefully rubbed off, leaving the print transferred.

To preserve the oil-painted surface from



frictional wear during the erasing of prints or stains, gentle friction with any kind of fixed or volatile oil free from staining or corroding qualities may be applied. Having removed  
5 all that will readily come off, the remaining traces can be erased with a mixture of a saturated methylic alcohol solution of camphor, two parts to one part of oil—such as lard-oil, cod-liver oil, sweet-oil, linseed-oil, cotton-seed  
10 oil, petroleum, or any of its products, such as kerosene; also, castor-oil or fusel-oil. It is preferred, however, to use a mixture of methylic alcoholic solution of camphor, one part; oleic acid, one part; methylic alcohol or alco-  
15 hol, eight parts.

Oil-silk or oil-cotton requires no preparation before using. Any of the liquid preparations or chemical solutions heretofore referred to may be used for transferring the print to  
20 the oil-silk or oil-cotton surface. It is preferred, however, to use a mixture of eight parts of methylic alcohol to two parts of a saturated alcoholic solution of camphor, and following the transferring of the print any of  
25 the various colors, either in oils, water-colors, or chemical dyes, may be used, as desired.

To make a plain transparency, simply transfer the print in the usual way to the oil-silk surface, direct pressure being preferred to friction. The surface is not to be rubbed when dry.  
30 On the addition of colors that stain much—as dyes, chemical, or aniline—a colored transparency can be made. The whole surface of the oiled silk may be first stained in one or  
35 more colors, following which the print may be transferred. When density is desired, the colors may be applied on both sides.

I claim as my invention—

1. In the process of transferring a print of any description to an oil-painted surface, preparing the said surface by pouring over the  
40 surface methylic alcohol and then allowing it to evaporate, substantially as described.

2. The process of transferring a print of any description to a smooth oil-painted surface by  
45 preparing the surface by, first, pouring alcohol (methylic alcohol included) over the surface and allowing it to evaporate; second, smearing the surface with oil or grease, substantially as described.

3. The process of transferring a print of any description to a smooth oil-painted surface by, first, pouring methylic alcohol over the  
50 surface and allowing it to evaporate; second, smearing the surface with oil or grease; third, placing the print on the prepared surface and applying direct or frictional pressure thereto, substantially as described.

4. The process of transferring a print of any description to a smooth oil-painted surface  
60 by, first, pouring methylic alcohol over the surface and allowing it to evaporate; second, smearing the surface with oil or grease; third, placing the print on the prepared surface and the application of pressure thereto; fourth,  
65 saturating the print with any suitable chemical solution or water, and finally stripping the print from the said surface, substantially as described.

In testimony whereof I have signed this  
70 specification in the presence of two subscribing witnesses.

JOHN JOSEPH FOX.

Witnesses:

F. W. FOX,  
J. W. GILL.