UNITED STATES PATENT OFFICE.

ARCHAG P. MILLER, OF WINTHROP, MASSACHUSETTS, ASSIGNOR TO CHARLES FREDERICK SHARKEY, OF SOMERVILLE, MASSACHUSETTS.

PROCESS OF MAKING A PRINTING-PLATE BY PHOTO-ENGRAVING.

No. 871,721.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, Archag P. Miller, a citizen of the United States, residing at Winthrop, in the county of Suffolk and 5 State of Massachusetts, have invented certain new and useful Improvements in Processes of Making a Printing-Plate by Photo-Engraving, of which the following is a specification.

This invention relates to the process of making a printing plate by photo-engraving, which consists in, first, treating the negative with a solution of glue, second, drying, third, treating with a solution of collodion, third, treating with a solution of collodion, fourth, drying, fifth, stripping the film from the negative, and, finally fixing said film to a plateglass, and, finally, fixing to a printing plate; and, has for its object, to render the process, quicker, clearer and cheaper.

The process heretofore used for treating wet negatives for this purpose consisted in, first, taking a wet negative from the hand of the photographer, second, drying, third, treating with a solution of rubber cement, 25 fourth, drying, fifth, treating with a solution of collodion, sixth, stripping from the glass and, finally, fixing to a plateglass and the objection to this process consisted in, first, the extra time and labor consumed by 30 the operator in drying the wet negative, second, the heavy, thick and gummy solution of rubber cement used which produced. a rough and uneven surface, when dried, an indistinct outline or impression and a sur-35 face from which it was almost impossible to remove therefrom any dust which settled thereon; while, in my improved process, no time or labor of the operator is wasted in drying the wet negative, on the contrary,

the solution of glue is applied directly to the 40 wet negative and then dried, and a thin, clear and transparent surface is produced, from which any accumulation of dust may be easily and thoroughly removed and from which, a clear and distinct outline or im- 45 pression may be secured.

In my process, I take the ordinary photographic negative, while wet, and produce thereon the glue film as before described, then I strip off the film from the negative 50 and turn it and fix it upon a plateglass, then I photograph the design on said plateglass upon a sensitized metal plate, then I apply an acid to the surface of said plate and etch the same to a printing depth.

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My process is far superior to the old process, in as much as it is more rapid in its operation, produces better results and is cheaper.

The process of making a printing plate by photo-engraving, which consists of, first, treating the wet negative with a solution of glue, second, drying, third, treating with a solution of collodion, fourth, drying, fifth, 65 stripping the film therefrom, sixth, turning the same, seventh, fixing the same to a plateglass, eighth, photographing from the plateglass upon a sensitized metal plate, and, finally etching the plate with an acid, sub-70 stantially as shown and described.

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

ARCHAG P. MILLER.

Witnesses:

JOSEPH E. MURPHY,

MILAN F. STEVENS.