

UNITED STATES PATENT OFFICE.

ILDO RAMSDELL, OF ATLANTA, GEORGIA.

PRODUCING TRANSFERS OF DRAWINGS, ENGRAVINGS, &c.

SPECIFICATION forming part of Letters Patent No. 313,106, dated March 3, 1885.

Application filed June 23, 1884. (No specimens.)

To all whom it may concern:

Be it known that I, ILDO RAMSDELL, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Producing Transfer Prints of Drawings, Engravings, &c., of which the following is a specification.

This invention relates to certain improvements in treating paper, and in the process of producing transfers from drawings, engraving-prints, and written originals cheaply and with great rapidity.

It is well known that acids repel greasy inks, and that paper saturated or surfaced with acids is rendered repellent to such inks, and upon these properties of the ink and acids, respectively, the art of transfer-printing herein described is based. The acid best adapted to the purpose is sulphuric acid; but this has a corrosive action upon the paper, which renders it necessary to employ some protective substance to prevent such corrosive action, which would soon destroy the paper, and consequently the design or drawing.

I have discovered that glycerine combined with sulphuric acid forms a perfect protection against such corrosion, while it in no manner interferes with its ink-repellent action, and possesses the further advantage of keeping the paper moist during the process, which is essential to the perfect working of the same.

My invention consists in a compound for treating paper, consisting of glycerine, sulphuric acid, and water, and a process of producing the prints, as more fully hereinafter specified.

In carrying out my invention I make a bath of the following ingredients: glycerine, one part; sulphuric acid, four parts; water, twenty parts. These are thoroughly commingled, and the solution is placed in a flat dish of porcelain or other suitable material, and the paper containing the drawing or design in lines formed of fatty ink—such as lithographic or other printing ink—is floated face down upon the surface until it becomes translucent, or of about the appearance of ground glass. After this the sheet is laid face up on a sheet of

glass, and the surface is “rolled up” with a roller charged with an ink composed of from about one-third of mutton-tallow to two-thirds of lithographic ink, after which the paper is washed thoroughly with water. The sheet is then laid face down on a lithographic stone or zinc plate, and the whole run through a lithographic press and transferred after the manner of a lithographic transfer, after which the sheet is removed, leaving an impression of the drawing or design upon the surface of the stone or plate, which is rolled up, etched, &c., in the usual manner, when it is ready for the production of prints by the ordinary process. The proportions named will answer in practice; but I do not intend to limit myself to such, as the proportions may be varied almost indefinitely, so as to produce good results, without departing from the spirit of my invention.

The process herein described is applicable to both lithographic and metal plates. The paper may be first immersed in alcohol; or alcohol may be employed in connection with the compound to render the paper more absorbent; but in many instances it is objectionable, for the reason that while it acts mainly to open the pores of the paper it gives but little, if any, protective action to the acid, while it acts in some instances as a solvent of the inks employed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The process herein described of producing transfer prints, the same consisting in treating the paper having the design in printing or other suitable ink with a solution of glycerine and sulphuric acid properly diluted, rolling or inking up the surface of the design, and transferring the design to a lithographic stone or plate, substantially as specified.

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

ILDO RAMSDELL.

Witnesses:

OCTAVIUS KNIGHT,
JAMES K. McCATHRAN.