UNITED STATES PATENT OFFICE.

ILDO RAMSDELL, OF ATLANTA, GEORGIA.

PROCESS OF TREATING PAPER TO PRESERVE IT AGAINST THE CORROSIVE ACTION OF ACIDS.

SPECIFICATION forming part of Letters Patent No. 313,107, dated March 3, 1885.

Application filed July 19, 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 a certain new and useful Improved Process of Treating Paper to Preserve it against the Corrosive Action of Acids, of which the following is a specification.

This invention relates to certain improvements in the process of treating paper to preserve the cellulose and its integrity against the corrosive action of acids, and its object is to prepare paper sheets, blocks, or pads to be subsequently employed for lithographic or other transfer printing.

It is well known in the art of lithographic printing that water or acids will act as repellents to greasy inks, and on this action have been based the various processes known for reproducing and printing from original drawings, designs, or characters, and for transferring such upon stone or other plates.

The process heretofore employed of subjecting the original to the action of an acid which attacks the surface of the paper not protected by the inked lines of the design, and serves as a repellent to the ink in such places when the surface is rolled up, is well known; but a strong objection to its use and to its successful employment in obtaining numerous and accurate copies has been the destructive action of the acid upon the cellulose of the paper, destroying its integrity and breaking down the lines from which the impressions are made.

My invention is designed to obviate these objections; and to this end it consists, essentially, in a process of treating paper sheets, blocks, or pads to preserve their cellulose and structural integrity against the action of corrosive acids by treating it with glycerine or glycerine solutions preparatory to the transfer of the design, drawing, or print, as more fully hereinafter described.

In carrying out my invention I preferably take glycerine, one part, water, ten parts. These I mix thoroughly and apply to the paper in any convenient manner—as, for instance, by means of a brush or by floating the paper upon a bath of the solution until it is properly saturated with the solution. The paper is then ready for the acid application, which may be applied in the usual or any approved manner.

The proportions of glycerine and water above mentioned I have found to answer well in practice; but the proportions may be varied indefinitely without departing from the spirit of my invention, which consists, essentially, in treating the paper with glycerine.

The glycerine may be diluted with alcohol with good effect to allow the paper to more freely absorb the glycerine.

When the paper is made into blocks or pads, the said blocks or pads are saturated with the solution in any convenient manner.

The glycerine, while it affords positive protection to the cellulose of the paper, also tends to keep the paper damp or moist, which is absolutely necessary in the subsequent transfer operation, thus affording an additional and decided advantage to the paper as prepared by my process.

I claim as my invention, and desire to secure by Letters Patent—

The process of preparing paper to resist the action of corrosive acids, the same consisting in treating it with glycerine or glycerine solutions, substantially as specified.

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

ILDO RAMSDELL.

Witnesses:
E. L. WHITE,
WM. H. ROWE.