

UNITED STATES PATENT OFFICE.

JOSEPH C. HAMM, OF GREENVILLE, NEW JERSEY.

IMPROVEMENT IN PROCESSES OF ORNAMENTING WINDOW-SHADES.

Specification forming part of Letters Patent No. **173,947**, dated February 22, 1876; application filed July 21, 1875.

To all whom it may concern:

Be it known, that I, JOSEPH CHRISTIAN HAMM, of Greenville, in the county of Hudson and State of New Jersey, have invented a new and Improved Process for Ornamenting Window-Shades, which invention is fully set forth in the following specification:

My invention relates to an improved method of ornamenting window-shades, by first printing upon the muslin in an undressed state directly, by the lithographic, zincographic, or mezzotint process, any suitable or convenient design, and then subjecting the muslin as thus printed upon to the action of a sizing of glue or other suitable material, to form a protection or coating over the design and render the same semi-transparent, which may finally be dried by passing the material between heated rollers, as more fully hereinafter set forth.

Many attempts have been made to ornament window-shades by printed designs, but such attempts have been failures, because, in most cases, the muslin intended to be used was first treated with size and afterward subjected to the printing operation, by which course the printing-ink was prevented from being filtered and incorporated with the fabric and the characters or designs formed thereon, and left in a condition to be readily erased and removed by the rolling of the curtain when placed in position. I have somewhat obviated this difficulty by first printing the desired design upon the muslin before the same is sized or coated with any material that will prevent the penetration and incorporation of the coloring-matter with the fabric, and by afterward applying such sizing material, so as to hold and fix the coloring material and act, as it were, as a mordant to prevent the said coloring material from being worn or obliterated when the fabric is put in use as a shade.

In carrying out my invention, I produce

any desired design in plain black and white upon plain muslin, by printing upon the same by the ordinary lithographic, zincographic, or other process usually employed for printing upon various fabrics. I then apply to the fabric, with the designs thus produced thereon, a coating of glue or other gelatinous material, for the purpose of fixing the printed design in the body of the fabric and preventing it from becoming obliterated in the subsequent uses to which said fabric is applied when subjected to the crushing attendant upon the rolling of the same when employed as a window-shade. The gelatinous coating also serves to give the fabric a translucent or semi-transparent appearance, and in this manner adds greatly to its ornamental appearance.

I am aware that window-shades have heretofore been ornamented by printing upon the same designs by the zincographic, lithographic, mezzotint, and other styles of printing, and this I do not intend to claim, broadly; neither do I claim the transferring of prints or paintings by any transfer paper or medium to window-blinds; but

What I claim, and desire to secure by Letters Patent, is—

In the manufacture and ornamentation of window-shades, the following successive steps, viz: first, printing on the undressed muslin directly, by the lithographic, zincographic, or mezzotint process; and, second, coating and saturating the printed muslin with gelatine or equivalent material, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 16th day of July, 1875.

J. C. HAMM. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.