

United States Patent Office.

PHILIP LINDEMEYER, OF HOBOKEN, NEW JERSEY, AND LOUIS LINDEMEYER,
OF NEW YORK, N. Y.

Letters Patent No. 71,187, dated November 19, 1867.

IMPROVEMENT IN WINDOW-SHADES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, PHILIP LINDEMEYER, of Hoboken, in the county of Hudson, and State of New Jersey, and LOUIS LINDEMEYER, of the city of New York, county and State of New York, have invented certain new and useful Improvements in the Manufacture of Window-Shades; and we do hereby declare that the following is a full and exact description thereof.

Our invention relates to ornamented or painted window-shades. It produces very fine and laborious patterns, with but moderate expense, by means of a peculiar method of printing.

We will first describe what we consider the best means of carrying out our invention, and will afterwards designate the points which we believe to be new. Drawings cannot be made available to illustrate our invention.

We take sheets of muslin, linen, silk, paper, or any other suitable fabric, of the proper size, and prepare them with a sizing of glue, in the ordinary manner. After this has properly hardened, we may paint them with oil-paint of any desired tint, and allow them to dry in the ordinary manner; but this portion of the operation may be omitted if preferred.

We will now describe the preparation of the zinc plates which produce the designs. Sheets of zinc, of no less than No. 10 thickness, are selected, and cut to the required size, and pumiced with water and pumice-stone until smooth and clean, after which they are polished with a piece of charcoal, and water, when the plate is washed and dried. After this process, the design is put on the plate with lithographic ink. The plate is then prepared in the following manner: Lay on with a soft brush a solution, consisting of five ounces of nut-galls and three pounds of rain-water, boiled down to one-third of its original quantity, to which, when strained, are added three ounces of nitric acid, after which the plate is watered with gum-arabic dissolved in water. When this is dry, the plate is ready for use.

Having provided a plate-press of sufficient size to receive and pass through the window-shade and plate of zinc which holds the design for the gold-size, the gold-size is rolled on with a soft roller, while the plate is kept wet with water by means of a sponge. After this, the plate is passed through the press in contact with the previously prepared muslin. The size is made with umber, sienna, or any other suitable color, and lithographic varnish. It should be of a thicker consistence than when applied by a brush.

The metal, gold-leaf, or bronze is then laid on the design, after which it is run through the press, which has the effect to press the metal leaf with such force upon the size, which is very slightly "tacky," that it will remain engaged. We now varnish the metallated or gilded surface with a coating of Demar and copal varnishes, and allow it to dry.

We next print the design in light or dark lithographic color upon the thus metallated surface. This design may be done either in outline or in full. We prefer, for most uses, to print the design in very light outline and very light color, so that it shall serve mainly as a guide to aid in applying the color by hand. Portions of the metallated surface can be overlaid with color, and be printed in the same manner as the design is printed on the metallated surface. Over this we apply gilt varnish. The window-shade is now complete and ready for use, or to be packed for transportation.

To produce transparent window-shades, we would simply leave out the design for the metallated surface, and print the second design on the muslin, prepared as previously mentioned, after which it is colored to suit the trade.

Prior to our invention, it had not been practicable to print window-shades of this character. Our invention makes it possible to form tasty and rich designs at a very moderate expense, and by the aid of workmen of ordinary skill. The highly-accomplished artist is required only to produce the original designs on the plates.

It is very common in window-shades of this character to vary the centre piece and the side bars, while the heavy ornaments at the top and bottom of the window-shade remain unchanged. We propose, therefore, in most cases, to produce by our process only the top and bottom work, and to apply the various-colored bars along the side, and the centre ornament and the filling in, by the ordinary processes by hand.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is as follows:

1. We claim the within-described method of producing window-shades, by preparing the fabric as recited, printing with thick size, powerfully compressing the gold-leaf or other equivalent material thereon; afterwards varnishing, printing with color over the metal, and varnishing again, all substantially in the manner and for the purpose herein specified.

2. We claim zincographic window-shades, produced substantially as herein specified.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

PHILIP LINDEMAYER,
LOUIS LINDEMAYER.

Witnesses:

WM. C. DEY,
C. C. LIVINGS.