UNITED STATES PATENT OFFICE.

MAYER M. SCHWARTZ, OF NEW YORK, N. Y.

MANUFACTURE OF ORNAMENTAL METALLIC FOIL.

SPECIFICATION forming part of Letters Patent No. 269,721, dated December 26, 1882.

Application filed September 5, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, MAYER M. SCHWARTZ, of the city, county, and State of New York, have invented a certain new and useful Improvement in the Manufacture of Ornamental Metallic Foil, of which the following is a specification.

My improvement relates to metallic foil which is printed upon or colored, and is designed to produce new ornamental effect upon the colored or printed portion of the foil.

The improvement can be carried out with the aid of the presses or apparatus usually employed to print or color metallic foil; and it may be briefly stated to consist in printing the metallic foil between a platen, which has what may be termed a "recticulate surface," and a bed which carries the inked or colored type block or plate, which is to be impressed upon the surface of the foil. By bed and platen I intend the two printing instrumentalities by which the impression is made upon the foil, whether in an oscillating press or a rotary or other type of press. The effect of pressing the foil between the reticulate face of the platen and the inked face of the bed is to reproduce in color on the foil the reticulate pattern carried by or formed on the platen.

The platen can conveniently and cheaply be provided with what I have termed a "reticulate surface." Suppose, for instance, it be desired to carry out my improvement in an oscillating printing-press of the ordinary kind, all that is needed is to cover the face of the platen with an open-work fabric or its equivalent—such as lace, tarlatan, bobbinet, &c. This material can be held in place on the platen in any suitable way. The result will be that the pattern of the fabric will be reproduced in color on the foil by and during the act of printing the latter, the threads of the fabric apparently acting as minute ribs or ridges, before which the ink, when pressed upon the face of the foil, yields, with the result of producing in the colored or printed portion of the foil corresponding lines of lighter color than the body of the printed portion.

The impression-block carried by the bed may be made smooth and unbroken, so as to print the whole of the foil in one or more solid colors; or it may be formed with raised letters, figures, or other characters, which alone are printed on the foil; or the letters, figures, or other ornamentation may be sunken, in which case the groundwork alone will be colored. In each and every case, however, the pattern of the fabric or reticulant surface of the platen will be reproduced in the colored portion of the foil by and during the act of printing the latter.

By the words "reticulate surface" I do not wish to be understood as confining myself to a strictly net-work pattern or pattern in which the lines cross one another, for it is manifest that the same may be considerably varied without departure from my invention. Nor do I restrict myself to the use of open-work fabrics or equivalent material for the purpose of imparting a reticular surface to the platen.

What I claim as new and of my invention is—

The improvement in the art of printing metallic foil, which consists in pressing said foil between a bed which carries the inked impression plate and a platen which is provided with a reticulate surface, substantially as described, whereby the surface-pattern on the platen is reproduced on the printed surface of the foil by and during the act of printing said foil, substantially as hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 4th day of September, 1882.

MAYER M. SCHWARTZ.

Witnesses:

ARTHUR HURST,

JAMES S. LEHMAIER.