UNITED STATES PATENT OFFICE.

JOHN S. SELLON AND ROBERT PINKNEY, OF LONDON, ENGLAND.

IMPROVEMENT IN DYEING AND PRINTING.

Specification forming part of Letters Patent No. **167,360**, dated August 31, 1875; application filed July 12, 1875.

To all whom it may concern:

Be it known that we, JOHN SCUDAMORE SELLON, of Hatton Garden, and ROBERT PINKNEY, of Bread Street Hill, both in the city of London, England, have invented Improvements in Dyeing and Printing, of which the following is a specification:

The object of our invention is to provide an improved compound for dyeing and printing purposes; and our invention consists in the employment of compounds of vanadium in conjunction with animal dyeing and printing materials, such, for example, as cochineal.

In carrying out our invention the salts or compounds of vanadium are added to the ordinary dye-baths, and the dyeing of the fabric or goods is effected in the usual manner. In the same way, when applying our invention to the printing of fabrics, the salts or compounds of vanadium are mixed with the coloring matters employed for that purpose. In practice we have found that the compounds of vanadium—such, for example, as the chlo-

rides of vanadium or the soluble vanadiates may be advantageously employed in about the following proportions, viz: from twenty to two hundred grains of, say, the chloride of vanadium to one gallon of dye solutions of the usual strength. The proportions vary, however, in accordance with the color it is desired to obtain and the dyeing or coloring material employed.

We claim as our invention-

A dyeing or printing compound consisting of the salts or compounds of vanadium and animal dyeing or printing materials.

In witness whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN S. SELLON. ROBERT PINKNEY.

Witnesses:

CHAS. MILLS, 47 Lincoln's Inn Fields, London. FREDK. C. DYER, 47 Lincoln's Inn Fields, London.