UNITED STATES PATENT OFFICE.

JOSEPH T. COMMOSS, OF NEW YORK, N. Y.

IMPROVEMENT IN PROCESSES OF PREPARING METAL SURFACES FOR PRINTING UPON.

Specification forming part of Letters Patent No. **184,759**, dated November 28, 1876; application filed October 30, 1876.

To all whom it may concern:

Be it known that I, JOSEPH T. COMMOSS, of the city, county, and State of New York, have invented a new and useful Improvement in Preparing Metal Plates for Printing, of which the following is a specification:

The object of this invention is to form such a surface upon metal plates that it may be printed upon direct, and without any transfer process, and which will enable the plates, after being printed upon, to be struck up with dies, and otherwise manipulated without cracking, chipping, or otherwise injuring said surface.

The invention consists in the mode of preparing metal plates for direct printing, by means of pale boiled oil, Benguela varnish, turpentine, white lead, magnesia, and soapstone, in substantially the manner hereinafter fully set forth and described.

In preparing the plates, I use a composition formed by mixing nine pints of pale boiled oil, six pints of Benguela varnish, and one pint of turpentine, with sixteen pounds of white lead ground in oil.

These ingredients are mixed at a temperature of 125° Fahrenheit. Should the mixture become thick, I reduce it to the proper consistency by adding pale boiled oil and Benguela varnish in equal quantities.

While the mixture is warm it is strained through a set of four or more graduated wire screens, the latter ones being very fine, and is then ready to be applied to the metal plates.

The mixture is applied with a flat black pitch brush, and the plates, when coated, are arranged in racks, and placed in an oven heated to 125° Fahrenheit, and are kept at that temperature for forty-eight hours. The plates are then taken out and powdered with a mixture of two parts of powdered magnesia and one part of powdered soapstone, and are then ready to be printed upon.

The printing is done by the usual machinery, and in the usual way, except that a heavier pressure is required than when printing upon paper. After printing, they are again powdered with the magnesia and soapstone.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The method of preparing metal plates for direct printing, by means of pale boiled oil, Benguela varnish, turpentine, white lead, magnesia, and soapstone, in about the proportions and in the manner substantially as herein set forth and described.

JOSEPH T. COMMOSS.

Witnesses:

JAMES T. GRAHAM,

C. SEDGWICK.