

# UNITED STATES PATENT OFFICE.

OTTO STEUER, OF DRESDEN, SAXONY, GERMANY, ASSIGNOR TO JACOB  
RUTSEN PALEN, OF SAME PLACE.

## REPRODUCING WRITINGS, &c.

SPECIFICATION forming part of Letters Patent No. 356,296, dated January 18, 1887.

Application filed February 23, 1886. Serial No. 192,908. (No specimens.) Patented in Germany October 14, 1884, No. 31,821,  
and in England November 8, 1884, No. 14,756.

*To all whom it may concern:*

Be it known that I, OTTO STEUER, of the city of Dresden, in the Kingdom of Saxony and German Empire, have invented certain new and useful improvements in the process of reproducing wood-cuts, type-writings, and other printed matter direct from the original, (for which a patent was granted to me in Germany under No. 31,821, bearing date the 14th of October, 1884, and in England under No. 14,756, bearing date the 8th of November, 1884,) of which I declare the following to be a specification.

My invention relates to an improved process for producing manifold copies of printed matter, type-writings, wood-cuts, and other matter.

In order to effect the manifold reproduction of such said printed matter, engravings, wood-cuts, and other matter, the object to be reproduced is first well saturated with a protective solution composed of glycerine, tannic acid, and water, then well rinsed with water, and the parts to be reproduced treated with autographic ink by means of a suitable inking-roller or in other appropriate manner.

In consequence of the previous treatment of the original with the protective preparation, ink will only adhere to those parts covered by printers' ink, whereas those parts left free are protected by the said preparation from taking up any quantity of ink. The positive so produced or written or drawn in autographic ink is now laid on a brightly-polished metallic plate or lithographic stone and repeatedly passed through the rollers of my improved press, as described in the specification relating thereto, so as to transfer the autographic ink of the positive to the said brightly-polished metallic plate or lithographic stone, thus producing a negative copy on the said plate or stone. After the said metallic plate or lithographic stone has been provided, as aforementioned, with the negative of the original writing, drawing, or printed matter in autographic ink, the said brightly-polished metallic plate or lithographic stone is treated with the aforementioned protective mixture of glycer-

ine, tannic acid, and water, and is then provided with ink by means of a suitable inking-roller or in other appropriate manner. I prefer to ink the said plate or lithographic stone by passing the same repeatedly between the upper or inking roller and the middle roller of my improved press, which is the subject of a separate application filed October 2, 1885, bearing serial number 178,848.

The paper or other matter to which the ink adhering to the negative on the brightly-polished metallic plate or lithographic stone is to be transferred is now placed over the said negative and passed between the pressure-rollers of a suitable press, whereby the exact and true copy of the original will be found reproduced on the aforesaid paper or other matter. After the paper has been removed, the brightly-polished metallic plate or lithographic stone is again inked, paper applied to the surface of the same, and a second copy produced in like manner as aforesaid, and so on, so that many hundreds of reproductions or copies can be produced which are in all respects perfect facsimiles of the original engraving or printed, drawn, or written matter.

Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed, what I claim is—

The process of reproducing printed matter, type-writings, wood-cuts, and other printed matter direct from the original by saturating such said matter with a protective mixture of glycerine, tannic acid, and water, rinsing the same in water, treating the same with an autographic ink, and transferring the same to the negative plate, substantially as and for the purpose described in the foregoing specification.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

OTTO STEUER.

Witnesses:

OTTO WOLFF,

PAUL DRUCKMÜLLER.