

UNITED STATES PATENT OFFICE.

FRANZ KRAUPA AND LEOPOLD MOSER, OF VIENNA, AUSTRIA-HUNGARY.

PROCESS OF ETCHING ON LITHOGRAPHIC STONES OR ZINC.

SPECIFICATION forming part of Letters Patent No. 437,306, dated September 30, 1890.

Application filed November 30, 1887. Serial No. 256,565. (No specimens.) Patented in France June 23, 1887, No. 184,405; in England July 14, 1887, No. 9,899; in Belgium November 26, 1887, No. 79,692; in Italy February 16, 1888, XXI, 23,013, XLV, 277, and in Austria-Hungary March 29, 1888, No. 41,922 and No. 8,593.

To all whom it may concern:

Be it known that we, FRANZ KRAUPA and LEOPOLD MOSER, citizens of the Empire of Austria, residing at Vienna, in Austria, have
5 invented certain new and useful Improvements in the Process of Etching on Lithographic Stones or Zinc, (for which we have obtained Letters Patent in the following countries: In England, dated July 14, 1887, No. 9,899; in France, dated June 23, 1887, No. 184,405; in Belgium, dated November 26,
10 1887, No. 79,692; in Italy, Vol. XXI, No. 23,013, Vol. XLV, No. 277, dated February 16, 1888, and in Austria-Hungary, dated March 29, 1888, No. 41,922 and No. 8,593,) of which the following is a specification.

The present invention relates to an improved process for rapid etching on lithographic stones or zinc plates for the purpose
20 of subsequent reproduction of the design on such stone or plate in the lithographic press.

This etching process consists in the following: After the design has been drawn on the stone or zinc or the zinc in the usual manner, and when the said stone is dry, it is
25 sprinkled with finely - powdered rosin and rubbed over with finely - pulverized talc by means of a piece of wadding or cotton wool in such a manner that not a particle of the rosin remains on the stone except on the lines.
30 A sheet of clean well-sized paper or other suitable material evenly covered with alcohol of from eighty to ninety per cent. is then placed, alcohol-covered side downward, on the
35 stone or zinc and covered with a layer of damped waste-paper, blotting-paper, or equivalent. The alcohol will dissolve the rosin, for which it has a very powerful affinity, and

form a hard crust on those parts of the stone or zinc which are covered with the lines of
40 the design. The crust of rosin is so hard that it will resist the action of all known etching fluids, such as nitric acid, phosphoric acid, or the like. If the stone or the zinc plate thus prepared is exposed to the action
45 of an etching-fluid, the stone or the plate will only be affected by this fluid in the parts not covered by the crust formed on the design, and in this manner a relief etching is
50 obtained which will give sharp and fine prints in the lithographic press.

Having described our invention, what we claim is—

The herein-described process for producing a relief etching on lithographic stones
55 or zinc plates, which consists in sprinkling the stone or plate bearing the design with finely-powdered rosin, then rubbing the stone or plate with talc, then covering the stone or plate with a sheet of paper saturated with al-
60 cohol and covering this with a layer of damp paper, whereby the rosin forms a crust on the stone or plate over the lines of the design which is capable of resisting the etching-
65 fluids which act upon the stone or plate, and the stone and plate can be etched in the usual way, producing the design in relief.

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

FRANZ KRAUPA.
LEOPOLD MOSER.

Witnesses:

CHARLES RADNISKY,
ADOLF FISCHER.