UNITED STATES PATENT OFFICE.

CHARLES H. GORDON, OF EAST ORANGE, NEW JERSEY.

METHOD OF PRODUCING LITHOGRAPHIC STIPPLING.

SPECIFICATION forming part of Letters Patent No. 438,918, dated October 21, 1890.

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To all whom it may concern:

Be it known that I, CHARLES H. GORDON, of East Orange, in the county of Essex and State of New Jersey, have invented a new and Improved Method of Producing Lithographic Stippling, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved method for rapidly and accurately producing lithographic stipplings similar in effect to that now ordinarily produced by hand or mechanical means.

The improved process consists of forming by transfer an even stipple on the stone or plate by an acid-resisting ink, then etching the unprotected part of the stone or plate, and then removing the ink-stipple from the stone.

Lithographic drawings on stone, as heretofore made, having what is known as "stipple-work," were stippled by taking a pen and producing on the stone with lithographic or greasy ink dot after dot, which is very slow and tedious, and is also a very expensive process, for in order to bring out various effects in the finished picture skilled artists have to be employed to do this work. To supersede, in a measure, this expensive and slow process, is the object of the invention, and I produce by the improved method a picture which is similar in effect to those produced by the process just mentioned.

Usually I proceed as follows: An evenly-stippled stone or plate is made by the ordinary hand-work or is engraved by mechanical means. From this stipple a full impression is taken in an acid-resisting ink on lithographic transfer-paper, and this impression is transferred to a lithographic stone or zinc plate in the usual manner. When the stone or plate is thoroughly dry and the ink is yet moist, the stone is dusted with finely-powdered asphaltum, resin, or other gum, so that the impression is carefully protected. The part of the stone not protected by the stipple-ink is then etched to a suitable depth, care being taken that the ink-stipple remains solid and sharp as it appeared on the original impression. The ink-stipple is then removed from the stone by washing the latter with turpentine or similar substance, and when the stone or plate is thoroughly cleaned the surface is grained with fine sand, which forms a tooth for the lithographic chalk or crayon, at the same time assisting the artist to get the desired tones in the picture. It also removes any impurities which may adhere to the surface of the stone or plate. The latter is now ready to receive the drawing, which is produced by the lithographic artist with the ordinary lithographic crayon on the points of the stipples, the solids being made with ink in the usual manner. When the drawing is finished, it is treated with acid, rolled up, and proved in the usual way.

The stone is etched sufficiently deep to allow for the loss caused by the graining process, which latter not only enables the artist to produce many gradations of color, but also serves to cleanse the surface of the stone, thereby insuring the solidity of the work.

The graining is naturally so slight as not to injure the points or projections, but sufficient to produce the desired result.

By this process the lithographic crayon artist can with great rapidity produce similar effects to those made by the stipple artist in his very slow method by working with the pen to make dot by dot. Instead of the stipple-dots, full solid lines may be substituted, so as to produce the effect of a line-engraving.

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

1. The herein-described method for producing lithographic stippling, consisting of first forming by transfer an even stipple on the stone or plate by an acid-resisting ink and then etching the unprotected part of the stone or plate, after which the ink-stipple is removed from the stone, substantially as set forth.

2. The herein-described method for producing lithographic stippling, consisting of first forming by transfer an even stipple on the stone or plate by an acid-resisting ink and then etching the unprotected part of the stone or plate, after which the ink-stipple is removed from the stone, and then graining the stone with fine sand, substantially as set forth.

3. The herein-described method for pro-

ducing lithographic stippling, consisting of first forming by transfer an even stipple on the stone or plate by an acid-resisting ink, and then etching the unprotected part of the stone or plate, after which the ink-stipple is removed from the stone, then graining the stone with fine sand, and then forming the picture on the points of the stipple with the ordinary lithographic crayon, the solids being made with ink, substantially as set forth.

CHARLES H. GORDON.

Witnesses:
THEO. G. HOSTER,
C. SEDGWICK.