

(No Model.)

F. E. IVES.

METHOD OF PRODUCING IMPRESSIONS IN LINE OR STIPPLE FROM
PHOTOGRAPHIC NEGATIVES.

No. 245,501.

Patented Aug. 9, 1881.

Fig. 1.

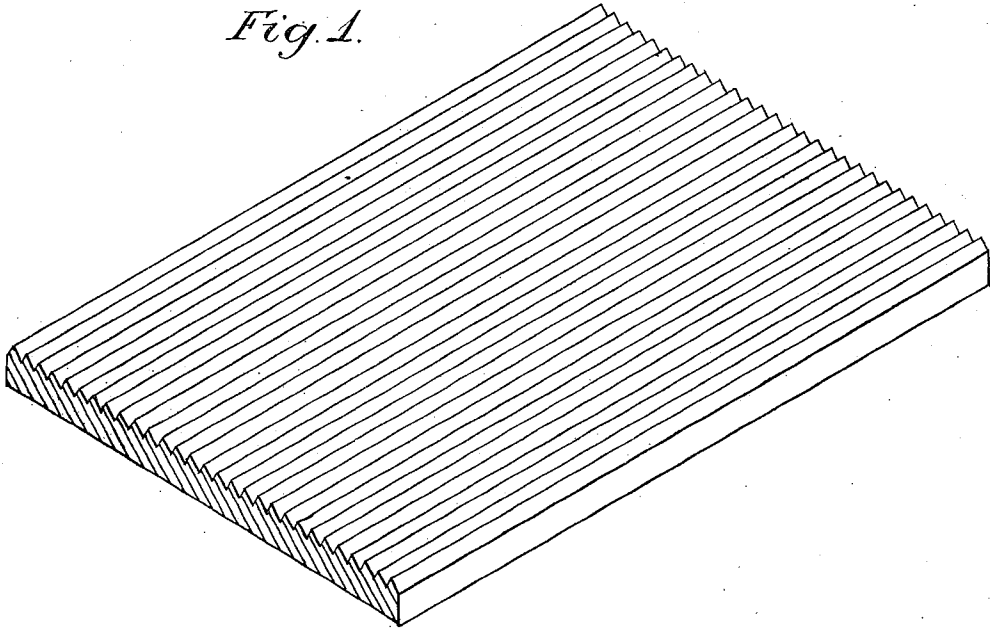
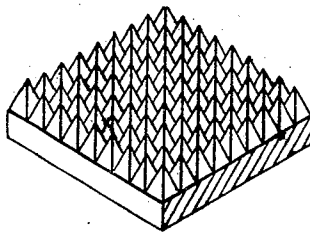


Fig. 2.



Witnesses:
James F. Tobin.
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UNITED STATES PATENT OFFICE.

FREDERICK E. IVES, OF PHILADELPHIA, PENNSYLVANIA.

METHOD OF PRODUCING IMPRESSIONS IN LINE OR STIPPLE FROM PHOTOGRAPHIC NEGATIVES.

SPECIFICATION forming part of Letters Patent No. 245,501, dated August 9, 1881.

Application filed June 6, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. IVES, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in the Method of Producing Impressions in Line or Stipple from Photographic Negatives, of which the following is a specification.

My invention relates to certain improvements in carrying out the details of the process of producing line or stipple impressions from photographic negatives for which I obtained Letters Patent No. 237,664, dated February 8, 1881.

The essential characteristics of my patented invention consist in producing an impression in pure line or stipple from a photograph from nature or artists' work by first making a photographic negative of the object to be reproduced, then producing therefrom a relief-plate in which the variations of light and shade are represented by variations in the thickness of the relief, and finally producing an impression in printers' ink by impressing such relief-plate against a surface of raised lines or dots.

The object of the present improvements is to gain rapidity and economy in carrying the invention into effect. With this object in view I proceed in the following manner: I first produce a relief-plate from the usual photographic negative of the object to be reproduced, such relief having a white surface. I prefer to use a plaster cast from a swelled gelatine relief, because a suitable relief may be made more quickly and cheaply by this method than by any other.

Instead of making the surface of raised V-shaped lines or dots of paper, as described in my aforesaid patent, I employ printers' roller composition or equivalent elastic material, the raised lines or dots being molded or otherwise formed on the surface of such composition, in any convenient manner, of the forms shown in the exaggerated views, Figures 1 and 2 of the drawings.

One of the advantages of employing the

printers' roller composition or similar elastic material is that a single surface of such material may be employed in the production of a great many different line or stipple impressions. Another advantage is that it is less likely than paper to injure the plaster relief in producing or receiving the impression.

Having thus prepared the photographic relief and the surface of raised lines or dots, the third requisite of my patented process—that is, the production of the line or stipple impression in printers' ink by impressing the relief-plate against such surface—is carried into effect by inking the lined or dotted surface with printers' ink, and then pressing this inked surface against the white photographic relief. The result is that a line or stipple impression is produced on the white surface of the relief, the thickness of the lines or size of the stipple-dots depending on the degree to which the raised V-shaped lines or points on the elastic surface are pressed against the varying surface of the relief. From the line or stipple impression thus produced on the white relief a photo engraving may be made by any of the usual methods.

Sometimes I employ a single elastic V-shaped line, instead of the surface of V-shaped lines, and impress each line separately.

I claim as my invention—

The mode herein described of producing an impression in pure line or stipple from a photograph from nature or artists' work, said mode consisting in first making a photographic negative of the object; second, producing therefrom a relief-plate having a white surface; and, third, impressing on such plate an inked elastic surface of raised lines or dots, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED. E. IVES.

Witnesses:

JAMES F. TOBIN,
HARRY SMITH.