

(No Model.)

M. LEVY.

SCREEN FOR MAKING PHOTOMECHANICAL PRINTING PLATES.

No. 498,127.

Patented May 23, 1893.

Fig. 1.

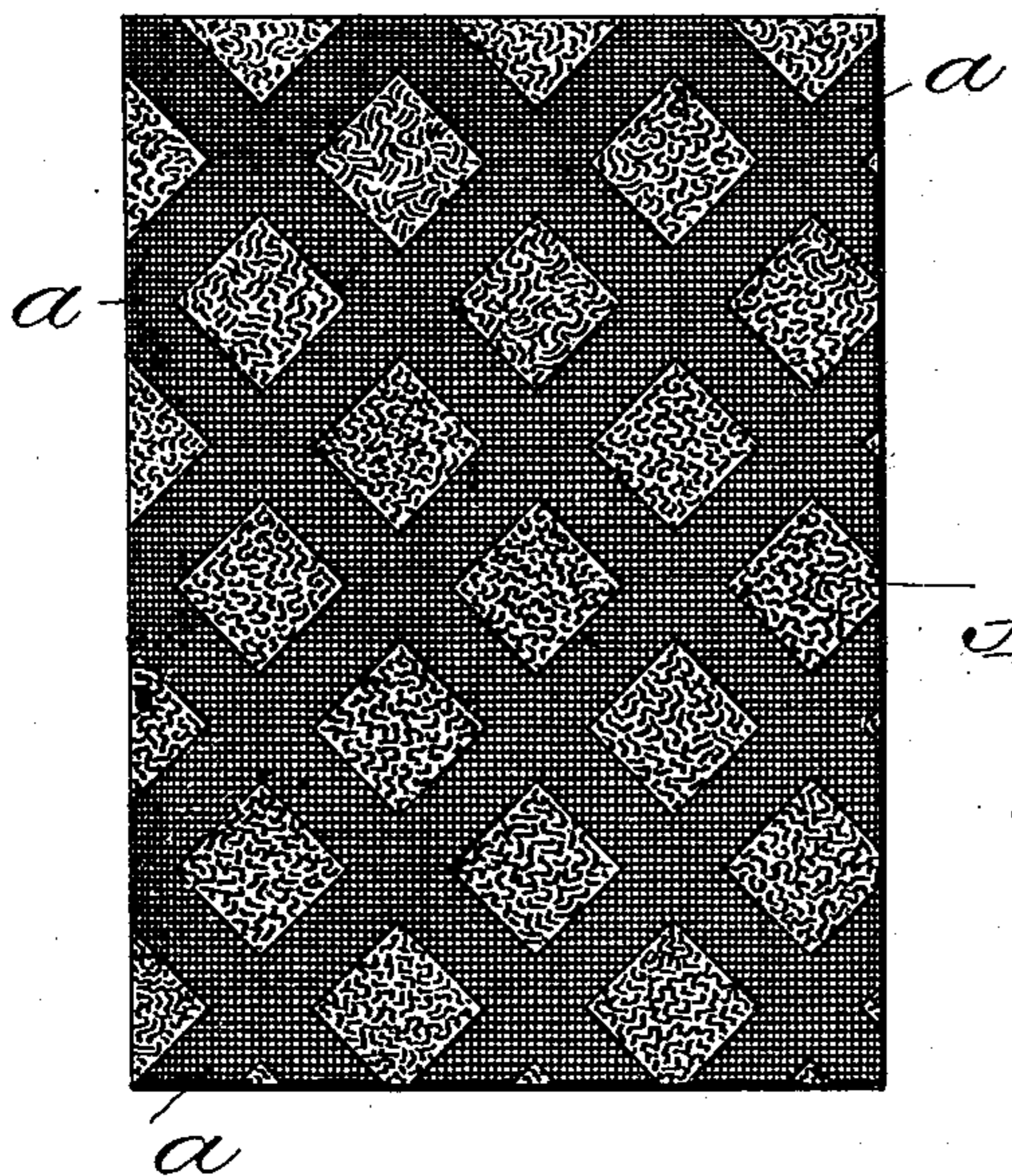


Fig. 2.

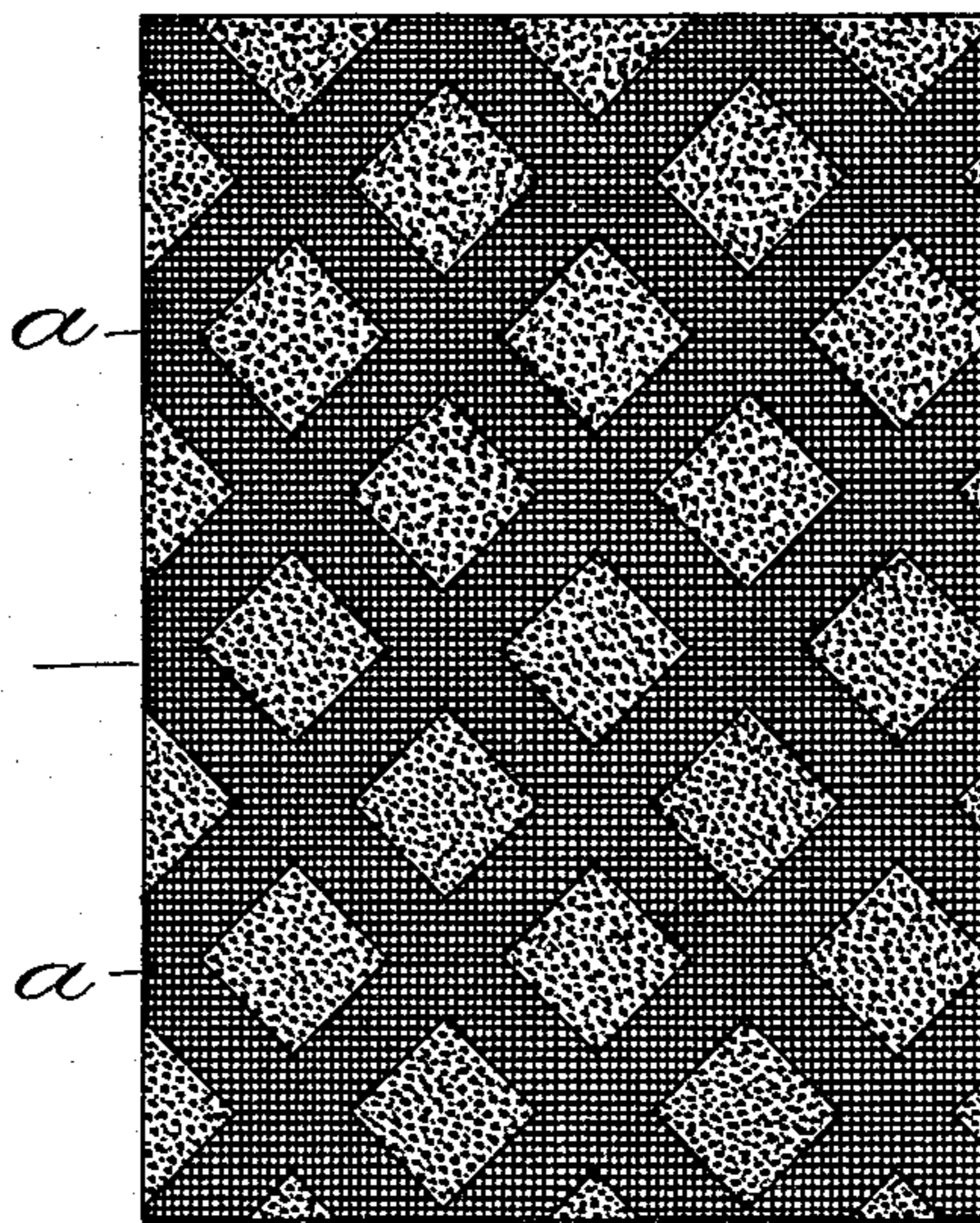
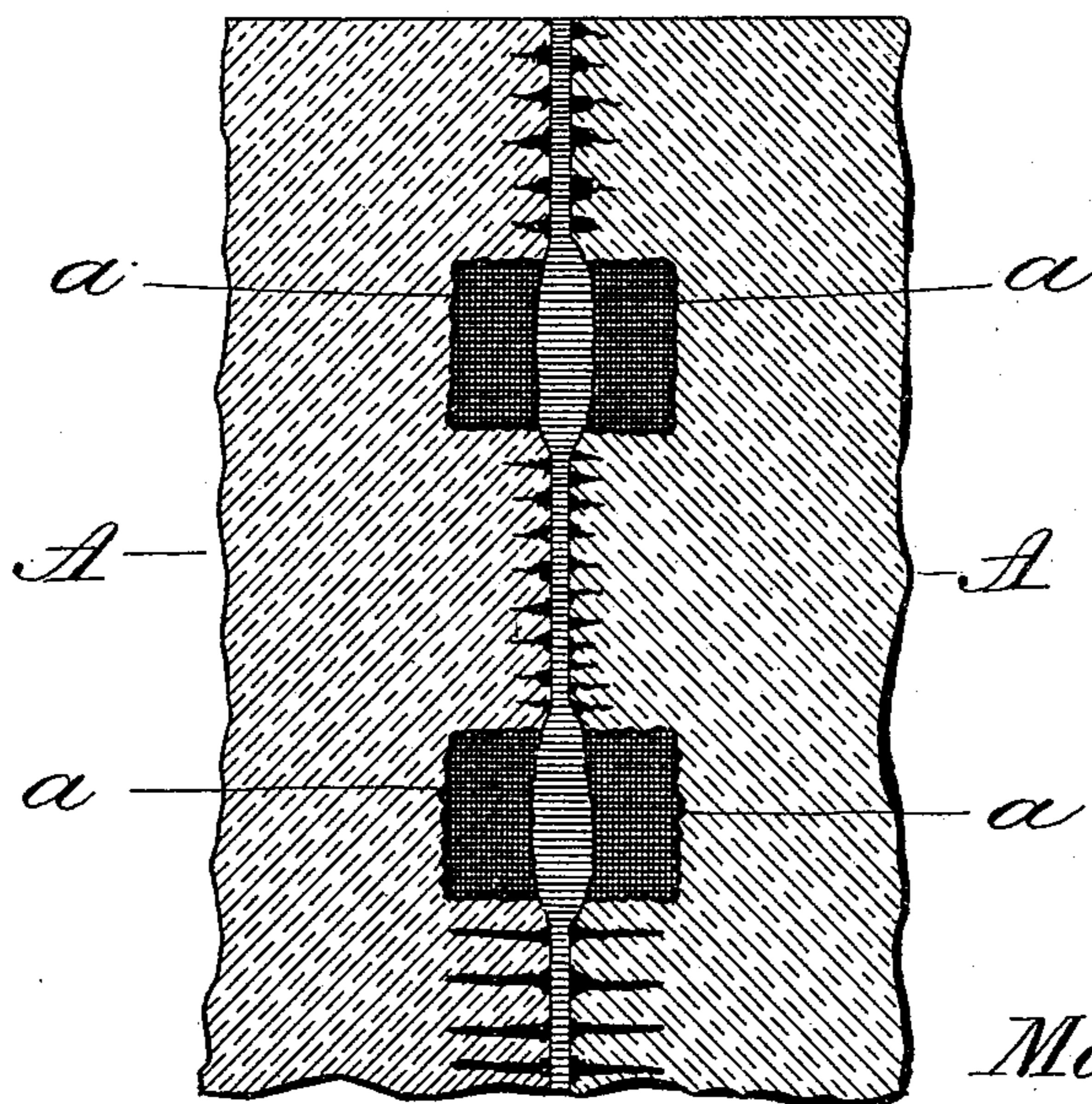


Fig. 3.



Max Levy.
Inventor

Witnesses
G. S. Elliott.
E. M. Johnson

by *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

MAX LEVY, OF PHILADELPHIA, PENNSYLVANIA.

SCREEN FOR MAKING PHOTOMECHANICAL PRINTING-PLATES.

SPECIFICATION forming part of Letters Patent No. 498,127, dated May 23, 1893.

Application filed December 22, 1892. Serial No. 456,065. (No model.)

To all whom it may concern:

Be it known that I, MAX LEVY, a citizen of the United States of America, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Gratings or Screens for Photographic Purposes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in gratings for the production of pictures for illustrations by the half-tone process; and it consists in providing the usual grating, having parallel lines or cross-lines, with subsidiary lines or dots located between the spaces formed by the cross-lines.

In the production of half-tone engravings by means of a screen or grating it has been customary to employ a screen or grating having parallel lines or cross-lines, and the effect obtained by the use of such a screen is open to several objections, among which may be noted that the series of lines and dots which result therefrom give the appearance of a network over the resulting picture, and it is immaterial how fine the ruling may be there are always some details that are lost by reason of the fact that the lines forming the picture have no reference whatever to the design, and consequently many details occupying the space of but one or even three spaces or intervals lose their definition and are often eliminated in the resulting picture, the lines filling or corresponding with the separated parts of the object, while the aim is to reproduce as closely as possible the characteristics of the original in its minutest as well as its broader details, which is not always possible with the cross-line screen, and to accomplish such end I desire to retain the advantages of the ruled screen and provide such a screen as will render the details more accurate than can be accomplished by simple lines or cross-lines, and to this end I produce a screen having the interstices between the ruled lines being par-

tially filled or occupied by dots, or with sinuous or crooked lines, as will be hereinafter fully set forth and specifically pointed out in the claims.

In the accompanying drawings: Figures 1 and 2 are enlarged plan views of gratings or screens as they appear when made in accordance with my invention, and Fig. 3 is an enlarged sectional view.

The gratings or screens may be made up in the usual manner; that is to say, either by photography, manual or mechanical manipulation to produce on or in the glass plate straight lines which are parallel with each other or crossed, the interstices being occupied either by sinuous lines, crooked lines or dots which will give a stipple effect.

In the accompanying drawings A designates the plate of glass, which is provided with straight lines α , which may be parallel and cross each other as shown. In either instance the spaces between the straight lines are occupied by sinuated crooked lines, or by dots which are granular in form or similar to what appears in marks made by a crayon, when highly magnified. In each instance the interstices are rendered partially opaque, in any suitable manner, preferably the same means being employed that are used to render the lines opaque. The lines or obstructions located in the interstices may be formed after the manner set up in Patent No. 492,333, which was issued February 21, 1893, to Louis E. Levy and Max Levy, or they may be formed by photography, the lines being reproduced from a suitable pattern upon the glass plate, which becomes a screen. In use such a plate will give a result which differs from the result given by straight or curved lines; and with such a plate as described a softer appearance is given to the picture and the different shades of light better and more effectively brought out, and it will be obvious that the details of the original object are reproduced more accurately than is possible by the ordinary screen. In practice the opaque lines will be thinner than they would be were lines the only element of the screen to obstruct the light.

Having thus described my invention, I claim—

1. In a grating or screen for the purpose set forth, having opaque lines, the interstices or spaces between said opaque lines being rendered partially opaque.

5 2. A grating or screen for the purpose set forth, consisting of a plate having opaque lines which are parallel with each other and are crossed by a similar series of lines, the interstices being partially filled or occupied by
10 finer lines.

3. A grating or screen for the purpose set forth, consisting of a plate having opaque

lines, some of said lines being straight and parallel with each other the spaces between the hereinbefore mentioned lines being partially 15 occupied by obstructions to the rays of light, said obstructions being of a different character or finer than the lines.

In testimony whereof I affix my signature in presence of two witnesses.

MAX LEVY.

Witnesses:

ADOLF HAUSER,
WM. G. KING.