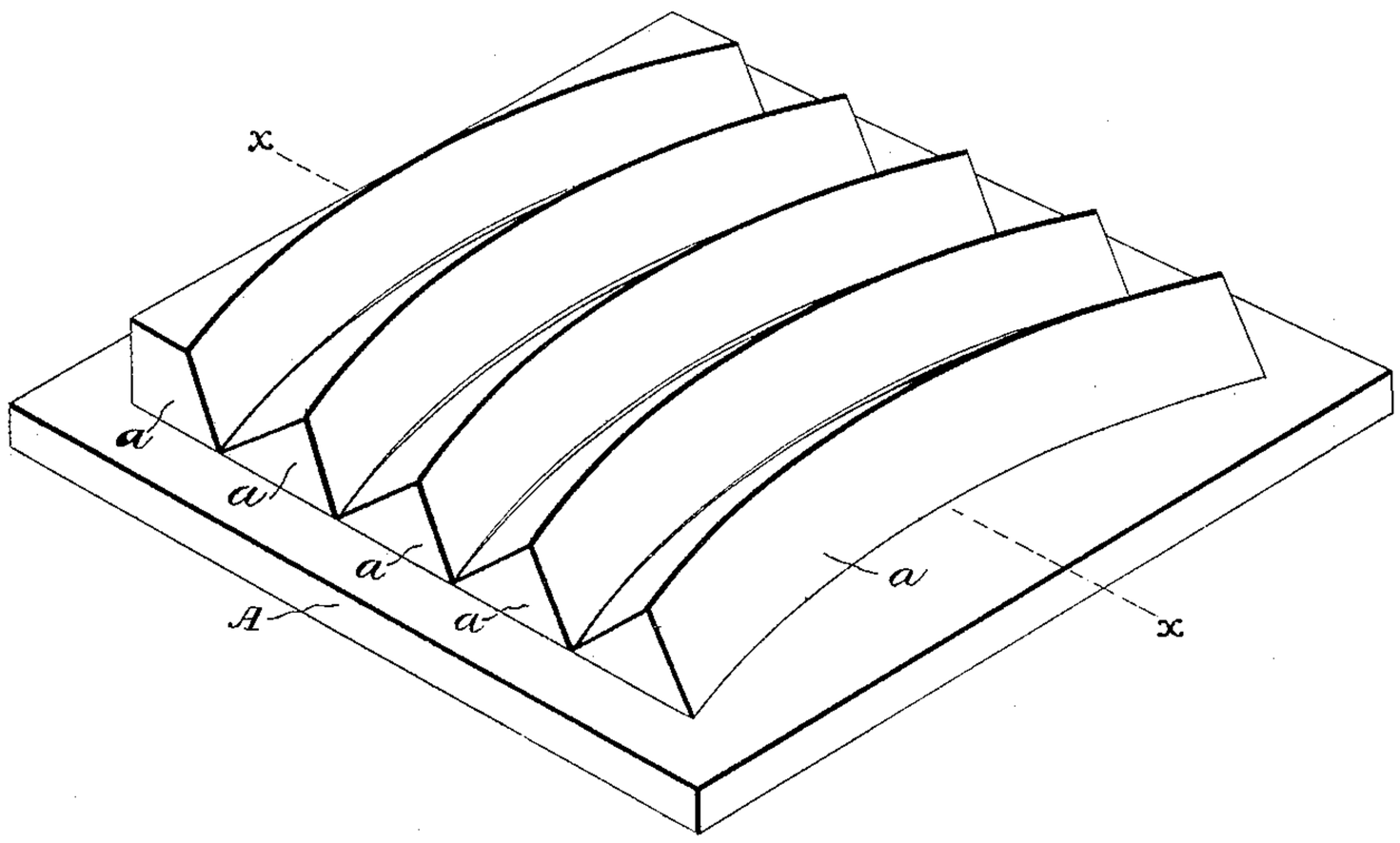
(No Model.) 2 Sheets—Sheet 1.

J. JACOBS.

ILLUMINATING GRATING.

No. 596,881. Patented Jan. 4, 1898.

Fig. 1.



Witnesses
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

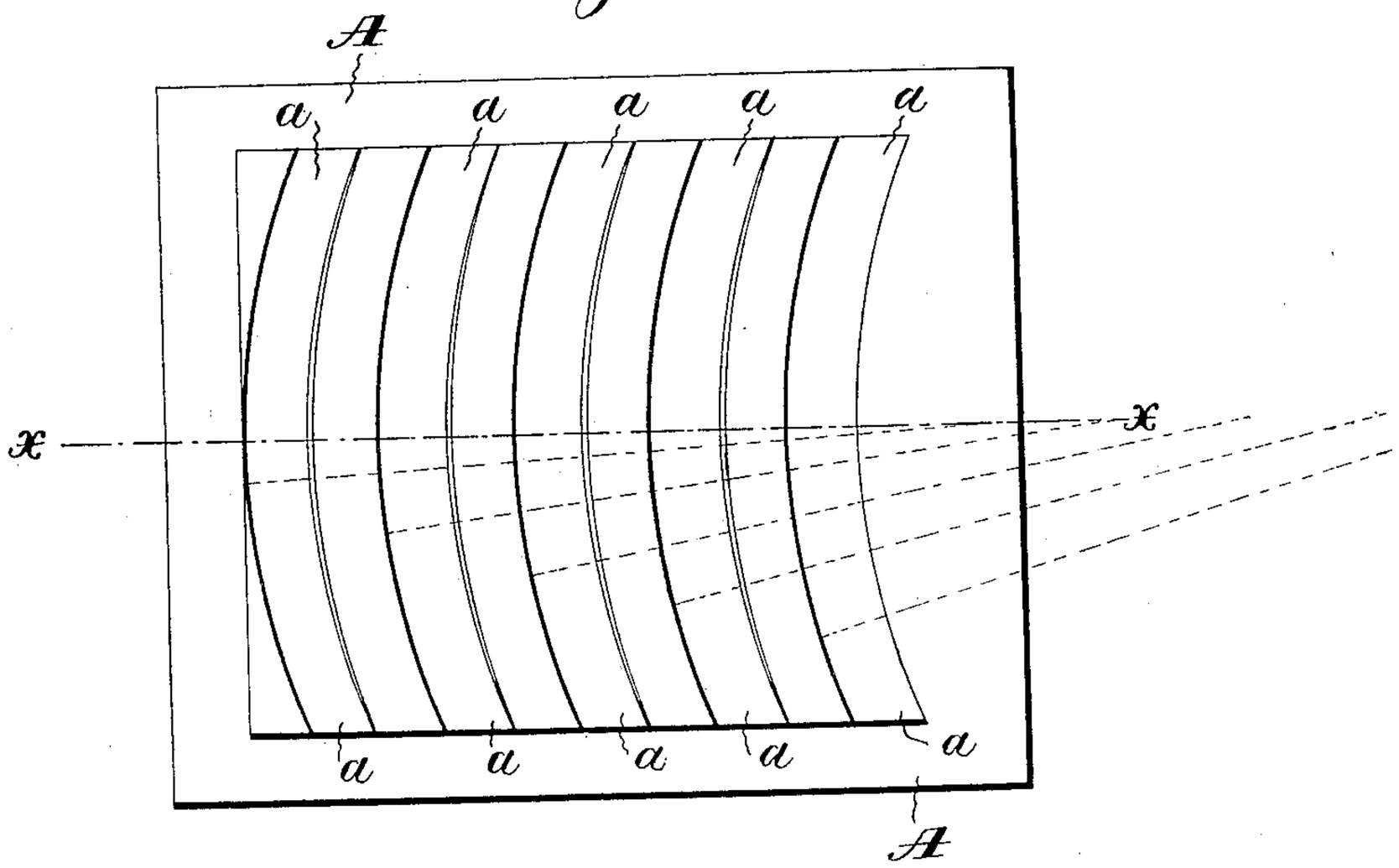
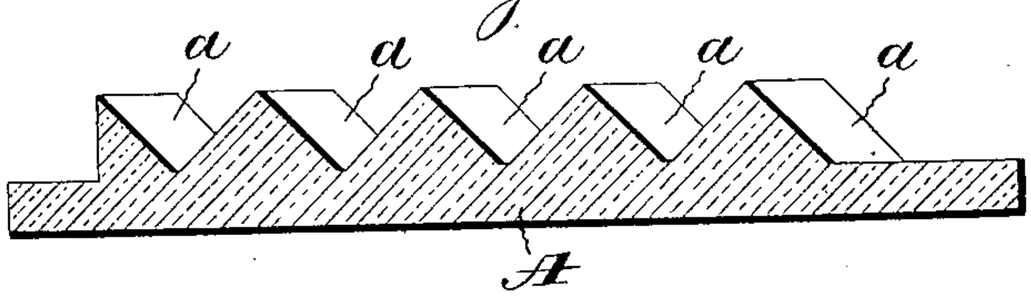


Fig. 3.



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by Pindell & Russell
his attorneys

UNITED STATES PATENT OFFICE.

JACOB JACOBS, OF BROOKLYN, NEW YORK.

ILLUMINATING-GRATING.

SPECIFICATION forming part of Letters Patent No. 596,881, dated January 4, 1898.

Application filed March 18, 1897. Serial No. 628,208. (No model.)

To all whom it may concern:

Be it known that I, JACOB JACOBS, of Brooklyn, in the county of Kings, and in the State of New York, have invented certain new and useful Improvements in Illuminating-Gratings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my lens. Fig. 2 is a plan view thereof, and Fig. 3 is a section of the same upon line *x x* of Fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

My invention has for its object the transmission of light from the exterior to the interior of an inclosed space in such manner as to enable the rays of light to be concentrated or diffused, as may be desired; and to such end said invention consists in a lens provided upon its inner face with ribs which have a ∧ shape in cross-section and are curved longitudinally, substantially as and for the purpose hereinafter specified.

In the carrying of my invention into practice I provide upon the rear or inner face of an illuminating-lens A a series of ∧-shaped ribs *a* and *a*, which are arranged in lines extending in the same direction and longitudinally are curved, as shown. The arc of curvature of each of the ribs is of the same or substantially the same radius, so that while extending in the same direction the ribs are not concentric. This is best shown in Fig. 2, where dotted straight lines are shown running from the curves that denote the apexes of the ribs to their respective centers. Thus the effect of each rib on the light will be the same and limitation as to the size of the lens and the number of the ribs, such as exists when the ribs are concentric and curve on arcs of different radii is avoided. The faces of each rib *a* may have, if desired, the same, but opposite, inclinations from the plane of the lens, or they may have such different relative inclinations as will adapt them for reflecting light horizontally inward or at any degree from such line. By arranging the lens so as to cause the ribs *a* and *a* to curve downward the rays of light will be reflected from a horizontal plane upward in accordance with the relative angles of the faces of such ribs, while by placing said lens so that said ribs have their curved sides upward the light reflected will be from a horizontal plane downward.

By varying the curvature of the ribs *a* and *a* the path of illumination may be made wide or narrower, as desired.

Having thus described my invention, what I claim is—

1. As an improvement in glasses for gratings, &c., a lens which is provided with longitudinally-curved ribs that extend in the same direction, and are curved on arcs of the same, or substantially the same radius, substantially as and for the purpose specified.

2. As an improvement in glasses for gratings, &c., a lens which is provided with curved ribs upon its inner face, the ribs being curved on arcs of the same, or substantially the same radius, and having inclined sides, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of March, 1897.

JACOB JACOBS.

Witnesses:
FRANK P. PRINDLE,
JAS. E. HUTCHINSON.