

(No Model.)

J. JACOBS.
ILLUMINATING GRATING.

No. 596,883.

Patented Jan. 4, 1898.

Fig. 1.

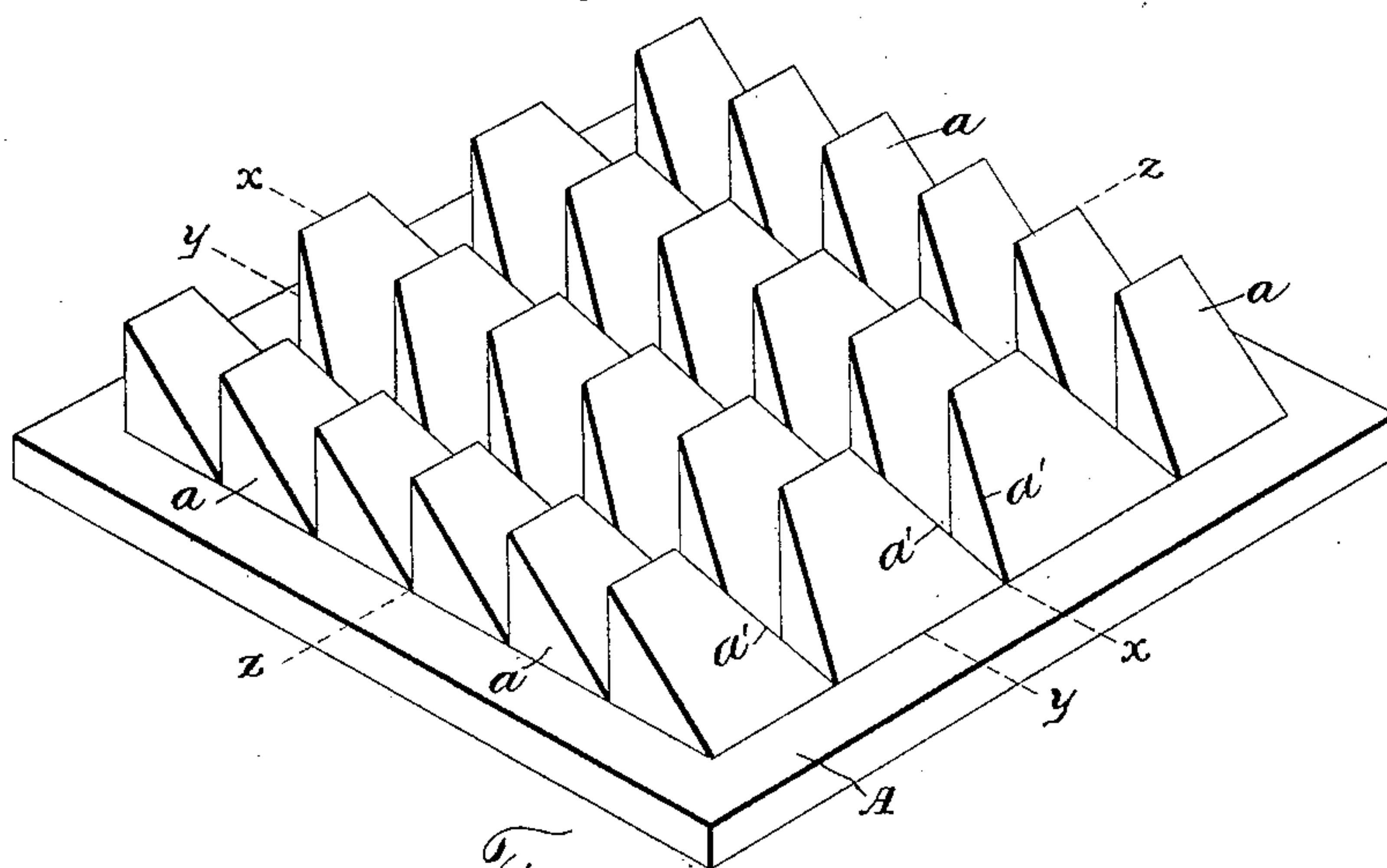


Fig. 2.

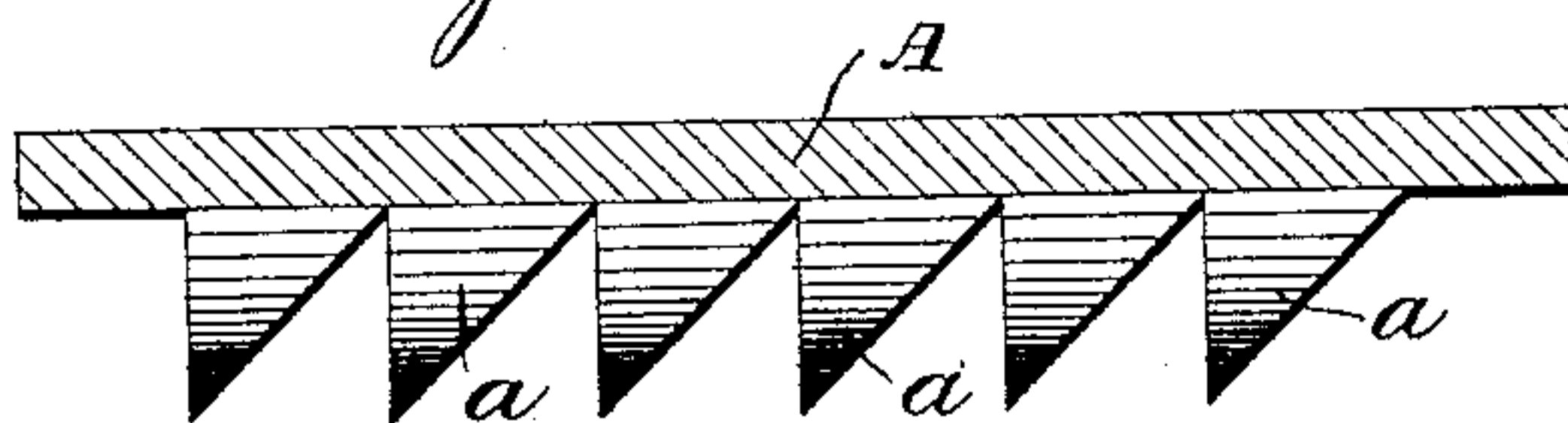


Fig. 3.

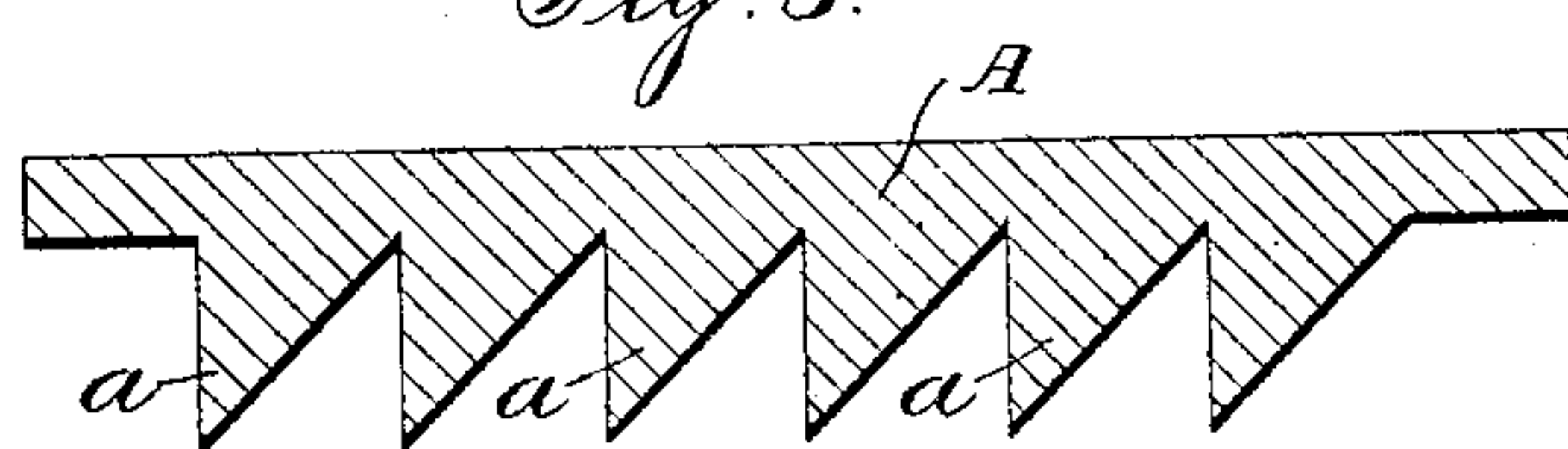
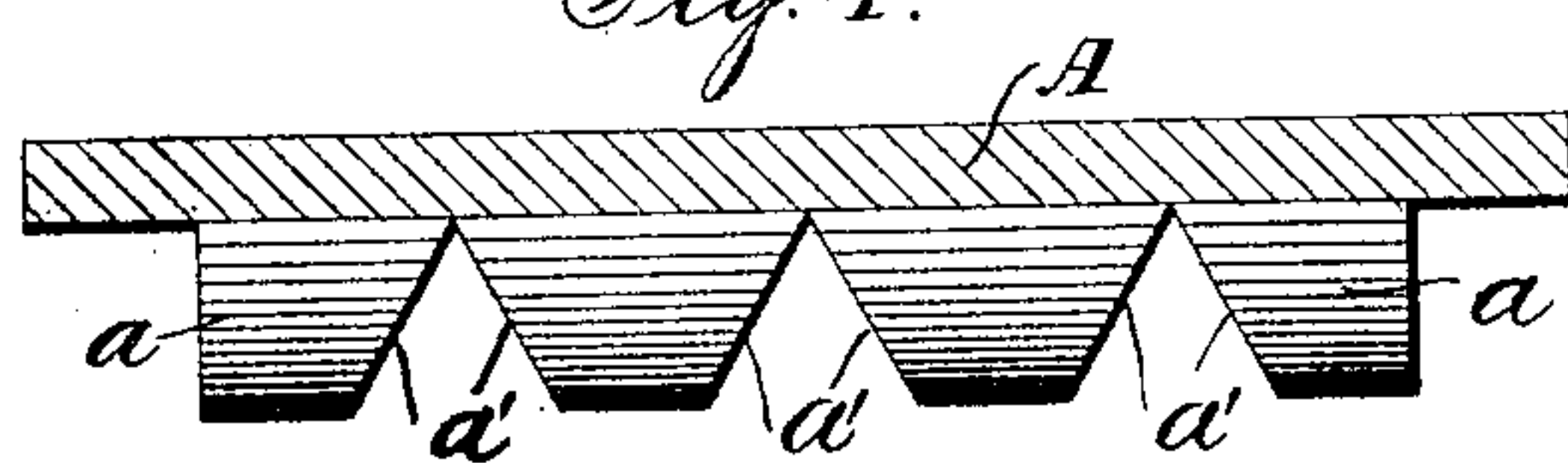


Fig. 4.



Witnesses.
Frank P. Prindle.
Henry S. Hazard.

Inventor.
Jacob Jacobs, by
Prindle and Russell, his attys.

UNITED STATES PATENT OFFICE.

JACOB JACOBS, OF BROOKLYN, NEW YORK.

ILLUMINATING-GRATING.

SPECIFICATION forming part of Letters Patent No. 596,883, dated January 4, 1898.

Application filed March 18, 1897. Serial No. 628,231. (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 from the rear face. Fig. 2 is a section upon line xx of Fig. 1. Fig. 3 is a like view of the same upon line yy of said figure, and Fig. 4 is a section at a right angle to sections xx and yy and is designated by line zz .

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

The object of my invention is to increase the light-transmitting capacity of illuminating-lenses; and to such end said invention consists in the lens having the construction substantially as hereinafter specified and claimed.

In the carrying of my invention into practice I provide upon the inner or rear face of a plate A a series of parallel prismatic ribs a and a , each of which has one face formed at a right angle to the plane of the face of the plate and the opposite face inclined relative to such plane.

Extending at a right angle through the ribs a and a are a series of V-shaped grooves a' and a' , which are arranged in parallel equidistant lines and preferably extend to the bottom of such ribs, by which construction each rib a is divided into a number of sections, each of which has four faces that operate to reflect light which passes through the

lens in as many different directions and thereby materially increase the illuminating effect.

It will be apparent that my lens is especially well formed to utilize rays of light falling thereon perpendicular to its plane outer face. Such of said rays as strike the inclined surface of one rib a will be reflected thereby through such rib to the inclined surface of the adjacent rib and thereby be reflected into the space to be illumined. Perpendicular rays striking one inclined side of a groove a' will be reflected through the rib across to the inclined side of the adjacent rib and thus be thrown into the space to be lighted.

Having thus described my invention, what I claim is—

An illuminating-lens, provided with parallel lines of prismatic-form projections, each of which has a face perpendicular to the plane of the lens-body, and an inclined face that is opposite the perpendicular face of an adjacent projection of the same line, and the opposing side surfaces of projections of adjacent lines diverging, the projections being arranged so close together that rays of light passing from one projection will encounter and be reflected from the surfaces of adjacent projections, substantially as and for the purpose specified.

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.