No. 693,084.

Patented Feb. 11, 1902.

D. C. TOWNSEND.

DIAMOND.

(Application filed Apr. 4, 1901.)

(No Model.)

Fig. 4.

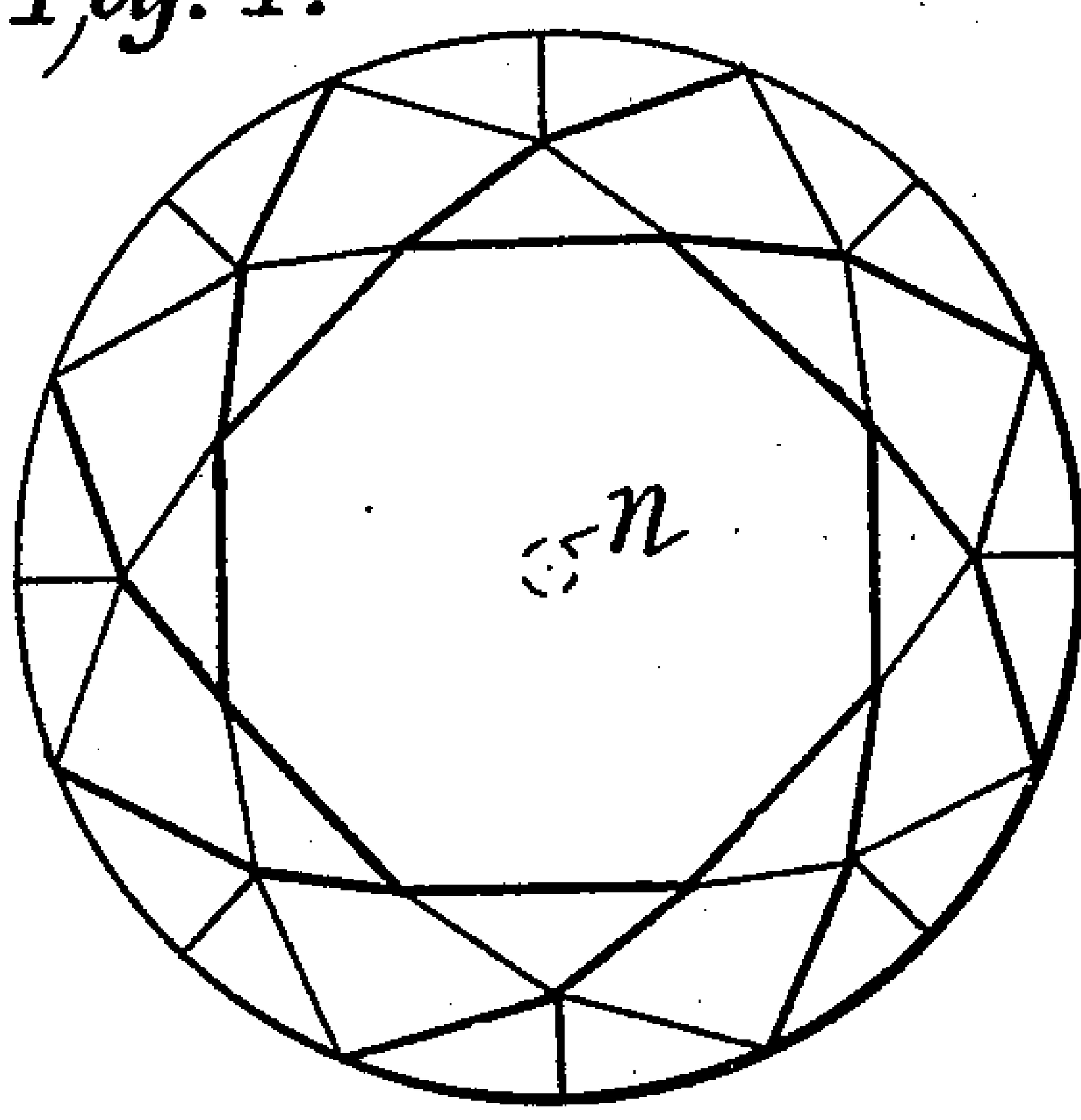


Fig. 6.

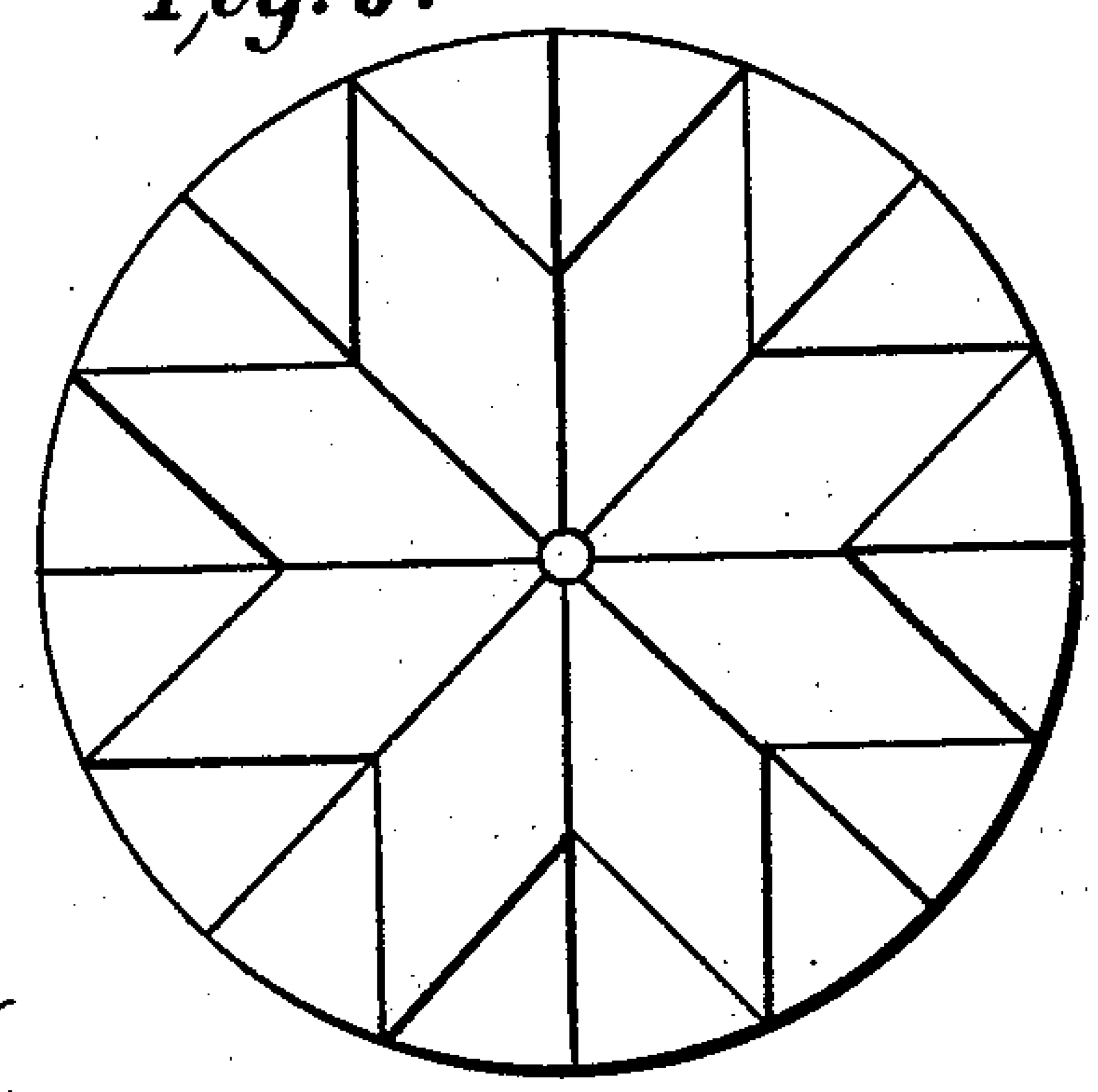


Fig. 5.

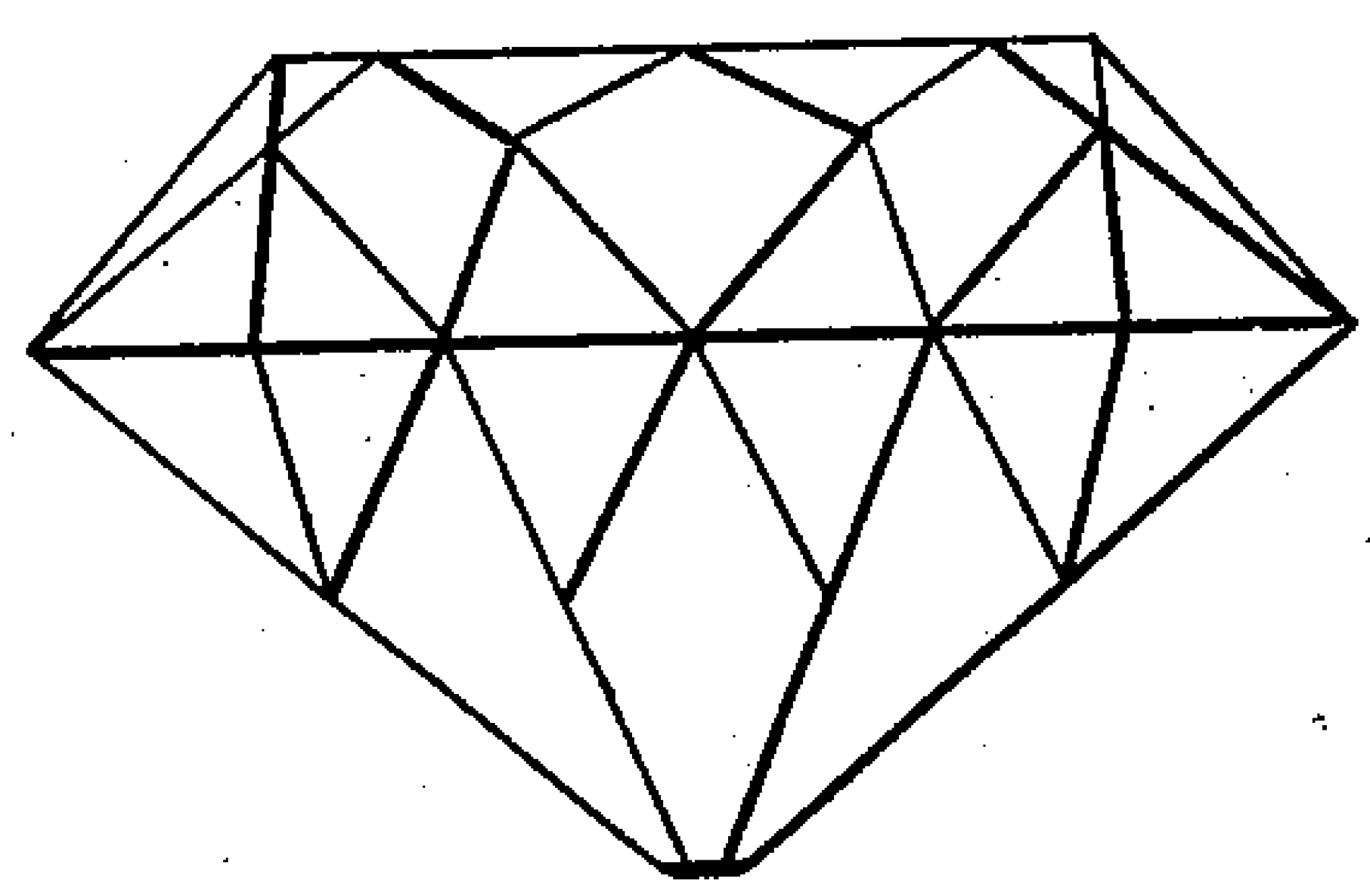


Fig. 1.

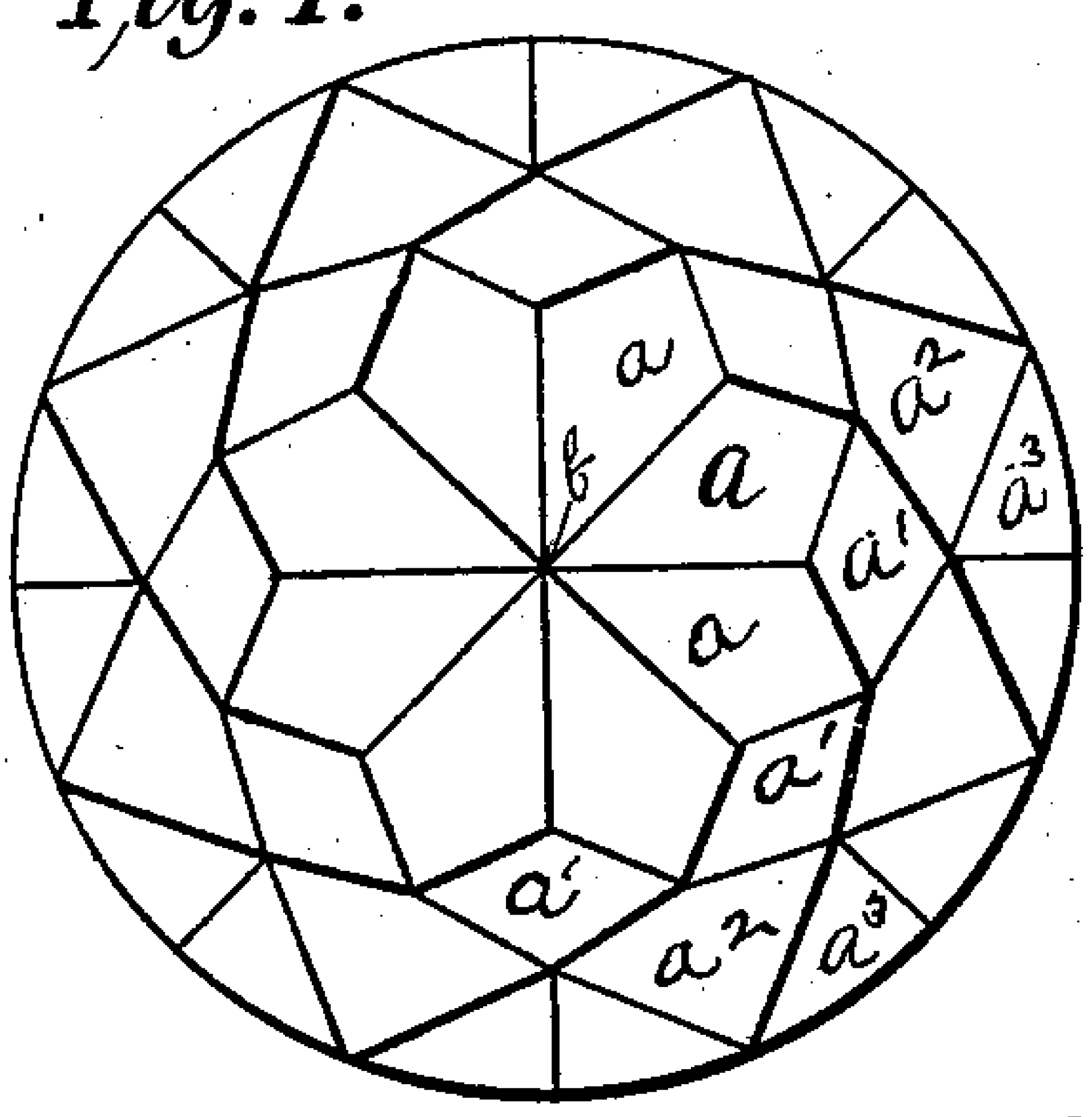


Fig. 3.

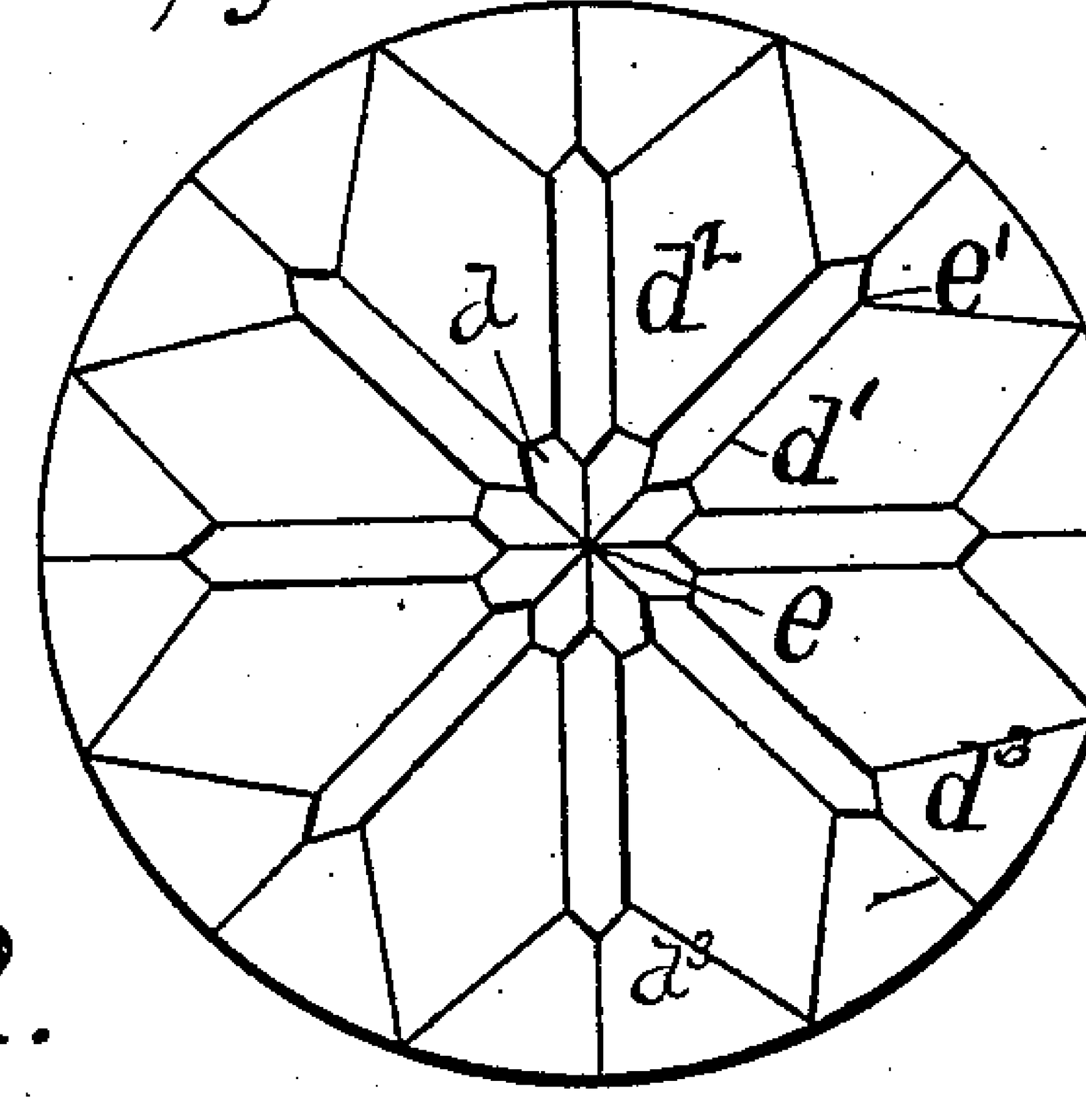
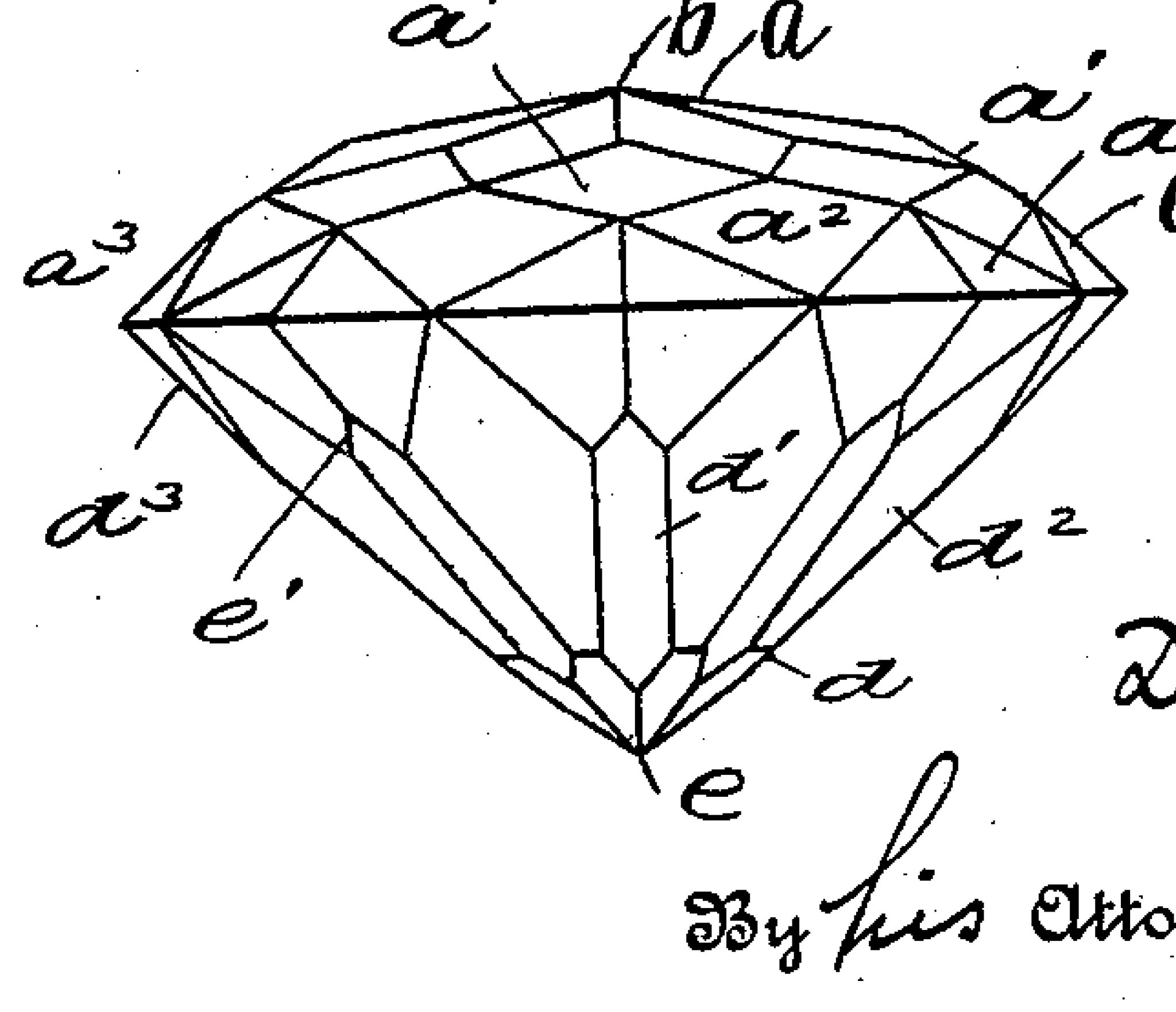


Fig. 2.



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UNITED STATES PATENT OFFICE.

DAVID C. TOWNSEND, OF NEW YORK, N. Y.

DIAMOND.

SPECIFICATION forming part of Letters Patent No. 693,084, dated February 11, 1902.

Application filed April 4, 1901. Serial No. 54,341. (No model.)

To all whom it may concern:

Be it known that I, DAVID C. TOWNSEND, a citizen of the United States, residing in New York city, county and State of New York, have invented a new and useful Improvement in an Article of Manufacture, of which the following is a specification.

The invention relates to diamonds or other precious stones; and it consists, essentially, in cutting the upper and lower surfaces to form peculiarly-shaped facets extending from the girdle to a central apex, as will be hereinafter fully described, and particularly set forth in the claims.

The principal object of the invention is to increase the brilliancy of precious stones, more especially diamonds.

In order that the value and effect of my invention may be fully realized and understood, it may be necessary to state that the method heretofore practiced in cutting brilliants is to form a table or octagonally-shaped space on top of the stone, with surfaces or facets surrounding said table and extending toward the rim or girdle, as shown in Fig. 4, while the bottom of the stone has its apex ground flat, which, together with the upper table, practically forms a hub, the light being taken from the rim and diffused through the center or table, while in my invention the reverse is the case—that is, the light is concentrated in the center and reflected toward the rim or girdle.

In the drawings, Figure 1 is a top view of a finished diamond according to my invention; Fig. 2, a side elevation of the same; Fig. 3, a bottom view; and Figs. 4, 5, and 6 are similar views illustrating a diamond cut by the old method.

Referring to Figs. 1 and 2, it will be seen that the top apex b of the stone is formed by the intersection of a series or number of planes, forming quadrilaterally-shaped facets a, meeting in the center at an elevation. This series of facets are subtended by a series of quadrilateral facets a' and a^2 and a series of triangular facets a^3, which fill the spaces between the facets a^2 and the girdle. The formation of the quadrilateral facets a and the facets a' a^2 a^3 surrounding them may be slightly changed without altering or affecting the results attained by my invention, the principle of which is to receive the light in the center around the upper point b and diffuse or reflect it out through the rim or girdle facets a' a^2 a^3.

The lower or under side of the stone, as shown in Figs. 2 and 3, is cut with a multiple of pentagonally-shaped facets d, which form the apex e. Subtending the facets d are a number of oblong facets d' and pointed facets d^2, alternately arranged and extending toward the girdle, and a series of facets d^3 between the pointed facets d^2.

Referring to the old method of cutting, as shown in Figs. 5 and 6, the apex of the lower side of the stone is usually ground off to form a small table or plane similar to the top, which lower table can be seen through the upper table of the stone, as shown by dotted lines in Fig. 4, while in my improved method the apex is retained both top and bottom and forms the terminal of the surrounding planes or facets.

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

1. As an article of manufacture, a diamond, or other precious stone having a series of quadrilateral facets, a, meeting in the center, at an elevation to form an apex, a series of quadrilateral facets a', surrounding the first-mentioned series, a second series of quadrilateral facets a^2, surrounding the facets a' and extending to the girdle, and triangle girdle-facets a^3 filling the space between the points of the facets a^2 and the girdle, substantially as specified.

2. As an article of manufacture, a diamond, or other precious stone, having its top or upper face suitably cut and its bottom or lower face formed with a series of pentagonally-shaped facets, meeting in the center and forming an apex, a series of oblong facets and a series of pointed facets radiating from the pentagonally-shaped facets, said oblong facets and pointed facets being alternately arranged and extending toward the girdle, and a series of facets surrounding the elongated facets and the pointed facets and extending toward the girdle.

3. As an article of manufacture, a diamond, or other precious stone, having its upper face formed with a series of quadrilateral facets, meeting in the center and forming an apex,

and a series of quadrilateral facets and triangle facets, surrounding the first series of facets and extending toward the girdle, and its bottom or lower face formed with a series of pentagonally-shaped facets, meeting in the center and forming an apex, a series of oblong facets and a series of pointed facets radiating from the pentagonally-shaped facets, said oblong facets and pointed facets being alternately arranged and extending toward the girdle, and a series of facets surrounding the elongated facets and the pointed facets and extending toward the girdle.

In testimony that I claim the foregoing specification I have hereunto set my hand this 20th day of March, 1901.

DAVID C. TOWNSEND.

In presence of—

A. A. KIRKPATRICK,

O. H. WOLFF.