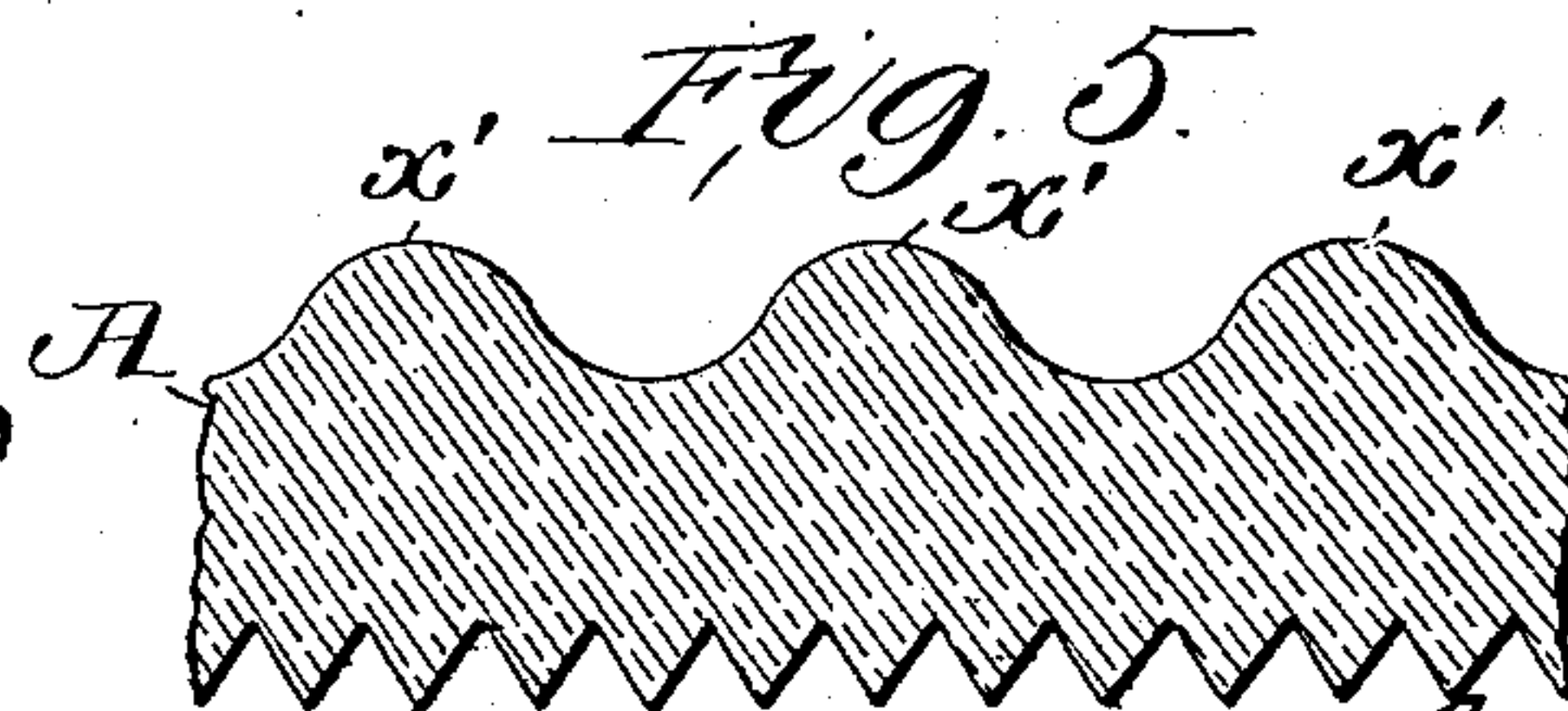
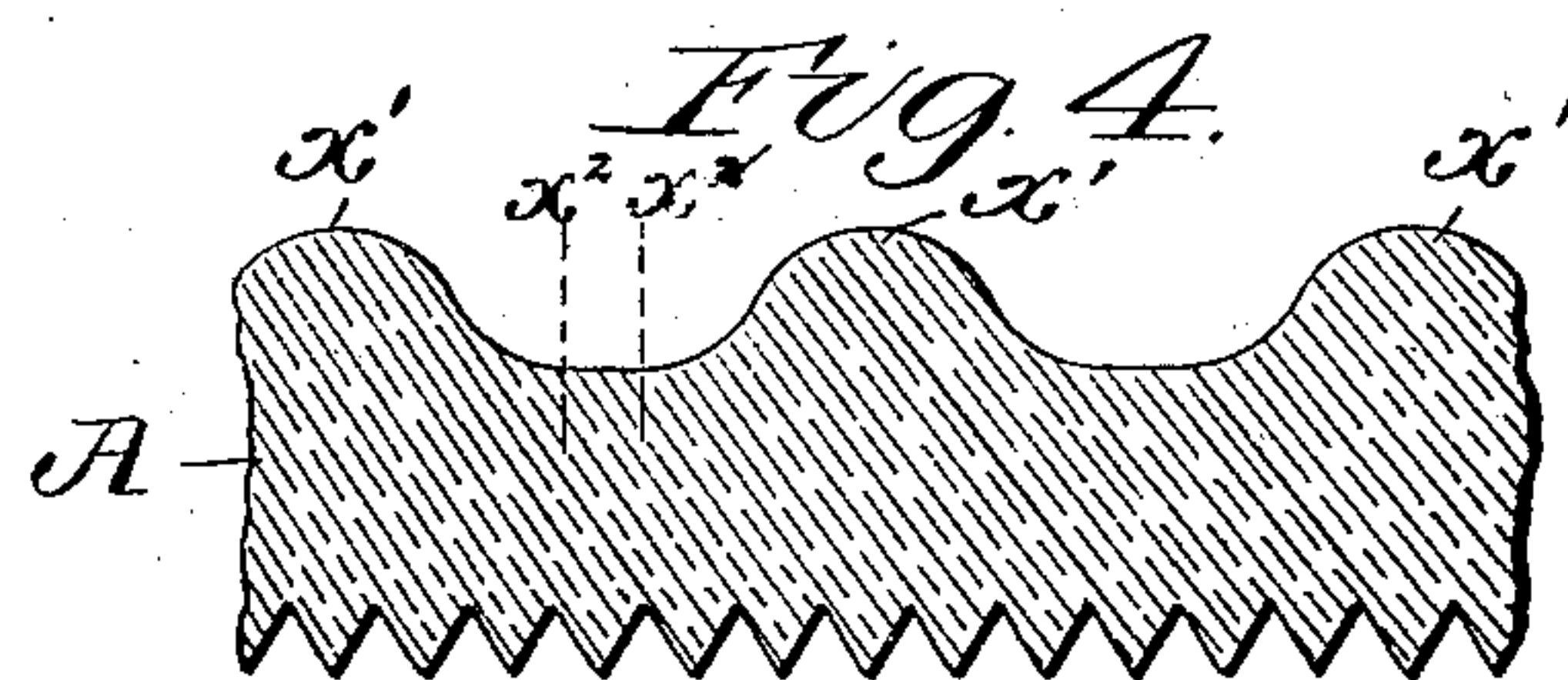
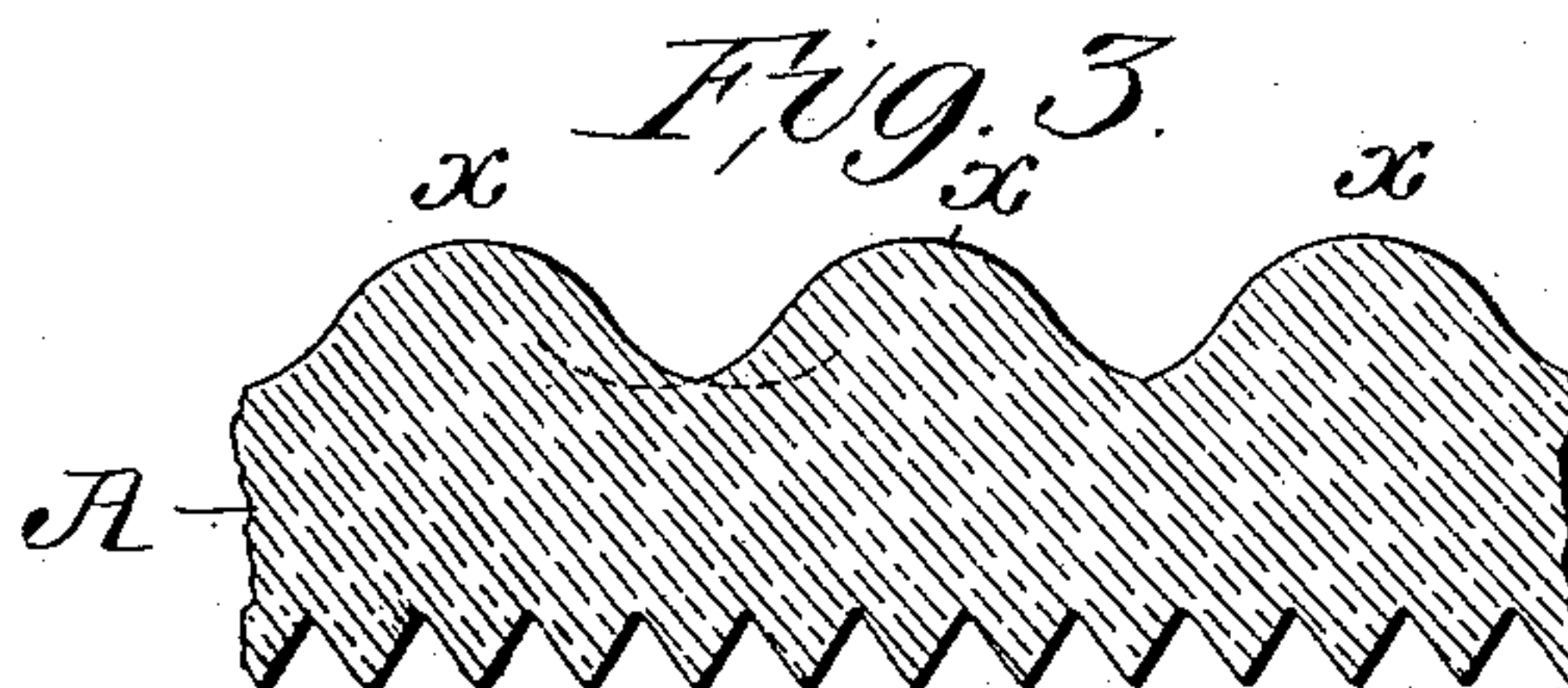
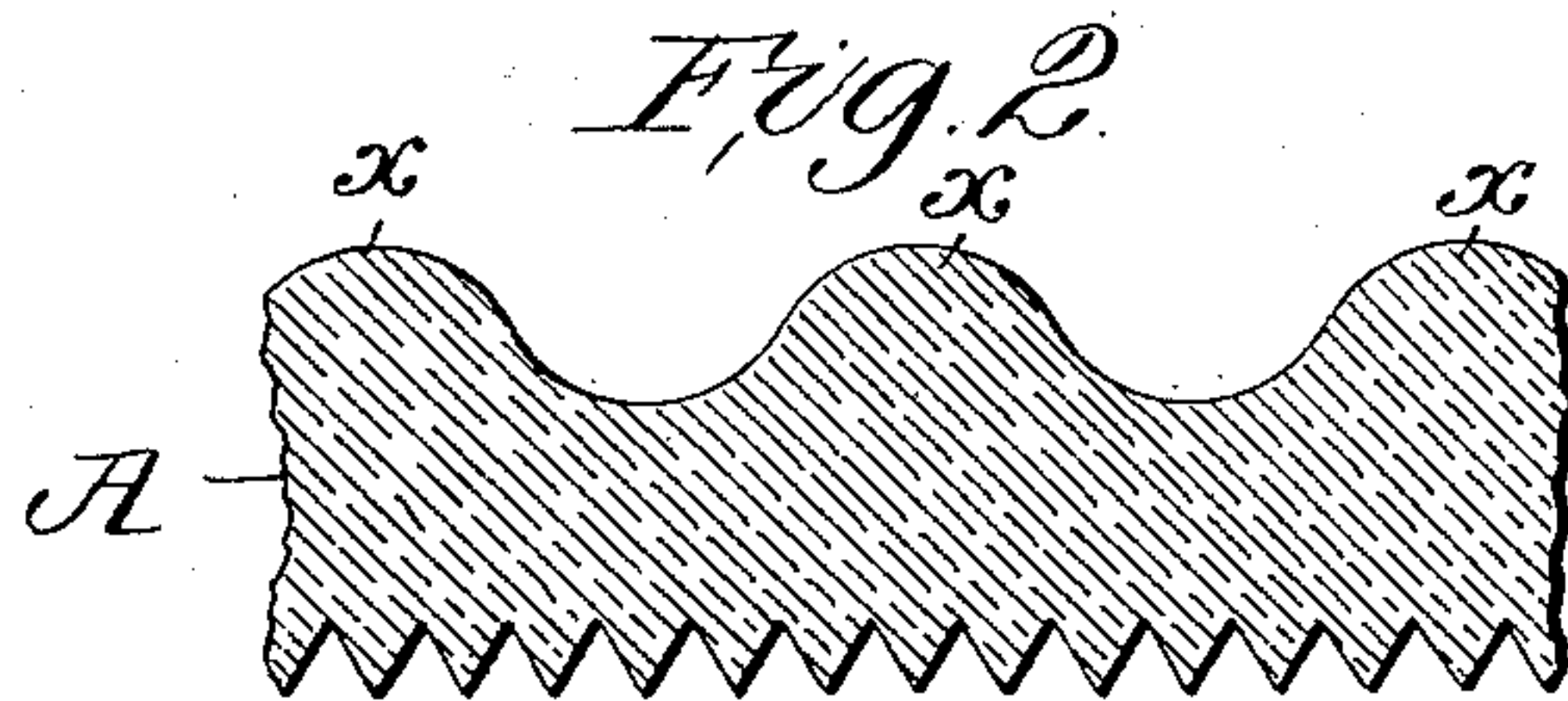
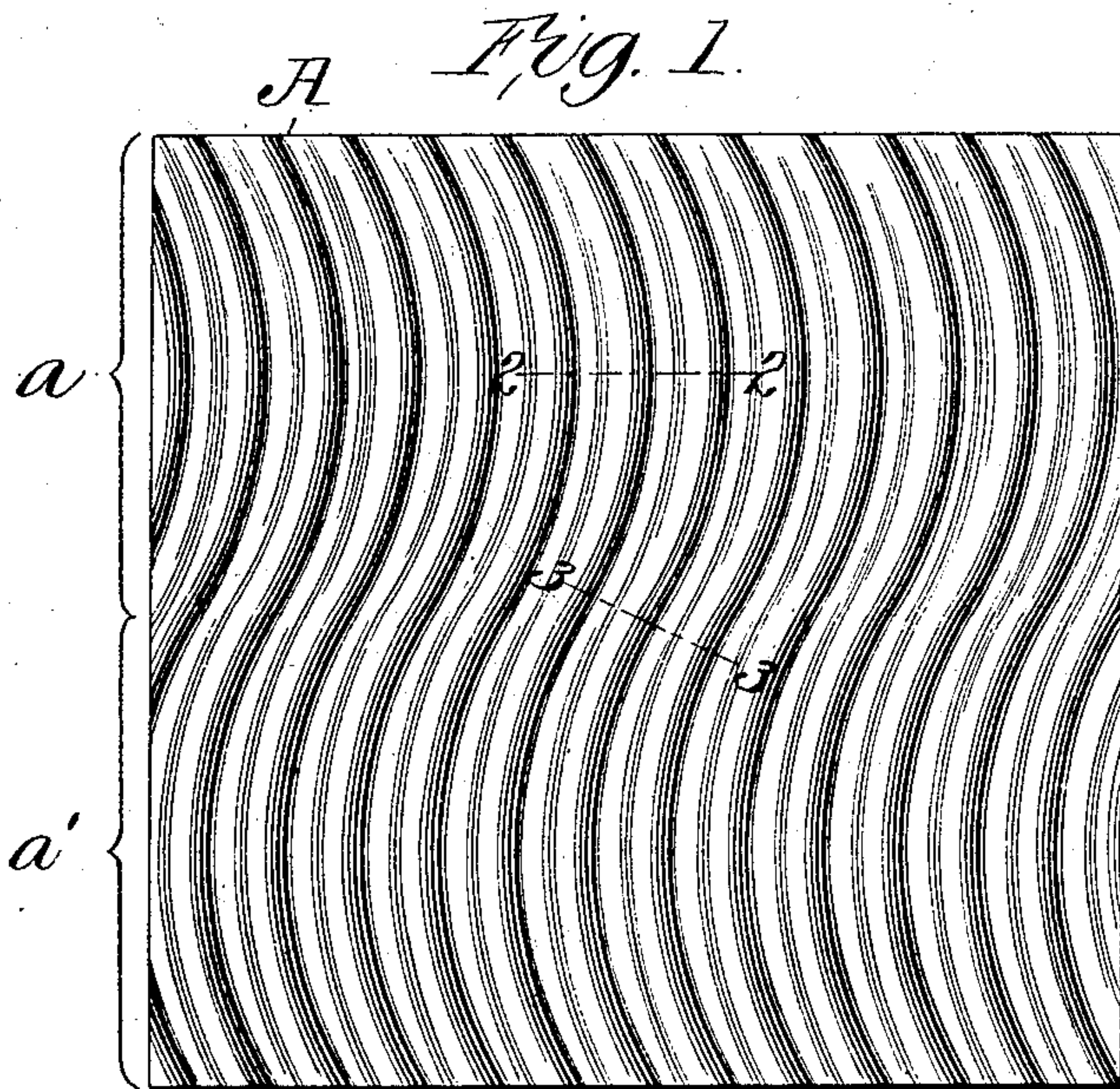


C. C. HARTUNG.
CURVILINEAR CORRUGATED PRISMATIC GLASS.

APPLICATION FILED OCT. 18, 1900.

NO MODEL.



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UNITED STATES PATENT OFFICE.

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CURVILINEAR CORRUGATED PRISMATIC GLASS.

SPECIFICATION forming part of Letters Patent No. 720,139, dated February 10, 1903.

Application filed October 18, 1900. Serial No. 33,462. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. HARTUNG, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Curvilinear Corrugated Prismatic Glass, of which the following is a full, clear, and exact description, 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, forming part of this specification.

This invention relates to a new and useful improvement in curvilinear corrugated prismatic glass, the object being to roll glass of the character described into large plates or sheets, whereby the same may be cut to desired sizes to fit openings of various shapes, the glass by reason of its peculiar surface configuration diffusing the rays of light transmitted therethrough, whereby an apartment is more generally lighted than where prism-plates having straight-faced prisms on the transmitting side are employed.

With this object in view the invention consists in providing a sheet of glass with curvilinear corrugations on one of its faces, while the other of its faces may be plain or may be provided with prisms, as desired.

In the drawings, Figure 1 represents a plan view of a portion of a sheet of glass provided with curvilinear corrugations. Fig. 2 is an enlarged sectional view on line 2 2, Fig. 1. Fig. 3 is a similar view on line 3 3, Fig. 1. Fig. 4 is a sectional view of a modified form corresponding in its relation to the sheet to the section-line 2 2. Fig. 5 is a similar view corresponding in its relation to the sheet to the section-lines 3 3.

In the drawings, A indicates the body portion of a sheet of glass one face of which is provided with a series of curvilinear corrugations, preferably arranged in serpentine form, said corrugations being well defined.

In practice the lines defining these corrugations are preferably struck from different centers, but with the same radii, and consequently the method of manufacture of the configuring roll or table in the construction shown in Figs. 2 and 3 results in a sheet of glass having serpentine corrugations whose

convex portions are relatively on the same plane, but whose concave portions are relatively on different planes, producing in said concavities undulations which are shallowest where the corrugations most nearly approach each other. Consequently the glass is thickest at this point and deepest where the serpentine corrugations are most widely separated, and consequently the glass is thinner at this point.

It is obvious that two curved lines having the same radii, but described from different centers, will form a crescent if continued a sufficient distance; also that curved lines having different radii, if struck from different centers, will not at any point be parallel to each other, and I utilize this fact in the construction of my improved sheet of glass. Thus the curved lines embraced within the bracket α , while all described from different centers, but with the same radius, are eccentric to each other. Those corrugations comprehended within the bracket α' are likewise described from different centers with the same radius, which, however, may be greater or less than that employed with relation to the curves embraced by the bracket α , and these curved lines embraced by the bracket α' are eccentric to each other.

Referring now to Fig. 2, we will assume that the points x represent the highest portions of the corrugations, and as this section is taken on the line 2 2, Fig. 1, these points x are most widely separated. Referring now to Fig. 3, taken on line 3 3, Fig. 1, it will be observed that these points x approach each other, so that instead of having true curved concavities between the corrugations at this point the describing-circles or portions thereof intersect each other, as shown by dotted lines at the left in said figure, resulting in a Gothic point, and by reason of this intersection the concavities between the corrugations at section-line 3 3 are shallower than at the point indicated by the line 2 2.

Referring now to Fig. 4, which represents a section of a modified form taken relatively at section-line 2 2, Fig. 1, the highest points x' of the corrugations are most widely separated, while the curved concave portions extend to the points indicated by the lines x^2 ,

between which the sheet of glass is flat. When the corrugations approach each other, as shown in Fig. 5, which corresponds to a section taken on line 3 3, Fig. 1, it will be observed that the flat bottoms of the concavities have been absorbed, so that the curved lines of the concavities meet each other; and the concavities are thus made uniformly deep throughout the sheet of glass.

By arranging these serpentine corrugations as shown rays of light transmitted through the body portion will be diffused through the curvilinear or serpentine corrugations and sent in various directions to uniformly light up an apartment. The receiving-face may, as shown in Figs. 2, 3, 4, and 5, be provided with rectilinear or other prisms, or said receiving-face may be of lenticular formation.

I am aware that changes may be made in the formation of the curvilinear corrugated face and also in the receiving-face, and therefore I do not wish to be understood as limiting myself to the exact construction shown and described except as such limitations may be expressly set forth in the claim.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

The herein-described sheet of glass, the same having serpentine corrugations on its surface, the apices of said corrugations projecting to substantially the same plane away from the body of the sheet of glass, the convexed portions of said corrugations and the concaved portions between said corrugations varying in their relation to each other as said corrugations approach together or diverge from each other, the opposite side of said sheet of glass being formed with prisms having oppositely-arranged equiangular inclined faces, said corrugations and prisms extending in the same general direction across the surface of said glass, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 5th day of October, 1900.

CHARLES C. HARTUNG.

Witnesses:

F. R. CORNWALL,
WM. H. SCOTT.