

(No Model.)

G. B. SHERMAN & J. NUTT.

WIRE FRAME FOR HAT BRIMS.

No. 299,279.

Patented May 27, 1884.

Fig. 1

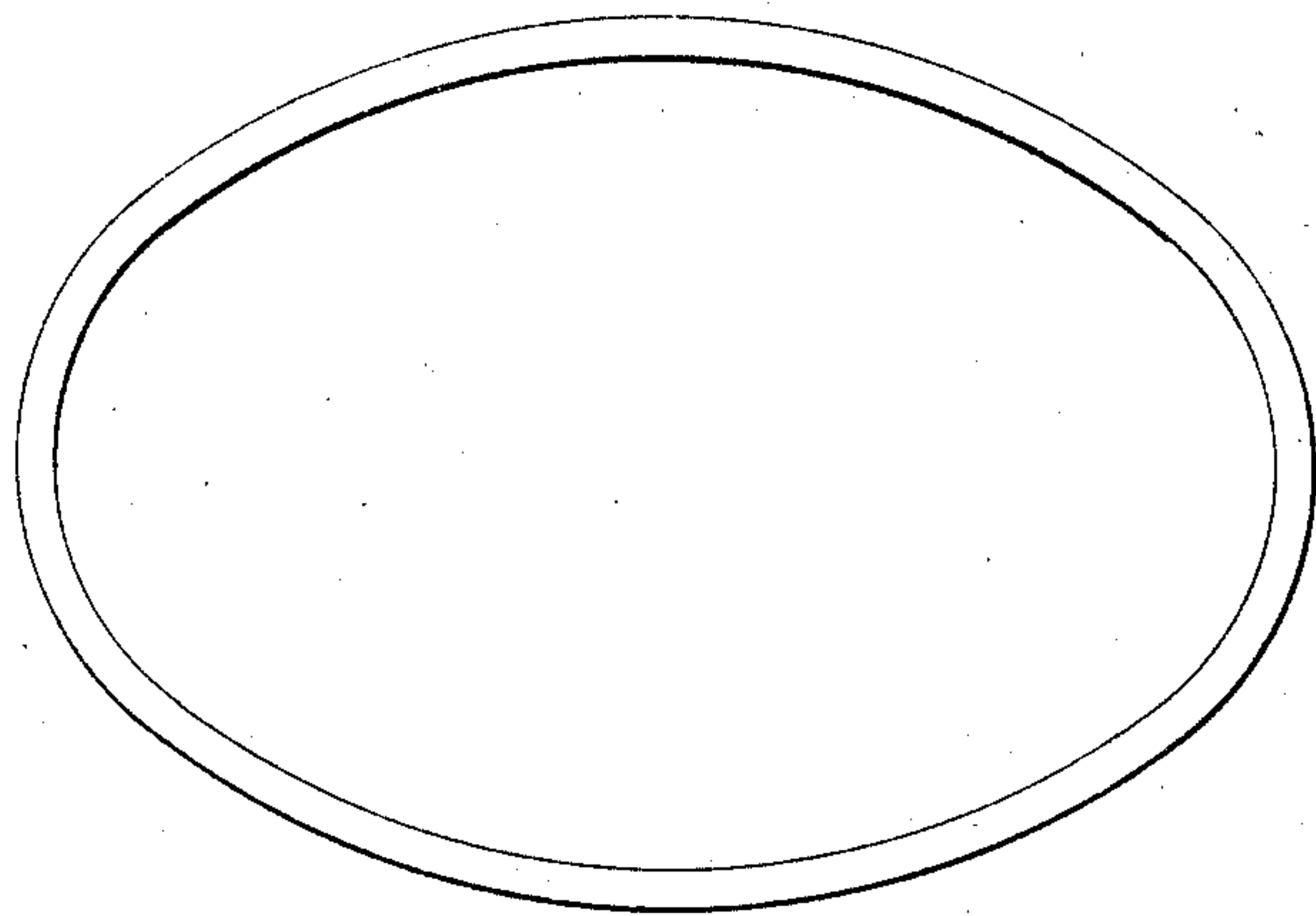


Fig. 2

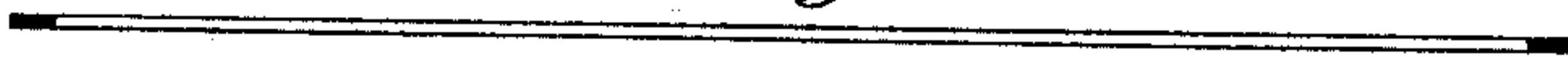


Fig. 3

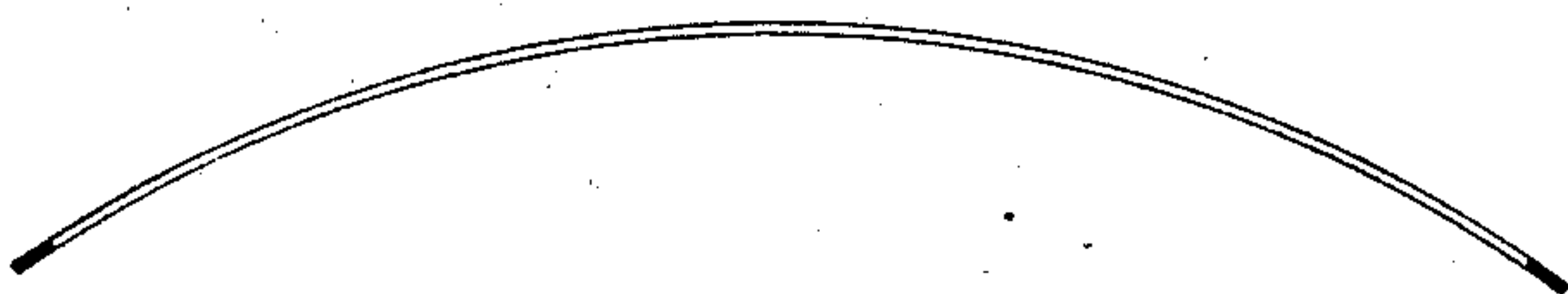


Fig. 4



Fig. 5

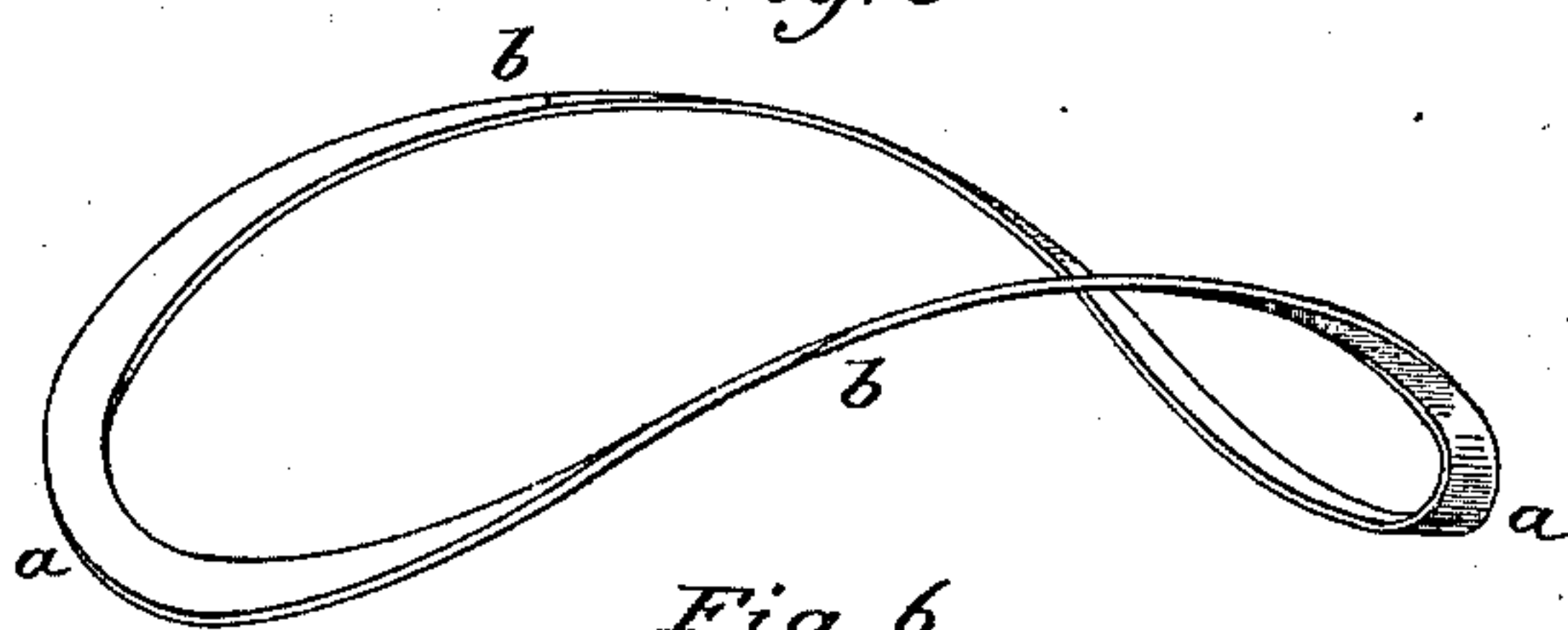
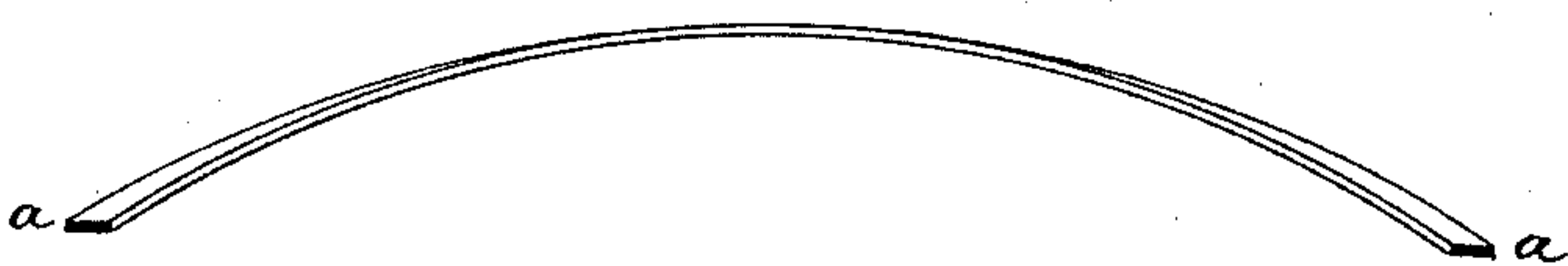


Fig. 6



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GEORGE B. SHERMAN AND JOSEPH NUTT, OF DANBURY, CONNECTICUT;
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WIRE FRAME FOR HAT-BRIMS.

SPECIFICATION forming part of Letters Patent No. 299,279, dated May 27, 1884.

Application filed March 17, 1884. (No model.)

To all whom it may concern:

Be it known that we, GEORGE B. SHERMAN and JOSEPH NUTT, of Danbury, in the county of Fairfield and State of Connecticut, have invented a new Improvement in Wire Frames for Hat-Brims; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a plain flat elliptical wire frame; Fig. 2, a section cutting through on the longest diameter; Fig. 3, the same as Fig. 2, but bent from the horizontal plane to give the dip at the front and rear; Fig. 4, a transverse section cutting at right angles to Fig. 3 at the center sides, and showing the dip, these figures being introduced preparatory to the illustration of our invention; Fig. 5, a perspective view of our improved frame complete; Fig. 6, a section of the same, cutting through the longest diameter—that is, centrally from front to rear.

This invention relates to an improvement in wire springs or frames which are introduced into the brims of hats to give them the required curvature. These frames must have an outline corresponding to the periphery of the rim. In some cases this is a complete circle, in others elliptical—that is, narrower from side to side than from front to rear—and as it is necessary that the brim shall droop or dip at the front and rear a corresponding curve from the flat plane must be given to the spring or frame in order that the frame may aid in retaining the shape of the brim. These frames are usually made from tempered steel wire, and require treatment to give them the requisite compound curved shape. As the greatest force which the spring is required to resist is radial—that is, against the edge of the brim—the stronger the frame can be made in that direction the better.

In the more general construction of this class of frames the wire has been bent into the hoop shape flatwise—that is, so as to bring the flat or broad surface of the wire outward, the edges up and down—thus presenting the wire in its weakest form to the edge of the

brim. If the wire be simply bent edgewise into a hoop shape, as seen in Fig. 1, and so that the wire lies in a horizontal plane, as seen in Fig. 2, the hoop has the outline of the brim in a horizontal plane, but without the dip. Now, if this flat hoop be bent to give the required dip, as seen in Fig. 3, the wire will lie in a flat plane at the sides, as seen in Fig. 4, but from the center sides will gradually incline downward, as seen at the extreme ends, Fig. 3, and because of the twist which such a bend gives to the wire it loses a large portion of its strength radially, that is to resist the force from the outside.

The object of our invention is to produce a wire frame for hats in which the wire shall lie flatwise—that is, its edge outward, but bent to produce the dip at the front and rear without twisting—and so that the flat surface of the wire throughout will stand in a horizontal plane—that is to say, at diametrically-opposite points in the frame no matter where taken, the wire at those two diametrically-opposite points will be in the same horizontal plane—and in such a hat-frame our invention consists.

Our frame is seen in perspective in Fig. 5. It is made from flat wire bent edgewise into shape, elliptical or round, as the case may be, curved to give the droop, but so as to retain the wire in a flat horizontal plane at all points around it, *a a*, Fig. 6, representing the extreme center at the front and rear, and *b b* representing the center at the opposite sides. From the center sides to the center front and rear the bend of the wire is such, as shown, as to preserve a horizontal plane throughout, and so that the edge of the wire is presented outward entirely around the rim, the wire lying flat—that is, in a horizontal plane radially throughout the entire circumference of the frame.

The advantages of this improved frame over a frame in which the flat hoop is turned down at the front and rear, so as to present an inclined position at the front and rear, are principally that this improved frame is much stronger and better able to resist radial strain upon it, and less liable to be bent or worked out of shape by use.

The devices or machine by which this peculiar bend is given to the wire constitutes the subject of an independent application for Letters Patent.

5 We claim—

The herein-described wire frame for hat-brims, made from flat wire bent edgewise into hoop shape and curved flatwise from the cen-

ter sides downward to the front and rear, the plane of the wire being horizontal at all points 10 radially, substantially as specified.

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Witnesses:

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