

(No Model.)

R. W. TANNER.
HAT STRETCHER.

No. 442,211.

Patented Dec. 9, 1890.

Fig: 1.

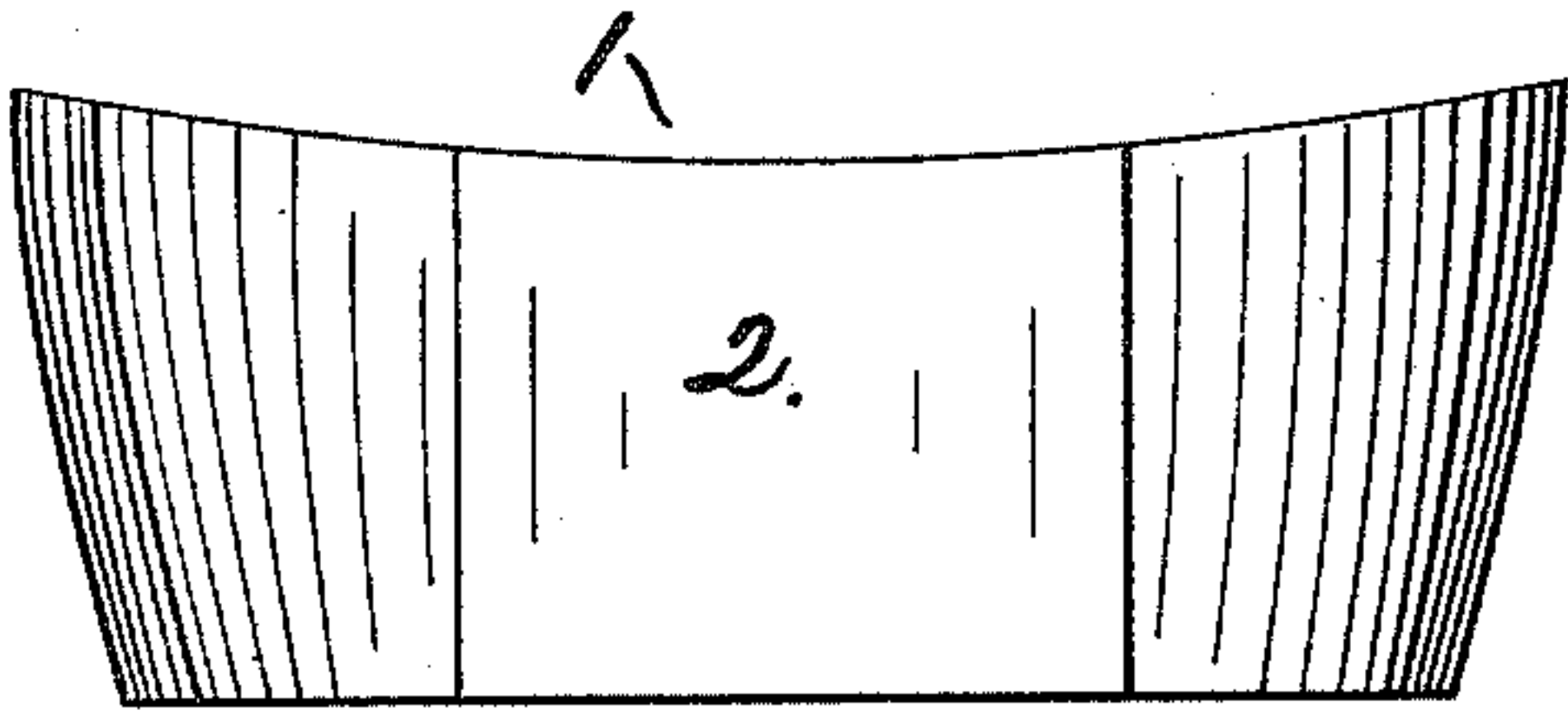
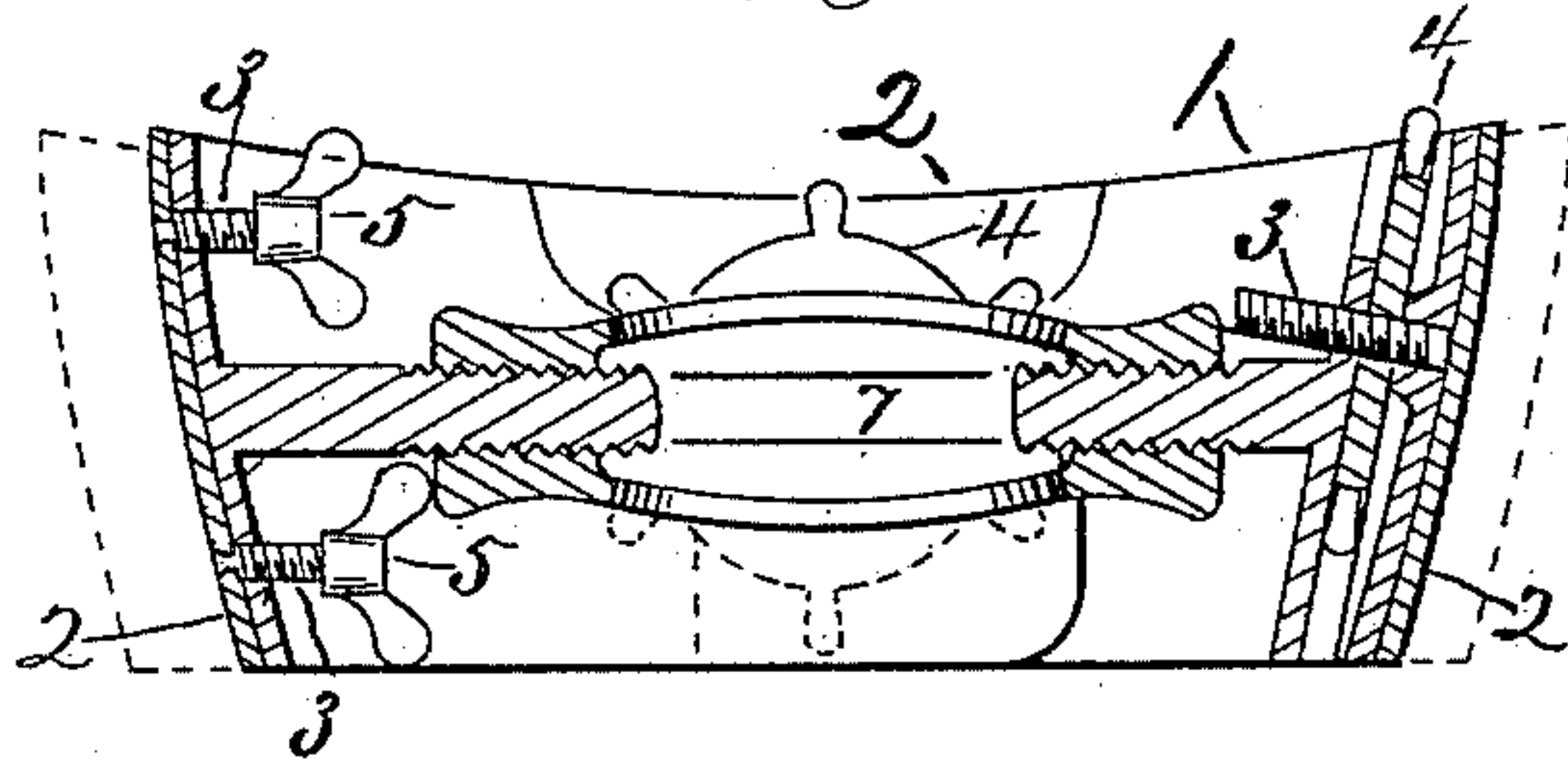


Fig: 3.



Section 1-1.

Fig: 2.

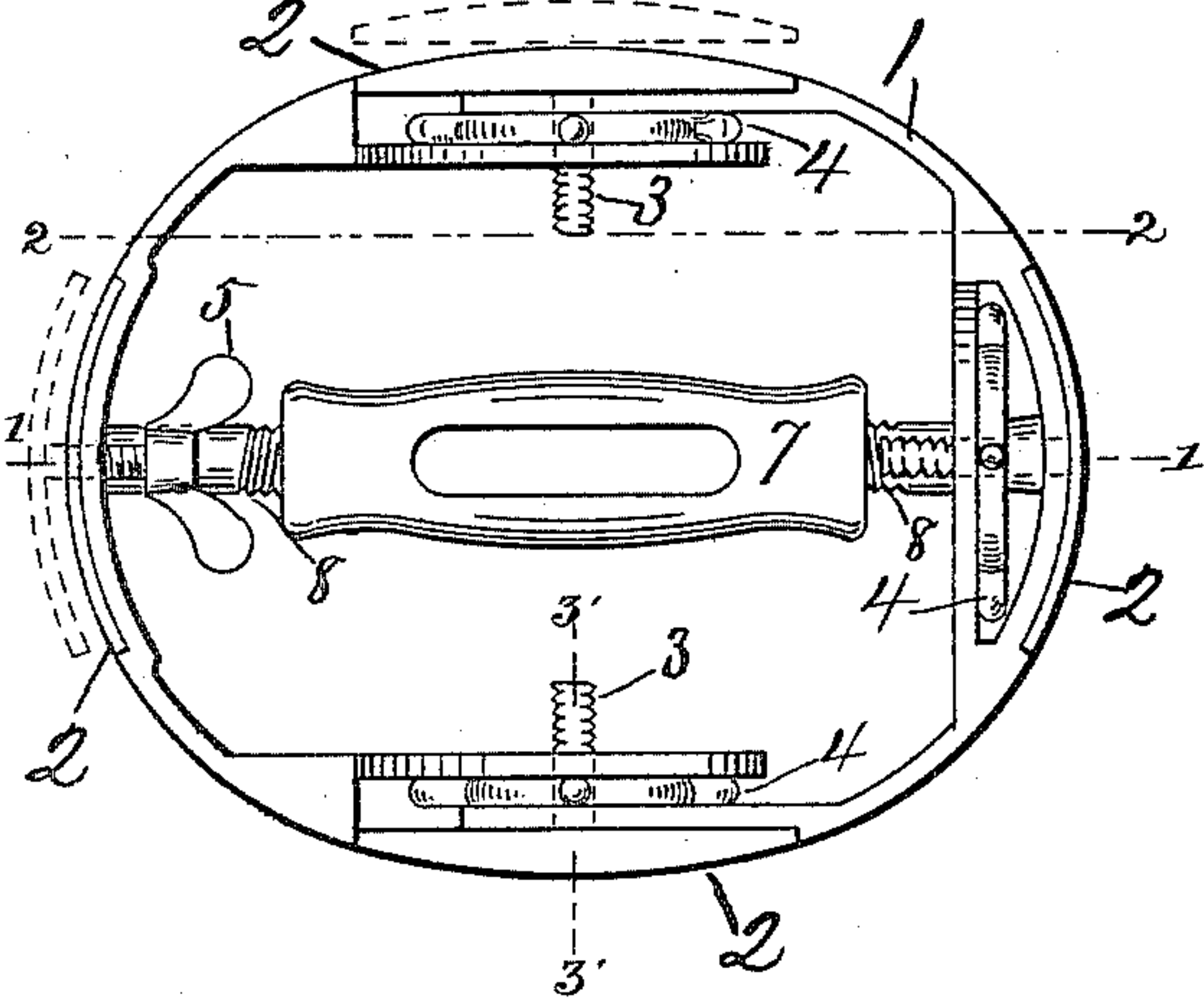
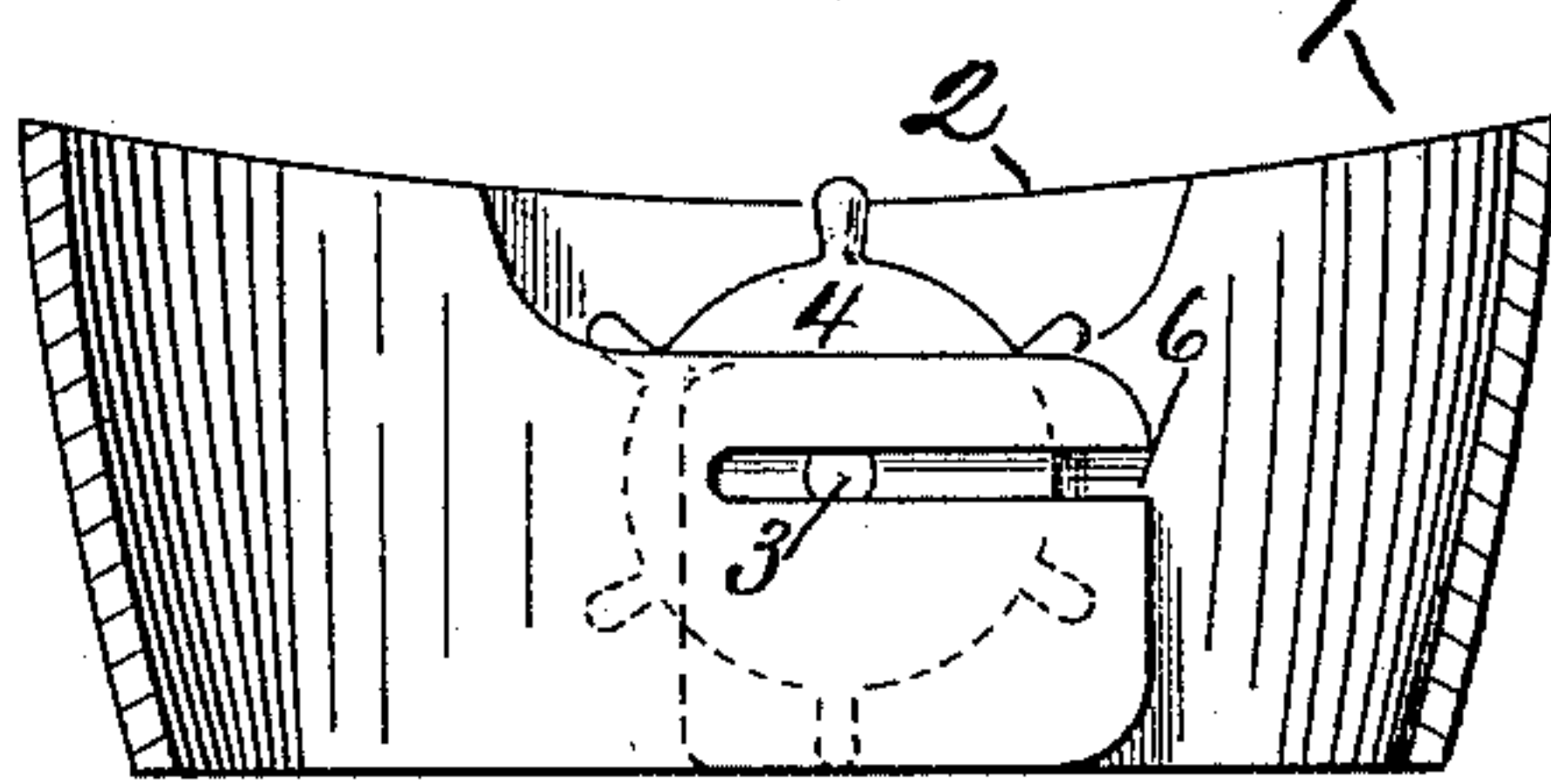


Fig: 4.



Section 2-2.

Fig: 6.

Section 3-3'

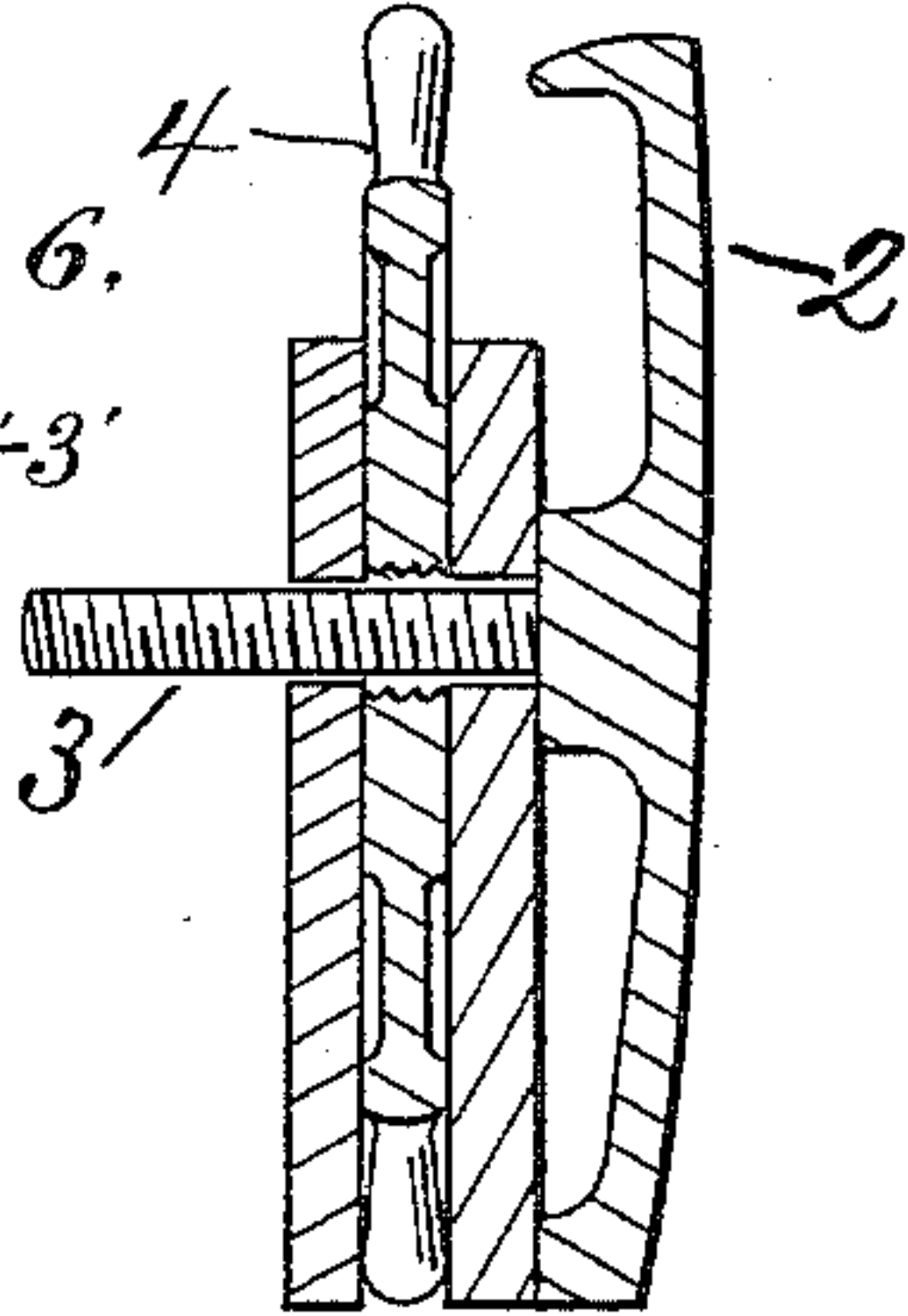
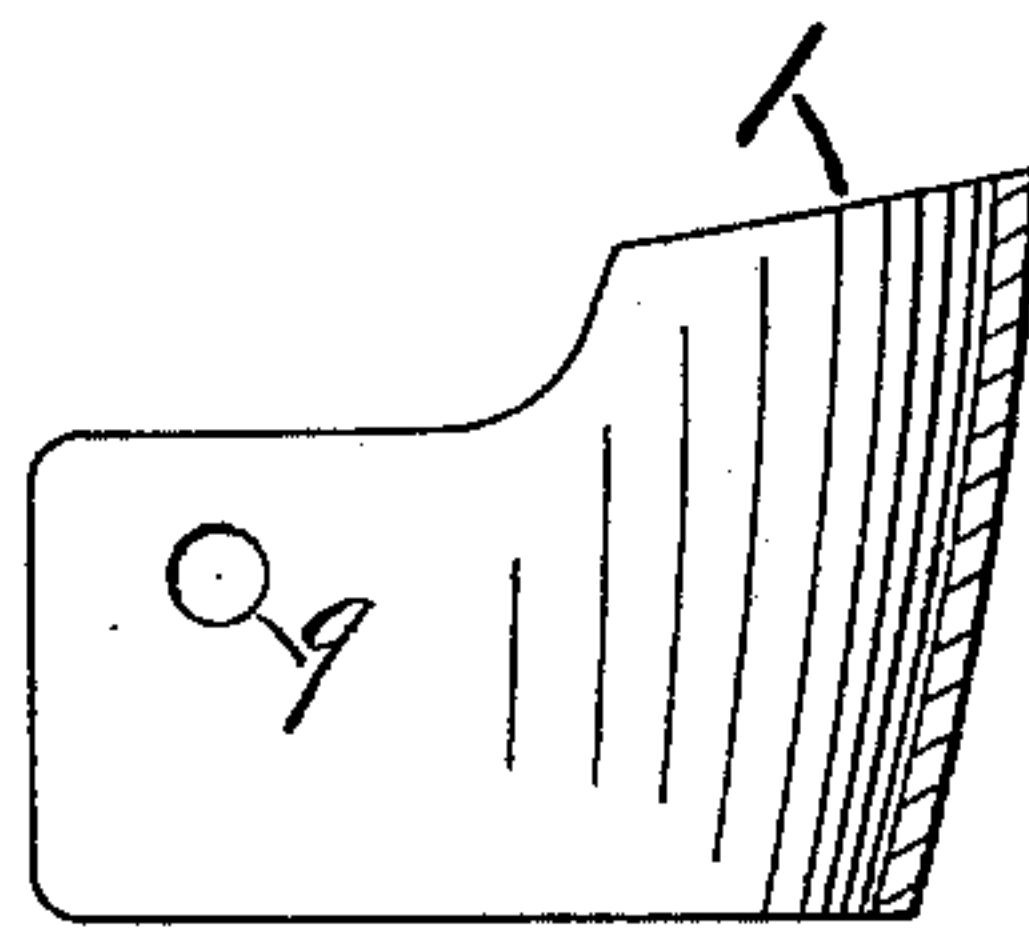


Fig: 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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HAT-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 442,211, dated December 9, 1890.

Application filed July 30, 1890. Serial No. 360,357. (No model.)

To all whom it may concern:

Be it known that I, RICHARD W. TANNER, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Hat-Stretchers; and I do declare the following to be a full, clear, and exact description of the invention, 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, and to the figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide an improved hat-stretcher that can be first heated and then applied to stretching a hat, and one that has side and end extensions called "bumps" that can be adjusted to any degree desired.

In the drawings, similar figures refer to similar parts, Figure 1 shows a side view of my stretcher, showing one of the bumps in its normal position. Fig. 2 shows a plan view showing the stretcher to consist of a frame or body in two pieces lapping each other at or near the middle, the side bumps being attached to threaded bolts which pass through the overlapping ends of the body-pieces, and having a wheel with spokes by which the wheel is turned, thus forcing the bumps outward or inward; also, showing the bumps on one end actuated by a wheel and threaded bolt, while the bump at the other end is actuated by thumb-nuts, and the two main sections of the body are spread apart and drawn together by means of the revoluble handle located inside the stretcher. Fig. 3 shows a longitudinal section, taken through line 1 1 of Fig. 2, showing the end bumps and the means of operating them, together with the handle and threaded bolts whereby the main sections of the stretcher are operated, and the wheel that operates one of the side bumps. Fig. 4 shows a longitudinal section, taken on line 2 2 of Fig. 2, showing a half of each of the main sections, showing them to be overlapped, the inner overlapping end having a slot in it and the actuating-wheel lying between the two overlapping ends and turning on a threaded bolt. Fig. 5 shows a longitudinal section of one of the sides of one of the

main sections, showing the hole through which the threaded bolt passes. Fig. 6 shows a vertical sectional view of one of the ends of one of the main sections, showing it to possess a recess in which the wheel is set, and one of the bumps attached to the threaded bolt capable of being thrust inward or outward by turning the wheel.

The numeral 1 shows the body or main frame of the stretcher; 2, the extension pieces or bumps; 3, the threaded bolts attached to the bumps at their inner faces; 4, a wheel having a threaded hole through it and meshing with the threads on the bolt by which the bumps are actuated; 5, thumb-nuts used to actuate the bump at one end of the stretcher; 6, a slot in one of the overlapping ends of the sections of the main frame through which the threaded bolt 3 passes, allowing the main sections to be spread apart or brought together; 7, a handle having threaded holes in its ends, the threads meshing with the threads on the rod 8, by which the main sections are distended or closed; 8, threaded rods attached to the inner surface or inner end of the main sections and entering the threaded ends of the handle 7; 9, a hole in one side of the overlapping ends of the main sections through which the threaded bolt 3 passes, said hole being unthreaded or plain.

A full description is as follows: The stretcher is made of a main body or frame, and preferably in two pieces, the meeting ends preferably being near the middle of the stretcher and overlapping, substantially as shown. In one of the overlapping ends I preferably make a slot and in the other a plain hole or opening, and between the overlapping ends I preferably leave an open space. On the outer surface of the frame I preferably make recesses at as many points as may be desired, and in these recesses I place extension-pieces or "bumps," as they are familiarly called. The bumps are attached to a threaded bolt, which bolt passes through the hole in one of the overlapping ends of the main frame and through the slot in the other. As this bolt is thus passed through the hole and slot it is also passed through a threaded hole in the wheel 4, which wheel preferably lies in the open space between the two overlapping ends, the threads in the hole in the

wheel and those on the bolt meshing. At one end of the frame I form an open space by running a wall or partition across it, and in this open space the wheel 4 is set and the threaded bolt of the end bump is disposed similarly to those at the sides of the frame and operates similarly. At the other end I prefer to use thumb-nuts by which to actuate the bumps at this end; but a wheel or similar attachment may be used if desired. The two main portions of the frame are actuated or extended and drawn together by use of the handle and threaded bolts, as shown, or in any well-known manner. The nut 5 is preferably rigidly secured to the bolt 3, thus enabling the extension-pieces to be actuated thereby.

The operation is as follows: The stretcher being in its normal position, the main sections are drawn together and the bumps are in their respective recesses. The stretcher is then placed in a hat and the main frame is extended to the desired extent by turning the handle 7. If it is found that any portion of the hat needs stretching at a particular place, the bump lying nearest to that place is forced outward by means of the wheel or thumb-nut, by which it is actuated, until the hat is sufficiently stretched at that point. When sufficiently stretched, the hat is removed from the stretcher and the stretcher is brought back to its normal position.

I have shown bumps only at the sides and ends of my stretcher; but they may be set at any point desired and form a more or less continuous series all around the stretcher, if desired, and the main frame or body be in one

solid piece, if desired. When the extension-pieces are extended or drawn back again, they move in a practically direct line with the axis of the actuating-bolt, and being rigidly attached to the bolt they can not be swung round or turned out of a direct line, and in consequence the extension-pieces stretch the hat at the point operated upon, so as to form an extension or stretch in the hat in exact conformity to the shape of the extension-piece and without drawing the rest of the hat out of shape with the balance of the main frame.

Having fully described my invention, what I claim is—

A hat-stretcher consisting of a main frame having extension-pieces on the outer surface thereof, the extension-pieces being disconnected from each other and from the main frame, threaded bolts passing through openings in said frame and having the said extension-pieces rigidly secured to one end of their respective bolts, revoluble but otherwise stationary nuts engaging with the threaded bolts, said nuts being located on the opposite side of the frame from the extension-pieces, the revolution of the nuts causing the extension-pieces to move toward and from the outer face of the main frame in a practically direct line with the axes of said bolts, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD W. TANNER.

Witnesses:

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JOHN J. JOYCE.