

(No Model.)

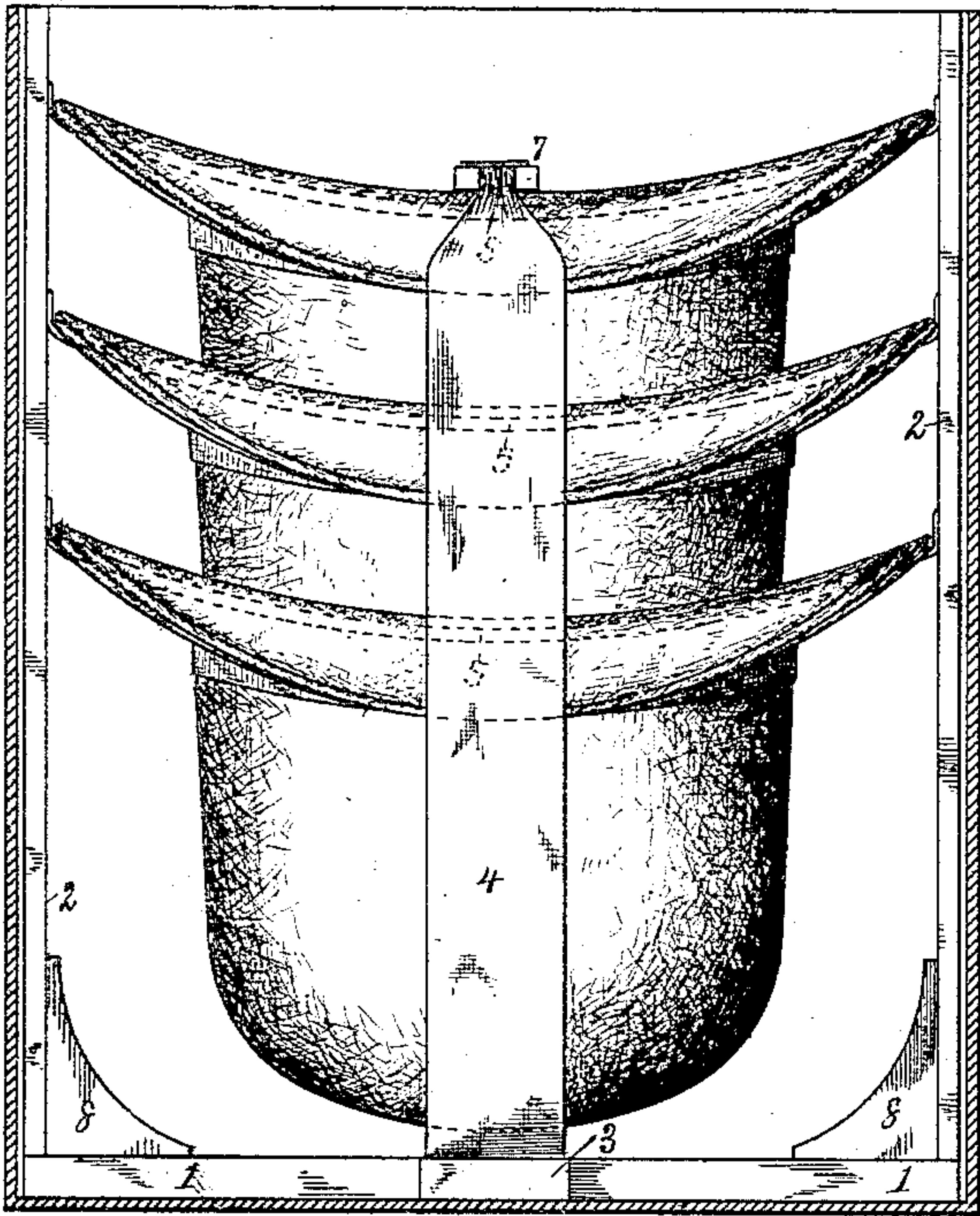
2 Sheets—Sheet 1.

S. T. NEWMAN.  
HAT STAY.

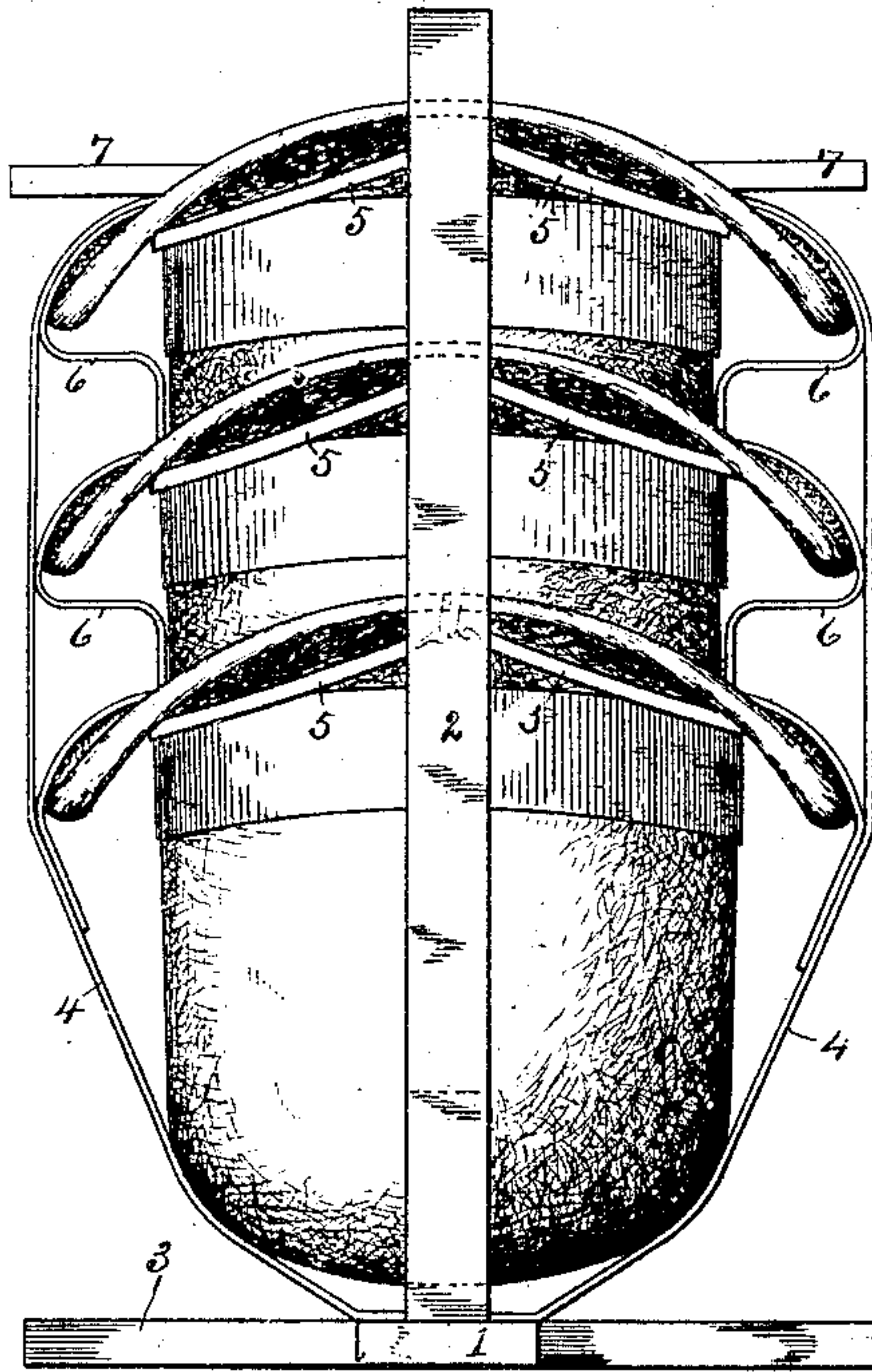
No. 407,108.

Patented July 16, 1889.

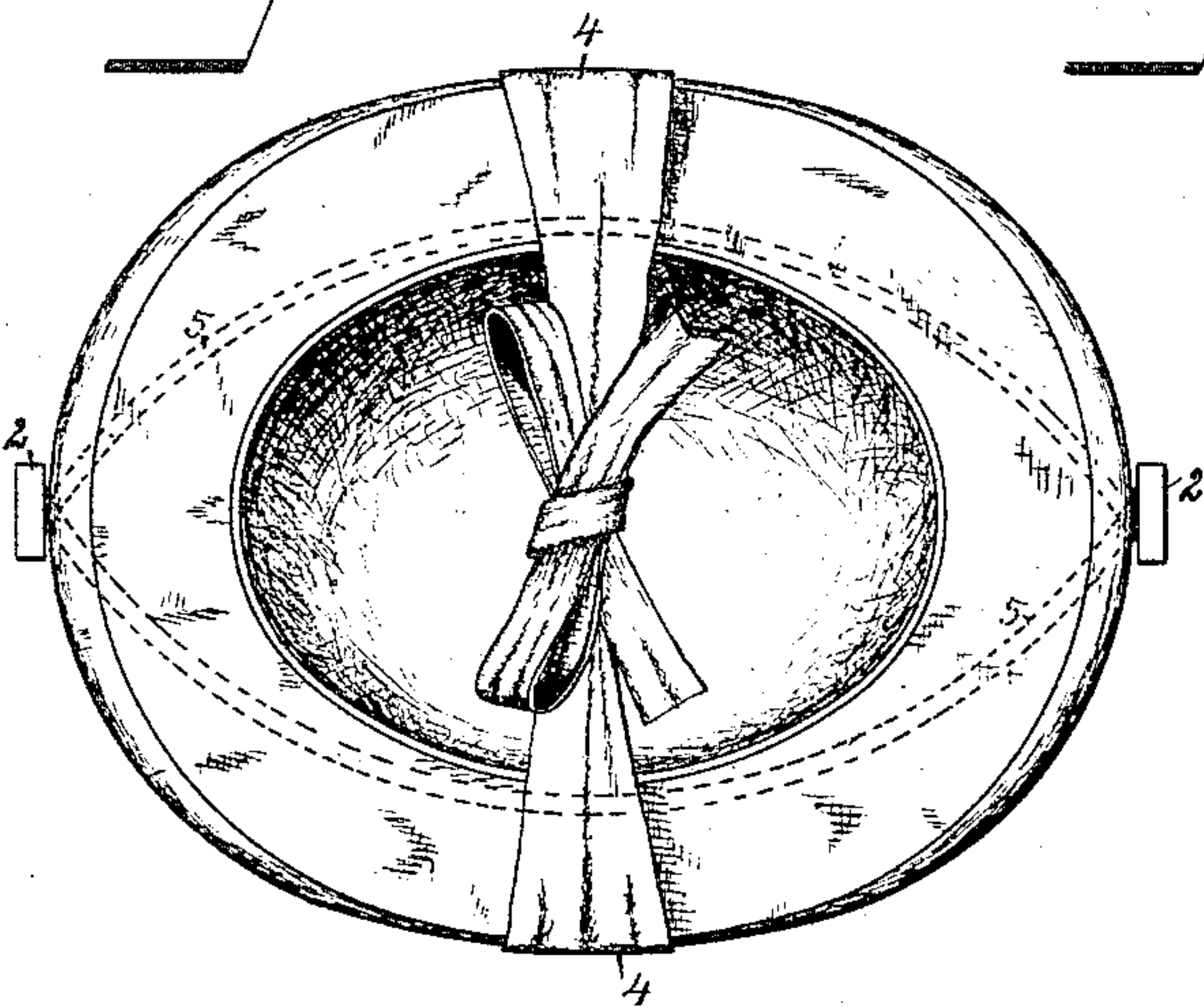
*Fig. 1.*



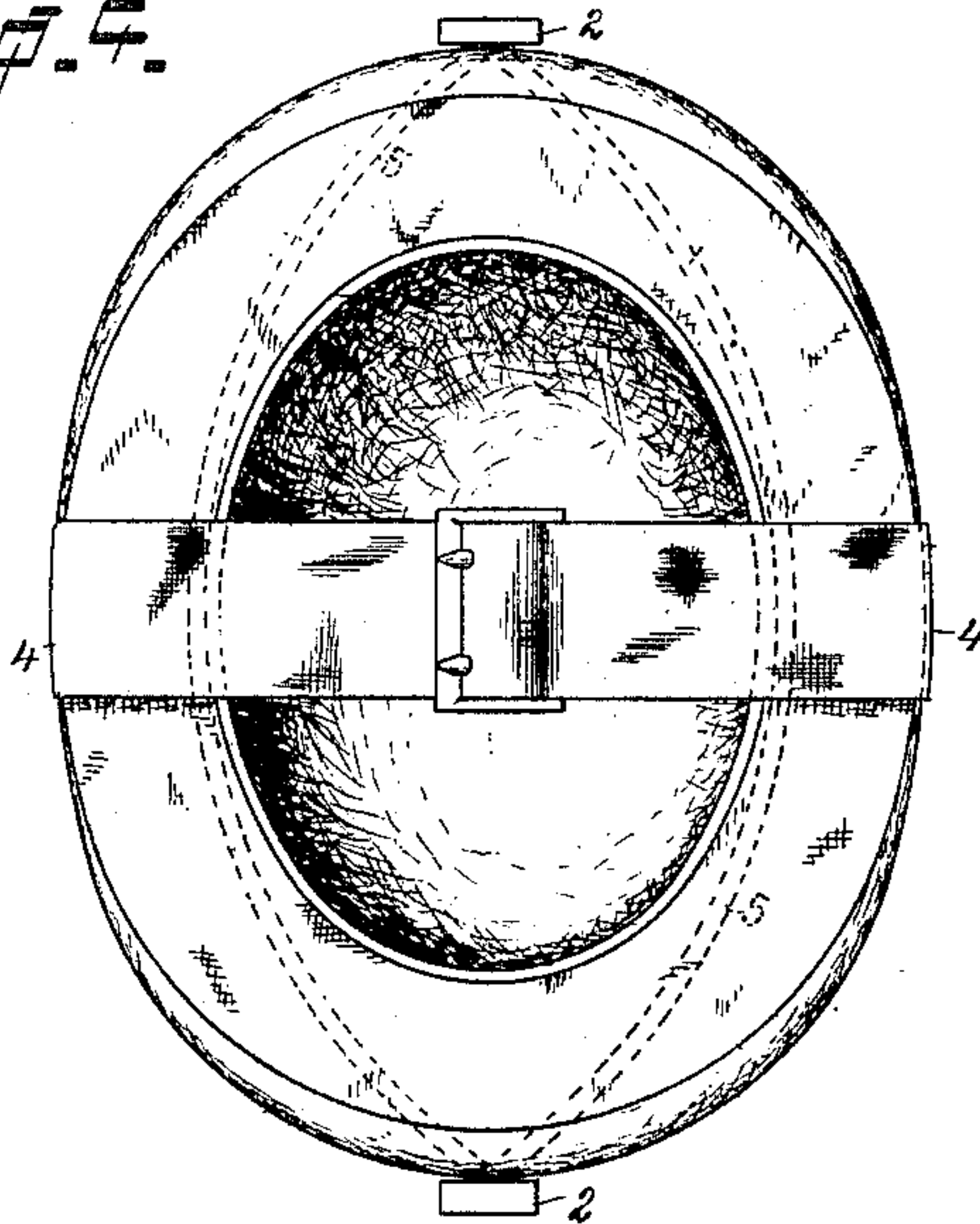
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



**WITNESSES**

C. M. Newman  
Bertha E. Lee.

**INVENTOR**

Samuel T. Newman  
By A. M. Procter atty.



(No Model.)

2 Sheets—Sheet 2.

S. T. NEWMAN.  
HAT STAY.

No. 407,108.

Patented July 16, 1889.

Fig. 5.

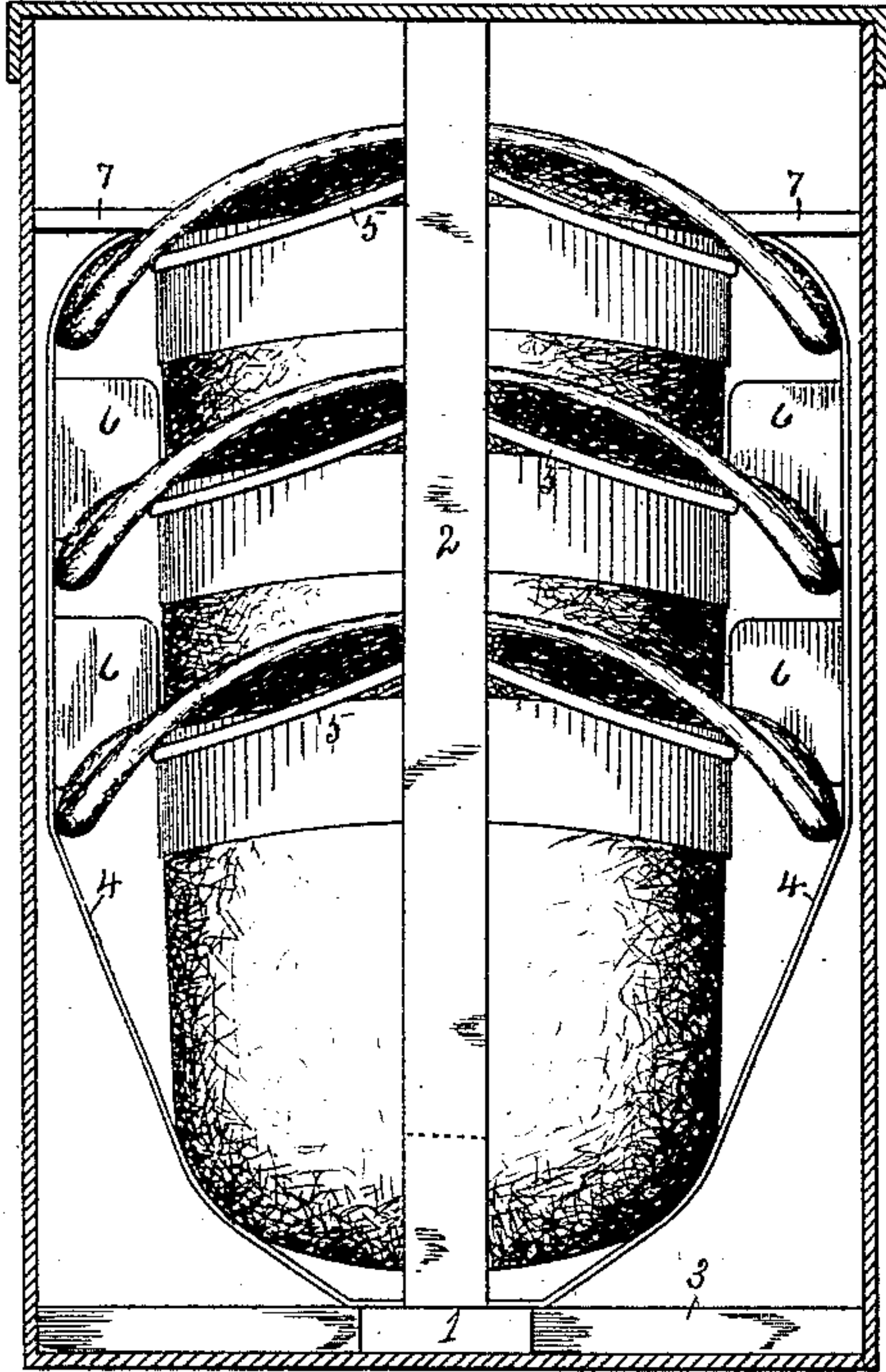


Fig. 6.

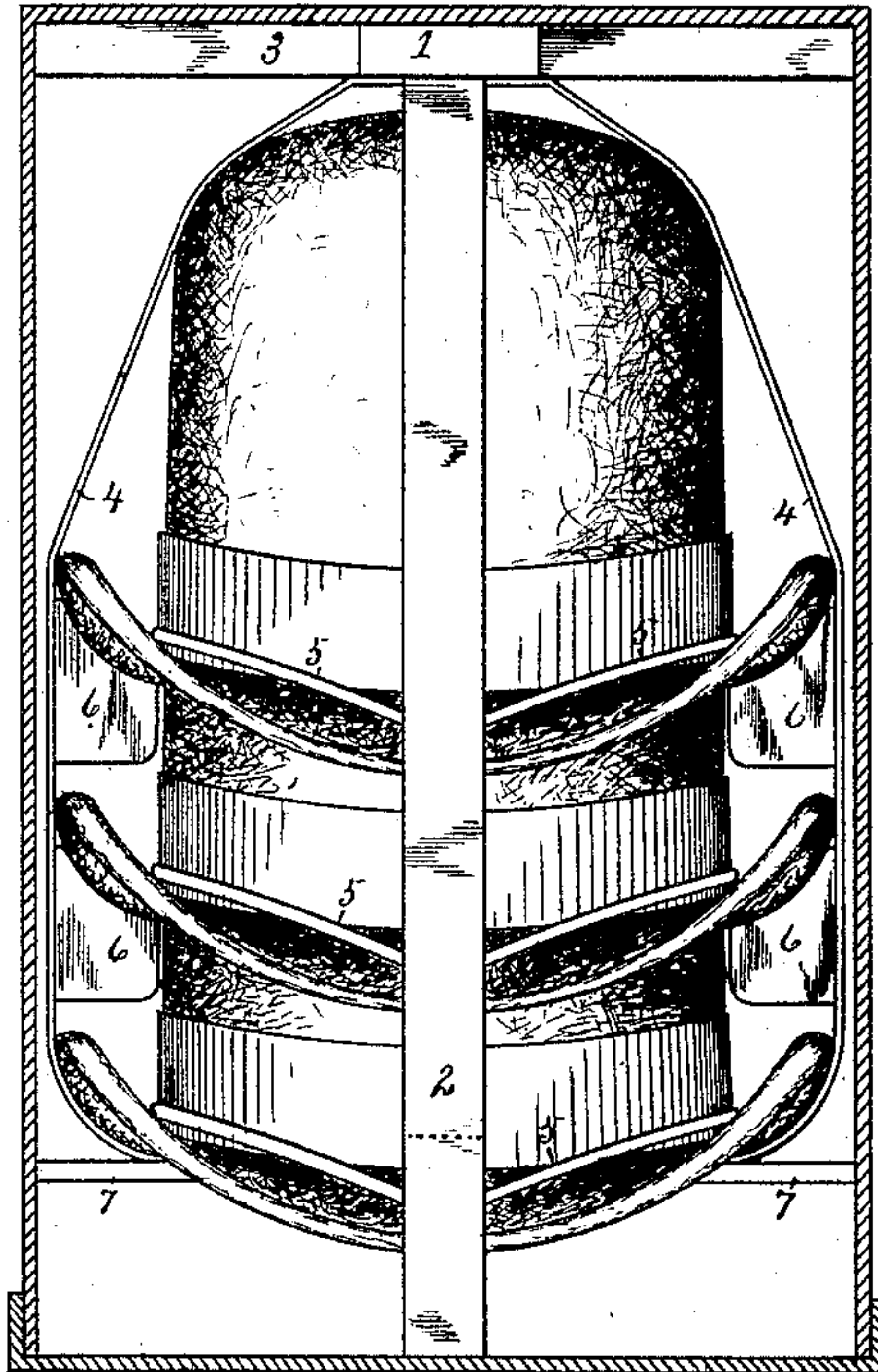


Fig. 7.

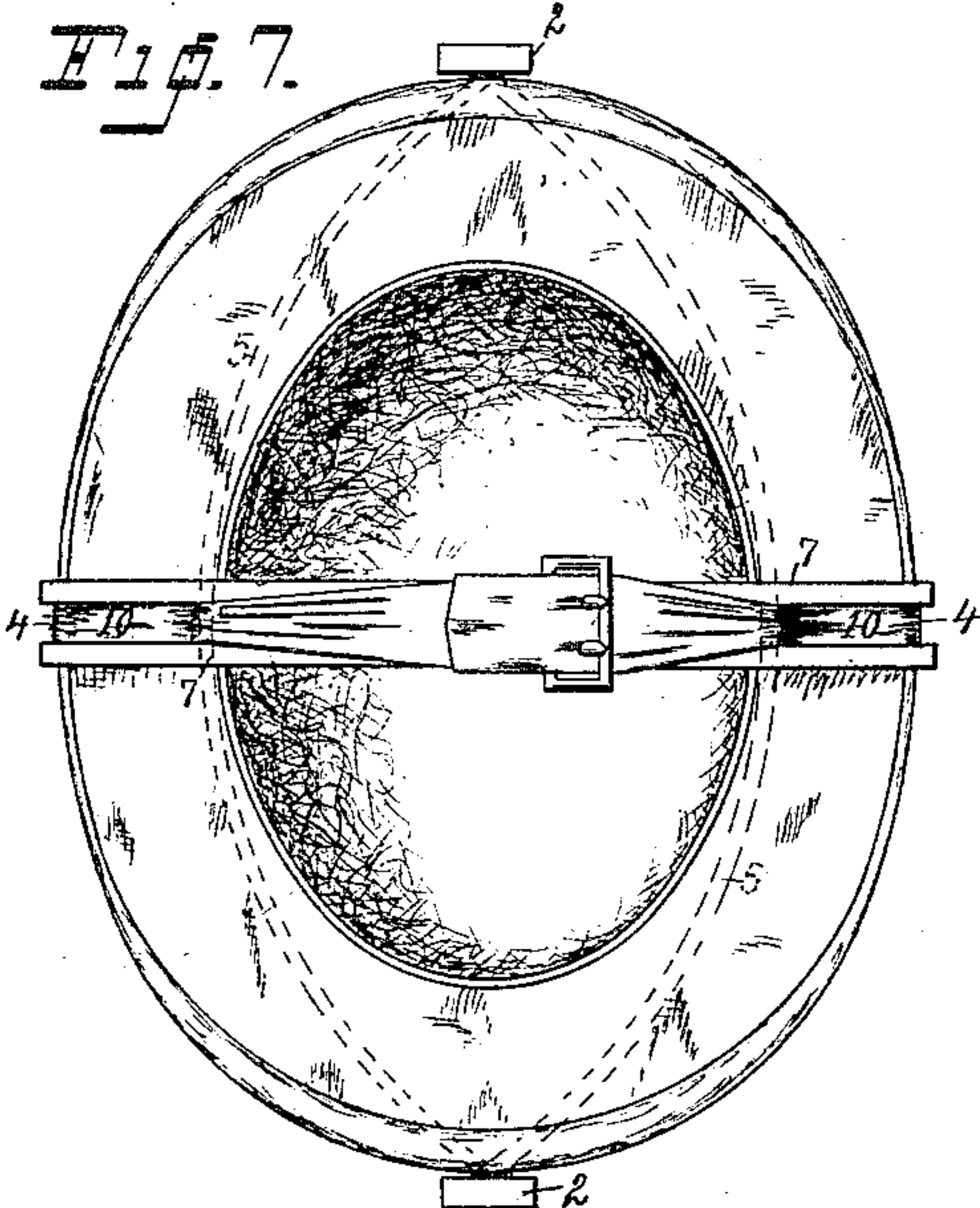


Fig. 8.

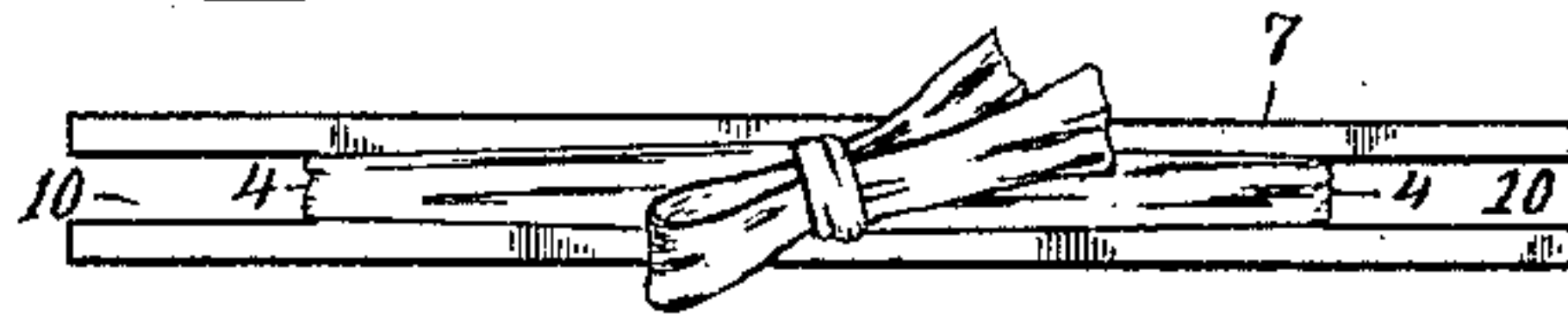
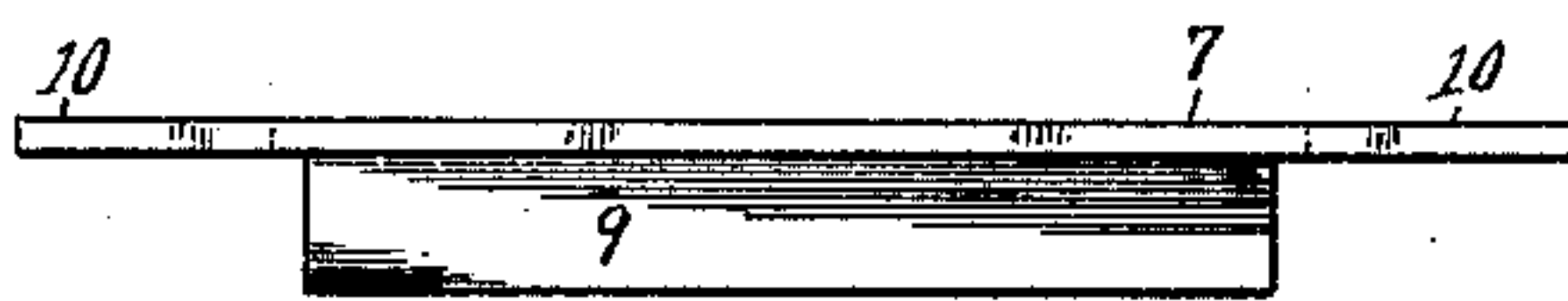


Fig. 9.



**WITNESSES**  
C. M. Newman,  
Bertha E. Lee.

**INVENTOR.**  
Samuel T. Newman  
By *A. Wooster atty.*



# UNITED STATES PATENT OFFICE.

SAMUEL T. NEWMAN, OF DANBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF  
TO EDMUND TWEEDY, OF SAME PLACE.

## HAT-STAY.

SPECIFICATION forming part of Letters Patent No. 407,108, dated July 16, 1889.

Application filed November 16, 1888. Serial No. 291,007. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL T. NEWMAN, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Hat-Stays; and I do hereby 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.

My invention has for its object to provide a simple and inexpensive device for packing hats. The packing devices now most commonly in use are rings and stays made of pasteboard. This style of packing is open to numerous objections, the most important of which is that hats are often seriously injured in transportation. The edges of the brims chafe against the boxes, which wears the bindings, and the sharp edges of the stays mark the tops of the brims.

The three most important results which my present invention accomplishes are in preventing the hats from injuring each other, in preventing chafing against the boxes, and in preventing injury to the hats from the packing device itself. It is also of importance to avoid waste of room in the boxes, so that they may be made as small as possible, and to avoid the use of metal for the reason that the packing devices are not used a second time, and when made of metal they are utterly worthless, and in large establishments accumulate to such an extent as to be a serious inconvenience.

My present packing device is preferably made entirely of wood and textile material, and may therefore be readily disposed of as kindling-wood, and furthermore enables me to dispense with the use of tissue-paper in packing. I thus make an important saving of time and labor in the operation of packing in addition to saving the cost of paper, which is not an unimportant item in large factories.

The hats are by my present method packed before they are placed in the boxes, and the stay-frames, with the hats therein, may be re-

moved for inspection at any time and then replaced in the boxes without any unpacking whatever. In practice a quarter-dozen is ordinarily packed in each box. I have therefore illustrated stays adapted for quarter-dozens, although the principle is equally applicable in packing half-dozens or other quantities in the boxes.

In order to overcome the objections specified to the packing devices now in use and to provide a device which will fully meet the requirements of the trade, I have devised the novel hat-stay, of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is a longitudinal section of a hat-box, showing in side elevation therein a stay-frame and a quarter-dozen hats packed for shipment; Fig. 2, an end elevation of a stay-frame and hats removed from the box; Figs. 3 and 4, plan views, in which the top cross-piece is dispensed with, and showing different ways of securing the side strips; Fig. 5, a transverse section of a hat-box, showing in end elevation therein a stay-frame and a quarter-dozen hats, the box being right end up and the hats held out of contact with the box and with each other, another form of holding device being substituted; Fig. 6, a view similar to Fig. 5, except that the box is inverted, showing the manner in which the hats are supported when the box is in that position; Fig. 7, a plan view of a quarter-dozen hats packed, but removed from the box; and Figs. 8 and 9 are respectively plan and side views of the top cross-strip, the side strips appearing in Fig. 8, and shown as tied.

Similar numbers denote the same parts in all the figures.

1 denotes the base-piece, which is preferably made of wood, and is adapted to lie longitudinally of the box. The end pieces 2, also made of wood, are attached at the ends of the base-piece, and are adapted to stand vertically at the ends of the boxes, said end pieces being preferably braced and held in position by corner-pieces 8.



3 denotes a central cross-piece, also made of wood, which is attached in any suitable manner to the base-piece.

4 denotes the side strips, which are attached to the cross-piece, the upper ends being secured together in use above the upper hat, as shown in Figs. 3, 4, and 7. These side strips are provided with holding-pieces 6, suitably attached thereto.

10 In Fig. 2 the holding-pieces shown are strips of pasteboard, which are bent to shape to engage the under sides of the brims, as is clearly shown.

15 In Figs. 5 and 6 the holding-pieces are blocks formed to the same shapes that the pasteboard is bent to in the other form—that is, so as to engage the under sides of the brims.

5 denotes suspending-strips, which are attached to the end pieces and by which the hats are suspended. These strips embrace the hat, as is clearly shown in Figs. 2 and 5, and sustain the weight thereof by engagement under the brim, the weight being supported in practice at the sides of the hat. It will be seen, therefore, that each hat is suspended independently of the others, and that it is held against lateral movement by the holding-pieces, which also support the hats, as is clearly shown in Fig. 6, when the box is inverted.

7 denotes an independent cross-piece, which I preferably place across the upper hat, as shown in Figs. 2 and 5. This cross-piece is provided with a stay 9, which lies transversely within the hat, whereby both hat and stay are held against movement, and with notches 10 at its ends, which receive the side strips 4, the latter being either tied at the top or secured with a buckle, both forms being shown in the drawings.

It will of course be understood that the exact details of construction are not of the essence of my invention, but that they may be varied greatly without departing from the principle thereof—as, for example, suspending-strips 5 may be made of wire instead of textile material, although, as stated above, I preferably avoid the use of metal in any portion of the stay.

50 In practice the base-piece is made just long enough to pass into a hat-box the longest way, the end pieces a trifle shorter than the height of the box, and both cross-pieces just long enough to pass into a box the shortest way. These parts constitute a frame-work that will pass into or out of a box freely, whether hats are packed therein or not. In packing larger quantities than quarter-dozens it is simply necessary to make the end pieces and side strips enough longer to receive and hold the additional hats.

65 In packing, the first hat is placed between the lowest suspending-strips, which hold it close under the brim, said strips being placed just high enough upon the end pieces so that

the crown of the hat will clear the base and cross-piece, as is clearly shown. The second hat is placed between the next pair of suspending-strips, which are placed just high enough upon the end pieces so that while the crown of the second hat will pass within the crown of the lower hat it will not come injuriously in contact therewith. The next hat is suspended an equal distance above the second one in the same manner, and so on if more are packed. The holding-pieces, denoted by 6, whether strips of pasteboard or blocks are used, hold the hats firmly in position, and also act to support the hats when the box is inverted, as clearly shown in Fig. 6. Having placed the hats between the suspending-strips, the side strips are drawn up, the holding-pieces placed between the brims at the sides of the hats, and the ends brought up over the independent cross-piece and secured there, as clearly shown.

Having thus described my invention, I claim—

1. A hat-stay consisting of frame-work, substantially as described and shown, suspending-strips for holding the hats, and side strips adapted to extend from the bottom over the top of the upper hat.

2. A hat-stay consisting of frame-work, substantially as described and shown, suspending-strips for holding the hats, side strips adapted to extend from the bottom over the top of the upper hat, and holding-pieces secured to the side strips to engage the brims of the hats and support the hats when the frame-work is inverted.

3. A hat-stay consisting of frame-work, substantially as described and shown, suspending-strips for holding the hats, an independent cross-piece adapted to lie over the upper hat, and side strips extending from the bottom over said cross-piece, where they are secured, so that in use the hats cannot come in contact with the box.

4. A hat-stay consisting of frame-work, suspending-strips for holding the hats, an independent cross-piece, side strips extending from the bottom over the top of said cross-piece, and holding-pieces to engage the brims of the hats, whereby they are supported when the frame-work is inverted.

5. A device for packing hats, consisting of a base-piece, end pieces, and a cross-piece secured to the base-piece, suspending-strips attached to the end pieces to engage the opposite sides of the hats, and side strips secured to the cross-piece and capable of being passed over the edges of the brims and secured together at the top.

6. A device for packing hats, consisting of a base-piece, end pieces, and a cross-piece secured to the base-piece, suspending-strips secured to the end pieces, side strips having holding-pieces to engage the brims of the hats, and an independent cross-piece for engaging



the upper hat, over which the side strips are secured, the end pieces and cross-pieces only coming in contact with the hat-box in use.

5 7. A device for packing hats, consisting of a base-piece, end pieces, and a cross-piece 3, secured to the base-piece, a cross-piece 7, having a stay on its upper side to lie within the hat, and notches at its ends, suspending-strips and side strips having holding-pieces 6 to en-

gage the brims of the hats, said side strips engaging the notches and being secured together over cross-piece 7.

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

SAMUEL T. NEWMAN.

Witnesses:

A. M. WOOSTER,  
BERTHA E. LEE.