

(No Model.)

S. T. NEWMAN.  
HAT STAY.

No. 407,109.

Patented July 16, 1889.

Fig. 1.

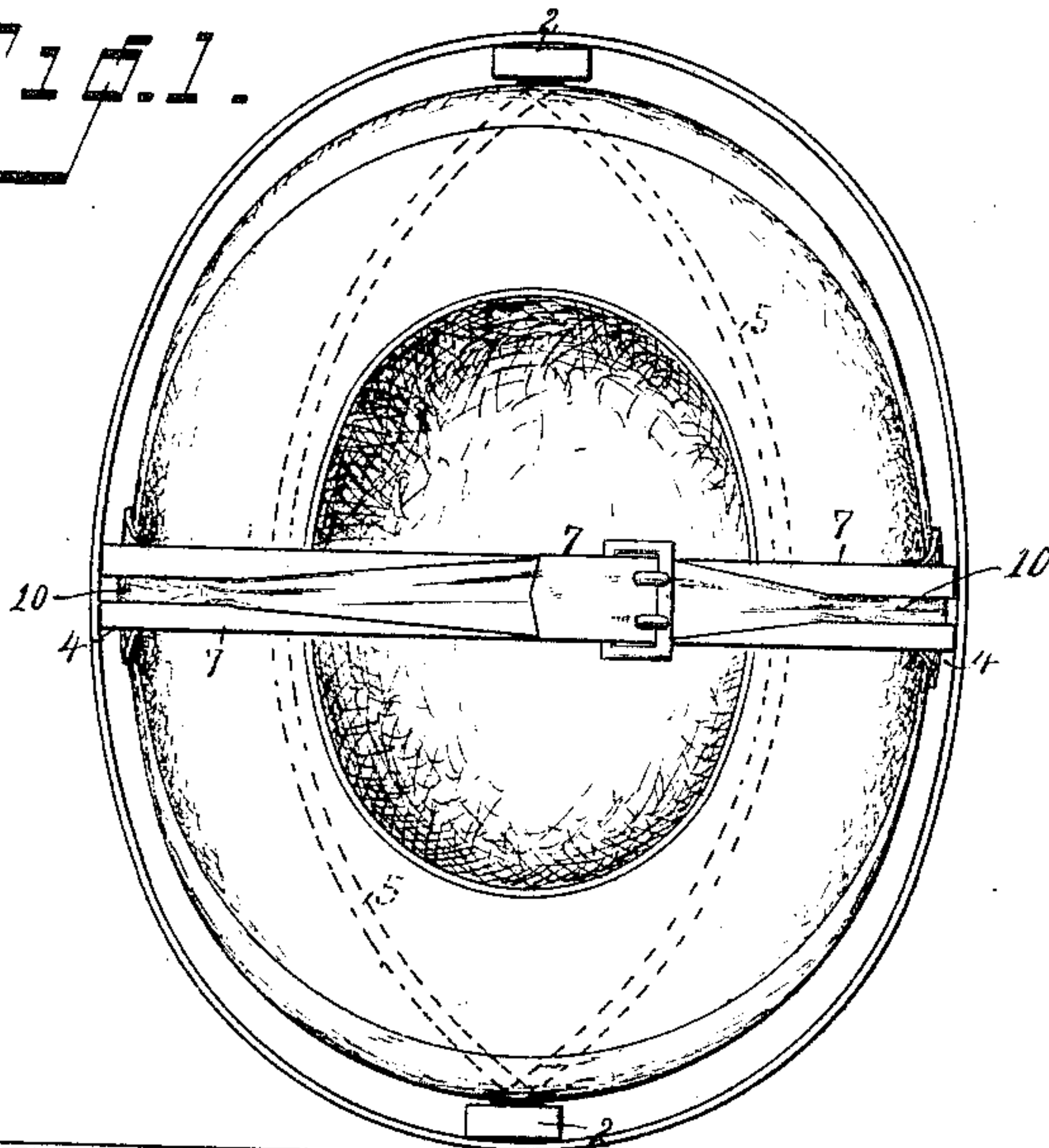


Fig. 2.

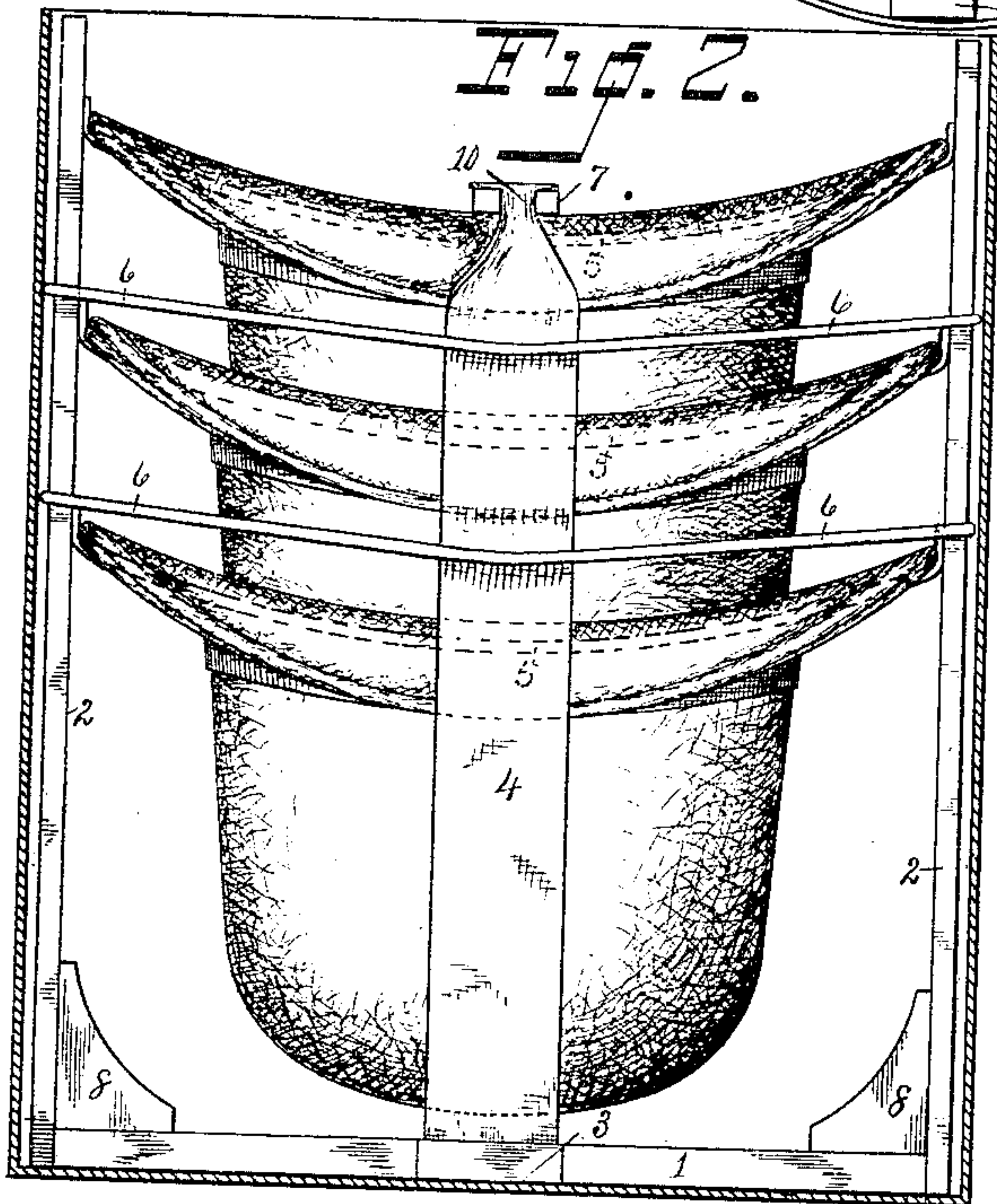
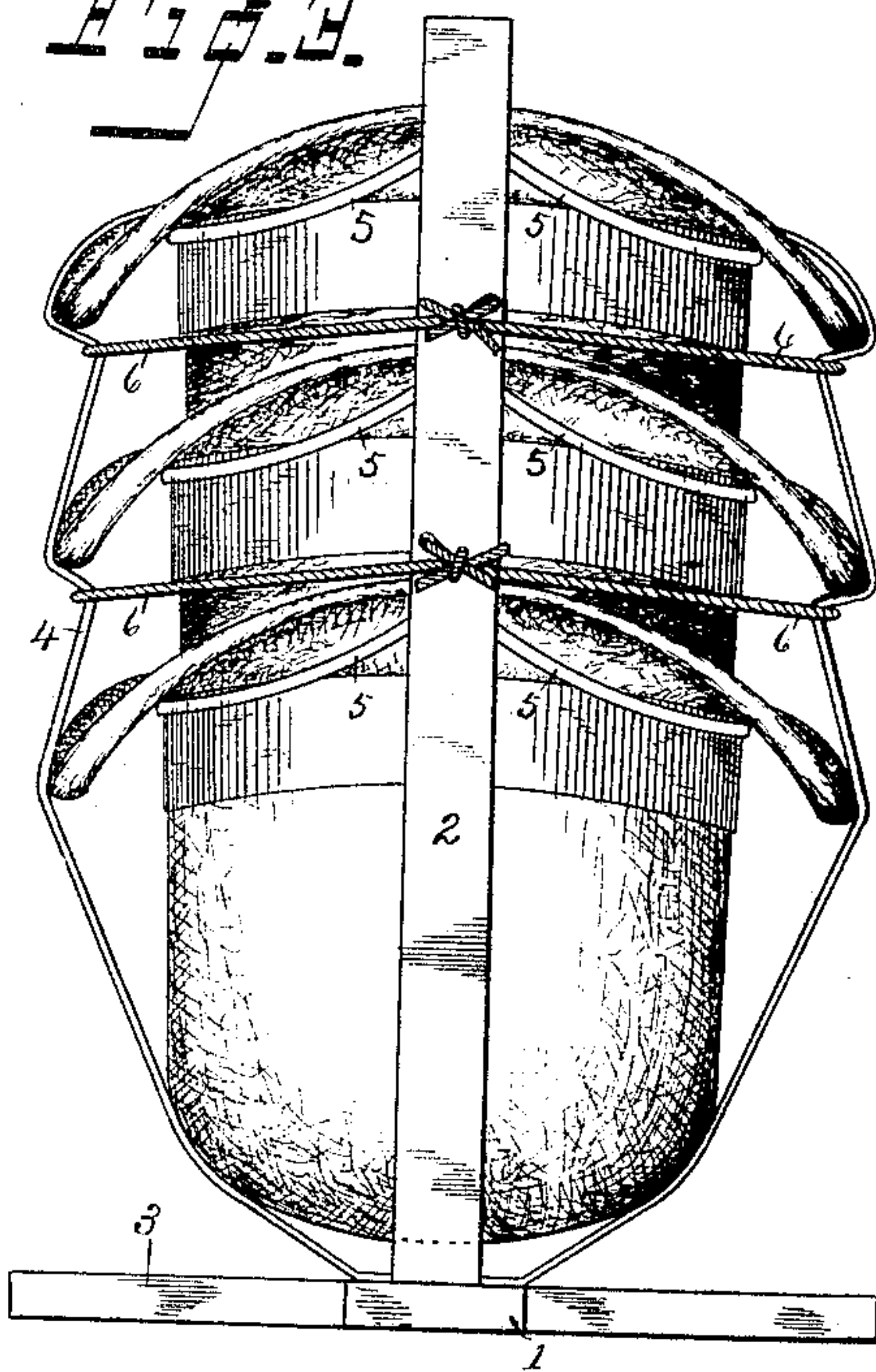


Fig. 3.



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

**INVENTOR**  
Samuel T. Newman  
By *A. M. 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. 407,109, dated July 16, 1889.

Application filed November 16, 1888. Serial No. 291,008. (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 removed 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 plan view of a hat-box with the cover removed, having within it one of my novel hat-stays with hats packed therein; Fig. 2, a longitudinal section of the box, showing the stay and hats in side elevation, the hats being held against vertical displacement when the box is right end up, and also when inverted, by means of elastic strips; and Fig. 3 is an end elevation of the stay and hats removed from the box, the hats being held against vertical displacement in either the upright or the inverted position by means of independent cords, each of which is tied, the independent cross-piece in this form being dispensed with.

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-blocks 8.

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

5 denotes suspending-strips attached to the end pieces, by which the hats are suspended. These strips embrace the hats, as is clearly shown in Fig. 3, and suspend them by engagement under the brims, the weight being supported in practice at the sides of the crown. It will be seen, therefore, that each hat is suspended independently of the others.

4 denotes side strips, which are attached to the cross-piece, the upper ends being secured together in use above the upper hat, as shown in Fig. 1.

6 denotes independent strips, which in-



close the end pieces and the side strips, as clearly shown in Figs. 2 and 3. One of these strips is placed between each pair of hats, and in practice is made tight enough to draw the side strips in between the brims of the hats. In Fig. 2 the independent strips are indicated as made elastic, ordinarily rubber bands of sufficient strength to close in the side strips are used. In Fig. 3 the independent strips are shown as cords, each cord being tied at one end, as is clearly shown.

7 denotes an independent cross-piece, which I preferably place over the upper hat, as in Figs. 1 and 2. This cross-strip is preferably provided with notches 10 at its ends, which receive the side strips 4, the latter being secured in any suitable manner, either by tying or with a buckle, as shown in Fig. 1.

It will of course be understood that my invention is not limited to the exact details of construction shown and described, as it is obvious that they may be greatly varied without departing from the principles involved—as, for instance, the 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. The base-pieces are made just long enough to pass into the box the longest way, the end pieces a trifle shorter than the height of the box, and the cross-pieces just long enough to pass into the box the shortest way. These parts constitute a frame-work which may be lifted into and out of the box freely, whether hats are packed therein or not.

Should it be desired to pack larger quantities than quarter-dozens, the end pieces and side strips are simply made long enough to receive and hold the additional hats. 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. The second hat is placed between the next pair of suspending-strips, which are placed just high enough so that the crown of the second hat will pass within the crown of the lower hat, but will not come injuriously in contact therewith. The next hat is sus-

pending an equal distance above the second one in the same manner, and so on, if more are packed. The independent strips 6 are then placed between the brims and act to hold the hats firmly in position. The side strips are left loose enough and the independent strips are drawn tight enough so that if the box is inverted in transportation the hats will be supported by the side strips. In connection with this application attention is called to my pending application, Serial No. 291,007, filed of even date herewith.

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, side strips adapted to extend from the bottom over the tops of the hats, and independent strips for inclosing the side strips between each pair of brims, whereby the hats may be held securely in position.

2. A hat-stay consisting of frame-work, substantially as described and shown, suspending-strips for holding the hats, an independent cross-piece for use over the upper hat, side strips extending from the bottom over said cross-piece, where they may be secured, and independent strips for inclosing the side strips between each pair of brims, whereby the hats may be secured in position.

3. 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, whereby the hats may be supported, side strips secured to the cross-piece and connected over an independent cross-strip 3, and independent strips 6, for inclosing the end pieces and the side strips between each pair of brims, so that the hats may be held in place in any position in which the box may be placed, the end strips and cross-pieces only coming in contact with the box.

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

SAMUEL T. NEWMAN.

Witnesses:

A. M. WOOSTER,  
BERTHA E. LEE.