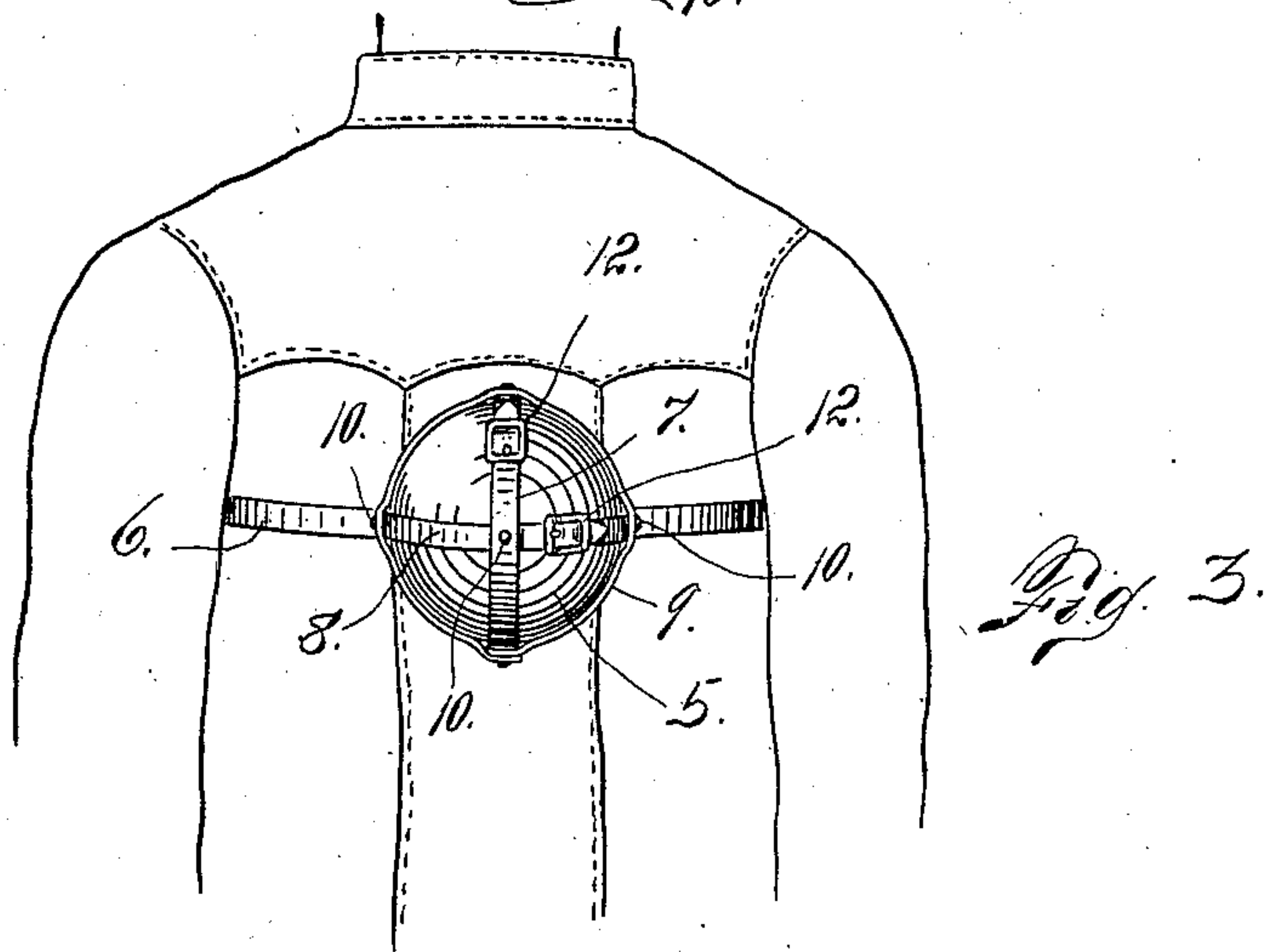
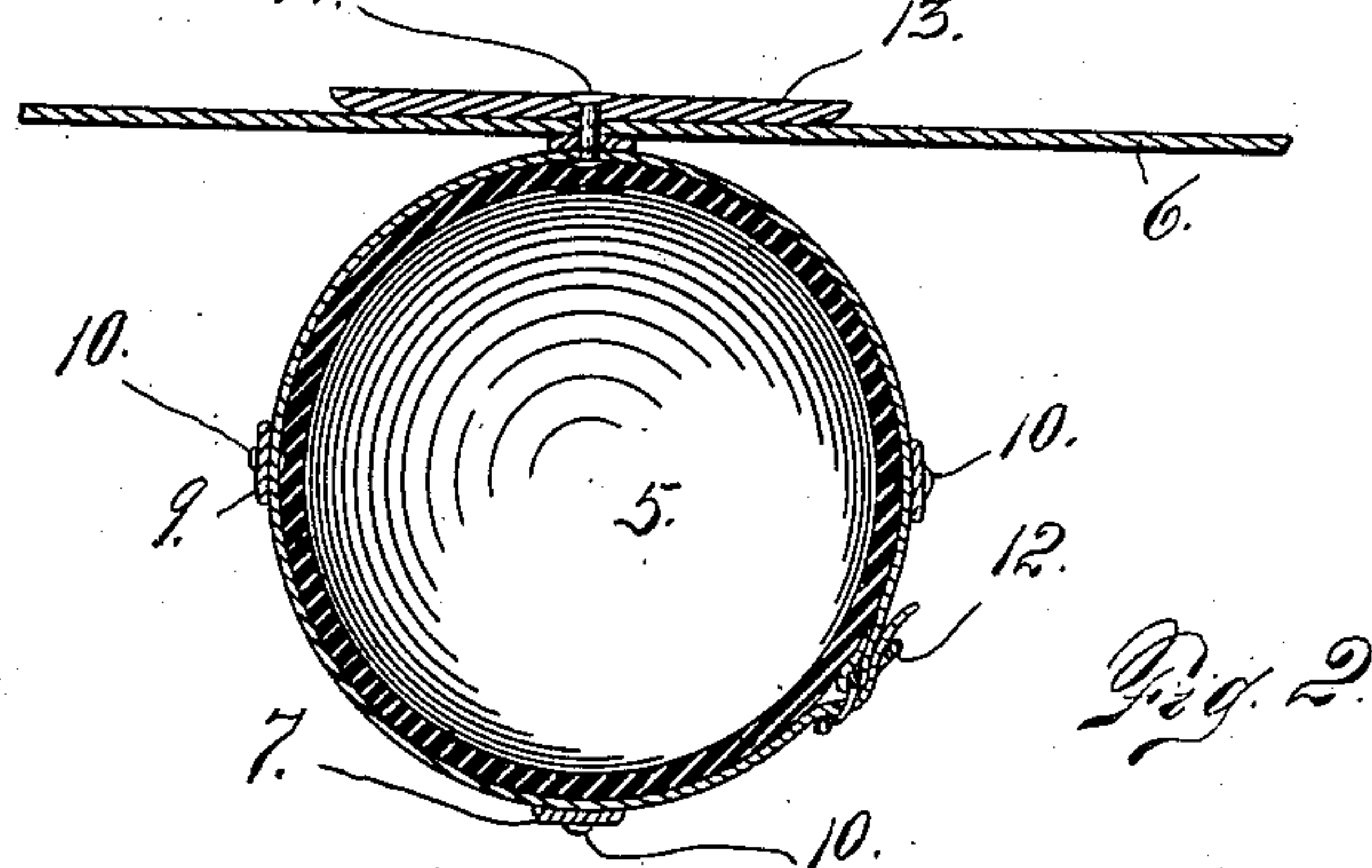
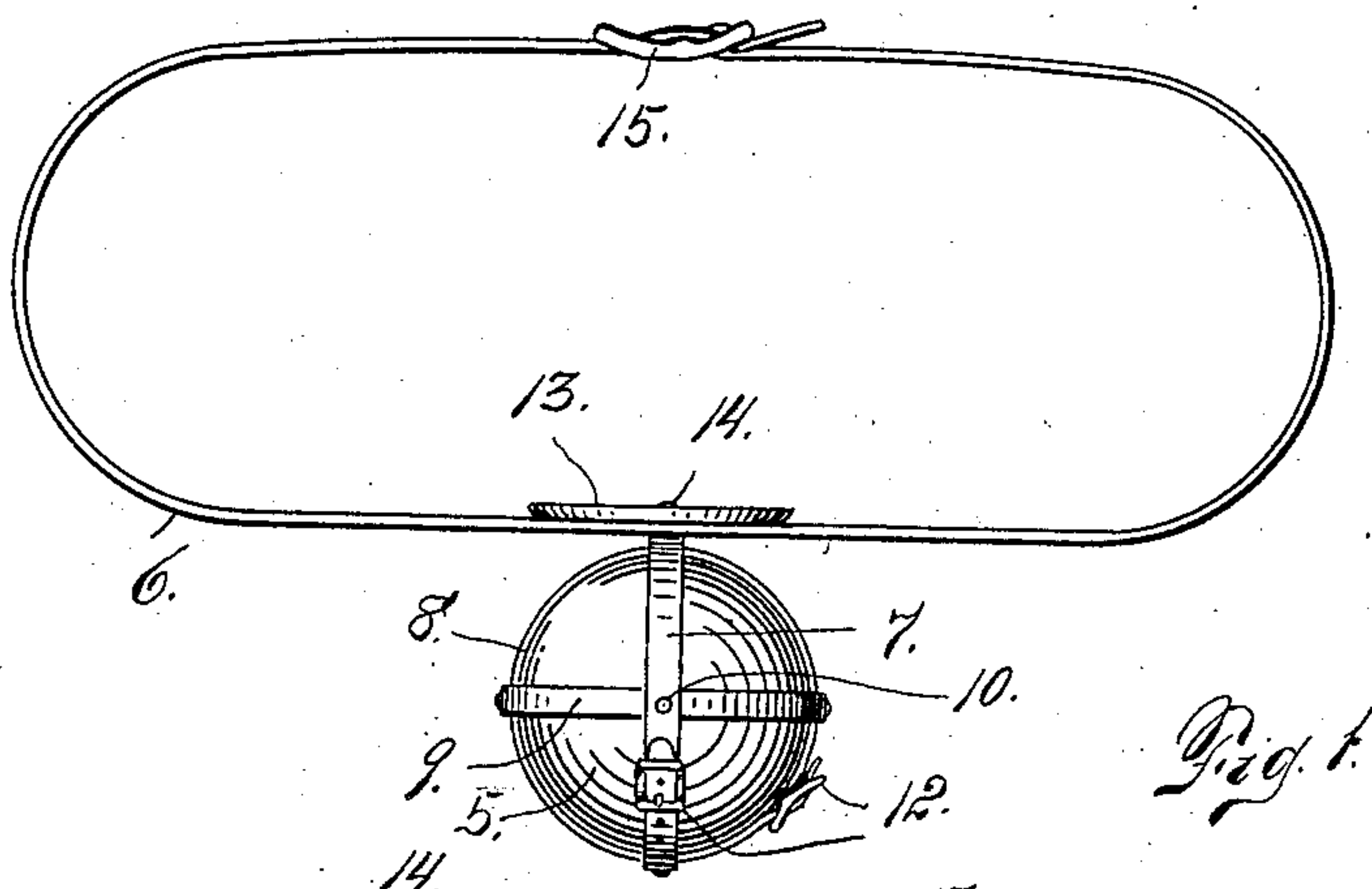


No. 898,379.

PATENTED SEPT. 8, 1908.

L. F. LIEBHARDT.
ANTISNORING DEVICE.
APPLICATION FILED JAN. 11, 1908.



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS F. LIEBHARDT, OF DENVER, COLORADO.

ANTISNORING DEVICE.

No. 898,379.

Specification of Letters Patent.

Patented Sept. 8, 1908.

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To all whom it may concern:

Be it known that I, LOUIS F. LIEBHARDT, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Antisnoring Devices; 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 letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in devices whose object is to prevent sleeping persons from lying upon their backs, its function therefore being to prevent snoring, dreaming and so called nightmare, being the disagreeable sensations to which sleepers are subjected while lying upon the back.

Briefly speaking my invention consists of a hollow, compressible, imperforate body of suitable size, adapted to be centrally secured to the back of the sleeper and protruding sufficiently therefrom, to make it practically impossible for the wearer to lie upon his back for any length of time, since as soon as he assumes this position, the prominence of the device will make the position so uncomfortable that he will immediately awake.

More specifically considered, the construction shown in the drawing and herein described, consists of a hollow compressible imperforate ball preferably composed of rubber, the same being secured to a strap or band adapted to be passed around the body of the patient, the device being preferably so applied that the ball is in the middle of the back just below the shoulders, the securing strap passing around the chest. This device may be applied on the outside of the night garment of whatever character the patient may choose to use.

Having briefly outlined my improved construction, I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a view of the device shown in detail and looking downwardly thereon when in position for use. Fig. 2 is a horizontal section taken through the device, the parts being shown on a larger scale and partly broken away. Fig. 3 shows

the device as viewed from the rear when in position for use upon the body, the form of the body of the wearer being outlined.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate a hollow ball or spherical body composed of compressible material preferably rubber, the ball being free from openings whereby its internal resistance to compression from without is that of one atmosphere. This ball is attached to a securing strap 6 in any suitable manner. In the construction shown in the drawing, I have applied to the ball exteriorly, three leather straps 7, 8 and 9, the same being passed around the ball and intersecting each other at right angles at six points. These straps at the various intersecting points are connected preferably by rivets 10. In order that this harness may be applied to the ball, two of the straps are provided with buckles as shown at 12, the straps being separable where the buckles are located and one extremity of each having openings to receive the buckle tongue, whereby the length of the strap is adjustable. After the straps composing the reinforcing harness for the ball, are riveted together, the ball is placed therein and the straps 7 and 8 buckled together. The strap 9 intersects each of the straps 7 and 8 at two opposite points and is connected at these intersecting points with the other straps by the rivets 10. At one point of intersection of the straps 7 and 8, the said straps are connected with the securing strap 6 and a circular leather pad or disk 13 by means of a rivet 14 passing through the straps 7 and 8, the securing strap 6 and the said pad or disk which is sufficiently flexible to give comfort to the wearer, and at the same time has sufficient thickness and stability to prevent it from becoming wrinkled or creased. This pad together with the reinforcing straps 7, 8 and 9, provide means for securely attaching the ball to the strap 6.

It will be understood that the manner of attaching a rubber ball securely to a leather strap is of considerable importance especially where the ball is hollow and must not be punctured owing to the fact that atmospheric pressure within the ball must be maintained. If the air were allowed to escape by reason of a puncture, the ball would not have sufficient resistance to properly perform its function. However, constructed as it is, it possesses sufficient resistance for the purpose

desired and at the same time has comparatively little weight and is therefore practically no encumbrance to the wearer.

The securing strap 6 has its extremities 5 connected by means of a buckle 15 which is attached to one extremity of the strap, the other extremity being perforated to receive the buckle tongue in the usual manner making the device adjustable to fit persons of 10 different chest measurements.

From the foregoing description the use of my improved device will be readily understood. Assuming that the device is constructed as heretofore described, it is only 15 necessary to pass the securing strap 6 around the chest of the wearer below the arms, the ball 5 being adjusted to occupy a position in the middle of the back just below the shoulders. By attaching the strap with reasonable 20 tightness, the device will maintain its position without difficulty and the strap will not readily slip to allow the ball to change its position. If desired, however, the securing strap may be attached to the night garment 25 thus compelling the ball always to maintain the same relative position on the garment, and a corresponding position upon the body of the patient.

Having thus described my invention, what 30 I claim is:

1. An anti-snoring device comprising a hollow compressible ball having an imperforate wall, and suitable means for maintaining the same in position upon the back of the 35 wearer, the ball projecting exteriorly from the securing means.

2. A device of the class described, comprising a hollow compressible ball having an imperforate wall, and a securing strap to 40 which the ball is exteriorly applied whereby it projects outwardly from the body of the wearer when in use, the said strap being adapted to pass around the body of the patient and equipped with suitable adjusting 45 means.

3. A device of the class described, comprising a hollow compressible ball having an imperforate wall, means for reinforcing the ball exteriorly, and means for securing the 50 same to the body of the wearer, the ball being attached exteriorly to the securing means

whereby it projects outwardly from the body of the wearer when in use, substantially as described.

4. A device of the class described, comprising a hollow compressible ball, reinforcing straps passed around the ball and secured together to maintain them in position thereon, and means for securing the ball upon the 60 body of the wearer, substantially as described.

5. A hollow compressible ball, reinforcing straps passed around the ball exteriorly and intersecting each other, the straps being connected at their points of intersection, and 65 means connected with the reinforcing straps for maintaining the ball upon the body of the wearer, substantially as described.

6. An anti-snoring device, comprising an elastic ball having an imperforate wall, and 70 means for maintaining the ball in position on the back of the wearer, the ball projecting exteriorly from the said means, substantially as described.

7. An elastic ball provided with intersecting reinforcing straps applied to the ball exteriorly, and a securing strap attached to the reinforcing straps, the securing strap being adapted to pass around the body of the patient, substantially as described. 80

8. A device of the class described comprising a hollow, compressible body having an imperforate wall, and means for securing the same upon the back of the wearer, the said body projecting exteriorly from the securing means. 85

9. A device of the class described, comprising a hollow compressible body having its wall intact and free from opening or puncture, reinforcing straps applied to the said 90 body exteriorly, a flexible pad attached to the reinforcing straps, and a securing strap passed between the pad and the reinforcing straps and secured to both the said compressible body projecting exteriorly from the securing strap, substantially as described. 95

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

LOUIS F. LIEBHARDT.

Witnesses:

DENA NELSON,
A. J. O'BRIEN.