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PILLOW.

APPLICATION FILED OCT. 29, 1907.

918,391. Patented Apr. 13, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

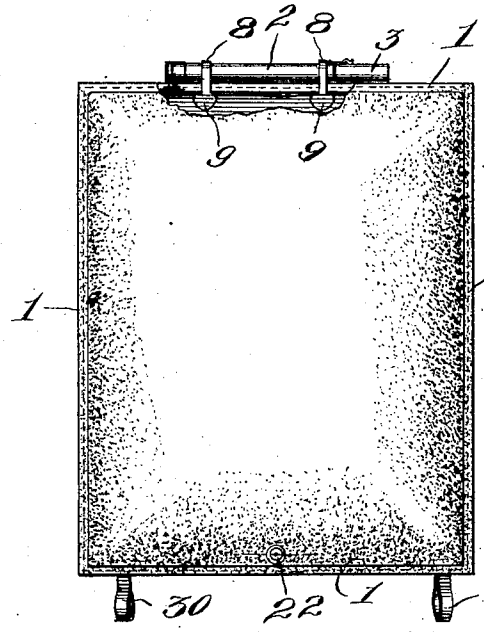


Fig. 2.

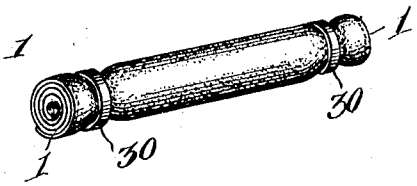


Fig. 3.

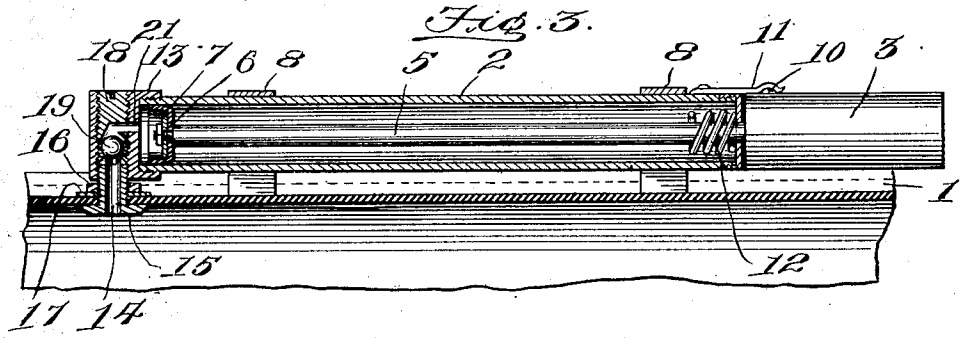


Fig. 4.

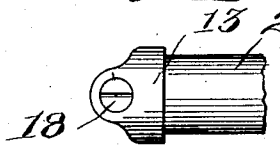
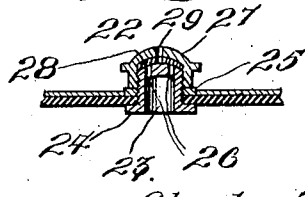


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 6.

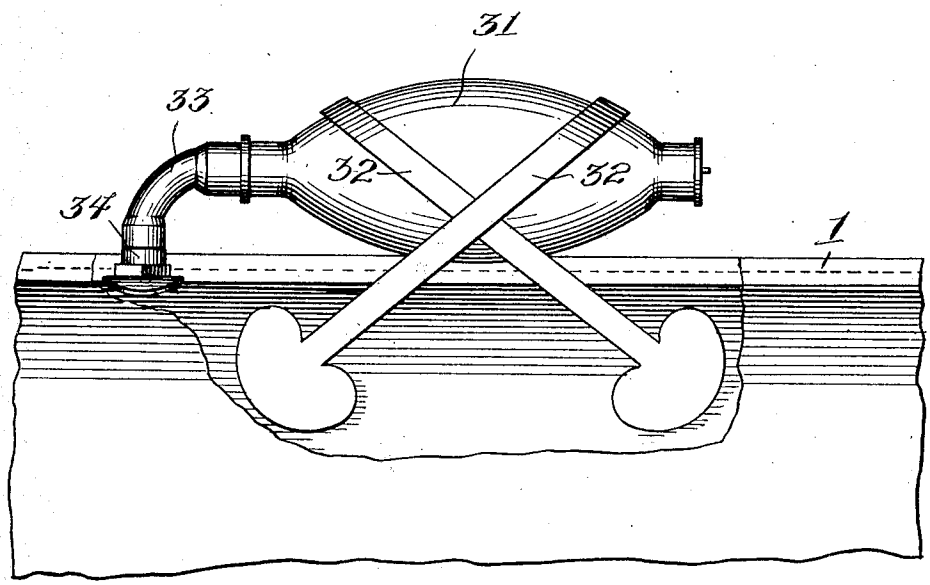
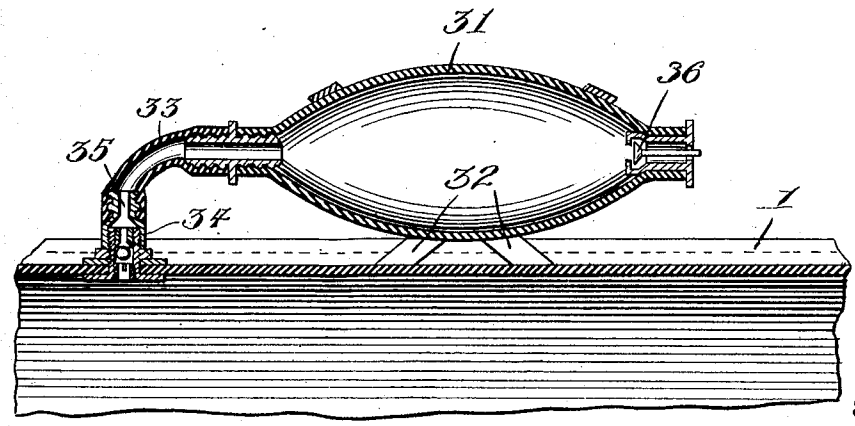


Fig. 7.



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UNITED STATES PATENT OFFICE.

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No. 918,391. Specification of Letters Patent. Patented April 13, 1909.

Application filed October 29, 1907. Serial No. 399,646.

To all whom it may concern:

Be it known that I, CHARLES TAARUD, a citizen of the United States, residing at Tracy, in the county of Lyon and State of Minnesota, have invented new and useful Improvements in Pillows, of which the following is a specification.

This invention relates to pneumatic pillows, the object of the invention being to provide a simple, compact and thoroughly comfortable pillow adapted to be inflated to any desired degree of hardness and when not in use to be rolled up into compact bundle, the pillow embodying inflating and deflating means and also a core or former upon which the flexible part of the pillow is wrapped or wound in order to always obtain a compact cylindrical bundle of uniform size.

With the above and other objects in view, the invention consists in the improved construction, combination and arrangement of parts hereinafter fully described, illustrated and claimed.

In the accompanying drawings, Figure 1 is a plan view of a pillow embodying the present invention shown ready for use. Fig. 2 is a perspective view thereof rolled into a compact bundle. Fig. 3 is an enlarged longitudinal section through one edge of the pillow showing the inflating pump. Fig. 4 is a detail plan view of one end of the pump. Fig. 5 is a detail sectional view of the air vent. Fig. 6 is a view similar to Fig. 3 illustrating another form of inflating device. Fig. 7 is a sectional view of Fig. 6.

The main body of the pillow of this invention is in the form of a rectangular sack of any suitable size to form a pillow and is composed of flexible material such as rubber or rubber and canvas bound together around its marginal edge as shown at 1 in such manner as to secure an air tight joint at all points. The inflatable sack or pillow thus formed may be covered with any desired material such as cloth, plush and the like. To one of the shorter edges of the pillow is secured a pump embodying a pump cylinder 2 and a plunger 3 therefor, said plunger embodying a stem 5 which works through one end of the pump cylinder and carries a piston or valve preferably consisting of a leather washer 6 held fast upon the stem 5 by means of one or more nuts 7. The pump cylinder is securely attached to the marginal pillow by means of straps 8 which extend around the pump cylinder and have their opposite ends preferably enlarged as shown at 9 and stitched or otherwise fastened to the opposite sides of the pillow.

The pump plunger or the handle thereof is provided with a small projection or shoulder 10 which when the pump is pushed inward to its full extent is engaged by a spring catch 11 secured to the pump cylinder as clearly shown in Fig. 3, thus preventing the plunger from moving outward accidentally and rendering the stem thereof liable to be bent or broken.

12 designates a check spring or bumper surrounding the valve stem within the pump cylinder and cushions the outward stroke of the pump piston.

At one end the pump cylinder 2 has mounted thereon a head or valve casing 13 to the inner side of which is secured an air tube 14 provided with an enlarged head 15 which rests against the inner surface of the pillow, the tube extending through a hole in the marginal pillow and being secured by means of a nut 16 between which and the pillow a packing washer 17 may be interposed to secure an air tight joint. The head or valve casing 13 is provided with a bore extending therethrough into which the outer end of the tube 14 is preferably screw threaded as shown while a combined plug and valve seat 18 is removably screwed into the outer end of said bore so as to confine a check valve 19 between the valve seat and the tube 14, said check valve being shown in the form of a ball which allows air to enter the pillow but is held seated or closed by the air pressure within the pillow. The plug 18 is provided with a lateral opening 20 in one side which when the plug is properly positioned registers with a corresponding opening 21 in the valve casing or head, the last named opening communicating with the interior of the pump cylinder 2 as shown in Fig. 3.

At that side or end of the pillow opposite the pump above described is arranged an air vent 22 which as shown in Fig. 5 comprises a tube 23 having a head flange 24 which bears against the inside of the material of which the pillow is formed, the two passing through an opening in the pillow and being secured upon the outside by a nut 25 to form a tight joint. The tube 23 is closed at its outer end with the exception of one or more small escape ports 26 while a sealing cap 27 is screwed upon the outer end of the tube and a gasket 28 is interposed between the outer end of the cap 27 and the closed end of the tube 23 so as

to cover the port or ports 26 therein. The gasket 28 and the cap 27 are provided with ports 29 directly in alinement with each other or nearly so, so that by unscrewing the cap 27 the air will pass outward from the pillow through the ports just hereinabove described. By screwing the cap 27 tighter on the tube 25 the air vent is effectively sealed and the pillow is held inflated. At the same side of the bag with the air vent 22 are arranged retaining or holding bands or loops 30 which, when the pillow is rolled up into cylindrical form as shown in Fig. 2 are slipped from the ends of the package or bundle, thus formed, thus holding the pillow securely in the condition shown in Fig. 2.

Another form of pump is illustrated in Figs. 6 and 7 wherein said pump is shown as consisting of an ordinary rubber hand bulb 31 secured to the bag by means of straps 32 and connected by a flexible tube 33 with the check valve 34 communicating with the interior of the pillow, substantially the same as the check valve above described and illustrated in detail in Fig. 7, the main difference being the two valves shown in Fig. 2 and Fig. 7 comprising and providing a valve casing with a threaded nipple extension 35 upon which the end of the tube 33 is secured in any convenient manner. The bulb 31 is provided with an automatic intake check valve 36 at its hollow end as shown in Fig. 7.

The pneumatic pillow herein above described will be found very convenient for tourists, traveling salesmen and for outing purposes and will be particularly valuable on boats, the pillow being adapted to serve the double purpose of a cushion and life preserver.

When the pillow is not needed for further use, the vent 22 is opened allowing the air to escape. The user then starts to roll the bag from that end which carries the pump and it will be seen that the pump cylinder and plunger head or handle which is of the same size as the cylinder acts as a core or former for the bundle, being rolled into the deflated pillow which is gradually rolled upon and around the pump cylinder, the operation serving to force the air outward through the vent so that when the package is complete all air has been exhausted from the pillow. The bands or loops 30 are then slipped from the ends of the package and the latter may then be placed in a satisfactory case or trunk requiring but very little space.

Having thus fully described the invention, what is claimed as new is:—

A pillow embodying an air tight inflatable bag, a cylindrical former or core around which the bag is adapted to be rolled, said former extending along one marginal edge of the pillow and being fastened in such relation to the pillow and comprising cylindrical relatively movable sections of equal external diameter and including bag inflating means and a catch for holding said sections against relative movement, a head forming a valve casing secured to one end of the cylindrical former and provided with an internally threaded bore which extends at right angles to the length of the former, an air coupling for the pillow secured in the inner end of said bore, and a combined plug and valve seat fitted into the outer end of said bore.

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

CHARLES TAARUD.

Witnesses:
ARNT. O. DAHLTORP,
W. H. VALENTINE.