No. 716,251. Patented Dec. 16, 1902.

R. LAMONT & C. E. WEATHERHEAD.

PNEUMATIC HAT BLOCK.

(Application filed June 3, 1902.)

(No Model.)

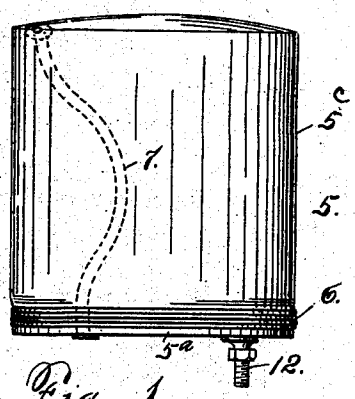


Fig. 1.

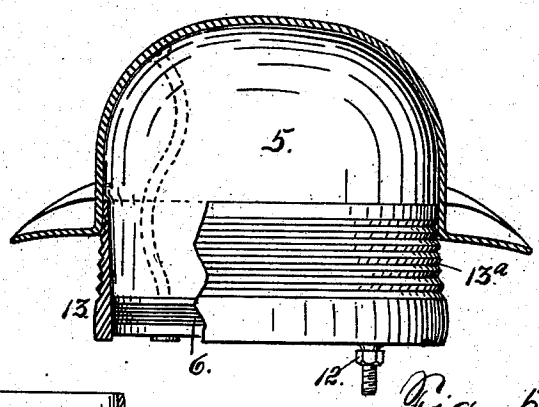


Fig. 5.

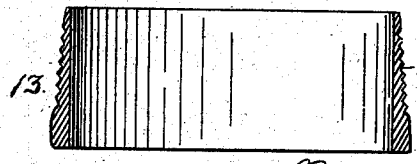


Fig. 6.

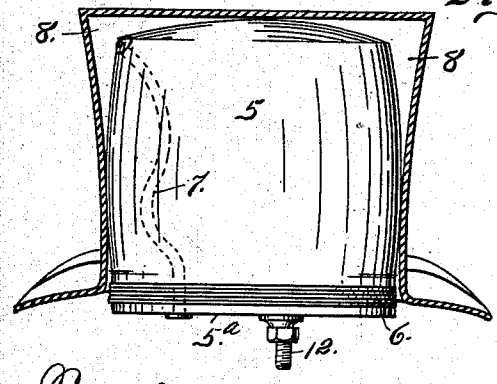


Fig. 2.

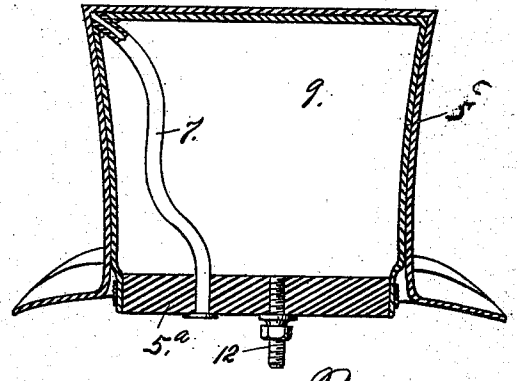


Fig. 3.

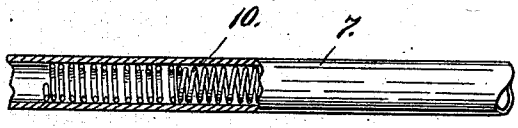


Fig. 4.

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PNEUMATIC HAT-BLOCK.

SPECIFICATION forming part of Letters Patent No. 716,251, dated December 16, 1902.

Application filed June 3, 1902. Serial No. 110,104. (No model.)

To all whom it may concern:

Be it known that we, ROBERT LAMONT and CHARLES E. WEATHERHEAD, citizens of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Pneumatic Hat-Blocks; and we 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.

Our invention relates to improvements in pneumatic hat-blocks. When the ordinary block of this character is used, the air is compressed in the corners of square-crown hats or stiff hats having sharp interior angles at the top of the crown, whereby the fabric of the block is prevented from swelling out into the said corners under pressure, thus defeating in a large measure the function of the block.

Our object is to overcome this difficulty, and to this end we make provision for releasing the air from the hat-corners or the upper part of the crown by passing an open-ended tube through the block and so arrange the tube that its inner extremity communicates with the space in the corners of the crown, while its outer extremity passes through the base of the block and communicates with the atmosphere, thus forming an outlet for the air which is forced out when the block is properly inflated.

Having briefly outlined our improvement and stated the function it is intended to subserve, we will proceed to describe the same in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a detail view of our improved pneumatic hat-block. Fig. 2 is a section taken through a "square-crown" hat, showing the device in place and but partially inflated. Fig. 3 is a similar view showing the device fully inflated, the air having escaped by the way of the open-ended outlet-tube. Fig. 4 is a sectional view in detail, showing a special construction of tube employed. Fig. 5 is a section showing an attachment employed when the block is used with low-crown hats. Fig. 6 is a sectional detail view of the said device.

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

Let the numeral 5 designate the hat-block, which is composed of a rigid base 5^a and an elastic inflatable part 5^c, secured to the base in any suitable manner. Passing through the inflatable portion of the block is an air-tube 7, one extremity of which is attached to the top of the inflatable portion and opens on the outside, while the other extremity passes through the base 5^a and communicates with the external atmosphere. The inner extremity of the tube is so located as to allow the air to escape from the annular chamber 8, surrounding the part 5^c of the block, when the latter is partially inflated. (See Fig. 2.) Were it not for this outlet-tube the air would be compressed in the chamber 8, there being no means for its escape, and further inflation of the part 5^c would be impossible, or in any event useless; but when the outlet-tube 7 is used the block may be fully inflated and forced out in the hat-corners or the annular chamber 8, as shown in Fig. 3, whereby the block is made to fit the hat perfectly. To prevent the tube 7 from collapsing under the pressure in the inflatable chamber 9, the tube is provided interiorly with a coil-spring 10, which does not materially obstruct the air-passage, but engages and supports the interior wall of the tube and overcomes the tendency to collapse by reason of the external pressure in the chamber incident to the inflation of the bag 5^c.

The inflating of the block may be accomplished in any suitable manner. As shown in the drawings, the base of the block is provided with a check-valve nipple 12, to which the tube of an air-pump or other inflating means may be attached.

From the foregoing description the use of our improved pneumatic hat-block will be readily understood, and further explanation is deemed unnecessary.

When it is desired to use the block with a hat having a low crown, a reinforcing-band

13 is employed. This band is slipped over the base of the block and surrounds the inflatable bag below the hat to prevent this portion of the bag from swelling outwardly when it is inflated. This band 13 is preferably composed of rubber of sufficient thickness to resist the action of the air and properly perform the aforesaid function. The band is adjustable upon the block and may be moved up and down at pleasure, according to the depth of the hat-crown. Its upper portion is corrugated, as shown at 13^a, and it is allowed to slightly enter the base of the hat-crown, whereby any tendency of the hat to slip off the block or of the block to slip out of the hat is overcome. When the crown of the hat is of sufficent depth to receive the entire inflatable portion of the block, the reinforcing-band is of course not necessary.

Having thus described our invention, what we claim is—

1. As an improved article of manufacture, a pneumatic hat-block comprising a base, an inflatable portion attached to the base, and a flexible air-escape conduit extending through the block, substantially as described and for the purpose set forth.

2. A pneumatic hat-block comprising a base, an inflatable portion attached to the base, and a flexible open-ended air-tube passing through the inflatable chamber, substantially as described.

3. A pneumatic hat-block provided with a rigid base, an inflatable bag attached to the base, and a flexible air-tube one extremity of which is open at the upper part of the inflatable chamber, while the other extremity passes through the base and communicates with the atmosphere.

4. A pneumatic hat-block comprising a base and an inflatable portion, and an open-ended flexible air-tube passing through the block and provided with interior reinforcing means to prevent the tube from collapsing under pressure, substantially as described.

5. A pneumatic hat-block comprising a base and an inflatable portion, and an open-ended flexible air-tube passing through the block and provided with a coil-spring interiorly located for the purpose set forth.

6. The combination with a pneumatic hat-block having an inflatable portion, of a reinforcing-band adapted to be applied thereto, substantially as described.

7. The combination with a pneumatic hat-block having an inflatable portion, of a reinforcing-band adapted to be applied to the lower part of the inflatable portion and having its upper portion corrugated exteriorly for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT LAMONT.
CHARLES E. WEATHERHEAD.

Witnesses:
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A. J. O'BRIEN.