April 14, 1936. F. HASENBERG 2,037,683

CAP

Filed July 17, 1934

Fig. 1.

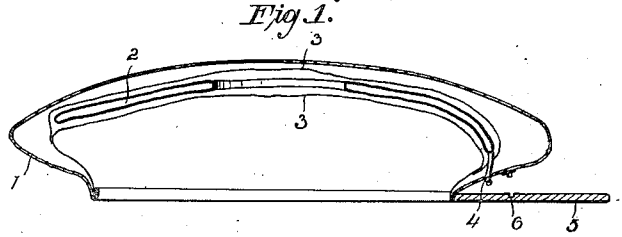


Fig. 2.

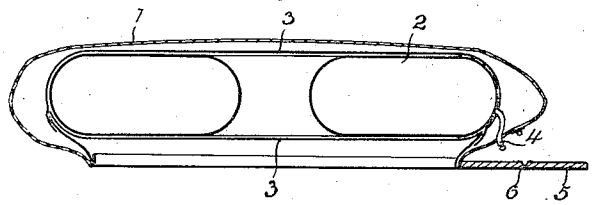


Fig. 3.

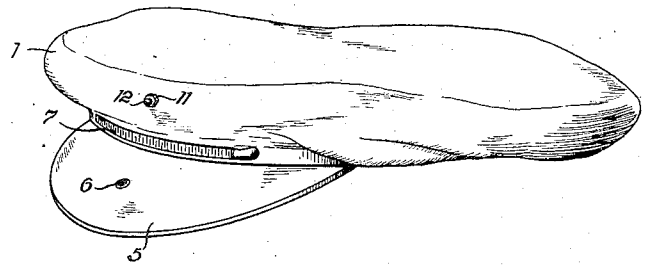


Fig. 4.

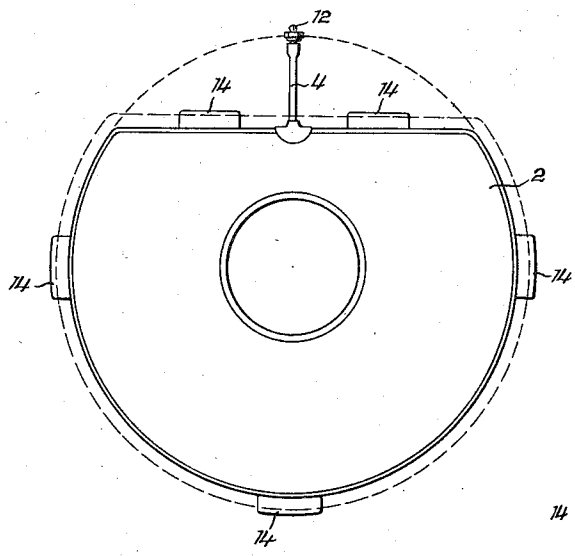


Fig. 5.

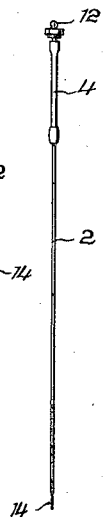


Fig. 6.

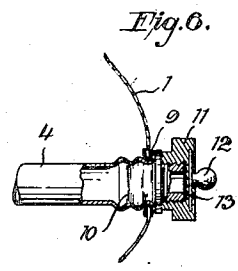
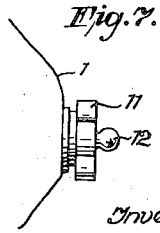


Fig. 7.



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2,037,683

CAP

Franz Hasenberg, Mahr.-Ostrau, Czechoslovakia

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2 Claims. (Cl. 2—199)

This invention relates to a cap having a hollow rubber insertion which can be inflated and used as an air cushion.

To make the practical use of such caps possible the rubber insertion must be as thin as possible to prevent heaviness. Furthermore, when the cap is worn with the insertion in non-inflated condition, it is required that the existance of the insertion should not be noticeable. However, if the insertion is made from very thin rubber, it will not expand uniformly during inflation and burst when used as cushion. The use of heavier rubber is not desirable for obvious reasons, and the insertion must further not be closely adjacent to the fabric of the cap to prevent the latter from losing its shape as the result of frequent use of the cap with insertion as cushion.

The invention eliminates these drawbacks by providing an insertion which is placed in a cover of light fabric whereby greater resistance is imparted to even a very thin insertion without straining the cap fabric.

By way of example, the invention is illustrated diagrammatically in the accompanying drawing, in which Figure 1 is a section of a cap with the insertion in non-inflated condition; Fig. 2 a section of a cap with inflated insertion; Fig. 3, a perspective view of another form of cap; Fig. 4, a top view of an insertion; Fig. 5, a side view thereof; Fig. 6, a section of the end of an inflating hose; and Fig. 7, a side view thereof.

Referring to the drawing, 2 is a hollow rubber insertion of preferably annular form to allow in its center sufficient space for ventilation of the head. The insertion 2 is on both sides sewn into a thin suitable fabric 3 of sufficient strength, which surrounds the insertion 2 so that it will cover the same on all sides after inflation and hug it firmly, as indicated in Fig. 2. The fabric of the cap is indicated by the numeral 1 and is correspondingly larger in size than the cover 3. The fabric 1 is not exposed to harmful tension and expansion.

The thin fabric or cover 3 makes it possible for the insertion 2 to be made from very thin rubber, as it imparts greater resistance thereto. It further prevents uneven stretching of the insertion 2 and thus the bursting thereof.

The lower part of the cover 3 carrying the insertion 2 may be dispensed with if the lining of the cap consists of the same suitable material as the cover, in which case only the top portion of the cover 3 need be sewn to the lining with the interposition of the rubber insertion 2, as indicated in Figs. 1 and 2.

The use of the cover 3 for the rubber insertion 2 affords the added advantage that one size of rubber insertion will suffice for various forms and sizes of caps, whereby mass production at low cost becomes possible.

The rubber insertion 2 has a short piece of hose 4 with valve or other suitable closing means, which open towards the outside at a concealed point, e. g., between the visor 5 and the fabric 1 where it hangs down in front, and which is hidden so that it will not be visible when the cap is worn and the push button 6 closed.

As Fig. 4 shows, the insertion 2 may be formed so as to afford sufficient ventilation for the head in front. It is further possible, as indicated in Figs. 6 and 7, to firmly connect the end of the hose 4 with the cap material by placing for instance a sleeve 10 in the end of the hose 4, which passes through an eye 9 and is held therein against internal and external displacement. The free outer end of the sleeve 10 is closed by a head 11 which preferably can be connected therewith by screwing and has a packing 13. This head 11 can also accommodate a part 12 of the button 6, the other portion of the latter being disposed on the upper surface of the visor in the customary manner.

To be able to transform a cap provided with an inflating device as described into an air cushion, one has first to open the push button, as indicated in Fig. 3, so as to separate the top of the cap from the visor 5. Then the head 11 is unscrewed from the sleeve 10, whereupon it will be possible to inflate the insertion 2 through the end of the sleeve 10 projecting from the fabric 1. The head 11 is then connected again with the sleeve 10. In this way, a part of the push button serves also as closure for the inflating hose.

To exchange the rubber insertion in case of damage, a slot may be provided at a concealed spot of the cap for removal of the insertion and insertion of a new or repaired rubber member. This slot may be located in the lining, or in the cover 3, or outside and closed by "zip" fasteners or the like. If the slot is disposed outside, it is preferably located above the visor 5, as shown at 7 in Fig. 3, so as to be fully covered when the cap is worn.

To prevent displacement of the rubber insertion 2 inside the cap, it is secured inside the cover 3, e. g., by pasting it to the cover. Or the insertion 2, as shown in Fig. 4, may be provided with projecting edges or flaps 14 which are secured to the edge of the cover 3 and which may also be integral with the insertion.

The inflating valve of the hose 4 may be arranged at any other suitable point of the cap and the end of the hose, when exposed externally, concealed by an ornament of the cap. It will be advisable to reinforce somewhat the end of the hose 4 projecting from the cap so as to be able to form a closure plug according to Figs. 1 and 2 with a head and thus prevent the hose from slipping into the cap.

I claim:

1. A cap, comprising a head enclosing portion, a visor, an inflatable hollow rubber insertion, a cover of suitable fabric surrounding said insertion, said cover having a shape and size preventing the fabric of the cap from changing the cap form when said insertion is inflated, and means for securing said cover to the cap and said insertion to said cover.

2. A cap according to claim 1, in which the cover has a top portion only and the cap a lining serving as lower portion thereof.

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