

The invention relates to a pair of goggles comprising a frame and temples made of relatively hard plastic material or of metal with at least one pad element made of relatively soft plastic material at the ends of the temples and/or at the nose contact elements of the frame.

It is true that frames of goggles made of relatively hard plastic material or of metal show on the one hand a high stability and correspondingly enable elegant and simple designs, but on the other hand bruises may occur above all in the vicinity of the bridge of the nose and behind the ears, in particular if the person wearing the goggles moves his head often or while strongly changing direction, as it is the case when frames of goggles of this type are used with protective goggles for workers or with sports goggles.

In order to avoid these problems in this case, it is known to use pad elements made of softer plastic material or cushions made of softer plastic material with inclusion of fluid or air. Cushions of this type are for example known from CH 656 234 A5 in connection with protective goggles for workers.

Most of the cushion-like pad elements of this type are secured to the goggles by adhesion or by locking into recesses, i.e. these are elements manufactured separately, which have to be assembled thereafter and which can naturally be inadvertently released from the frame of the goggles.

Other known solutions provide e.g. injection moulding of the entire end of the temple with a softer plastic material, in order to avoid bruises. On the other hand this leads to the fact that the stability of the fit is impaired, what is in turn particularly disadvantageous with protective goggles for workers and sports goggles.

Finally it is also known to mould a softer plastic material onto the relevant places in the vicinity of the nose contact element and of the ends of

the temples, in order to attain a padding effect. In fact by means of this the risk of pressure is slightly reduced, but a really good padding is not attained.

With the above considerations in mind it is the object of the invention to embody a pair of goggles of the aforementioned type with pad elements in such a manner, that a softness of the padding, which can be individually adapted to the respective purpose of application, is feasible in a simple manner with regard to manufacturing requirements.

This object is attained according to the invention by the pad element being formed as a relatively thin-walled convexity which is moulded on of plastic material.

A convexity of this type shows very good spring properties, which in addition can be easily adjusted by the appropriate selection of the hardness of the plastic material, the geometry of the convexity and also the thickness of the layer in the region of the convexity.

In a further embodiment of the invention it is provided that a pad element made of relatively soft plastic material is moulded in one piece on a supporting basic body of a nose contact element or of the ear section of the temple made of relatively hard plastic material.

Accordingly the spring effect is not only determined by the thin, bubbles-like configuration of the pad element, but also by the used plastic material, which is softer compared with the supporting basic material.

Advantageously the pad element, which is convexed like bubbles, embraces an approximately oval basic surface region, which is open in the region facing away from the side of contact.

Insofar according to the invention no closed air bubble is provided, but a bubble which is open on one side.

The pad element can comprise advantageously a reinforced free outer edge, by the dimensioning of which the stability of the element can be adjusted.

When putting the invention into practice in the nose region it can be provided that the nose contact element is formed as a separate element, which can be placed onto the frame and/or the sight piece or the sight pieces, respectively, or as an alternative, that the nose contact element is formed in one piece with the frame. In both cases it is possible to directly mould on the pad element.

In the manufacture of pad elements in the nose region as well as at the end of the temple it is possible to realize the pad element by co-moulding with the plastic material of the basic material, which could be realized in particular in the region of the end of the temple with excellent results.

Further details of the invention will become apparent from the ensuing description of preferred examples of embodiment of the invention taken in conjunction with the drawing, in which

Fig. 1 shows a side view of a temple of the goggles formed according to the invention,

Fig. 2 shows a section taken along the line II-II in Fig. 1,

Fig. 3 shows a plan view onto the temple of the goggles in accordance with Fig. 1,

Fig. 4 shows a perspective view of the nose region of a pair of goggles according to the invention and

Fig. 5 shows a section taken along the line IV-IV in Fig. 4.

In Figs. 1 to 3 a temple 1 is illustrated for a pair of goggles, e.g. a

pair of protective goggles for workers, which temple 1 comprises an essentially straight front hinge section 2 and an ear temple section 3, which is bent in relation to the hinge section 2.

The hinge section 2 comprises a hinge journal pin 4 at the free front end 5 and a locking projection 6 for performing length adjustment.

The ear temple section 3 has a widened end, at which a pad element 8 is formed.

As can be seen in particular from Figs. 2 and 3, the pad element 8 is formed by the fact that the widened end 7 of the temple 1 has a convexity 8a, which is thin-walled like a membrane and which covers a recess 9 in the end 7 of the temple 1 and which is curved inwards in relation to the temple end 7 in such a manner that this convexity 8a is soft and elastic.

In Figs. 4 and 5 the realization of the pad element 8' in the nose contact element region is illustrated. The pair of goggles 10 shown in Fig. 4 comprises holding elements 11 for the sight pieces 12, as is shown in dashed lines. In the nose region a separate nose contact element 13 is disposed, which can be locked via a locking arrangement 14 into the above-disposed frame and holding element 11.

The nose contact element 13 comprises a supporting basic body 15, which is formed in the shape of a V at its bottom side, the V-legs 16, 17 each being formed by U-profiles which are open outside. At the rear side or inner side of each profile of this type a pad element 8' made of relatively soft plastic material is joined directly moulded on by two-component injection moulding.

Each pad element 8' has a bubbles-like convexed configuration, wherein a hollow space 18 is formed, which is open towards the nose outer side 16. The free outer edge 20 of the pad element 8' formed in this manner is convex-like formed in reinforced manner.



Patent Claims

1. A pair of goggles with a frame and temples made of relatively hard plastic material or of metal comprising at least one pad element made of relatively soft plastic material at the ends of the temples and/or nose contact elements, characterized in that the pad element (8, 8') is formed as a relatively thin-walled convexity which is moulded on of plastic material.
2. A pair of goggles according to claim 1, characterized in that at a supporting basic body (15) of a nose contact element (13) or of the ear section (3) of the temple (1) made of relatively hard plastic material a pad element (8, 8') made of relatively soft plastic material is moulded on in one piece.
3. A pair of goggles according to claim 2, characterized in that the pad element (8, 8') has a bubbles-like convexed configuration in such a manner that the convexity resiliently abuts on the nose bridge or on the head of the person wearing the goggles.
4. A pair of goggles according to claim 3, characterized in that the bubbles-like convexed pad element (8, 8') embraces an approximately oval basic surface region, which is open in the region facing away from the side of contact.
5. A pair of goggles according to claim 2, characterized in that the pad element (8, 8') has a reinforced, convexed free outer edge (20).
6. A pair of goggles according to claim 1, characterized in that the nose contact element (13) is formed as a separate element, which can be placed onto the frame (11) and/or the sight piece or sight pieces (12).
7. A pair of goggles according to claim 1, characterized in that the nose contact element (13) is formed in one piece with the frame (11).



8. A pair of goggles according to claim 1, characterized in that the pad element (8, 8') with the supporting basic body (15) or (3) is moulded in one injection moulding process.