Sept. 27, 1966 C. J. BOYER 3,274,614

HEADSHIELD

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Fig.1.

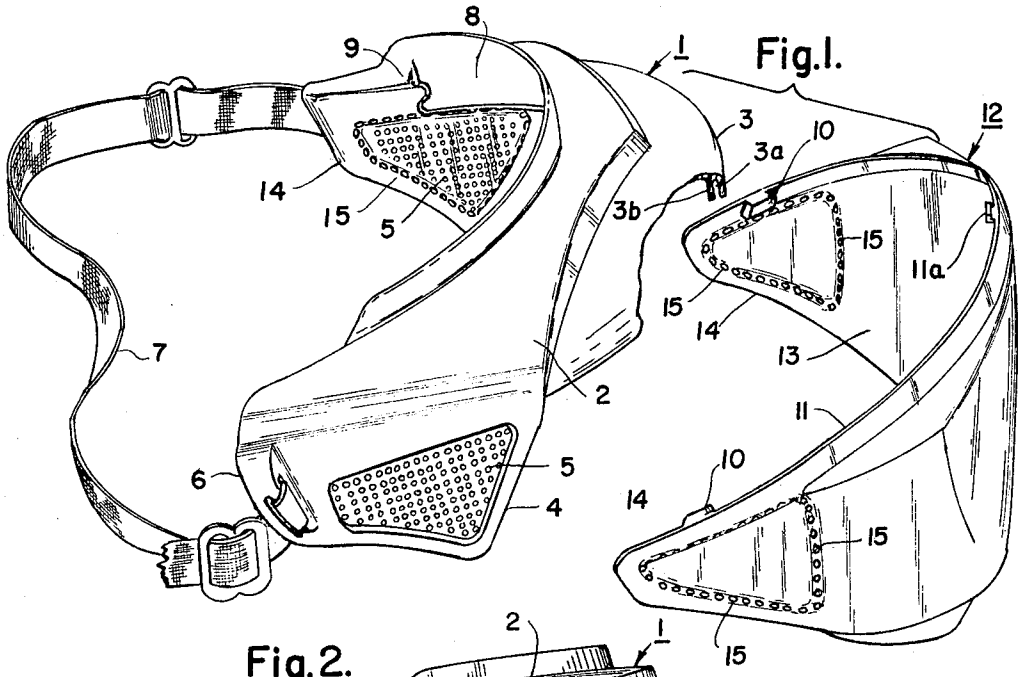


Fig.2.

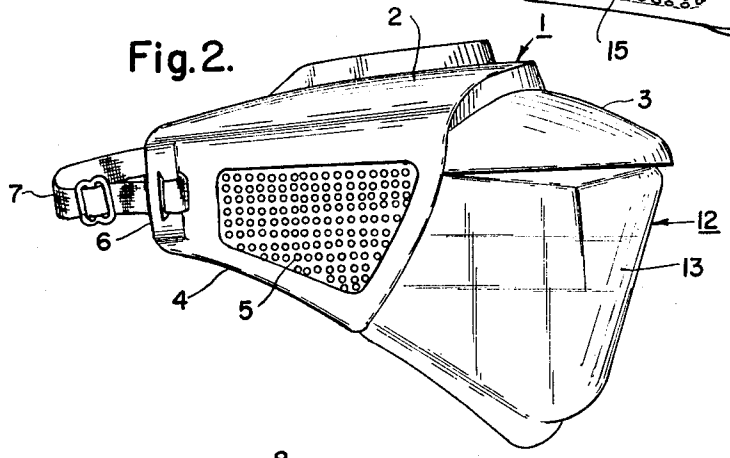
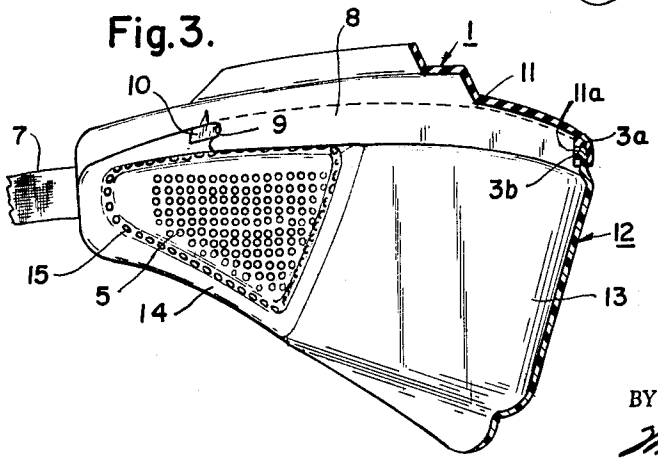


Fig.3.



INVENTOR.
CHARLES J. BOYER

BY William J. Ruano
his ATTORNEY

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Fig. 4.

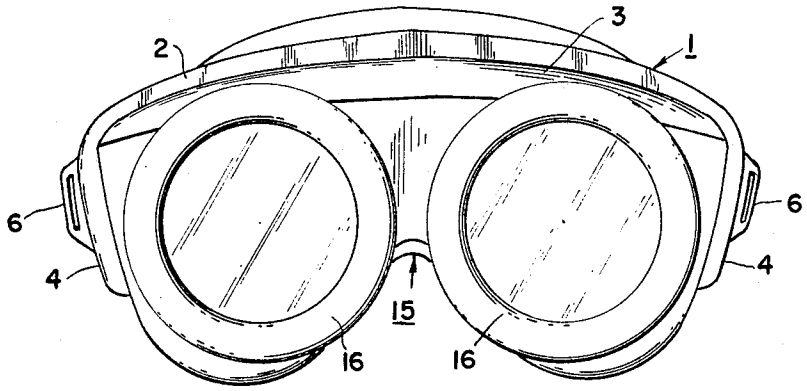
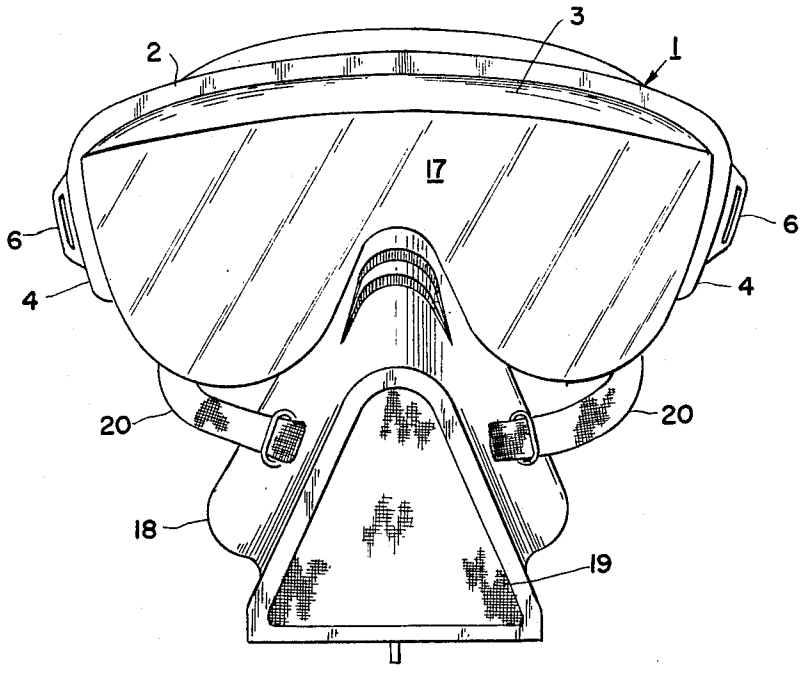


Fig. 5.



INVENTOR.
CHARLES J. BOYER

BY

William J. Ruano

his ATTORNEY

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3,274,614

HEADSHIELD

Charles J. Boyer, Reading, Pa., assignor to The Electric Storage Battery Company, Philadelphia, Pa.

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3 Claims. (Cl. 2—14)

This invention relates to face protective devices and, more particularly, to a headshield to which various attachments may be detachably secured, such as goggles, eyeshields, faceshields, etc. for protecting the face or portions thereof from industrial hazards.

An outstanding disadvantage of conventional goggles, faceshields and eyeshields is that they require different units despite the fact that portions of each of these may be of common construction, thereby greatly increasing the cost for industrial safety devices.

An object of the present invention is to provide a face protective device in the form of a shield for support on the forehead and to which various separate elements may be detachably secured, selectively, such as goggles, eyeshields, faceshields, respirators, etc. thus, greatly reducing the cost of such devices and making it possible to interchange devices easily and quickly, without complete removal of the headshield from the head of the wearer.

Other objects and advantages of the invention will become more apparent from a study of the following description taken with the accompanying drawings wherein:

FIG. 1 is a top, perspective, exploded view of a headshield and a faceshield attachment therefor;

FIG. 2 is a side view of the headshield and faceshield shown in FIG. 1 but in assembled condition;

FIG. 3 is a vertical, cross-sectional view of the assembly shown in FIG. 2;

FIG. 4 is a front, elevational view of a goggle attachment secured to the headshield; and

FIG. 5 is a front, elevational view showing a unitary lens attached to the headshield together with a respirator fitted against the nosepiece of the lens.

Referring more particularly to FIGS. 1, 2 and 3 of the drawing, numeral **1** generally denotes a headpiece of opaque and substantially rigid plastic, such as polyethylene or any other suitable material comprising a sideshield portion **2**, and a rounded forehead-surrounding portion **3**. The sideshield portion **2** has side portions **4** which are provided with perforations **5** for ventilation which may be rounded, as shown, or square shaped, and which has integral extensions **6** projecting outwardly which are slotted so that a flexible adjustable head strap **7** may be extended therethrough.

To the right of FIG. 1 is shown a faceshield denoted generally by numeral **12** having a top band portion **11** which integral studs **10** of metal or plastic material and having a face protective unitary shield portion **13** of transparent plastic material or metal screen. The band portion **11** is adapted to be inserted into a vertical slot formed along the margin of the headshield, and studs **10** are adapted to rest against arcuate cut-outs **9** on the ends of the walls defining the slot as pivotal bearings so that when the faceshield **13** is pivotally raised underneath the portion **3**, a spring lug **11***a* will extend through a central hole in the rear wall portion defining said slot and become latched as shown more clearly in FIG. 3, so as

to latch the two parts securely together as shown in FIGS. 2 and 3. On each side is a sunken triangular portion surrounded by perforations **15** which admit outside air entering perforations **4**.

When it is desired to substitute some other type of face or eye protective element it is necessary merely to spring rim **11** so that latch **11***a* separates from the latching central hole and then pivotally move the faceshield downwardly, finally removing studs **10** from the arcuate cut-out bearing-forming ends **9**.

It is now possible to substitute a different device, such as that shown in FIG. 4, namely, a pair of goggles **16** having a nosepiece **15** and to the top of which there is a band, studs, and latch similar to **11**, **10**, and **11***a*, respectively (not shown).

FIG. 5 shows still another attachment **17** which is a unitary lens of safety glass or plastic, clear or tinted, detachably secured to the headpiece in the same way as described in FIGS. 1–3. Additionally it is possible to attach a respirator comprising a flexible facepiece **18** adapted to surround the nose, cheeks, and chin of the wearer and provided with a filter box **19** and a headband **20**, all of well known construction. It will be noted that the nose-surrounding portion, which is pleated, snugly fits within the nosepiece of lens **17**, whereby the lens and respirator may be worn simultaneously and comfortably.

It will be readily apparent that visors, helmets and other protective shields may be similarly detachably secured to the headpiece so that the wearer needs only one headpiece and any desired number of attachment elements that may be easily and quickly interchanged for different protective functions.

Thus it will be seen that I have provided an efficient headpiece to which numerous face-protecting and eye-protecting attachments may be easily and quickly attached, interchangeably, so that only a single headpiece will suffice for numerous types of protective elements, thus considerably reducing the inventory necessary for a wide range of protective elements as well as reducing the total cost for the various devices.

While I have illustrated and described several embodiments of my invention, it will be understood that these are by way of illustration only, and that various changes and modifications may be made within the contemplation of my invention and within the scope of the following claims.

I claim:

1. A headshield comprising a front portion adapted to be spaced from and surround the forehead of the wearer, a vertical slot formed on the bottom and extending along the perimeter of said front portion and terminating in arcuate cut-out portions at the ends of said slot said slot being defined by a front and rear wall, and a protective element having a top rim portion inserted in said slot and having stud elements at the ends of the rim portion detachably engaging said cut-out portions to provide a pivotal connection therewith, and means latching the intermediate portion of said rim portion to said headpiece.

2. A headshield as recited in claim **1** wherein the rear wall of said slot has a hole therein intermediate the ends thereof and wherein said means comprises a latch extend-

ing rearwardly from the center of said rim portion, which projects through said hole in said rear wall defining said slot.

3. A headshield comprising perforated side portions and a front portion adapted to be spaced from and surround the forehead of the wearer, a vertically extending slot formed in the bottom and extending along the perimeter of said front portion and defined by front and rear wall portions, the ends of said wall portions being arcuate and the rear wall portion having a central hole, and a face-protective element having a top band terminating in a stud at each end, said band being detachably inserted in said slot and said studs being detachably seated in said arcuate portions to form a pivot, and a latch extending rearwardly from a central portion of said band which projects through said hole to securely and detachably fasten said face-protective element to said headshield.

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JORDAN FRANKLIN, *Primary Examiner.*

J. R. BOLER, *Assistant Examiner.*