

Sept. 7, 1965

L. M. CHILD

3,204,251

HOCKEY HEAD PROTECTOR

Filed July 31, 1964

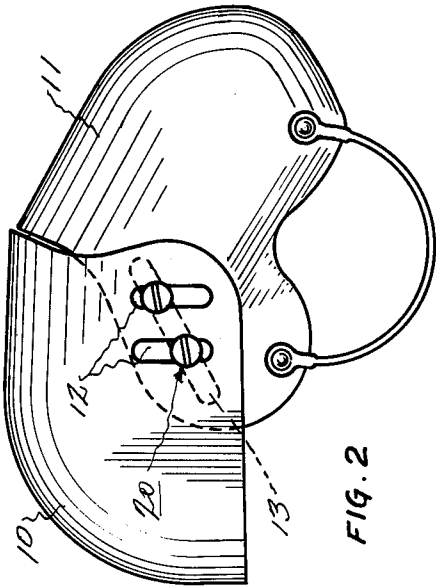


FIG. 2

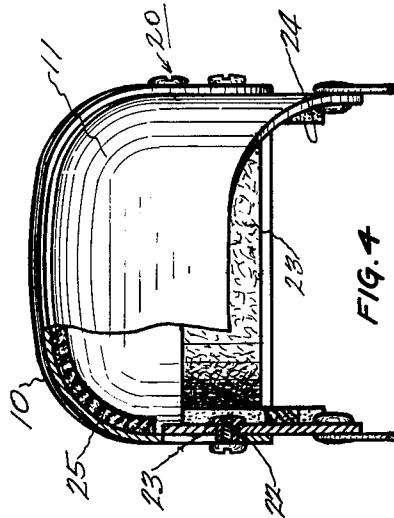


FIG. 4

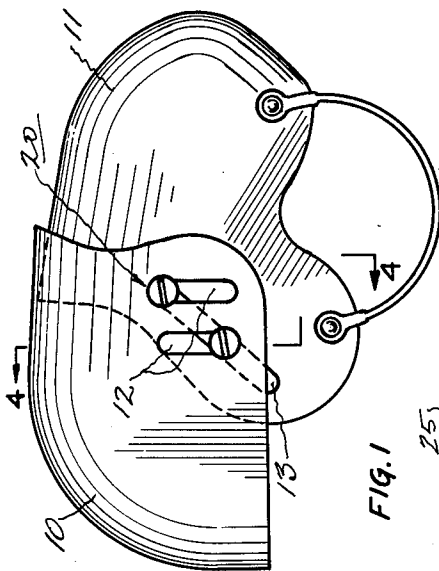


FIG. 1

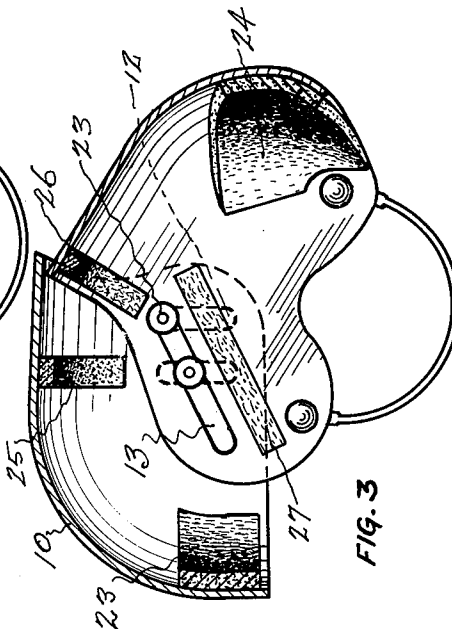


FIG. 3

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1

3,204,251

HOCKEY HEAD PROTECTOR

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Filed July 31, 1964, Ser. No. 386,791

Claims priority, application Canada, Apr. 9, 1964,
899,924

5 Claims. (Cl. 2—3)

This invention relates to a sport helmet.

In some of the sports, particularly rugby, safety re-
quires that a helmet be worn. Recently there has been
a demand for hockey helmets.

Helmets to be used particularly by hockey players, the
fastest sport known, must be strong but as light as pos-
sible. The helmet should also be as comfortably tight
as possible on the player's head, since a loose helmet to
some extent may mitigate against the free and full exercise
of the player's skill; or if the helmet is too tightly held on
the head by means of the usual straps, then the player
experiences some degree of discomfort which reflects on
the quality and excellence of his playing of the game.

Thus, ideally, helmets should be available in a fairly
large assortment of sizes, but economy does not, at least
at this time, permit of this. However, the purpose which
would be served by providing a large assortment is met
in many cases by providing a helmet which, while of a
given width, is adjustable as to over-all length and as to
longitudinal cross-section.

The principal object of the invention, therefore, is to
provide a safety helmet which is made of two comple-
mentary sections and such sections are relatively adjust-
able so as to adapt the helmet to heads of different longi-
tudinal cross-sections.

A further object of the invention is to provide an ad-
justable helmet which is quickly adjustable without re-
quiring special tools to accomplish the adjustment.

A still further object is to provide a helmet which is
lightweight yet offers maximum protection and which is
relatively inexpensive to manufacture.

In the drawings, wherein like numerals of reference
indicate corresponding parts in the various figures,

FIGURE 1 is a side elevation of the helmet with its
two complementary parts releasably secured in one
particular relative position;

FIG. 2 is a view similar to that of FIG. 1 but showing
the two complementary parts or sections of the helmet
in a different relative position;

FIG. 3 is a longitudinal section of the helmet with the
two complementary sections in still another relative po-
sition; and

FIG. 4 is a section on line 4—4 of FIG. 3.

Referring now by numerals to the drawings, 10 and
11 show the two complementary skull portions or sections
of the helmet, 10 being the forward or forehead-engaging
section and 11, the rear section, that is, the section enga-
ging the rear or back of the head or skull.

The two complementary sections 10 and 11 are releas-
ably locked together within a certain range of predeter-
mined relative positions, limited by the disposition—spac-
ing and length—of two parallel slots 12 and of a slot 13
made, respectively, through the sides of the section 10
and the sides of the section 11. The sides of the front
or forward section 10 are spaced farther apart than the
corresponding, co-engaging or co-acting sides of the rear
section 11, so that the rear section 11 telescopes or is
received into the forward section 10. The slots 13, made
through the sides of the section 11, are longer than the
length of the slots 12 and are disposed at an angle thereto.

The two sections of the helmet are releasably locked

2

together in various relative positions by means of devices
20 of conventional design, such as one having a slotted
head from which extends a threaded shank 22, the shank
threading into a hollow nut 23, all as best seen in FIG. 4.

As will be readily apparent, one section of the helmet
is moved or adjusted relatively to the other by loosening
the fastening devices 20 and subsequently tightening such
means when the two sections have been disposed in their
intended relative position.

One section may be adjusted relatively to the other in
a vertical direction, that is, say, the forward section 10
may be raised bodily with respect to the other comple-
mentary section 11. Or, the two complementary sections
may be longitudinally moved apart or brought closer to-
gether by shifting the forward section relatively to the
section 11, the fastening devices, carried by the forward
section 10 sliding in the elongate slots 13 formed through
the side walls of the section 11. Or again, one section
may be rotatably adjusted relatively to the other.

To the inside face of each of the two complementary
sections 10 and 11 are adhered sponge rubber strips or
pads. For instance, a pad 23 is adhered to the front wall
of the forward section 10 and extends laterally say, over
an arc such that the front of the forehead and side areas
of the head are engaged, not by the helmet proper, but
by this pad. Similarly, a pad 24 is provided on the rear
wall of the rear section 11. Also, strips 25 and 26 are
provided on the upper walls of the two sections 10 and
11, respectively. Also, strips 27 are adhered to the side
walls of the section 11.

As will be clearly seen, the helmet of the invention is
adapted to be adjusted within a given range, to fit the
longitudinal cross-section of the wearer's head.

I claim:

1. A safety helmet comprising two complementary, co-
operating forward and rearward head-encompassing sec-
tions of relatively stiff material, said sections having side
walls, said side walls having slots therein, one such section
being received within the other section to permit of their
relative displacement in a vertical plane passing through
the longitudinal axis of the helmet thereby to modify the
effective longitudinal cross-section of the helmet better
to fit the helmet to the wearer's head, and means, including
fastening means passing through the slots in the side walls
of said sections, for releasably locking said sections in
selected relative positions.

2. The invention as defined in claim 1, wherein the slots
on the respective sections are angularly disposed.

3. The invention as defined in claim 1, wherein said
fastening means includes threaded connectors passing
through said slots and holding said sections in selected
locked relationship.

4. The invention as defined in claim 1, wherein resilient
pads attached to inside areas of said sections provide con-
tact between the wearer's head and opposite ends of the
helmet.

5. The invention as defined in claim 1, wherein resilient
pads attached to inside areas of the side walls and end
walls of said sections provide contact between the wearer's
head and the helmet.

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