United States Patent [19]

MacNeil

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[54] **HEAD BRACE FOR HOCKEY PLAYERS**

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[52] **U.S. Cl.** ..... **273/1 B,** 128/76 R, 273/190 C, 128/87 B, 272/80

[51] **Int. Cl.** **A63b 71/02,** A63b 21/18

[58] **Field of Search** ..... 273/1 R, 1 B, 1.5 R, 273/1.5 A, 190 R, 190 C; 22/80, 82; 128/87 B, 76 R, 78, 75

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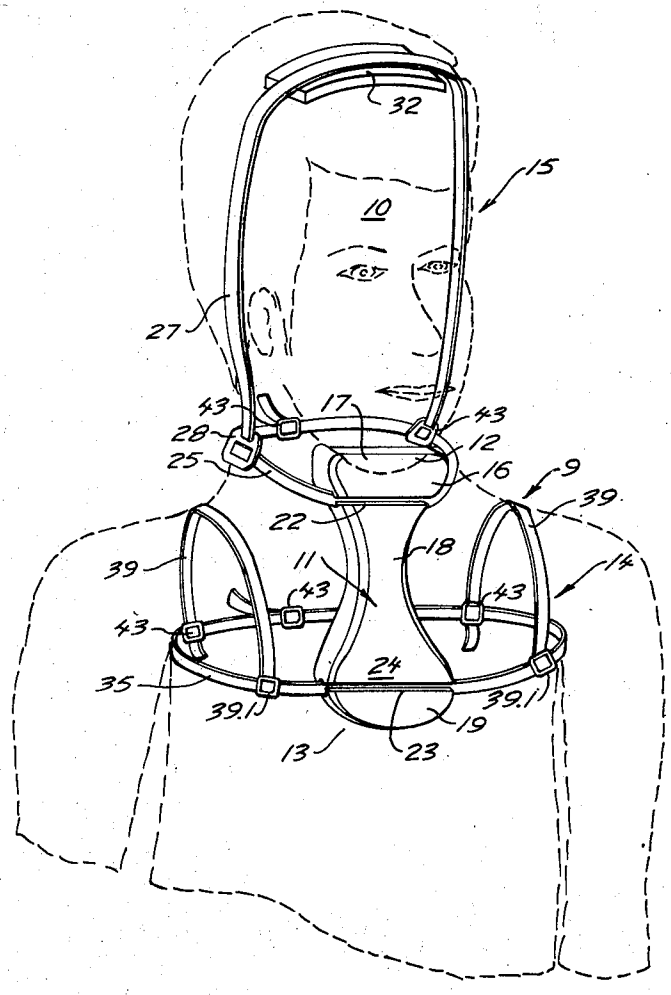
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[57] **ABSTRACT**

A head brace for hockey players having a strut adapted to fit between a player's chin and his sternum, and head and chest strap assemblies for securing upper and lower ends of the strut to the player's head and body so as to restrain downward freedom of movement of the player's head, but not side movement.

4 Claims, 2 Drawing Figures



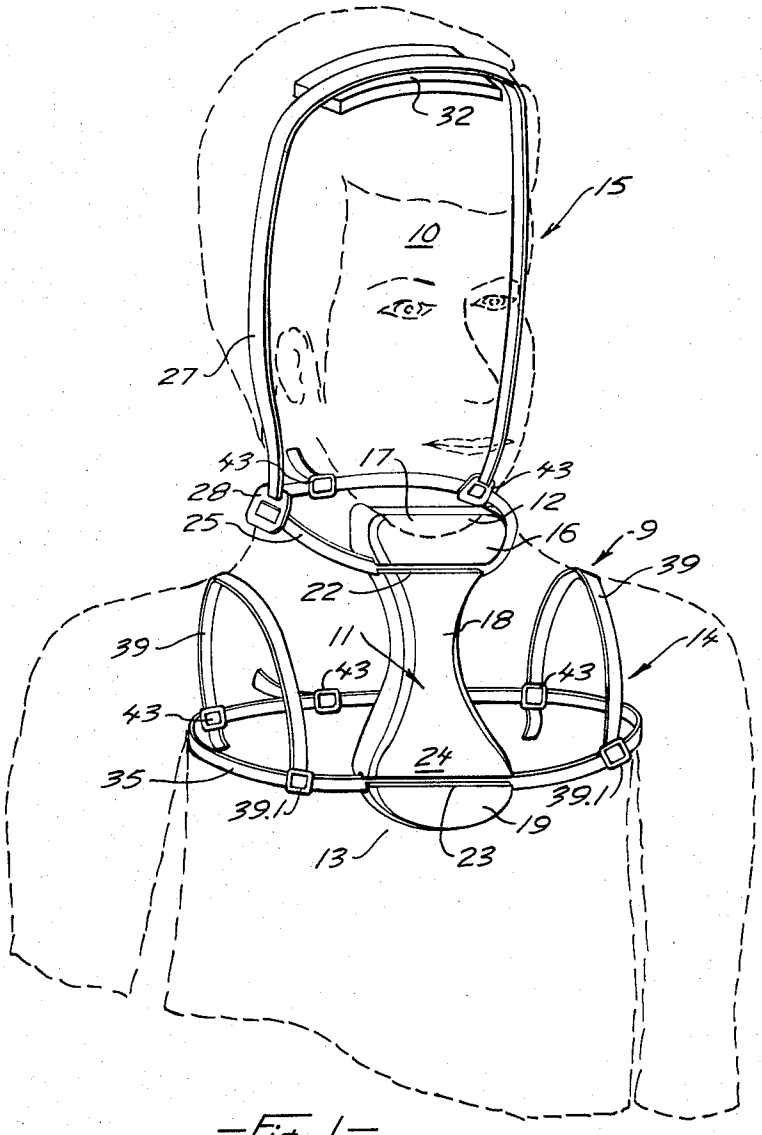

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Fig. 1

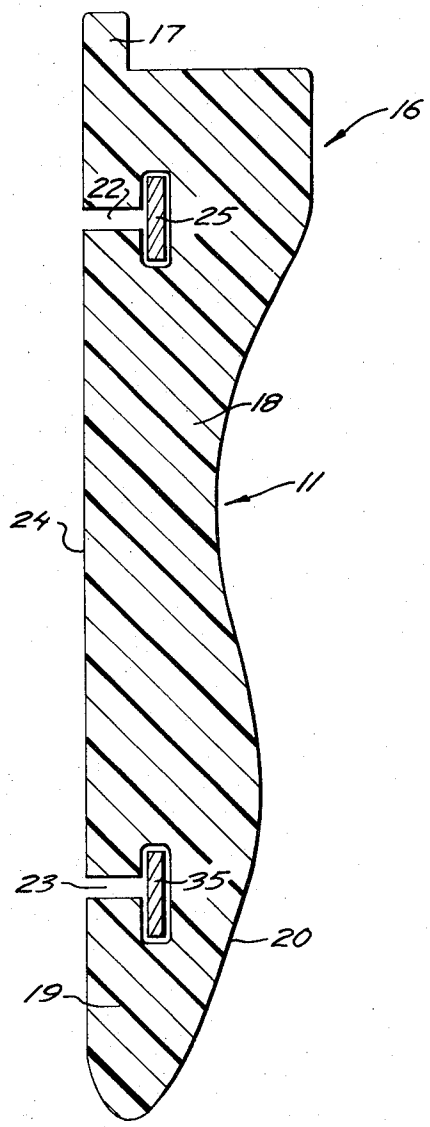


Fig. 2

HEAD BRACE FOR HOCKEY PLAYERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to training equipment for young hockey players and in particular to a head brace for training a player to hold his head upright.

2. Prior Art

In body contact sports, particularly in the sport of hockey where speeds are high it is of great importance that a player be trained to hold his head upright at all times to that he is able to dodge, and avoid colliding with, opposing players. Not only are chances of injury reduced but the player's game is improved in that he can more effectively pass or receive a puck.

Training for this purpose has thus far been confined to shouted commands while a player is carrying the puck, soon forgotten by a player in his efforts to maintain the puck under control while stick handling, thus increasing the possiblity of injury.

SUMMARY OF THE INVENTION

The present invention provides a head brace which tends to influence the player to maintain his head erect at all times during training exercise but which does not interfere otherwise with movements of his body.

The head brace of the present invention includes a strut adapted to be positioned between the player's chin and his sternum, and head and chest strap assemblies for maintaining the strut in position. The strut is made of a resilient flexible material which maintains upward pressure on a player's chin should a player lower his head from an upright position so that he tends to hold his head upright.

A detailed description following related to drawings gives exemplification of a preferred embodiment of the invention which, however, is capable of expression in a structure other than that particularly described and illustrated.

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective of a head brace apparatus of the present invention fastened on a player,

FIG. **2** is a longitudinal sectional view of a strut.

DETAILED DESCRIPTION

Referring to FIG. **1** the head brace assembly of the invention, generally **9,** is shown secured to a hockey player **10,** shown in broken outline, and includes a strut **11** adapted to be positioned between the player's chin **12** and his sternum **13.** The strut is secured to the player by a chest strap assembly, generally **14,** and a head strap assembly, generally **15.**

The strut **11,** see also FIG. **2,** is formed of a suitable resilient flexible material, for example foamed polyethylene, and has an enlarged upper end portion **16** which end is cupped to obtain a snug fit beneath a player's chin and has a trans-verse upstanding lip **17** which extends upwards in front of, and over, the player's chin. The strut has a narrow neck portion **18** of substantially circular cross section and an enlarged base portion **19,** a back surface **20** of which is shaped to engage the player's sternum over a relatively large area.

Transverse keyhole-shaped grooves **22** and **23** extending across the upper and lower end portions and opening out of a front surface **24** of the strut provide

means for connection of the chest and head strap assemblies, **14** and **15.**

The head strap assembly has a neck strap **25** which fits in the groove **22** and which can be fastened around the player's neck and a head strap **27,** proper, secured at one end **28** to the neck strap adjacent one side of the strut can be passed over the player's head and secured to the neck strap adajcent an opposite side of the strut. The head strap carries a pad **32** which fits over the player's crown.

The chest strap assembly **15** has a chest strap **35** which fits in the keyhole groove **23** and which can be fastened around the player's chest. Shoulder straps **39—39** are secured at ends **39.1—39.1** to the chest strap on opposite sides of the strut and are adapted to be passed over the player's shoulder and secured to the chest strap at the player's back.

All of the straps are provided with suitable adjustable fastening devices, generally **43,** which can, for example, be buckles or dome fasteners so that the straps can be tightened to a required extent.

In applying the head brace **10** the strut is positioned beneath the player's chin. The neck and head straps are then applied and tightened to press the chin firmly against the upper end of the strut, and the lip, then with the player's head in an upright position, the lower end of the strut is firmly secured against his sternum by fastening and appropriately adjusting the chest and shoulder straps.

The chest strap assembly, effectively, prohibits movement of the lower end of the strut and the head strap assembly, effectively, prohibits relatve movement of the player's head and the upper end of the strut, so that movement of the player's head can be effected only through flexure of the narrow neck portion of the strut. Cross sectional dimension of the neck portion is such that having regard to type of material of construction and side and muscular development of the player, the player can only lower his head or swing his head from side to side with difficulty so that in order to avoid tiring his neck muscles he tends to maintain his head upright.

A strut formed of suitable vinyl plastic of hardness of **70** on Shore (A) scale and having a neck diameter of one and one half inches has been found to be suitable.

I claim:

1. A head brace apparatus for hockey player's including:

a. a strut adapted to be positioned between a hockey player's chin and his sternum, the strut having a cup shaped upper end adapted to receive the point of the player's chin and having a broad flattened lower end portion has contact with the player's sternum,

b. a chest strap connected to the lower end portion to secure the said lower end portion,

c. shoulder straps connected to the chest straps on opposite sides of the chest strap,

d. a neck strap secured to the upper end portion of the strut adapted to be secured around the player's neck,

e. a head strap adapted to be passed over the player's crown and secured to the neck strap on opposite sides of the strut.

2. A head brace as formed in claim **1** including an upardly extending transverse lip at an upper end of the strut for engagement with the player's chin.

3. A head brace apparatus as claimed in claim 1 in which the strut has a narrow neck portion and is formed of a resilient material so that the narrow neck portion can flex under load.

4. A head brace assembly as claimed in claim 1 in which the strut has keyhole shaped grooves extending transversely across the upper and lower portions of the strut for accepting the neck and chest straps.

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