United States Patent

[11] **3,563,546**

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[54] **HOCKEY STICK WITH SHOULDER ON BACKHAND SURFACE FOR PUCK CONTROL**
8 Claims, 6 Drawing Figs.

[52] **U.S. Cl.** **273/67**
[51] **Int. Cl.** **A63b 59/12**
[50] **Field of Search** ..... 273/67, 77, 168, 175; 273/67(1)

[56] **References Cited**

UNITED STATES PATENTS

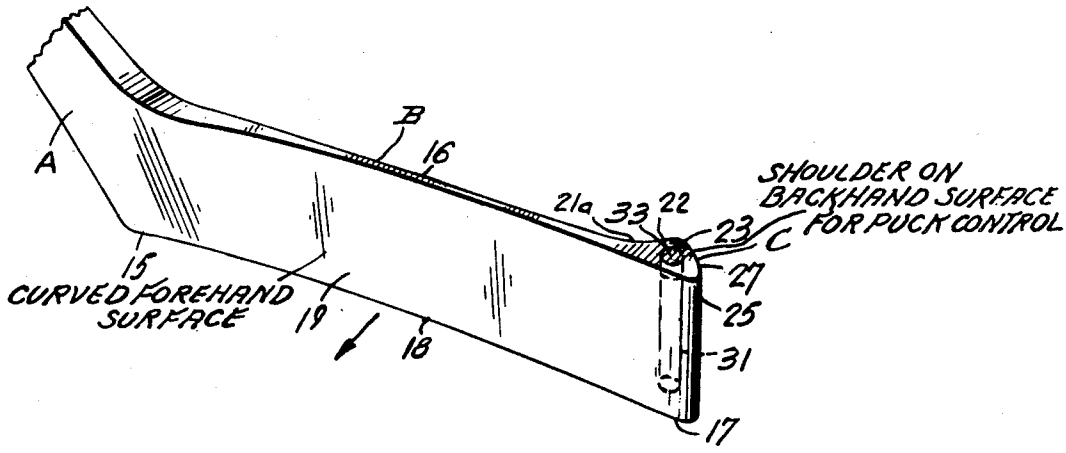
676,736	6/1901	Dean	273/67
682,807	9/1901	Minor	273/67
1,674,173	6/1928	Haupt	273/175
2,489,958	11/1949	Douglass	273/77X

FOREIGN PATENTS

698,375	11/1964	Canada	273/67
706,285	3/1965	Canada	273/168

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Assistant Examiner—Richard J. Apley
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ABSTRACT: The blade of the hockey stick is provided on its backhand surface adjacent the toe with a shoulder extending in the backhand direction and having a surface forming a continuation of the backhand surface providing a puck-cradling bay adapted to deter the puck from sliding off the end of the stick, which is specially useful when the blade is curved in the forehand direction to improve the forehand shot.



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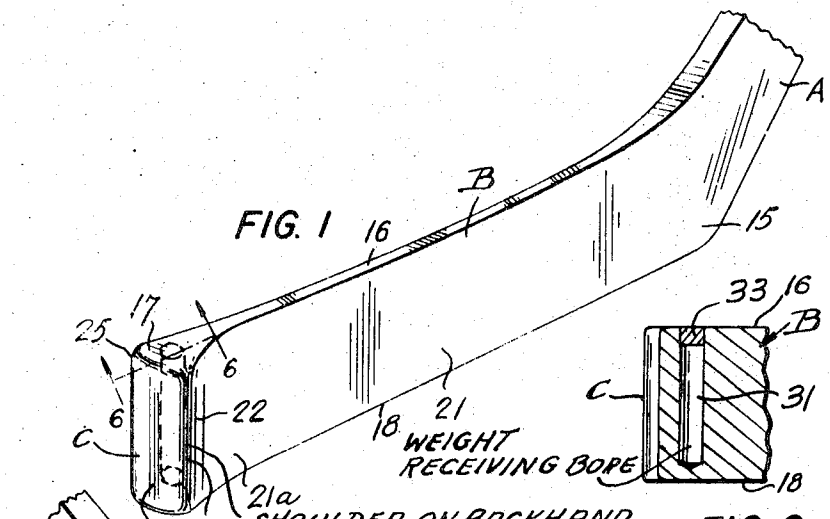


FIG. 1

FIG. 6

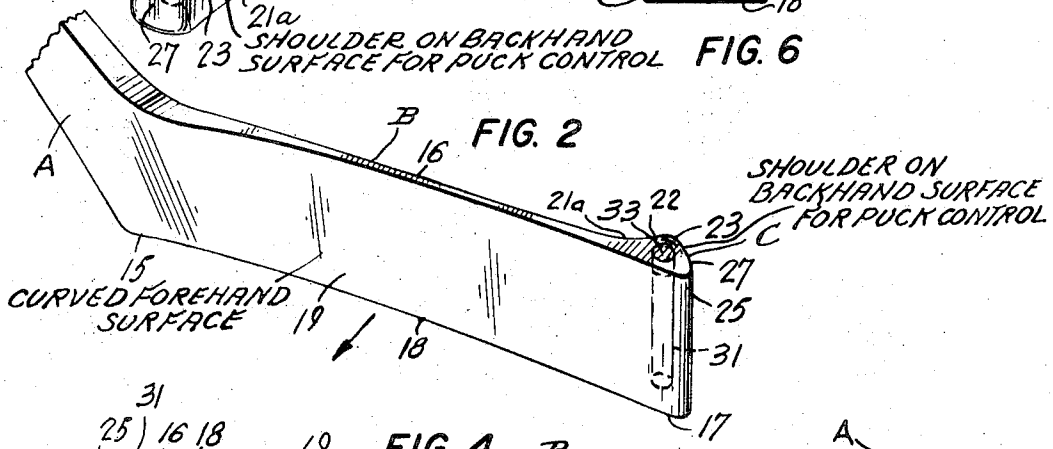


FIG. 2

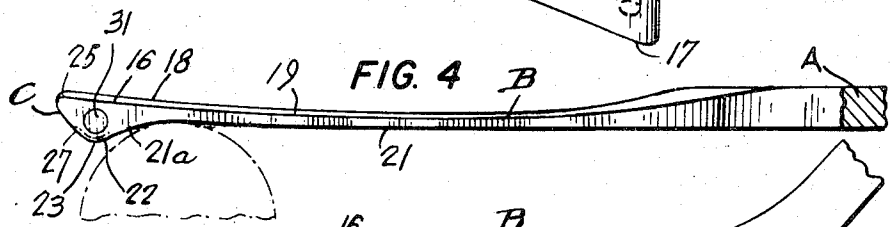


FIG. 4

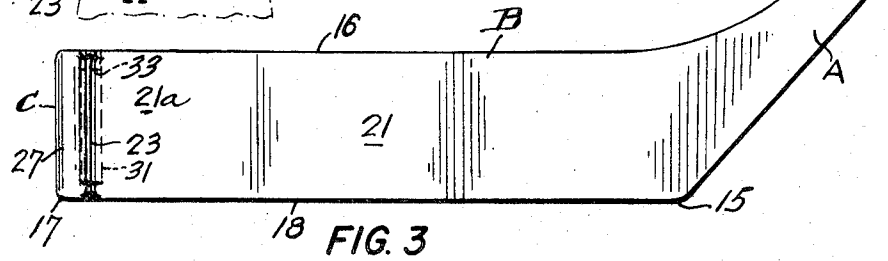


FIG. 3

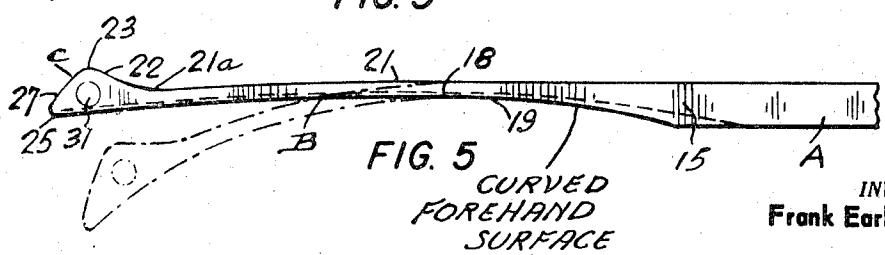


FIG. 5

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HOCKEY STICK WITH SHOULDER ON BACKHAND SURFACE FOR PUCK CONTROL

This invention relates to ice hockey sticks.

One of the problems with hockey sticks is that the more they are shaped to provide an accentuated shooting contour on the forehand face, the shooting contour of the backhand face suffers. With today's tendency for some players to require an extreme forward curve in the blade so as to improve their forehand shot, the contour of the backhand side is such as to deteriorate backhand puck control and shooting ability.

An aim of the present invention is to provide means integral with the stick which gives an improved backhand contour even with a relatively extreme curve in the blade in the forehand direction.

In accordance with the invention the blade has a thickened portion or shoulder extending in the backhand direction at the toe part to provide a curved surface constituting a puck engaging bay terminating in a promontory. The bay and promontory are shaped and located to engage the side of the puck and deter it from sliding off the toe of the stick so that the player can take a good backhand shot even where the forehand curvature of the stick is fairly extreme. The promontory extends at least to puck height and, according to a preferred construction the surface of the bay and the tip surface of the promontory converge at a sharper angle from the bottom of the blade to at least puck height than from there to the top of the blade. The Rule Book of the National Hockey League specifies that the puck shall be one inch thick and three inches in diameter and that the blade of the stick shall be not less than two inches and not more than three inches in height. Accordingly, the promontory, according to the invention, will usually extend from the bottom of the blade to at least one-third of the height of the blade.

The invention will now be described in more detail by reference to the accompanying drawings, in which:

FIG. 1 is a perspective view from the backhand side of the blade of a hockey stick, according to the invention;

FIG. 2 is a perspective view from the forehand side of the blade shown in FIG. 1;

FIG. 3 is a top plan view of the blade shown in FIGS. 1 and 2;

FIG. 4 is a backhand elevation of the blade shown in the previous FIGS,

FIG. 5 is a bottom plan view of a modified form of blade curvature; and

FIG. 6 is a fragmentary cross section along the line 6–6 of FIG. 1.

Referring more particularly to the drawings, the stick is made up of a handle A, only part of which is shown, and integral therewith a blade B, which extends from a heel **15** to a toe **17**. Between the heel and toe is the blade shaped to have a forehand surface **19** and a backhand surface **21**. According to the invention the blade is provided at the toe part with a thickened section or shoulder C which incorporates part of the backhand surface indicated at **21***a* which terminates at a line of greatest prominence **23**. The part C also incorporates a part of the forehand surface which terminates at a line of greatest prominence **25**. A tip surface **27** extends between the respective lines **23** and **25**. The shoulder C thus has a promontory **22**, of which one surface is part of the surface **21***a* and another is part of the surface **27**. The respective surfaces of the promontory merge smoothly and form continuations of the adjacent surfaces.

The forehand surface is curved from toe **15** to heel **17** and also slopes outwards from the top **16** of the blade to the sole **18** so as to provide a surface which will lift the puck.

The surface **21***a* has a curvature equal to or greater than that of the periphery of the puck so as to provide for "-cradling" of the puck and to deter it from rolling off the backhand surface either during stick handling or shooting, as it would otherwise do if there were no shoulder C.

The promontory should be relatively sharp and run substantially vertically from the bottom of the blade to at least puck

height adjacent the line **23**, but may be rounded off and may flair inwards above that, if desired, to reduce weight. The greater the forehand curvature, the more prominence the promontory will have to provide the puck engaging bay **21***a*, that is, the promontory will extend farther behind the blade making the shoulder C thicker. The shoulder C, therefore, has a face **27** which, in the toe to heel direction, extends rearwardly and in the backhand direction from the tip **25** of the forehand surface **19** to meet at a line **23** of greatest prominence, the face **21***a* forming a part of the backhand surface and extends from the line **23**, in the toe to heel direction, towards the forehand. In a preferred construction, the surfaces **21***a* and **27** converge at the line **23** of greatest prominence at a relatively sharp angle up to at least puck height so that the surface bay **21***a* can properly engage the puck. Then, the promontory **22** may be less pronounced and rounded off somewhat above puck height.

In the embodiments of FIG. 5 the fore part of the blade has a more extreme curve in the forehand direction which some players like. This forehand curve may vary depending on the requirements of the individual player. The curve shown in full lines is a relatively moderate forehand curve but some players like to curve the blade in a more pronounced manner in the forehand direction as shown in dotted lines. The shape of the promontory **22** will vary with the forward curve. The greater the curve, the longer the line from point **25** to point **23** and the thicker the shoulder C, the more the promontory **22** protrudes in the backhand direction. This was necessary to create the puck-cradling "bay."

The stick may be made out of any effective material, for example, wood, plastic material, or glass fiber filled plastic. According to well known methods of making hockey sticks, the stick can be provided with the desirable characteristics of flexibility and strength, and also can be made so that it will break under predetermined stress as may be required by the Rules Commission of the National Hockey League.

The shoulder C may be made hollow or provided with a pocket containing lighter or heavier material than that from which the blade is made, for example, plastic foam or balsa wood for the purpose of making the stick lighter or heavier or giving it better balance. If the stick is made of wood, as in the example shown, particularly in FIG. 6, a bore hole **31** can be made in the shoulder and the open end provided with a plug **33** to leave a void within the shoulder or the bore hole can be filled with a lighter or heavier material. If the stick is molded from plastic material, a hollow or lightweight porous or solid cylinder or other shape can be molded into the toe. The backhand surface **21** of the stick can be given a lift as on the forehand surface **19** or can be straight or slope inwards toward the bottom as in conventional sticks, where there is a lift on the forehand side.

I claim:

1. A conventional hockey stick, comprising, a blade extending from a heel end to a toe end and provided with forehand and backhand puck-engaging surfaces extending between said ends, said blade having at the toe end a shoulder protruding in the backhand direction and extending from the bottom of the blade to at least one-third the height of the blade and provided with a curved surface constituting a puck-engaging bay forming part of the backhand surface.

2. A hockey stick, as defined in claim 1, in which the blade is curved in the forehand direction.

3. A hockey stick, as defined in claim 1, in which said shoulder has a face extending from the tip of the forehand surface in the backhand direction and rearward towards the heel to meet at a zone of greatest prominence said curved surface of said puck-engaging bay.

4. A hockey stick, as defined in claim 1, in which said shoulder has a face extending from the tip of the forehand surface in the backhand direction and rearward towards the heel to meet at a zone of greatest prominence said curved surface of said puck-engaging bay, said blade being bowed in the forehand direction.

5. A hockey stick, as defined in claim 1, in which the shoulder has a pocket containing a material of a lighter weight from that of the shoulder proper.

6. A hockey stick, as defined in claim 5, in which the surfaces of said shoulder converge at a zone of greatest prominence at a sharper angle from the bottom of the blade to from about one-third to about one-half the height than from there to the top of the blade.

7. A conventional hockey stick, comprising, a blade extending from a heel end to a toe end and provided with forehand and backhand puck-engaging surfaces extending between said ends, said blade having at the toe end a shoulder protruding in the backhand direction and extending from the bottom of the blade to at least one-third the height of the blade and provided with a curved surface constituting a puck-engaging bay forming part of the backhand surface, the surface of said shoulder converging at the zone of greatest prominence at a sharper angle from the bottom of the blade to from about one-third to about one-half the height of the blade than from there to the top of the blade.

8. A hockey stick, as defined in claim 7, in which said blade is curved in the forehand direction.