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[54] **HOCKEY STICK WITH FLARED UPPER AND LOWER PORTIONS**
3 Claims, 4 Drawing Figs.

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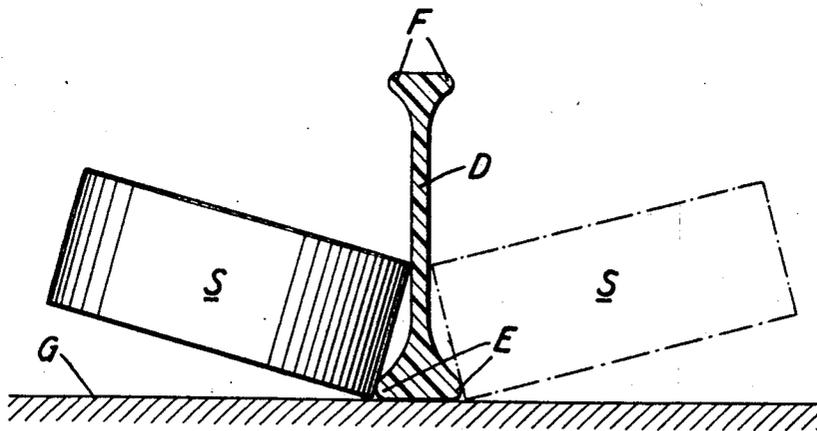
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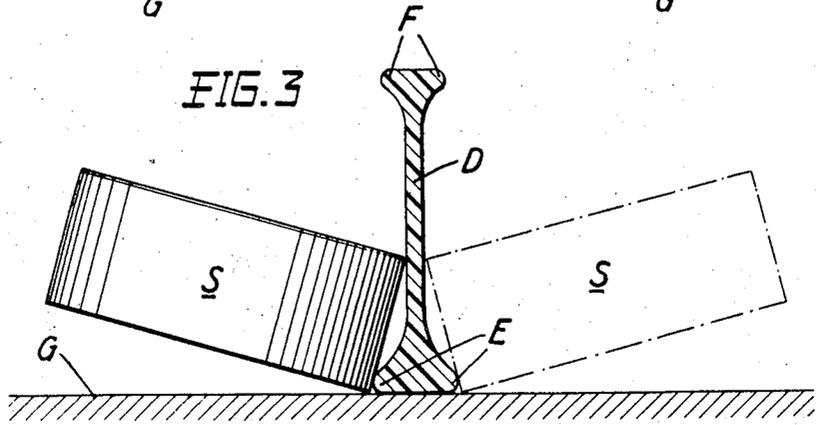
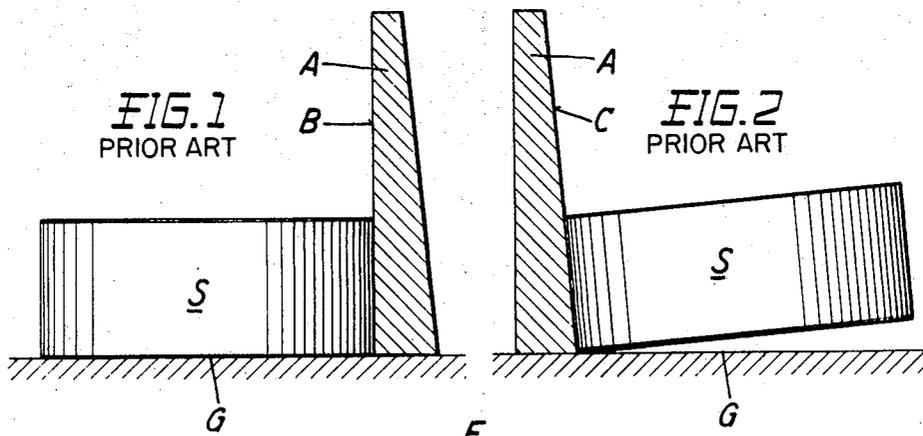
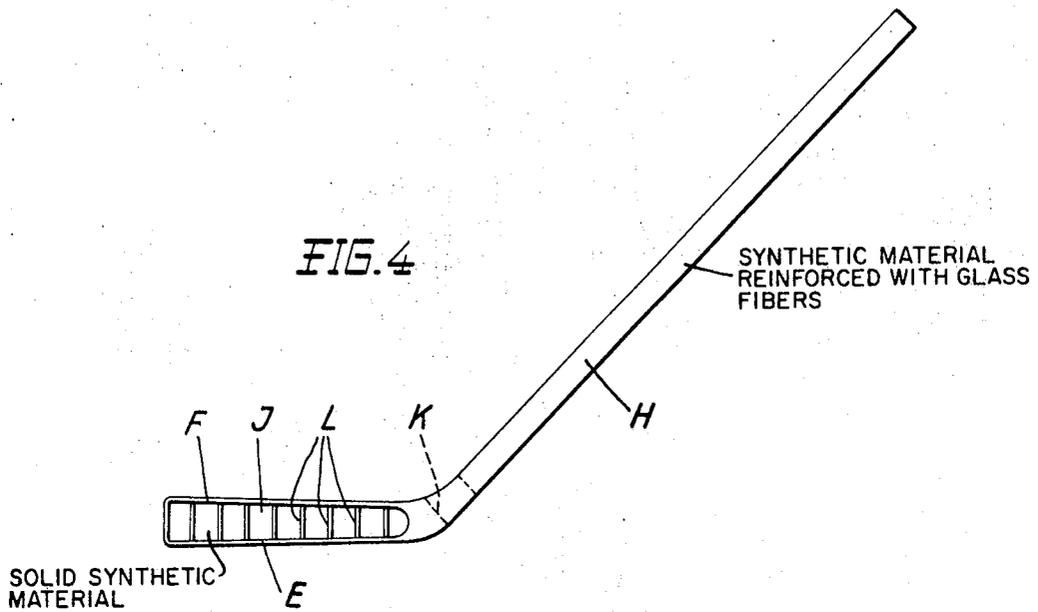
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 81, 167, (GF) (Digest), (Nylon Digest), 186, 9/24

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ABSTRACT: An article of sporting equipment, for instance a conventional ice hockey stick which comprises a shaft with a handle portion formed at the upper end and an elongate blade provided at the lower end of such shaft and extending substantially transversely with respect to the lengthwise axis of such shaft. The blade possesses a central portion of substantially uniform cross section throughout its length and incorporates substantially vertical, parallel sidewalls. Additionally, there are provided outwardly flared portions at the upper and lower extents of the central blade portion, these flared portions extending substantially linearly the full length of the blade, and such flared portions being symmetrically formed on both sides of the blade.





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HOCKEY STICK WITH FLARED UPPER AND LOWER PORTIONS

BACKGROUND OF THE INVENTION

Up to now, two items of sports equipment were made almost entirely of wood, and therefore their shape and their mechanical properties were restricted by the resistivity of the wood.

SUMMARY OF THE INVENTION

In accordance with the invention, by combining synthetic resins and fiberglass, the shape and the mechanical properties of the sports article can much better be adapted to its use. The invention is particularly suitable for the manufacture of improved ice-hockey sticks and boat oars.

BRIEF DESCRIPTION OF THE DRAWING

The invention will be described with reference to the accompanying FIGS. of the drawing, wherein:

FIG. 1 is a cross-sectional view of the blade of an ice-hockey stick of the prior art;

FIG. 2 is a cross-sectional view of the blade, with the puck about to be shot;

FIG. 3 is a cross-sectional view of the blade of an ice-hockey stick of the invention; and

FIG. 4 is a side view of the ice-hockey stick of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. 1 shows a cross section A through the blade of a wooden ice-hockey stick of the prior art. In shooting with the inclined face C of the blade (FIG. 2) the puck S is slightly lifted from the ice G, until its cylindrical surface touches the inclined surface C of the blade. In that position, the puck is completely lifted from the ice G and can be accelerated without friction.

In order to make the blade as light as possible, and resistant enough, the wooden blade has an inclined surface either on the left side or on the right side, but not on both sides. Therefore, there exist two sorts of sticks, depending on the side the player shoots from.

In accordance with the invention, the ice-hockey stick is made out of shockproof synthetic resin, with higher mechanical strength than wood, and can therefore easily take the ideal symmetrical form (FIG. 3). The cross section of the blade portion consists of a thin elongate vertical plate D having transverse flared portions E and F along the lower and upper edges, respectively, of plate D which flared portions extend symmetrically to both sides of the plate. The upper flared portions F

prevent the puck from sliding upwards when receiving it on the blade. For a better guidance of the puck, the plate D can be provided with vertical ribs L. Advantageously, the walls of the plate are parallel between the flares.

The shaft H (FIG. 4) of the stick must also be as light as possible, strong enough (resistant enough), and of a desired elasticity. Made out of wood, it breaks easily. In accordance with the invention, the shaft is made out of a tube of synthetic resin, reinforced with glassfiber. The desired elasticity can be obtained by varying the diameter of the tube and the thickness of the wall. The tube of the stick is filled with a light and pressureproof, hardened foam. This foam filling improves the solidity without increasing the weight.

The above described blade J and shaft H are manufactured separately and fitted together over a prepared joint K.

Boat oars can be manufactured in the same way. The form of the blade of the oar can be better adapted to its use when it is made out of synthetic resin, instead of wood. The handle and loom of the oar are made, as described for the manufacture of hockey sticks, out of a single glassfiber-synthetic resin tube with hardened artificial foam filling. The desired elasticity can be obtained by suitably varying the wall thickness of the tube. This light and elastic synthetic-plastic oar is far less tiring than a stiff wooden oar. The blade is connected to the loom by a joint.

Although the preferred embodiments of the invention have been described, the scope of, and the breadth of protection afforded to, the invention is limited solely by the appended claims.

I claim:

1. A conventional ice-hockey stick comprising a shaft with a handle portion formed at the upper end, an elongate blade provided at the lower end of said shaft and extending substantially transversely with respect to the lengthwise axis of said shaft, said blade possessing a central portion of substantially uniform cross section throughout its length and incorporating substantially vertical, parallel sidewalls, outwardly flared portions formed only at the upper and lower extents of the central blade portion, said flared portions extending substantially linearly the full length of the blade, and said flared portions being symmetrically formed on both sides of the blade.

2. A conventional ice-hockey stick as defined in claim 1, wherein said blade is constructed of a synthetic resin, said shaft being tubular and formed of a synthetic resin reinforced with glass fiber, the interior of said shaft being filled with a hardened foam.

3. A conventional ice-hockey stick as defined in claim 1, further comprising a plurality of vertical ribs on said blade.

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