

[54] **ICE SKATES**  
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 [73] **Assignee: Mitchell & King Skates Limited, Slough, Buckinghamshire, England**  
 [22] **Filed: Apr. 24, 1972**  
 [21] **Appl. No.: 247,159**

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**FOREIGN PATENTS OR APPLICATIONS**

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[30] **Foreign Application Priority Data**  
 Apr. 26, 1971 Great Britain..... 1,1439/71  
 [52] **U.S. Cl.**..... 280/11.17, 280/11.18  
 [51] **Int. Cl.**..... **A63c 1/38**  
 [58] **Field of Search**..... 280/11.17, 11.18, 280/11.12, 11.16, 11.15, 11.14, 7.13, 11.1 R

[56] **References Cited**  
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[57] **ABSTRACT**

In an ice-skate of the kind having a longitudinally-extending tubular reinforcing member for the blade, and a pair of cup-shaped support members extending from the tube to a bed-support-plate and a sole-support-plate for a skate boot, lugs are formed on the upper edge of the blade, which lugs extend upwardly inside the tube to abut its inner surface, so as to transmit compressive loadings from the support members to the blade.

**2 Claims, 3 Drawing Figures**

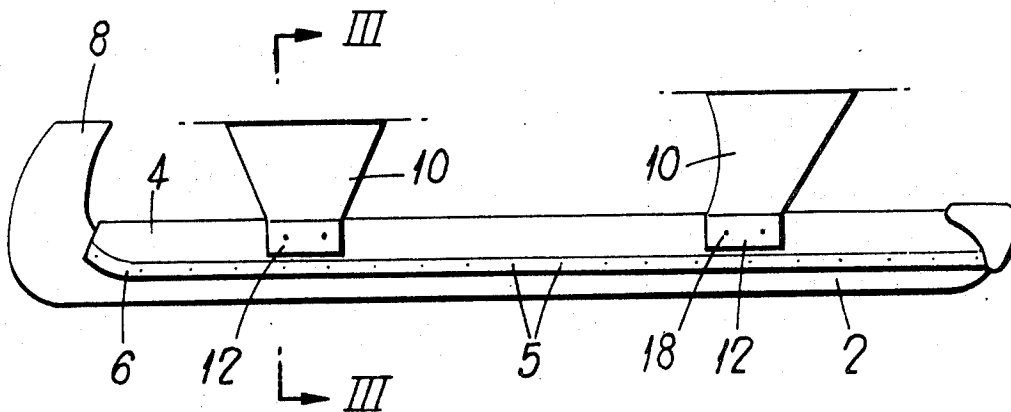


Fig. 1.

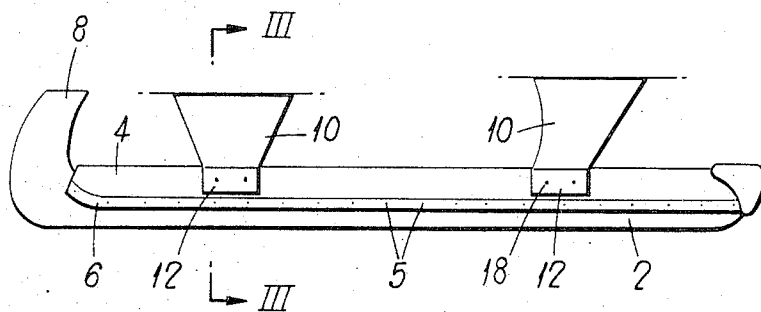


Fig. 2.

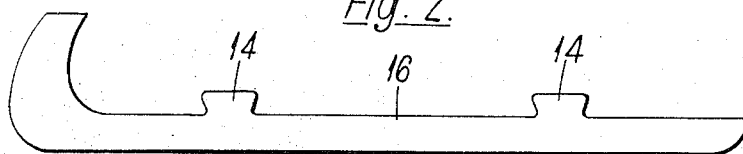
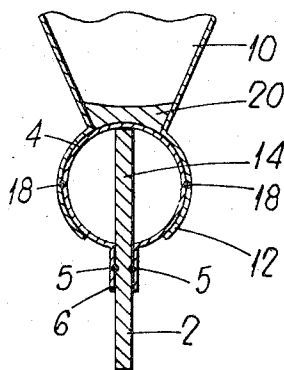


Fig. 3.



ICE SKATES

This invention relates to ice skates, especially skates for hockey players.

This type of skate usually has a longitudinal tubular member reinforcing the blade, with two cup-shaped members extending upwardly from the tube to support the heel and sole of the skate-boot. Extensions of the lower ends of the cup-shaped members are attached to sides of the tubular member by means of spot-welds. Flanges formed on the tube are usually spot-welded to the blade, the load on the skate thus being transmitted through these welds to the blade. This construction suffers from a number of disadvantages. Although the tubular member acts as a reinforcement for the blade, loads imposed on the cup-shaped members must be transmitted to the tube and thence to the blade via the spot-welds, so that large loads are imposed on the welds. These tend to fracture under heavy or sudden loading.

It is an aim of the present invention to provide a strengthened construction for such skates.

According to the invention a skate of the type described has its blade provided with lugs extending upwardly inside the tube between the flanges to abut the inner surface of the tube so that the load is transmitted from the tube through the lugs to the blade.

The lugs are preferably positioned beneath the cup-shaped members so that the load is transmitted as directly as possible from these members to the blade.

The tube is preferably riveted to the blade and the lugs relieve the load on these riveted connections.

The invention also extends to a blade for such a skate, the blade formed with two or more lugs extending from the edge opposite to the working and sharpened edge.

An embodiment of the invention will now be described by way of example with reference to the accompanying drawings, in which:

FIG. 1 is a side elevation of part of a skate according to the invention;

FIG. 2 is a side elevation of the blade of the skate of FIG. 1; and,

FIG. 3 is an enlarged cross-section on the line III — III OF FIG. 1.

Referring to FIG. 1, the blade 2 of the skate has a reinforcing tube 4 attached to it by means of flanges 5 extending from the tube and rivets 6. The front end of the blade 8 is upturned to provide a support for the sole-plate of the skate-boot. Deep-drawn cups 10 are attached to the tube by means of spot-welded extensions 12 to support the sole-plate and a heel-plate respectively.

FIG. 2 shows the profile of the blade of the skate. Lugs 14 extend from the upper edge 16 of the blade and are of sufficient height to reach the top of the inside of tube 4 in the assembled skate, as shown in the cross-section, FIG. 3. FIG. 3 also shows the extensions 12, of the cup-shaped members 10, fixed to the tube 4 by means of spot-welds 18, and the flanges 5 of the tube riveted to the blade 2. Additional strength and sealing of the joint are achieved by running soft solder into the cup 10 during assembly, as indicated at 20.

The lugs transmit the load from the sole and heel plates more directly to the blade without an undue load being put on the spot-welds or rivets joining the tube to the blade, so that under heavy loads, shear of the rivets or fracture of the welds is prevented.

I claim is:

1. An ice skate comprising:

a skate-boot;  
a heel-support-plate and a sole-support-plate for the boot;

a blade having an upper edge;

a tubular reinforcing member extending along the upper edge of the blade;

a support member extending from the tubular member to each of the boot support-plates;

and a pair of lugs formed on the upper edge of the blade and extending upwardly inside the tube to abut the inner surface of the tube;

each lug being positioned immediately beneath one of the said support members the remainder of the upper edge of the blade being spaced from the inner surface of the tube.

2. An ice skate according to claim 1, in which the tube is riveted to the blade, and the support members are spot-welded and soldered to the tube.

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UNITED STATES PATENT OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO. : 3,785,662  
DATED : January 15, 1974  
INVENTOR(S) : JOHN STAPLES

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 1, line 2, delete "a skate boot".

Claim 1, line 3, delete "the" and insert --a--.

:

Signed and sealed this 3rd day of June 1975.

(SEAL)

Attest:

RUTH C. MASON  
Attesting Officer

C. MARSHALL DANN  
Commissioner of Patents  
and Trademarks