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SKATE GUARD

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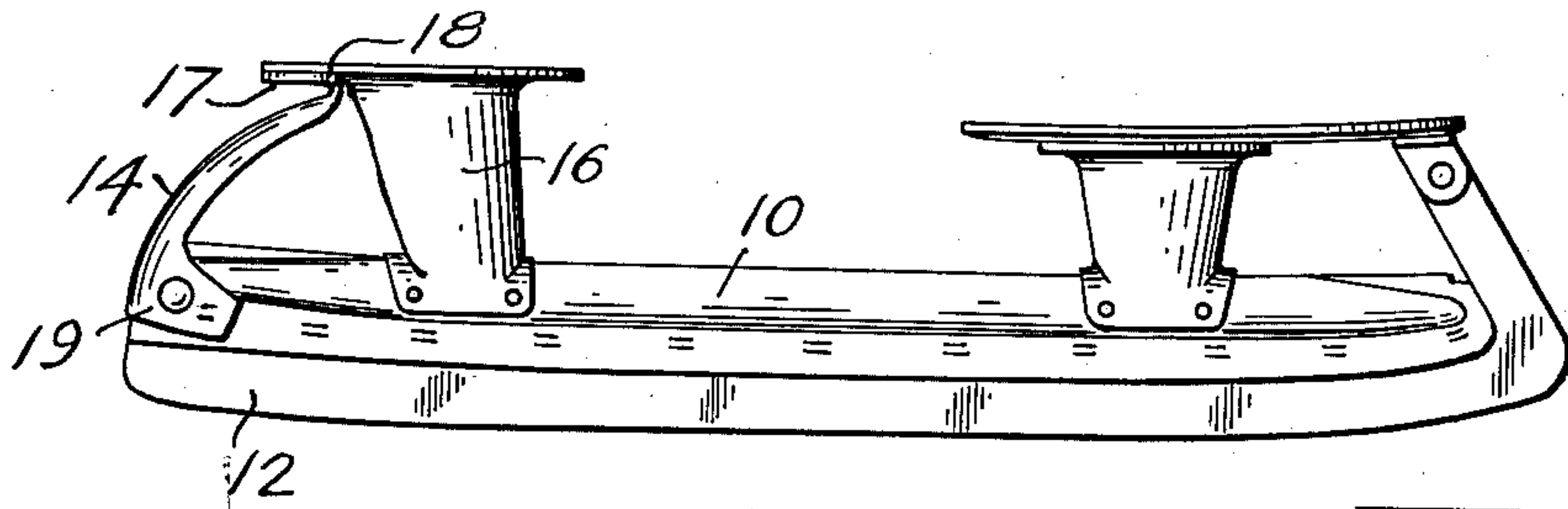


Fig. 1

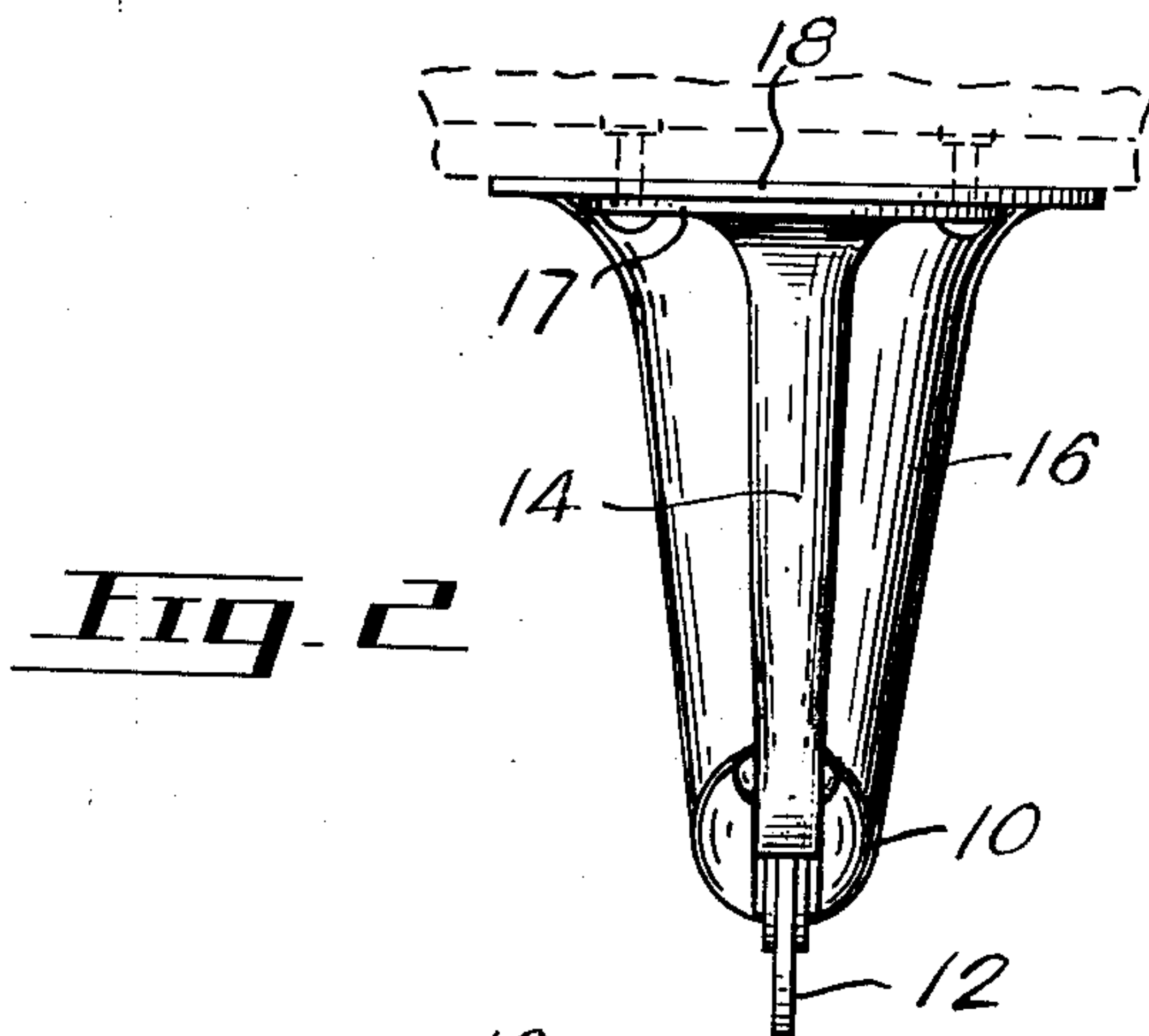


Fig. 2

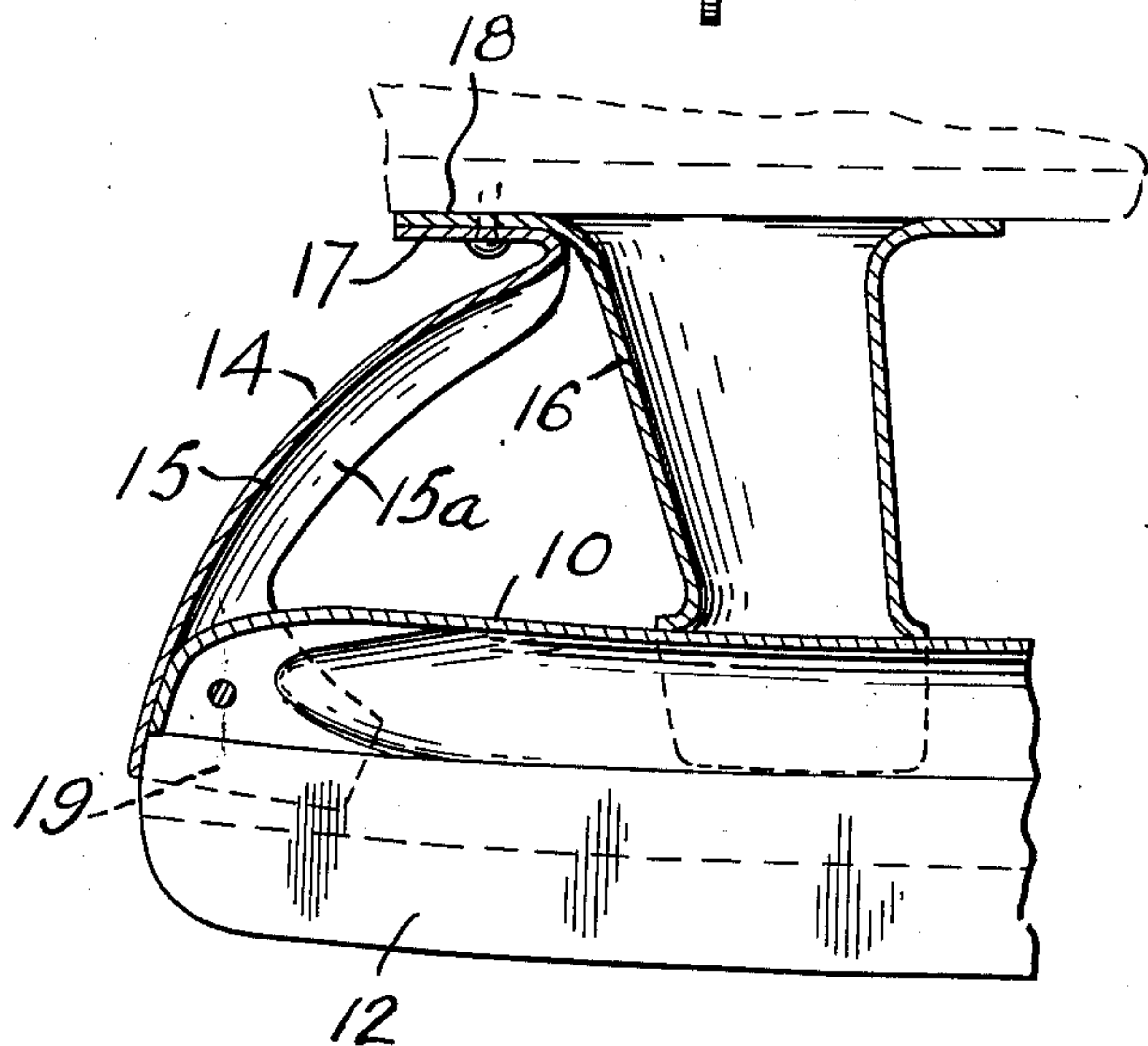


Fig. 3

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SKATE GUARD

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1 Claim. (Cl. 280—11.12)

The present invention relates to improvements in the construction of ice skates and more particularly to an improved ice skate construction designed to minimize possible injury to a person coming into contact with the ends of the blades of such skates.

As is well known, serious injuries have been caused by persons falling on top of or otherwise coming into violent contact with the heel ends of tubular skates such as commonly used in playing ice hockey. While the toe of such skate blades is fairly well guarded, by reason of the design of the blade supporting structure, the heel projects well beyond the rear supporting tube and constitutes a "sharp weapon" which normally is not guarded in any way.

Accordingly, the present invention aims to provide an improved skate structure which embodies a form of guard which will prevent or at least minimize possible injury to a person falling on the rear portions of the blade. This is accomplished by providing an outwardly arcuate strut or guard between the end of the tubular member supporting the heel of the blade and the top of the tubular support upon which the heel of the shoe is attached. In the preferred form this guard is in the form of an arcuately contoured rounded sheet metal strut secured at one end to the tubular blade support and at the other end to the tubular skate heel attachment plate. In this construction the strut or guard is shaped so as to curve arcuately outwards beneath the heel of the skate frame to meet the end of the tubular blade support and is sufficiently light so as not to affect the balance or feel of the skates while being sufficiently strong to withstand normal usage without deformation. The main arcuate portion of the guard is shaped as a rounded channel section giving the maximum strength without undue weight. This application is a continuation-in-part of United States application Serial No. 814,790 filed May 21, 1959 now abandoned.

Having thus generally described the nature of the invention, particular reference will be made to the accompanying drawings showing by way of illustration preferred embodiments thereof, and in which:

FIGURE 1 is a view in side elevation of a tube skate provided with the safety strut or guard of the invention in one preferred form.

FIGURE 2 is an end view of the construction of FIGURE 1 to illustrate the construction more clearly.

FIGURE 3 is a side view of the construction shown in FIGURE 2 and partially in cross section to illustrate the construction more clearly.

With particular reference to FIGURES 1 and 2 of the drawings, a tube skate of regular form is shown with the longitudinal blade supporting tube indicated at 10 and the blade at 12.

In accordance with the invention, a stay or guard 14 of outwardly arcuate formation is secured between the upper end of the tubular support 16 and the outer end of the blade supporting tube 10. Preferably the stay 14 is made from thin sheet metal similar to that forming the tubular frame work of the skate and shaped to be of sufficient strength to withstand deformation under normal usage and it is welded or riveted to the existing tubular skate parts. As will be apparent by reference to the drawings, the stay 14 is not cumbersome nor does it detract from the appearance of the skate. Due to its

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arcuate formation and its rounded channel-like cross section it will withstand the weight of a person falling on it and will deflect and prevent the "sharp weapon" formed by the rear end of the skate from penetrating the flesh.

The tapering formation of the main channel section provides the maximum strength of the guard over the rear end of the skate blade where it is required. As shown, in FIGURE 3 the guard is made up of a one-piece blank which is formed so as to have a main section 15 of channel-like cross section tapering outwardly from a top attachment flange 17 and having inwardly extending side flanges 15a. The top attachment flange 17 extends outwardly from the arcuate formation of the channel section 15 and is substantially flat to match the heel supporting plate 18 extending from the top of the tubular support 16 to which it is secured by welding or rivets. The upper end of the section 15 is blended in to meet the flange 17. The lower end of the section 15 wherein the flanges 15a are widest is squeezed in to form attachment flanges 19 matching the end of the tube 10 where they are attached, for example by spot welding or other suitable means.

An advantage of the guard or stay 14 in accordance with the invention is that it can be attached to existing skate forms with little or no modification, either in the manufacture or later.

It will also be appreciated with reference to the preceding description and accompanying drawing that similar guards can be utilized on skates other than the tubular skates described. For example, figure or fancy skates of certain types have the same dangerous protrusion of the blade heel portion which could be remedied by the attachment of an arcuate stay as described.

I claim:

In a tubular ice skate construction comprising an elongated blade disposed on its edge and having fixedly secured thereto and extending substantially the length thereof a tubular support at the upper edge thereof, vertical support means secured to an intermediate portion of said tubular support means, heel-plate means secured to the upper end of said vertical support means and including a rear edge disposed inwardly of the rear terminal end of said blade and tubular support, in combination, a rear blade guard comprising a metal stay overlying the rear terminal end of said blade and including a pair of spaced attaching flanges substantially embracing opposite sides of said tubular support above said blade and fixedly secured thereto, said metal stay curving inwardly from the rear terminal end of said blade beneath said heel-plate means and terminating in a substantially flat plate portion juxtaposed beneath and secured to said heel-plate means and extending rearwardly from the upper end of said vertical support means to which said heel-plate means is secured, said metal stay flaring upwardly and outwardly from said blade and having a substantially U-shaped, horizontal cross-section increased from said blade to said heel-plate means and opening inwardly toward said vertical support means.

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