My invention relates to improvements in ankle supports and has for its primary object the novel construction and arrangement of a stiffener exteriorly applied to the back of a boot for supporting or bracing the wearer's ankle. The invention is primarily intended for a skate-boot but might be employed as a surgical brace if so desired.

A further object of the invention is to provide an ankle support for a skate-boot which can be readily applied, and which will serve as a stiffener for the back portion of the upper in a manner to support or brace the wearer's ankle and preclude it unduly bending sidewise as is the natural tendency when the skater's ankles are not strong.

A still further object is to furnish an ankle support which will not prohibit movement of the ankle as is required in skating, and which can be manufactured at low cost.

The invention is illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a skate and boot showing the preferred form of the invention in applied position.

Figure 2 is an aspect of the invention, shown in Fig. 1, laid out flat.

Figure 3 is a similar view to that of Fig. 1 but depicting a modified form of the invention.

Figure 4 is an aspect of the modification spread out flat.

Figure 5 is a perspective view of a further modified form of the invention.

Like numerals of reference indicate corresponding parts in each of the figures throughout the drawing of the invention.

Referring to first to Figs. 1 and 2, the selected form of the invention herein shown comprises a flat strip 10 of stiff material applied exteriorly to the back of the upper 11 of an ordinary skate-boot. The strip is fairly broad in its thickness and is of a length such as to extend upward from the lower part of the heel portion 12 of the upper to the upper edge 13 of the leg opening of the upper.

The strip is attached to the back of the upper by lines of stitching 14 located medially of the width of the strip, which leaves the sides 15 thereof freely extending outwardly. The strip is sufficiently pliant to conform to the contour of the back of the upper throughout its length, and only contacts the upper at the portion medially of its width.

In practice I have found that a strip of leather of the grade used for outsoles answers the purpose satisfactorily, but other materials may be employed, such as metal, plastic or fibre. In lieu of the stitching 14 rivets or other approved fastening means may be resorted to without departing from the scope of the invention.

It will be apparent from the preceding description that due to the cross-section of the strip it will strongly resist a force tending to bend it edgewise of its length, and by reason of its attachment medially of its width to the back of the boot it will twist sufficiently to accommodate the necessary ankle movement required in skating.

In the modification depicted in Figs. 3 and 4, the construction presents an ankle support which is particularly suited for a person whose ankles require a very firm bracing. It comprises a member 16 having arms or wings 17 extending laterally from its upper end. This forms a T-shaped member which is made of stiff material but capable of being bent to a desired degree. The member 16 is a strip similar to the strip 10 aforesaid and is likewise disposed at the back of the upper and secured along its medial longitudinal extent by the stitching 17' or comparable fastening means.

The arms or wings 17 are curved forward about the upper edge 13 of the upper and secured thereto as by stitching 16. By this arrangement they function to considerably enhance the bracing effect of the ankle support, and are continuously engaged with the upper whereas the member 16 has its side portions free of attachment.

In the variant shown in Fig. 5 there is illustrated a strip 19 which may be employed in place of the strip 10 aforesaid, and which is constructed with embedded stiffening ribs 20 of metal or other suitable material. The ribs extend longitudinally of the strip and are spaced from each other. The strip member may be fashioned of two thicknesses of thin flat material secured together as by adhesive or other fastening means and devised to encase the ribs and to be attached to the back of the upper along the medial longitudinal extent as by stitching or comparable means. It will be manifest that the modification shown in Figs. 3 and 4 could be reinforced by ribs without departing from the spirit and scope of the invention.

From the preceding description of my invention it will be evident that it provides a serviceable and durable ankle support which is inexpensive to manufacture.

What I claim is:

1. In an ankle support for a boot having an
upper for fitting about the ankle of a foot, said ankle support comprising a stiffening member exteriorly applied to the upper and extending upwardly from the back of the heel portion to a point above the ankle portion, the portion of the stiffening member medially of its width being secured to the upper along its length and the sides of the stiffening member extending freely outwardly.

2. In an ankle support for a boot having an upper for fitting about the ankle of a foot, said ankle support comprising a strip of stiff material of a substantially greater width than thickness placed flatwise against the back of said upper and extending upwardly from the heel portion to a point above the ankle portion, the portion of said strip medially of its width being secured to the upper along its length leaving the side portions free.

3. In an ankle support for a boot having an upper for fitting about the ankle of a foot, said ankle support consisting of a strip of stiff material of a cross section having a substantially greater width than thickness, the strip being placed exteriorly of the back of the upper and being extended upwardly from the heel portion to the portion that fits about the ankle, and fastening means securing the strip along its length medially of its width.

4. In an ankle support for a boot having an upper for fitting about the ankle of a foot, said ankle support consisting of a strip of stiff material of a cross section having a substantially greater width than thickness, the strip being placed exteriorly of the back of the upper and being extended upwardly from the heel portion to the portion that fits about the ankle, said strip being sewn to the upper by a longitudinal line of stitching medially of its width leaving the sides freely extending outwardly.

5. An ankle support as set forth in claim 1 and in which the stiffening member includes a stiffening agent.

6. An ankle support for a boot comprising a stiff member having a substantially flat elongated part of a greater width than thickness adapted to be exteriorly secured medially of its width to the back of the boot upper and to extend upwardly from the heel portion thereof to the upper edge of the leg opening, and arms or wings extending outwardly from the said part for attachment to said upper above the ankle portion thereof.

7. An ankle support as set forth in claim 6 and in which the structure includes an encased stiffening agent.

8. In an ankle support for a boot having an upper for fitting about the ankle of a foot, said ankle support consisting of a strip of stiff material of a cross section having a substantially greater width than thickness, the strip being placed exteriorly of the back of the upper and being extended upwardly from the heel portion to the portion that fits about the ankle, said strip being sewn to the upper by a longitudinal line of stitching medially of its width, and arms forwardly extending from the top portion of said strip and sewn to said upper.

MELVILLE G. HUESTON.