

Nov. 26, 1935.

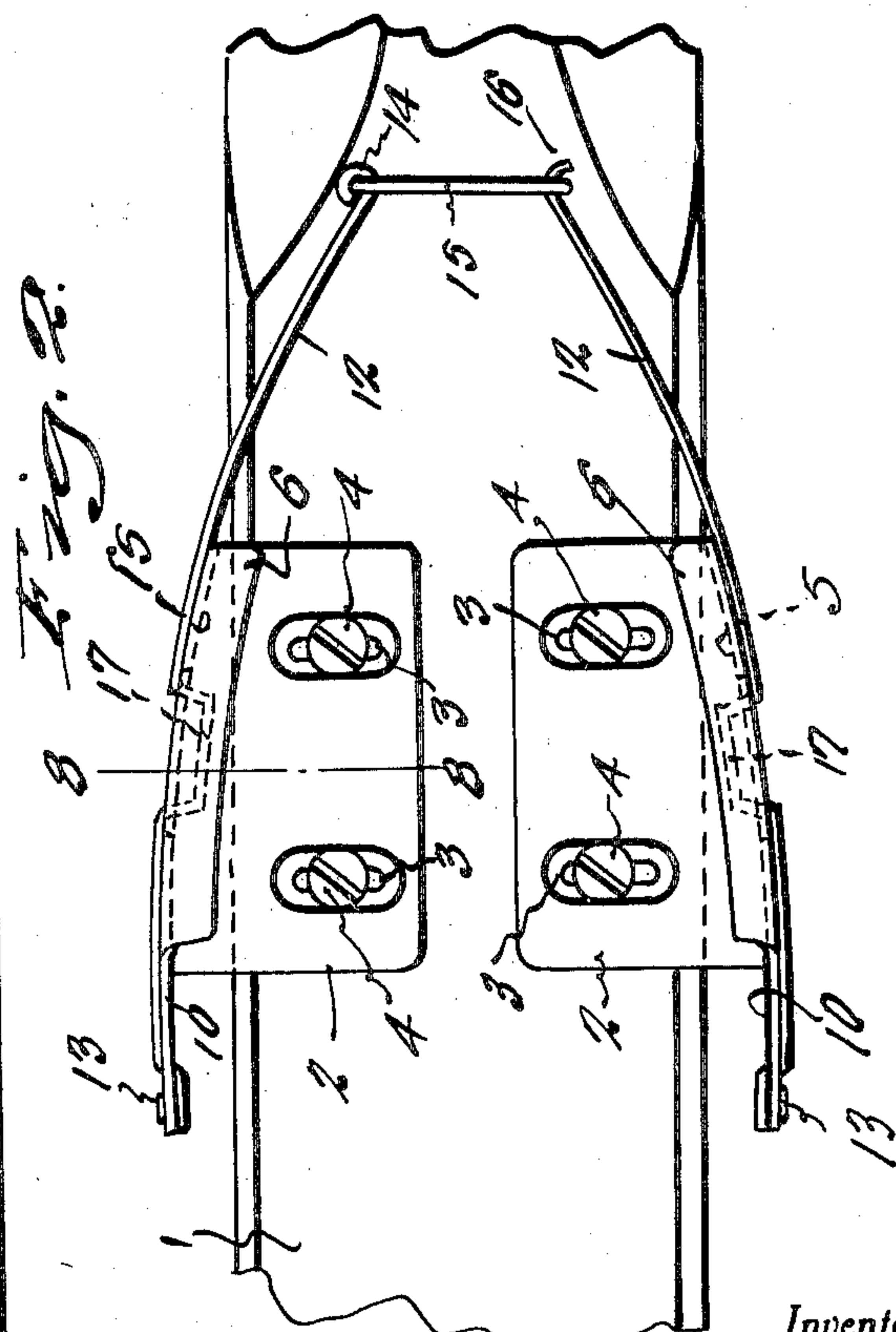
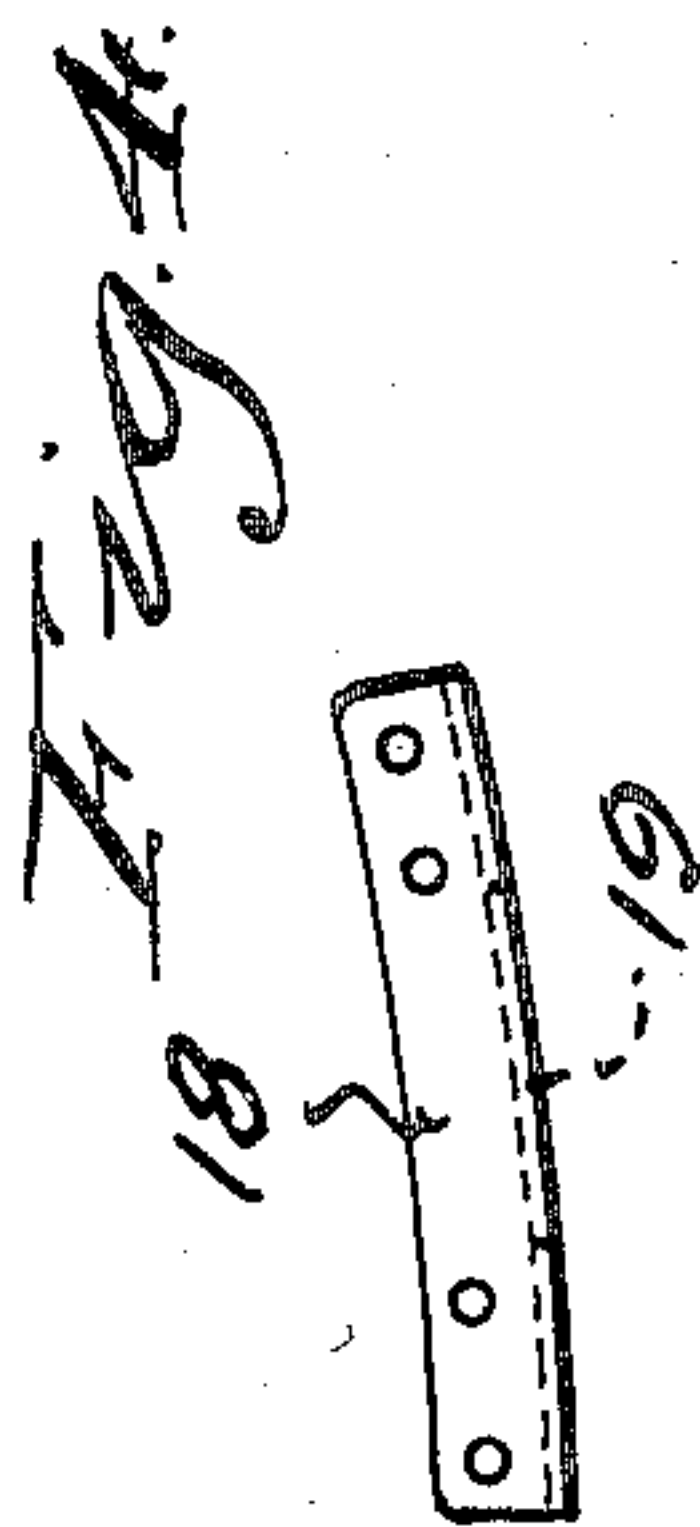
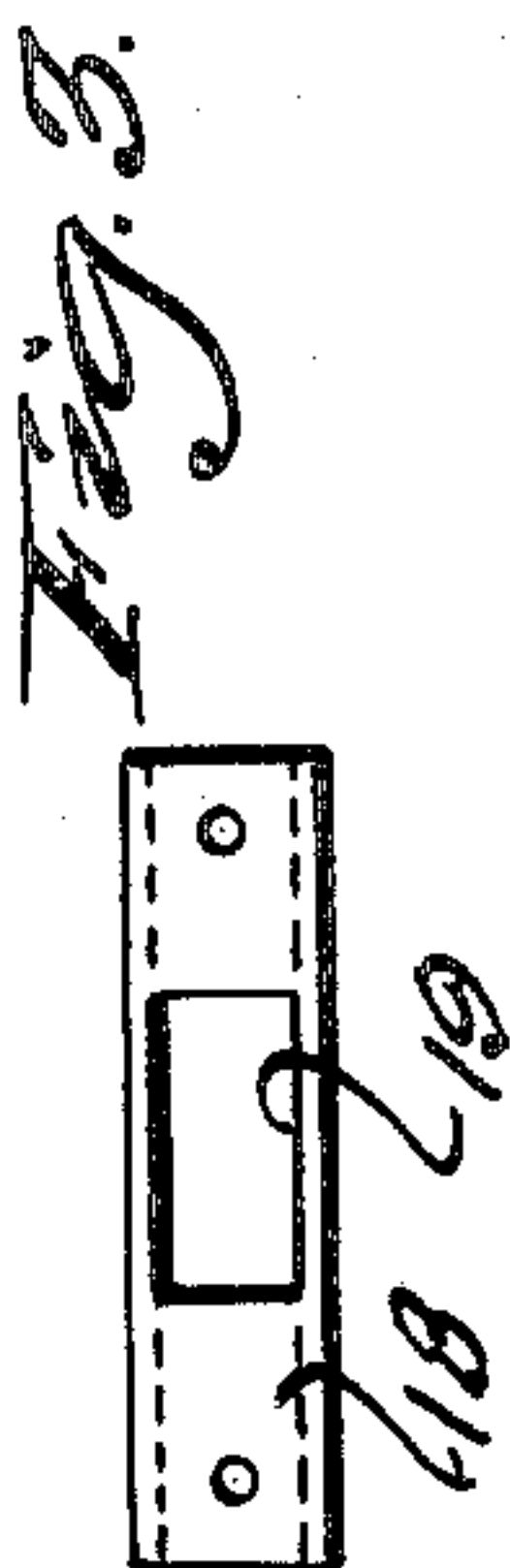
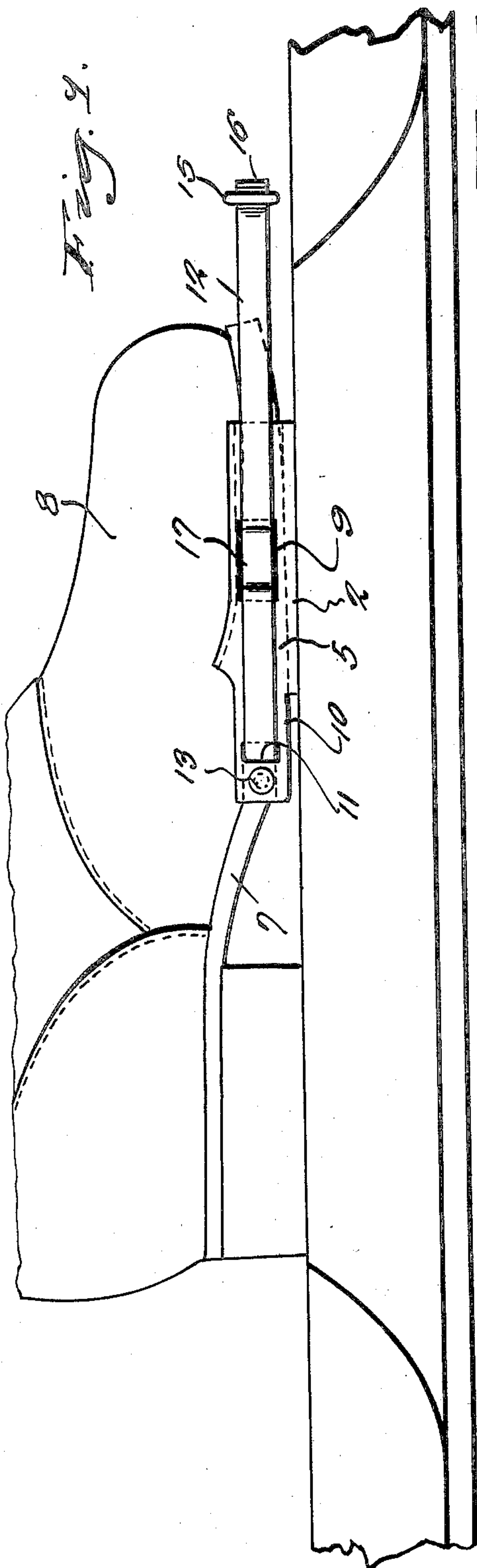
S. L. UTTERSTROM

2,022,580

SKI BINDING

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2 Sheets-Sheet 1



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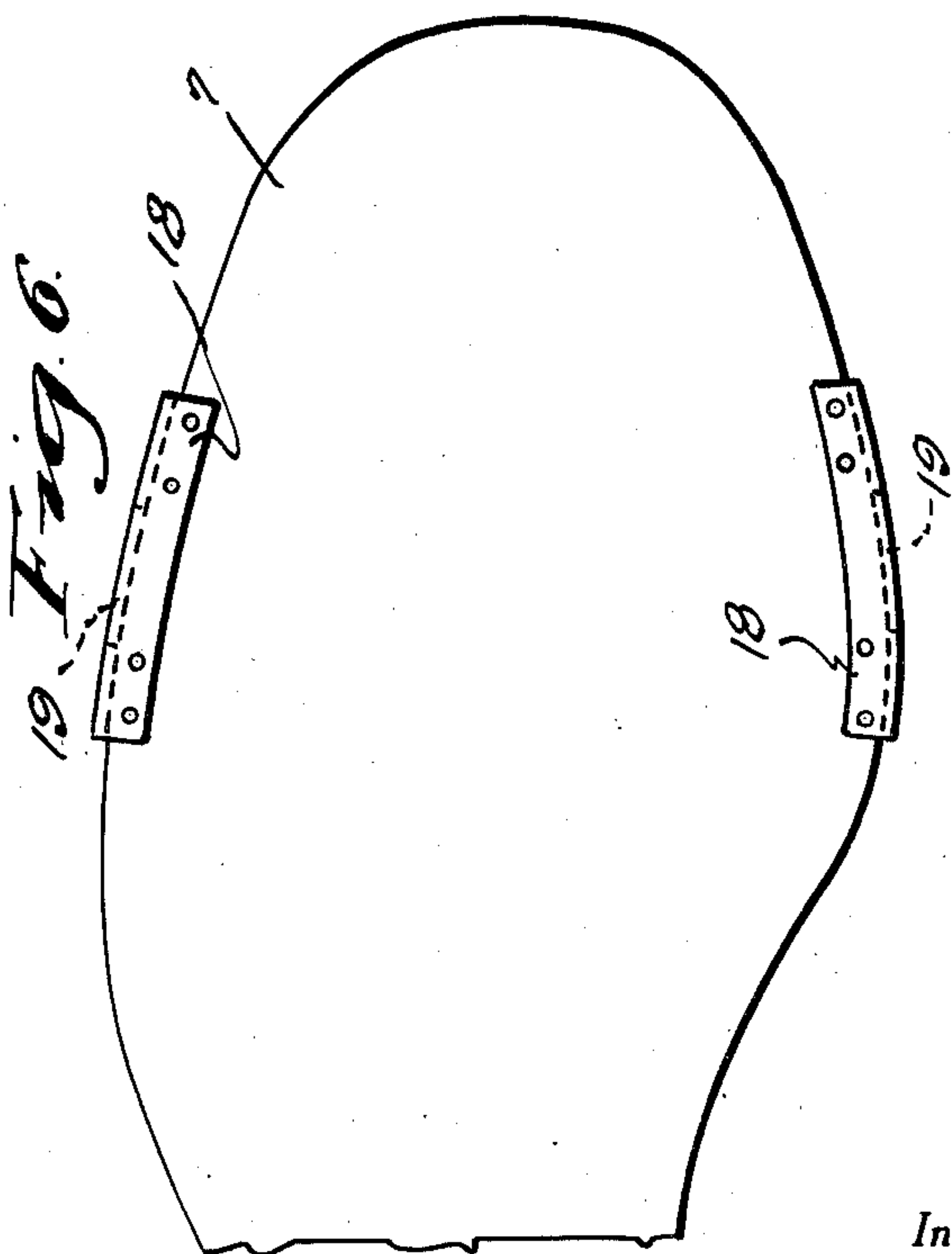
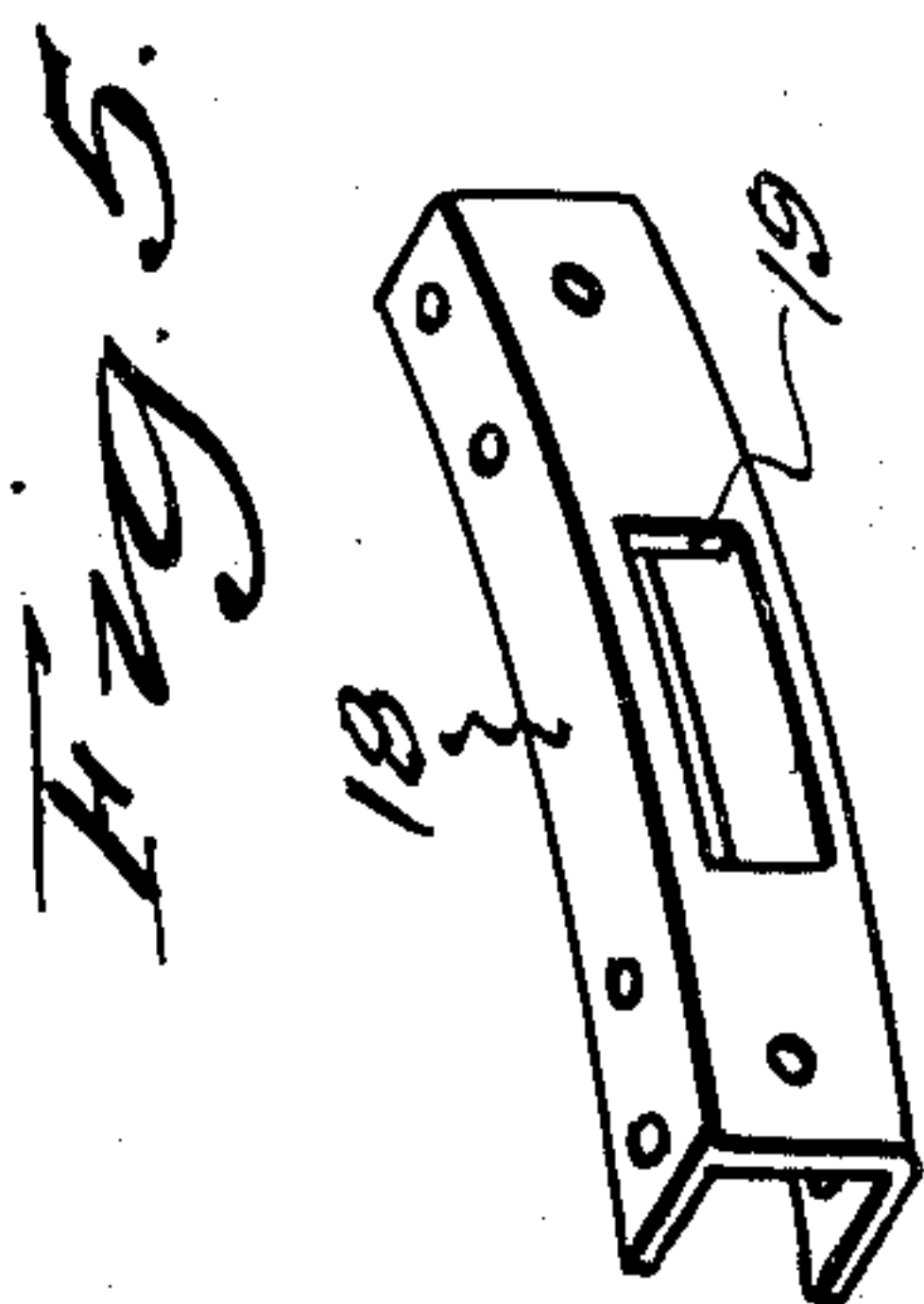
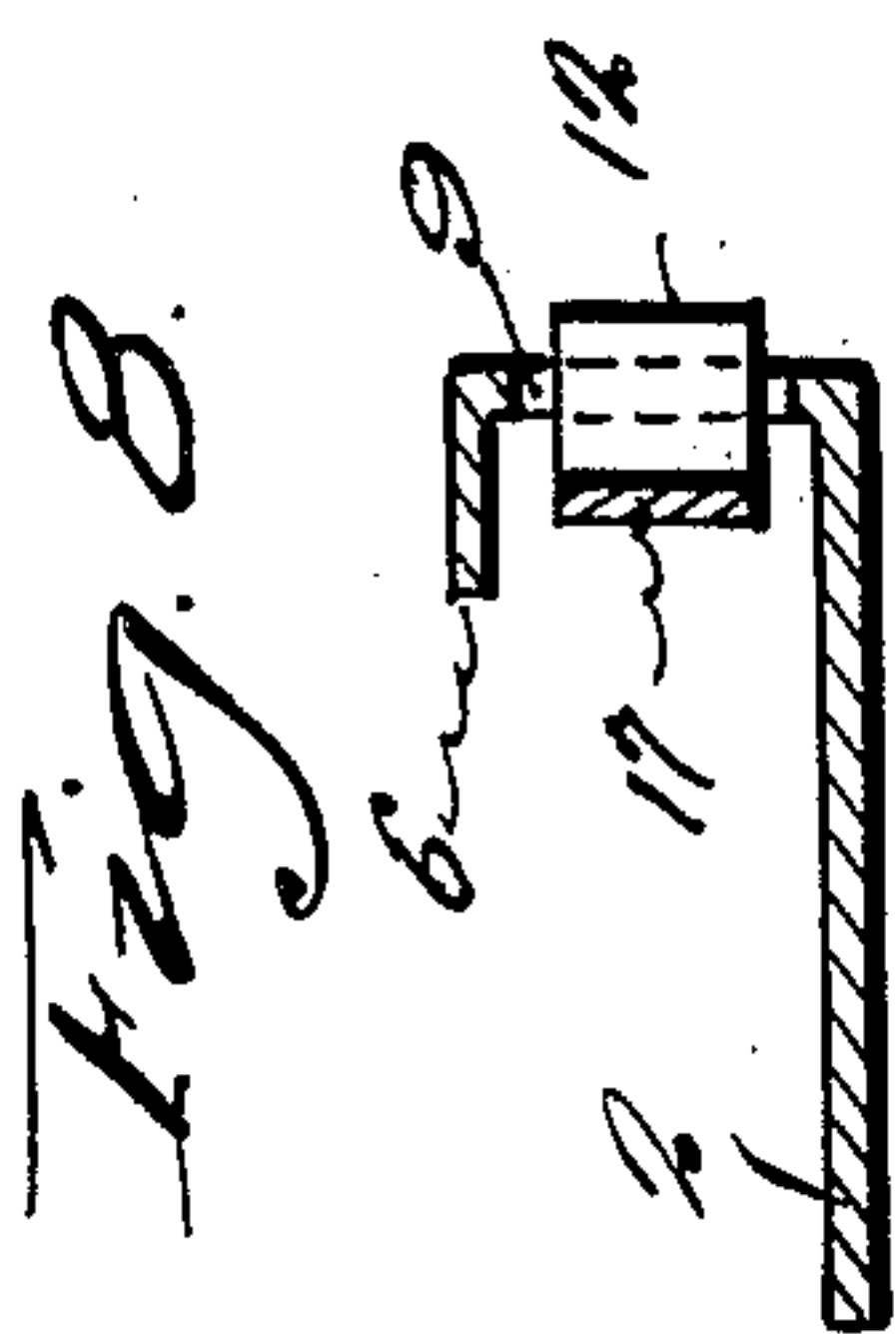
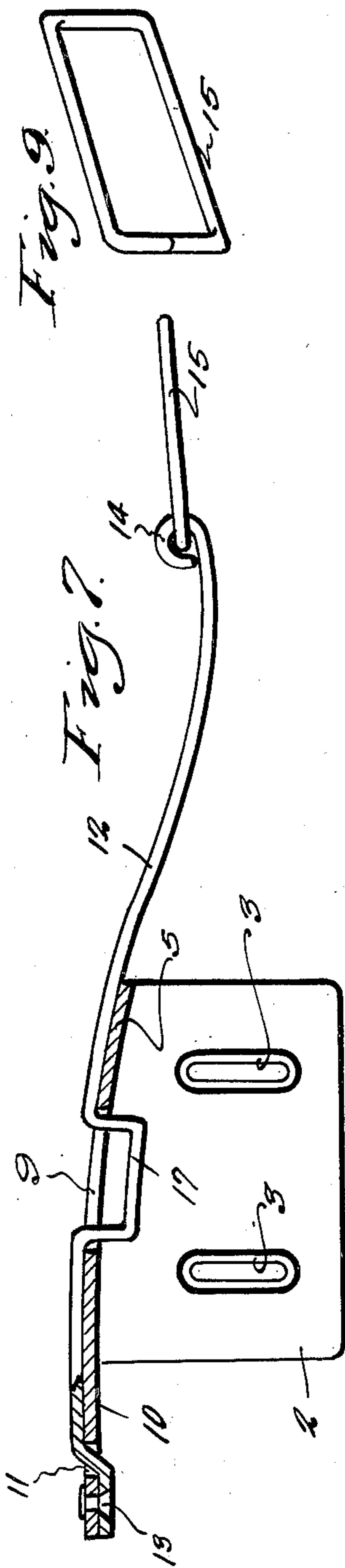
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SKI BINDING

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2 Sheets-Sheet 2



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2,022,580

SKI BINDING

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Application February 28, 1935, Serial No. 8,766

3 Claims. (Cl. 208—184)

The present invention relates to new and useful improvements in ski bindings and has for its primary object to provide, in a manner as hereinafter set forth, a device of this character embodying a novel construction, combination and arrangement of parts through the medium of which a ski may be conveniently secured to a shoe or removed therefrom in minimum time and with comparatively little labor.

Another very important object of the invention is to provide a ski binding which may be expeditiously adjusted to accommodate various sizes of shoes.

Other objects of the invention are to provide a ski binding which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a view in side elevation of a ski binding constructed in accordance with the present invention, showing a shoe engaged therein.

Figure 2 is a view in top plan of the invention.

Figure 3 is a view in side elevation of one of the retaining members which are mounted on the sole of the shoe.

Figure 4 is a view in top plan of the element shown in Figure 3.

Figure 5 is a detail view in perspective of the element illustrated in Figures 3 and 4.

Figure 6 is a view in bottom plan of a shoe sole, showing the retaining members mounted thereon.

Figure 7 is a view principally in horizontal section through one of the units constituting a part of the invention.

Figure 8 is a vertical sectional view, taken substantially on line 8—8 of Figure 2.

Figure 9 is a detail view in perspective of the loop which connects the free ends of the resilient arms together.

Referring now to the drawings in detail, it will be seen that the reference numeral 1 designates an intermediate portion of a conventional ski.

The embodiment of the present invention which has been illustrated comprises a pair of metallic plates 2 which are secured on the ski 1 in a manner to project slightly beyond the longitudinal sides thereof, as illustrated to advantage in Figure 2 of the drawings. To permit lateral adjust-

ment of the plates 2, said plates are provided with transverse slots 3 which accommodate securing screws 4. Rising from the outer edges of the plates 2 are integral side flanges 5 which terminate, at their upper ends, in inturned lips 6. It will thus be seen that channels are provided for the reception of the edge portions of the sole 7 of a shoe 8. The flanges 5 are provided with openings 9, the purpose of which will be presently set forth.

The side flanges 5 are provided with rear extensions 10 (see Figure 7) having openings 11 therein. The reference numeral 12 designates longitudinally curved resilient arms which extend through the openings 11 and are secured at their rear ends, to the flange extensions 10, as at 13. The resilient arms 12 are engaged with the outer sides of the flanges 5, said arms projecting forwardly beyond said flanges 5 and beyond the toe or forward end of the shoe 8. One of the resilient arms 12 terminates, at its forward end, in an eye 14 in which a loop 15 is pivotally mounted. The other resilient arm 12 terminates, at its forward end, in a hook 16 in which the loop 15 is engageable. At intermediate points, the resilient arms 12 are formed to provide substantially U-shaped lugs 17 which project inwardly through the openings 9 in the side flanges 5.

Permanently secured on the side edges of the shoe sole 7 are substantially channel-shaped retaining members or plates 18. The elements 18 have formed therein openings 19 for the reception of the lugs 17.

It is believed that the operation of the binding will be readily apparent from a consideration of the foregoing. The loop 15 is disengaged from the hook 16 thus freeing the forward ends of the resilient arms 12. The shoe 8, with the elements 18 secured on the side edges of the sole 7 thereof, is then slid forwardly between the side flanges 5 until the lugs 17 on the resilient arms 12 engage or "snap" in the openings 19 of said elements 18. The forward ends of the resilient arms 12 are then flexed inwardly and the retaining loop 15 is engaged over the hook 16. It will thus be seen that the ski 1 has been firmly secured to the shoe. To remove the ski it is only necessary, of course, to disengage the loop 15 from the hook 16 thus permitting the resilient arms 12 to spread for disengaging the lugs 17 from the openings 19 in the elements 18. By passing the rear end portions of the resilient arms 12 through the openings 11 and then riveting or otherwise securing said arms to the inner sides of the extensions 10 an exceedingly strong and durable

connection is had. Further, the tension of the resilient arms 12 maintains said arms yieldingly engaged against the side flanges 5 at all times except, of course, when said arms are flexed outwardly when the shoe sole is inserted between the side flanges 5. Adjustment for various sizes and shapes of shoes may be had by simply loosening the securing screws 4. As best seen in Figure 1 of the drawings, the rear end portions of the lips 6 are curved upwardly to facilitate insertion of the shoe sole therebeneath.

It is believed that the many advantages of a ski binding constructed in accordance with the present invention will be readily understood, and although a preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:—

1. Means for securing a ski on a shoe comprising plates mounted on the ski, side flanges rising from the plates, said flanges having openings therein, resilient arms connected, at one end, to the side flanges and projecting forwardly therefrom, the forward ends of said arms being free, said arms including substantially U-shaped intermediate portions constituting retaining lugs projecting through the openings for operative engagement with the sole of the shoe, and means for releasably connecting the arms together at their forward ends.

2. Means for securing a ski to a shoe comprising plates mounted on the ski, side flanges rising from the plates for the reception of the sole of the shoe therebetween, said side flanges having openings therein, intured lips on the side flanges

engageable over the shoe sole, extensions projecting rearwardly from the side flanges, said extensions having openings therein, resilient arms extending through the last-named openings and secured, at one end, to the inner sides of the extensions, said resilient arms extending adjacent the outer sides of the flanges and including substantially U-shaped intermediate portions constituting retaining lugs projecting through the first-named openings and operatively engageable with the shoe sole, and means for detachably connecting the forward ends of the resilient arms together.

3. Means for securing a ski to a shoe comprising, in combination, substantially channel-shaped elements mounted on the side edges of the shoe sole and having openings therein, plates adjustably mounted on the ski, side flanges rising from the plates for the reception of the shoe sole therebetween, said side flanges having openings therein, intured lips on the side flanges engageable over the shoe sole, extensions projecting rearwardly from the side flanges, said extensions having openings therein, resilient arms extending adjacent the side flanges, said arms having their rear end portions extending through the third named openings and secured to the inner sides of the extensions, said arms including substantially U-shaped intermediate portions constituting retaining lugs projecting through the second-named openings and engageable in the first-named openings, a hook on the forward end of one of the arms and a loop mounted for swinging movement on the forward end of the other of said arms and engageable in the hook for releasably securing said arms together at their forward ends.

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