Feb. 16, 1937. O. E. SCHNIEBS 2,071,220

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Fig. 1.

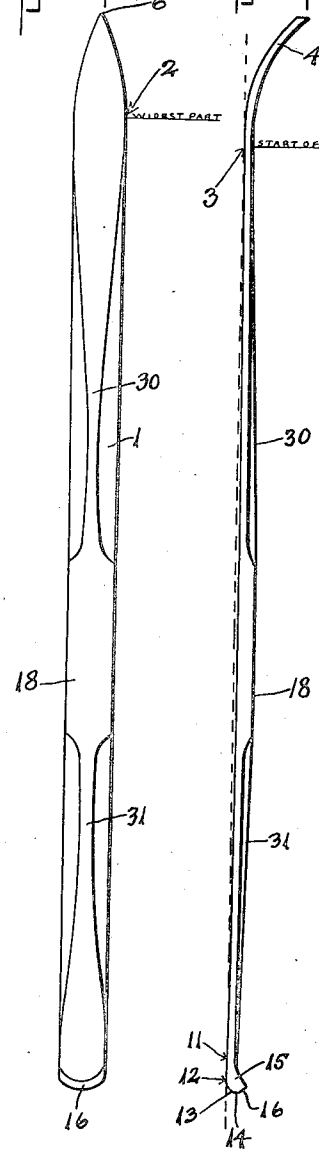


Fig. 2.

Fig. 3.

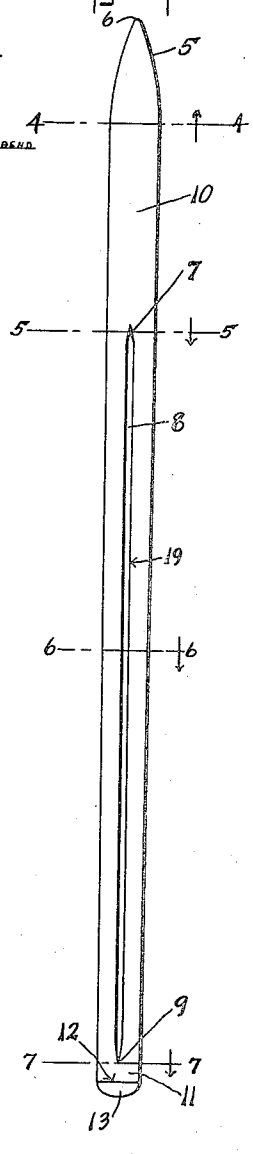


Fig. 4.

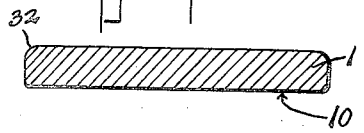


Fig. 5.

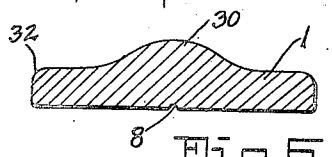


Fig. 6.

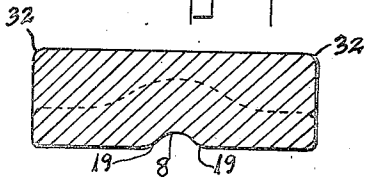


Fig. 7.

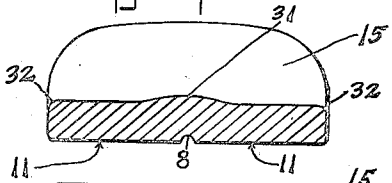


Fig. 15.

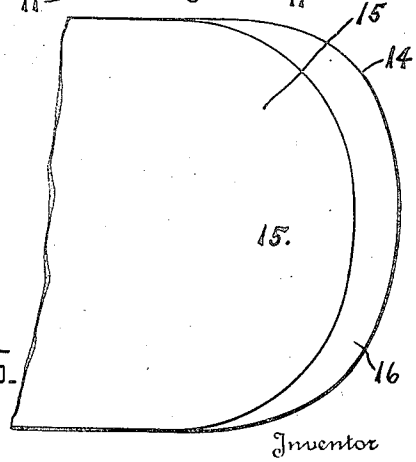
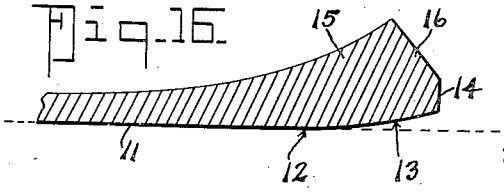


Fig. 16.



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Fig. 9.

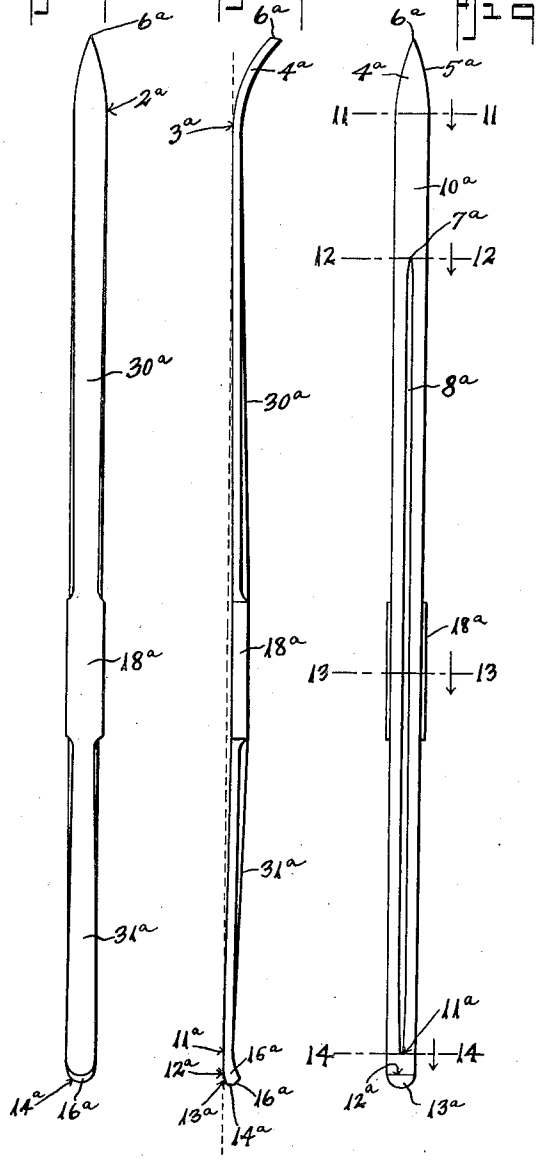


Fig. 8.

Fig. 10.

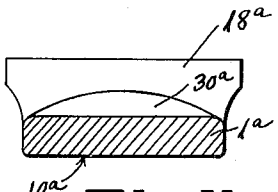


Fig. 11.

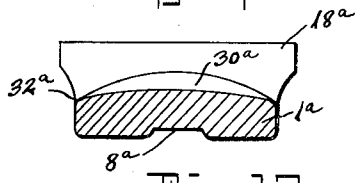


Fig. 12.

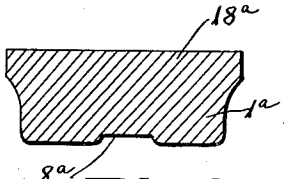


Fig. 13.

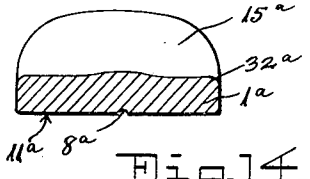


Fig. 14.

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UNITED STATES PATENT OFFICE

2,071,220

SKI

Otto Eugèn Schniebs, Hanover, N. H.

Application July 9, 1935, Serial No. 30,525

4 Claims. (Cl. 208—184)

My invention relates to certain new and useful improvements in skis, and it primarily has for its object to provide a ski which will be easy to manufacture, one which, while retaining the benefits of a longitudinal groove on its under face, is so designed as to be speedier than those whose grooves extend the full contact length of the ski, one which will turn easier and be more steady than the skis heretofore used.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, the invention still further resides in those novel details of construction, combination and arrangement of parts, all of which will be first fully described in the following detailed description, then be pointed out in the appended claims, reference being had to the accompanying drawings, in which:—

Figure 1 is a top plan view of one type of ski embodying my invention.

Figure 2 is a side elevation of the same.

Figure 3 is an inverted plan view of the same.

Figures 4, 5, 6 and 7 are enlarged cross sectional views takein respectively on the lines 4—4, 5—5, 6—6 and 7—7 of Figure 3.

Figure 8 is a side elevation of another form of ski embodying the invention.

Figure 9 is a top plan view of the ski shown in Figure 8.

Figure 10 is a bottom plan view of the ski shown in Figures 8 and 9.

Figures 11, 12, 13 and 14 are enlarged cross sectional views on the lines 11—11, 12—12, 13—13 and 14—14 of Figure 10.

Figure 15 is an enlarged detail plan view of the rear end of the ski.

Figure 16 is a detail side elevation of the same.

In the drawings, in which like numerals of reference indicate like parts in all of the figures, 1 represents the body of the ski which is built up or formed of the material or materials now commonly employed.

The body 1 comprises an elongated structure whose widest part 2 lies approximately a distance from the toe or fore point of the ski equal to about 1/10 to 1/8. From this widest part the sides converge slightly toward the footplate of the ski.

From a point 3 slightly to the rear of the widest part 2, say about 1/7 to 1/8 of the length of the ski from the front or toe end, the front of the ski is upwardly curved as at 4 and the sides 5 are curved to the point 6. Commencing about 1/4 (more or less) the length of the ski from the point 6, say at about 7, a groove 8 extends along the underface of the ski to a point 9, which point 9 is located about 1/28 (more or less) the length of the ski from the rear end or heel of the ski.

This arrangement of the groove 8 leaves a flat uninterrupted bearing surface 10 between points 2 and 7 at the front and a much shorter flat uninterrupted bearing surface 11 at the rear end of the ski.

Commencing at a point 12, which is about 1/3 (more or less) the length of the flat surface 11, from the rear thereof, the under face of the ski is slightly curved (more or less) upwardly to the rear as at 13 and the rear edge 14 is rounded off (more or less) as best shown in Figures 15 and 16.

This rear end of the ski about the upwardly curved portion 13 is thickened as at 15, the top surface of which is convex and the rear edge of the reinforcement is curved around at 14 and beveled upwardly and forwardly as at 16.

The footplate 18 of the ski is located in a position where the ski, when in use, will be well balanced. The body of the ski is also slightly bowed between the points 3 and 12 to give the required spring to the ski.

The groove 8 preferably has its side walls rounded as at 19 and the body may, if desired, be provided with the usual reinforcing ribs 30—31 running from adjacent the point 3 to adjacent the point 9.

The longitudinal top edges 32 are also rounded off to lessen chipping.

In Figures 9 to 15 I have shown another type of ski in which the footplate 18*a* is wider than the runner and the spring bow is slightly greater than that shown in Figure 2. In these figures, parts which correspond to like parts in Figures 1 to 8, inclusive, bear the same reference numeral plus the index letter *a*, so a repetition of the description becomes unnecessary. The groove 8*a* in this form of ski has a flat character while the groove 8 of the embodiment shown in Figures 1 to 8 is curved.

By constructing a ski as shown and described, I find from practical tests by shortening the groove 8—8*a* over that part of prior skis (see for example Patent #1,998,702) so as to provide a relatively long flat front bottom portion 10 and a relatively short flat back bottom portion 11, a more speedy ski is produced; and by slightly curving upwardly and rounding off the rear end of the ski a much easier and more steady turning of the ski can be attained than has heretofore been found possible. The reinforcement of the extreme tail end only of the ski, not carrying much reinforcement forwardly to the grooved part of the ski gives

strength and reinforcement where it is most necessary without interfering with the required springiness of the ski.

What I claim is:

1. A ski having an upwardly curved fore section, a normally upwardly bowed mid-section and a rear section, the extreme rear end of which is curved upwardly and rounded at the sides and end, there being a groove formed in the bottom of the ski and extending longitudinally thereof along the mid-section, the fore section including a relatively long flat uninterrupted plane under surface in advance of said groove, and said rear section including a relatively short flat uninterrupted plane under surface to the rear of said groove.

2. A ski having an upwardly curved fore section, a normally upwardly bowed mid-section and a rear section, the extreme rear end of which is curved upwardly and rounded at the sides and end, there being a groove formed in the bottom of the ski and extending longitudinally thereof along the mid-section, the fore section including a relatively long flat uninterrupted plane under surface in advance of said groove, and said rear section including a relatively short flat uninterrupted plane under surface to the rear of said groove, said ski along said groove having its edges rounded.

3. A ski having a ground-engaging uninterrupted plane surface at the rear end, the extreme rear end of the ski being thickened and having its under face curved upwardly slightly, the rear end being curved or rounded off and bevelled upwardly and inwardly.

4. A ski having a fore section, a normally bowed mid-section and a rear section, the rear section including an uninterrupted plane ground engaging surface, the extreme rear end of the ski being thickened and having its under face curved or rounded off and bevelled upwardly and inwardly, the fore section including an uninterrupted plane ground engaging surface, the front end of the ski being upturned, there being a relatively narrow groove formed longitudinally in the bottom of the ski and extending from said fore section uninterrupted plane ground engaging surface to the rear section uninterrupted plane ground engaging surface.

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