Dec. 4, 1945. W. E. PEARCE 2,390,267

SKI POLE

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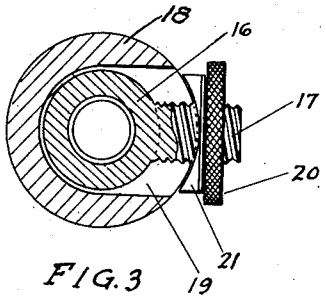


FIG. 3

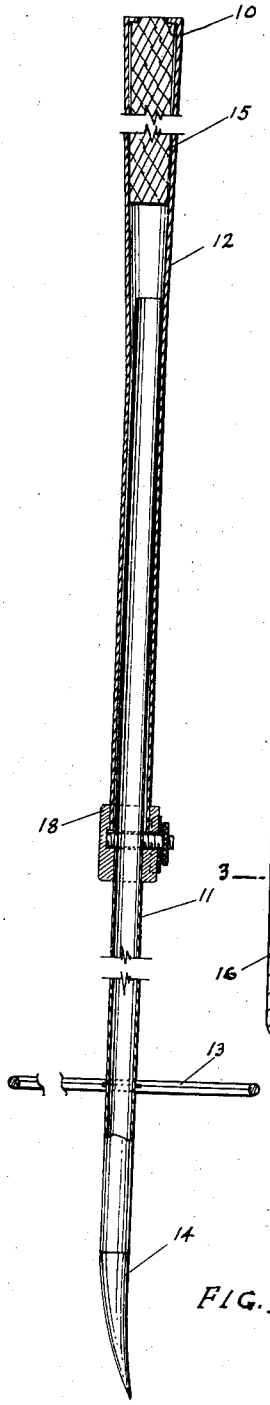


FIG. 1

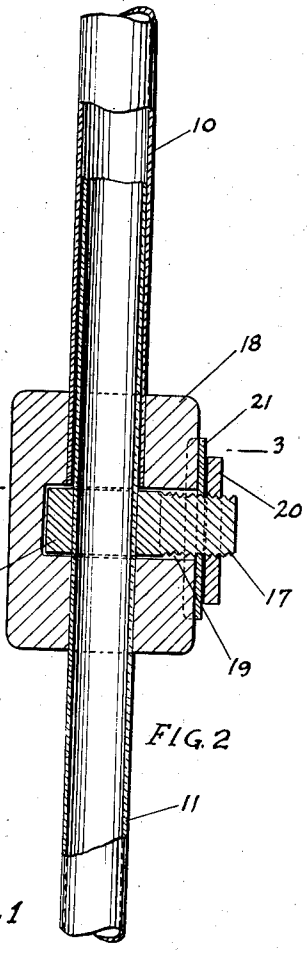


FIG. 2

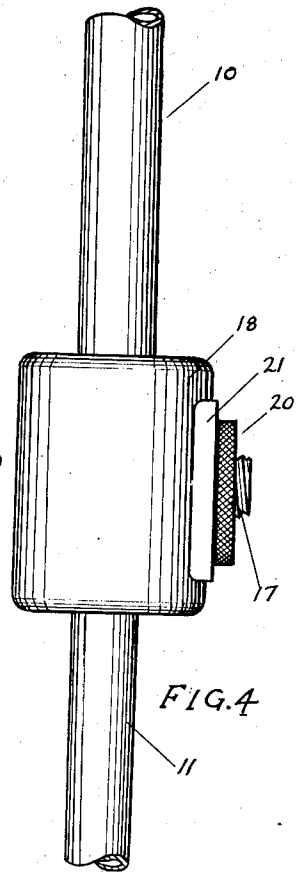


FIG. 4

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SKI POLE

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3 Claims. (Cl. 280—11.37)

The invention relates to improvements in ski poles as described in the present specification and illustrated in the accompanying drawing that forms a part of the same.

The invention consists essentially of the novel features of construction, as pointed out broadly and specifically in the claims for novelty following a description containing an explanation in detail of acceptable forms of the invention.

The objects of the invention are to devise a means whereby a ski pole may be adjusted as to length and thereby enable the skier to shorten or lengthen his poles in accordance with the kind of terrain that he encounters during his skiing operations; to furnish ski poles with adjusting means that will quickly tighten or loosen the pole sections and which will also take care of any variations of expansion and contraction created by the atmospheric conditions; to eliminate the necessity of a skier having to carry several sets of ski poles of varying lengths for use in cross country runs and for inclines or jumps; and generally to provide ski poles that will be durable in construction easily adjustable and efficient for their purpose.

In the drawing:

Figure 1 is a fragmentary side sectional view of the ski pole.

Figure 2 is an enlarged fragmentary sectional detail illustrating the way of securing the outer and inner sections of the pole together.

Figure 3 is a cross sectional view as taken on the lines 3—3 in Figure 2.

Figure 4 is an enlarged fragmentary elevational detail of the method of fastening as illustrated in Figure 2.

Like numerals of reference indicate corresponding parts in the various figures.

Referring to the drawing the ski pole consists of an outer tubular section as indicated by the numeral 10 and an inner tubular section 11 and secured in telescopic fashion to one another. The outer tubular section has the upper portion of its circular wall tapering inwardly as at 12 for a predetermined portion of its length and then straightening out for the remainder of its length. The inner tubular section is preferably straight longitudinally and is adapted to fit into the outer tubular section and movable to and fro therein. The lower end of the inner tubular section is provided with the usual snow ring 13 and the bottom point 14, while the upper portion of the outer tubular section may be filled in as at 15 with a suitable material in order to balance the pole for its best efficiency. This ski pole may be made of metal, wood or of plastic material whichever is most suitable for making an efficient, strong and light ski pole.

In ski poles great care must be taken not to weaken the wall structures, as in view of the thinness of the wall structures, any weakening of the same, such as making apertures therethrough etc., would be impractical as there would always be a danger of such poles breaking or buckling unexpectedly when being used. It is therefore essential that the means for making the necessary adjustment to the pole must be so accomplished that there will be no weakening of the wall structure.

In this particular construction the adjustment means consists of a ring bolt 16, the bolt portion being externally threaded at 17 and encircles the inner tubular section 11. The locking collar 18 is provided with a transverse opening 19 and is adapted to encircle both the outer tubular section and the inner tubular section as well as encircle the ring bolt 16. In this way, all that is necessary to adjust the length of the pole is to expand or contract the pole sections through manipulations of the two tubular sections and when the required length or what might be called the height of the pole has been found, the nut 20 and the washer 21 engaging with the threaded bolt portion of the ring bolt, is tightened thereon and this has the effect of drawing the locking collar into tight relationship with the ring bolt, and in so doing holds firmly the outer and inner tubular sections together without any danger of weakening the walls thereof, owing to the fact that the pressure so exerted is applied equally around the whole contour of those portions of the inner and outer sections which are being held together.

It may be advantageous to have the thickness of the locking collar 18 vary so as to engage with the contour of the outer tubular section and the contour of the inner tubular section as illustrated in Figure 2.

The ring bolt encircles the inner tubular section and the lower end of the outer tubular section, and the locking collar is so constructed that it will follow the contour of both outer and inner sections and also provides a seat for the ring bolt.

From the aforegoing description it will be apparent that the adjustment can be quickly and easily made by simply loosening or tightening the nut on the ring bolt and thereby loosening or tightening the locking collar in its engagement with the contours of the outer and inner tubular sections.

What I claim is:

1. In ski poles, a ski pole, outer and inner tubular sections forming said pole, a ring bolt adapted to encircle said inner tubular section and having a threaded portion, a locking collar having an opening therein and adapted to encircle said outer and inner tubular sections and said ring bolt, and means for drawing said locking collar into gripping position with said tubular sections.

2. In ski poles, a ski pole, outer and inner tubular sections forming said pole, a ring bolt adapted to encircle said inner tubular section and having a threaded portion, a locking collar having an opening therein and adapted to encircle said outer and inner tubular sections and said ring bolt, and a nut adapted to engage with the threaded portion of said ring bolt and adapted to engage with the outer surface of said locking collar for drawing the latter into tight engaging position with the contour of said outer and inner tubular sections.

3. In ski poles, a ski pole, outer and inner tubular sections forming said pole, a ring bolt having a threaded portion and adapted to encircle said inner tubular section and forming a support for the lower end of said outer tubular section, a locking collar having a longitudinal opening therethrough and a transverse opening and adapted to encircle and engage the contour of said outer tubular section and said inner tubular section and encircle said ring bolt, the threaded portion of said ring bolt extending outwardly through a transverse opening of said locking collar and a main nut adapted to engage the threaded section of said ring bolt and adapted to force said locking collar into gripping engagement with said outer and inner tubular sections.

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