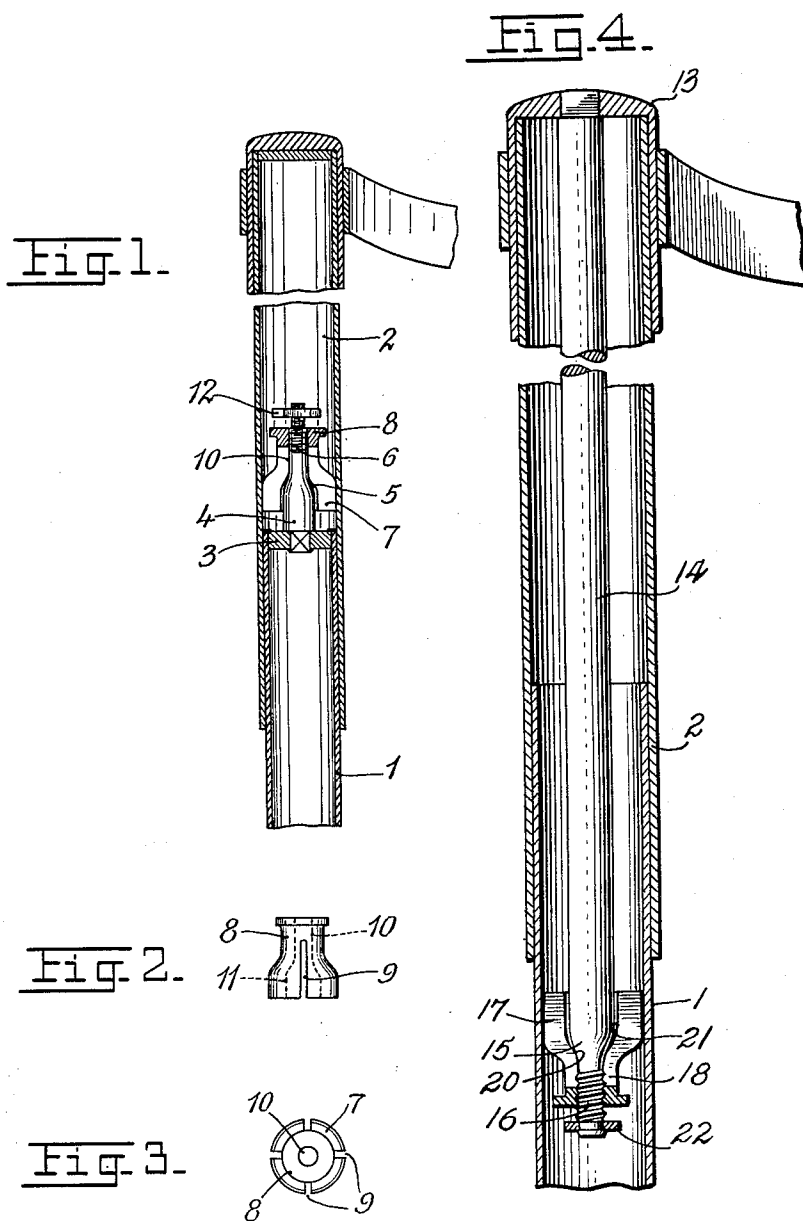


Dec. 12, 1950

H. A. JENSEN
EXTENSIBLE SKI POLE
Filed Jan. 18, 1946

2,533,733



Inventor
HANS AUGUST JENSEN
By
Haseltine, Lake & Co.
Attorneys

UNITED STATES PATENT OFFICE

2,533,733

EXTENSIBLE SKI POLE

Hans August Jensen, Lommedalen, near Oslo,
NorwayApplication January 18, 1946, Serial No. 641,909
In Norway December 22, 1943

2 Claims. (Cl. 280—11.37)

1

The present invention relates to an extensible skipole of the kind which consists of two members, which telescope in each other, and which are mutually locked by an outwardly directed radial pressure. The invention has for its object to provide a pole of this kind, which is of a simple construction and at the same time provides a secure locking effect between the two pole members.

Ski-poles of this kind are known. The known constructions however, are either too complicated and therefore too expensive or do not provide a secure mutual connection of the pole members in the locked position. Thus it has been previously proposed to provide the locking connection between the pole or tube members by means of resilient tongues or projecting pins engaging in grooves. According to another proposal the upper part of the pole has been made with a double wall, the lower pole member being introduced into the space between the two walls of the upper pole member. The locking effect is here produced in that way that a screw-threaded metal cone is pressed against the inner tube wall of the upper pole member and thereby forces this tube member into engagement with the outer tube walls. In order to increase the expanding effect, the lower end of the inner tube is made conical or provided with a conical mouthpiece opening welded thereto.

Common to all previously known proposals is that the locking effect between the two pole or tube members is produced by the mutual pressing or expanding effect of these tube members.

The present invention relates to ski-poles of the kind which consist of two parts, which telescope into each other and may be mutually locked by an outward radial pressure produced through the expansion-pressure of the locking member against the one pole-part and the invention is characterized by the fact that the expansion-effect is caused or released by the rotation of the pole-members, whereby the locking member is arranged and dimensioned in such a manner, that it also in released position will be in frictional engagement with the inside of the one pole-part.

Thus, the locked connection of the pole members is produced by the increased resilient pressing of the expansible locking member against the inside of one pole member, and not by a mutual pressing of the pole members against each other. In this manner an advantage is obtained in that deformations of the pole members in consequence

2

of long use does not prevent or hamper the locking action.

According to the invention the locking member consists of a slotted, approximately cylindrical member pointed at the one end and having a central screw threaded bore, which bore expands conically at the one end. According to a further feature of the invention this locking member is provided on a screw threaded spindle which is fixed in the pole member, and which spindle has above the threaded portion a conical expansion corresponding to the conical expansion of the central bore of the locking member.

These and other features of the invention will appear from the following description in connection with the annexed drawings, in which

Fig. 1 shows the upper part of the pole in longitudinal section, Fig. 2 the locking member seen from the side, Fig. 3 the same seen from above, and Fig. 4 is a sectional view similar to Fig. 1 of a modified structure in which a spindle is placed in the upper tube member.

In the drawings, 1 designates the lower tubular pole member and 2 the upper one, which two members telescope in each other. The upper member 2 is closed by a plate and in the upper end of the lower member 1 a plate 3 is also fixed by welding or the like and which provides a seat for a spindle 4. In this plate 3 the spindle 4 is rigidly arranged, and the end 6 of this spindle is screw-threaded and connected with the unthreaded portion of the spindle by a conically expanding portion 5. On the threaded portion of the spindle there is arranged an approximately cylindrical member 7, one end 8 of which is pointed or otherwise reduced in diameter in order that it may easily be introduced into the upper member 2. The diameter of the locking member is such that it may just be pushed into upper member 2.

The locking member 7 has a central screw-threaded bore 10 corresponding to the screw-thread of the spindle, and in one end—in the drawing the lower end—this bore 10 is enlarged conically in a manner similar to the conical portion 5 of the spindle. Further, the locking member 7 is slotted at 9 as shown in Figs. 2 and 3. When the locking member has been screwed onto the spindle, it may be secured against screwing off from the same by a stop nut shown by 12 in Fig. 1.

The device operates as follows:

Assume the locking member is screwed onto the threaded point of the spindle 4. By screwing

3

the spindle further into the bore of the member 7 so that the conically expanding portion of the spindle is pressed against the conically expanding portion 11 of the bore of the locking member, this locking member because of the slottings will be expanded and pressed against the inner side of the tube wall of the member 2 and thereby lock the other members together. By rotation in the opposite direction the arrangement will be released, the locking member yielding resiliently as soon as the interior expanding action ceases. The tube members may then be displaced and locked together again with the desired longitudinal axial adjustment.

It is clear that it is not essential to provide the spindle in the lower tube portion, it may for example also be placed in the upper tube member for instance by being fixed in the plate fastened to the top of this pole member. However, by fixing the spindle in this pole member the spindle will be considerably longer. As shown in Fig. 4, a spindle 14 is supported from a dome end 13 of the upper tube 2. The spindle 14 projects into the lower tube 1 and has a conically expanding portion 15 and a screw-threaded end 16. An approximately cylindrical member 17 is threaded on the threaded portion 16; one end 18 of this cylindrical member 17 is reduced in diameter. The locking member 17 has a central screw-threaded bore 20 corresponding to the screw-thread of the spindle 14. This bore 20 is enlarged conically at 21 to receive the conically expanding portion 15 of the spindle 14. A stop nut 22 prevents the locking member 17 from being screwed off the spindle 14. The operation of the modification shown in Fig. 4 is the same as described in connection with the previous figures except that the locking member will be pressed against the inner side of the inner, lower tube member and not against the outer, upper pole member as shown in the drawings.

The pole is as usual provided with handle and stop.

4

What I claim is:

1. An extensible ski pole comprising two relatively telescoping hollow parts, one of said parts being provided with a reduced externally threaded terminal portion and external conical wall faces, a cylindrical locking member disposable within the other of said telescoping parts, the said locking member having slots extending over part of its length and having an internal axial bore and a reduced neck, the said neck being internally threaded and the said bore including conical wall faces for co-action with said external wall faces whereby the said reduced terminal portion is adapted to nest within the said bore and, upon rotation, to effect spreading of the locking member and thus interlocking of the two telescoping parts.

2. A ski pole constructed in accordance with claim 1 wherein the said reduced terminal portion is of a length to extend beyond said bore and wherein an abutment is detachably secured to the protruding part of said terminal portion to prevent disengagement between the locking member and the said threaded terminal portion.

HANS AUGUST JENSEN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
653,642	Darling	July 10, 1900
1,569,765	Lowell	Jan. 12, 1926
2,367,196	Butler	Jan. 16, 1945

FOREIGN PATENTS

Number	Country	Date
75,186	Norway	June 27, 1949
718,486	France	Nov. 4, 1931