COMBINATION SKI POLE AND AVALANCHE PROBE

The invention relates to a combination ski pole and avalanche probe and in particular to such a device wherein a plurality of poles are joined together to form an avalanche probe.

With the increased activity in skiing and with the consequent increase in avalanche potentiality, it has become very important to have avalanche probes readily available. When an individual is caught under a snow avalanche, he must be found and uncovered in about 30 minutes or he will expire.

At present, long slender poles are carried and used to probe into the snow. As soon as the pole hits the resistance of a human body, the snow is dug away at that area and the buried individual is uncovered. However, it is necessary either to return to a cabin or cache to pick up an avalanche probe or to call for someone to bring a probe to the avalanche location. This results in loss of precious time and is often the difference between life and death.

Therefore, for some considerable period of time, need has existed for ski poles which can be joined together to establish avalanche probes readily and easily. Attempts have been made to accomplish this, such as by making the ski poles of hollow material and carrying thin rods inside the pole. The rods are then removed from the hollow poles, joined together and used as an avalanche probe. The balance of the ski pole is affected by such a construction and the ski pole is not as good as an ordinary ski pole because unbalanced ski poles adversely affect the skier's ability to ski properly.

An important object of the invention is to provide a ski pole which may be easily joined to another ski pole to establish an avalanche probe.

A further object of the invention is to provide such a ski pole wherein the hand grip of the pole is removed and the tip of a second pole is joined to the end of the pole from which the hand grip was removed.

A still further object of the invention is to provide a ski pole which can be used for its normal purpose without any degradation of pole balance and skiing proficiency.

These and other objects, advantages, features and uses will be apparent during the course of the following description.

Broadly, the invention is directed toward providing a readily assembled avalanche probe in the hands of a skier without imposing any additional hazard on the skier. The ski poles have the proper balance and length and are convertible to an avalanche probe by joining them together. The hand grip of one of the ski poles is removed and the tip of the other ski pole is connected to the end of the ski pole from which the hand grip was removed. The baskets of the ski poles are also removed to reduce the resistance when the probe is driven into the avalanche snow.

In the accompanying drawings, forming a part of this application, and in which like numerals are employed to designate like parts throughout the same;

FIG. 1 is an elevational view of a ski pole of the invention;

FIG. 2 is an enlarged sectional view taken along the line -- -- of FIG. 1;

FIG. 3 is a view similar to that of FIG. 2 with the hand grip of the first ski pole removed and with the tip of the second ski pole connected to the end of the first ski pole from which the hand grip is removed;

FIG. 4 is a sectional view taken along the lines 4--4 of FIG. 3, viewed in the direction of the arrows; and

FIG. 5 is an elevational view of two ski poles joined together to establish an avalanche probe.

In the drawings, wherein, for the purpose of illustration, is shown a preferred embodiment of the invention, the numeral 10 designates a ski pole thereof.

Ski pole 10 (FIG. 1) is seen to comprise longitudinally extending rod 12 with tip 14 at one end thereof and hand grip 16 at the other end thereof. Basket 18 is frictionally affixed near the tip end of rod 12 to prevent the pole from penetrating too deeply into the snow when skiing. Strap 20 is affixed to hand grip 16 and permits the skier to slip the strap over his wrist.

End 15 of rod 12 is provided with a socket 22, the upper end of which socket is surrounded by collet 24 having a plurality of jaws 26 (FIGS. 2 and 4). The jaws 26 are tightened and loosened by collar 28 which is threaded to collet 24 as shown at 27. Plug 30 fits into socket 22 so that when the jaws 26 are tightened, the plug is held firmly in place. Hand grip 16, which is preferably formed of resilient material is slide onto rod end 15 and is affixed to plug 30 by means of screw 32.

To remove hand grip 16 from the rod end 15 and insert a tip of another or further ski pole therein, screw 32 is loosened and removed. Next, hand grip 16 is slid off the rod. Collar 28 is turned so that jaws 26 are loosened and plug 30 is removed from socket 22.

Next, the basket (not shown) of rod 13 is removed, tip 17 of rod 13 (FIGS. 3 and 4) is slid into socket 22 and collar 28 is turned so that jaws 26 grip the rod tightly so that the two poles form a single long pole for use as an avalanche probe. In order to finish the avalanche probe so that it will have a minimum resistance to its entry into the snow, basket 18 must also be removed from rod 12. Preferably, it should be a friction fit so it can be removed by standing on it and pulling upward on rod 12. It is sometimes advantageous to remove the basket before removing the hand grip and joining the two poles together.

A two pole, avalanche probe is shown in FIG. 5. It is within the contemplation of the invention to form avalanche probes with more than two ski poles in the same manner as has been described above.

The combination ski pole and avalanche probe of the invention is used as follows: a skier, who comes upon an avalanche, removes the basket 18, screw 32, hand grip 16. He loosens collar 28, removes plug 30 and places the parts which have been removed in his pocket. He removes the basket on the second rod 13, places it in his pocket and inserts tip 17 into socket 22 as far as it will go. Now, he tightens collar 28 so that tip 17 is firmly gripped by the jaws 26.

After probing in the avalanche snow and finding and uncovering the body, he loosens the collar 28 and removes tip 17 from socket 22. Next, he inserts plug 30 into socket 22 and tightens collar 28 so that jaws 26 firmly grip plug 30. Now hand grip 16 is slid onto the end of rod 12 and it is fastened to plug 30 by means of screw 32. The baskets are pushed onto both rods and the poles are ready for use as ski poles.
It is well for screw 32 to be slotted so it can be turned by a coin or by any type of screwdriver which the skier may have with him. This adds to the simplicity and flexibility which are the keystones of the invention.

While a particular embodiment of the invention has been shown and described, it is apparent to those skilled in the art that modifications are possible without departing from the spirit and scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A first ski pole for connection to a further ski pole to establish an avalanche probe, said first ski pole comprising:
   a longitudinally extending rod having a first end and a second end;
   a tip at the first end of the rod;
   a hand grip;
   a collet at the second end of the rod having at least two jaws forming a socket therebetween and an outer collar cooperating therewith in order to tighten and loosen the jaws;
   a plug inserted in the socket such that when the jaws are tightened, the plug is held in the socket and when the jaws are loosened, the plug is removable from the socket;
   means for removably fastening the hand grip to the plug;
   the socket receiving the tip of the further ski pole when the plug is removed therefrom and holding the same in position when the jaws are tightened to thereby join the two ski poles together to establish an avalanche probe.

2. An avalanche probe comprising:
   at least two ski poles each having a longitudinally extending rod having a first end and a second end with a tip at the first end thereof;
   at least one of the ski poles comprising:
   a hand grip;
   a collet at the second end of the rod having at least two jaws forming a socket therebetween and an outer collar cooperating therewith in order to tighten and loosen the jaws;
   a plug inserted in the socket such that when the jaws are tightened, the plug is held in the socket and when the jaws are loosened, the plug is removable from the socket;
   means for removably fastening the hand grip to the plug;
   the socket receiving the tip of the other ski pole when the plug is removed therefrom and holding the same in position when the jaws are tightened to thereby join the two ski poles together to establish an avalanche probe.

References Cited

UNITED STATES PATENTS
3,085,814 4/1963 Scott 280—11.37

FOREIGN PATENTS
287,188 9/1915 Germany
503,714 4/1939 Great Britain
187,458 2/1937 Switzerland
434,986 10/1967 Switzerland

BENJAMIN HERSH, Primary Examiner
M. L. SMITH, Assistant Examiner