Aug. 25, 1970 W. BALDSIEFEN 3,525,532

COMBINATION SKI POLE AND AVALANCHE PROBE

Filed Oct. 21, 1968

Fig. 1.

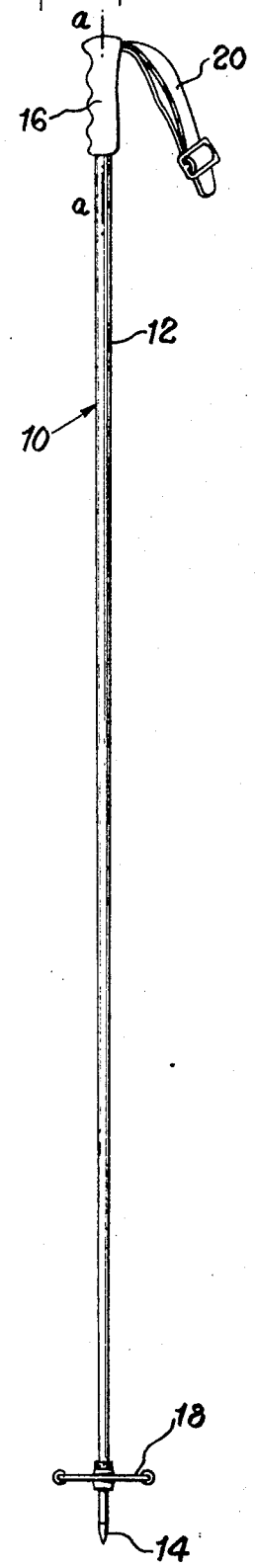


Fig. 2.

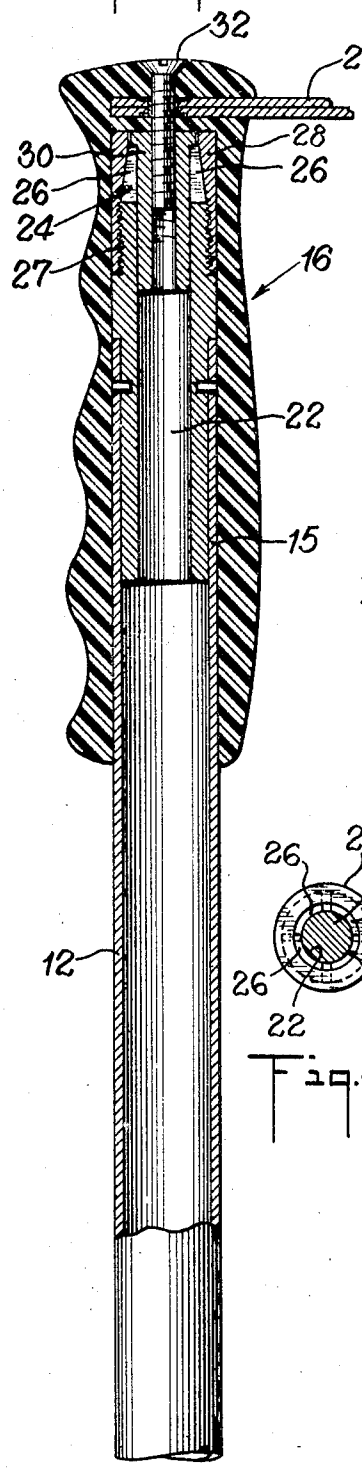


Fig. 3.

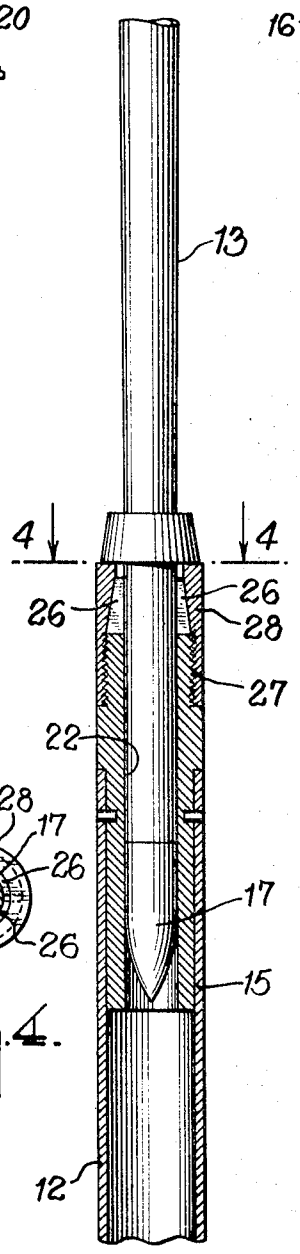


Fig. 5.

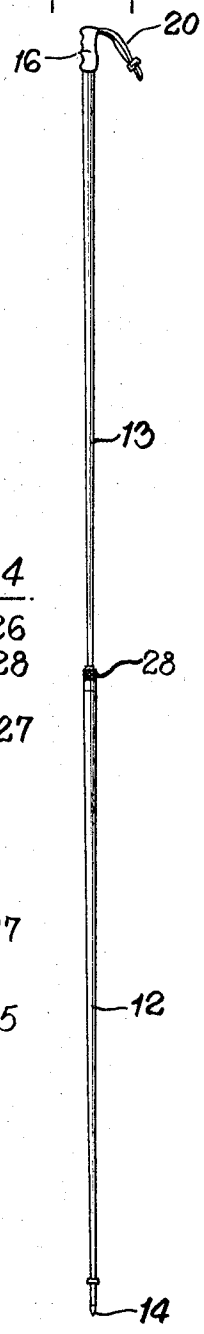


Fig. 4.

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COMBINATION SKI POLE AND AVALANCHE PROBE

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ABSTRACT OF THE DISCLOSURE

A combination ski pole and avalanche probe wherein the ski pole hand grip is removed to expose means to receive the tip of another ski pole to thereby provide an avalanche probe. Several poles may be so joined if longer probes are required.

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 probe 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 *a*—*a* 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 screw driver 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.

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