Oct. 31, 1967 W. J. SAHLEIN ET AL 3,350,111

SKI POLE

Filed Aug. 12, 1965

Fig. 1.

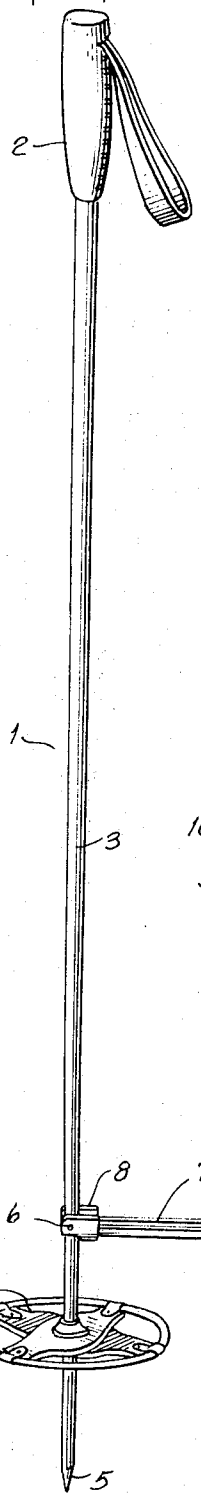


Fig. 2.

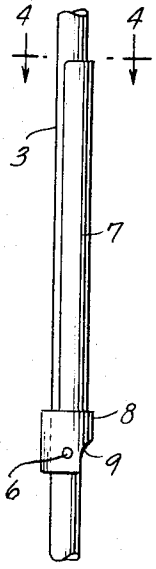


Fig. 3.

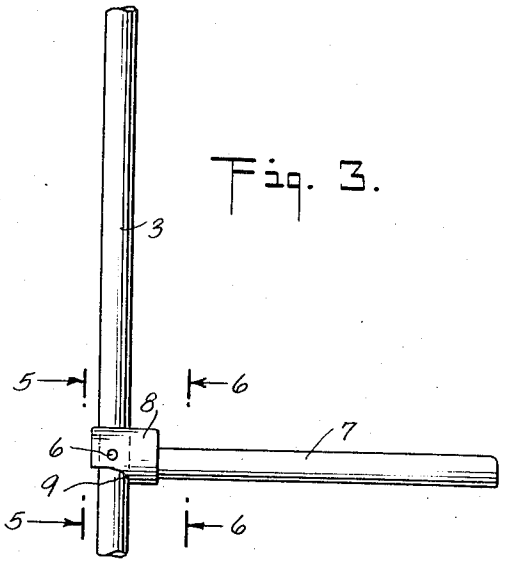


Fig. 4.

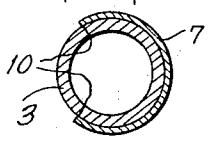


Fig. 5.

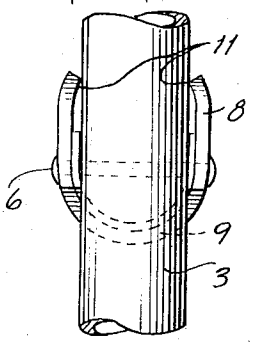


Fig. 6.

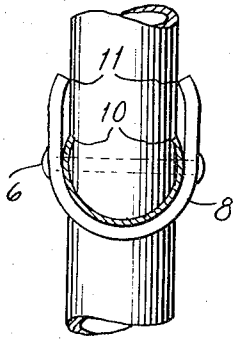


Fig. 8.

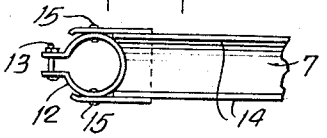


Fig. 7.

INVENTORS
WILLIAM J. SAHLEIN
STEPHEN SAHLEIN
R. Bradlee Beal
ATTORNEY

United States Patent Office

3,350,111

Patented Oct. 31, 1967

3,350,111

SKI POLE

William J. Sahlein, 890 Park Ave., and Stephen Sahlein, 71 St. Marks Place, both of New York, N.Y. 10021

Filed Aug. 12, 1965, Ser. No. 479,125

7 Claims. (Cl. 280—11.37)

ABSTRACT OF THE DISCLOSURE

A scraping device for attachment to a ski pole in which a channel shaped scraping member is pivotally movable from a retracted position in which it is in alignment with the ski pole shaft to a scraping position in which the scraping member is disposed at approximately a 90-degree angle to the shaft, resistance to pivotal movement away from the retracted position and away from the scraping position being provided by frictional engagement of the channel shaped portion of the scraping member with the ski pole shaft.

This invention relates to a ski pole adapted to provide an implement for scraping the boots of a skier. Prior to putting on skis, a skier typically must tramp through snow to a place where he may conveniently put on his skis. In the course of so doing, frequently snow and perhaps other foreign matter become caked on the soles of his boots. Since conventional ski bindings require that the boot be placed flatly against the ski in order to insure maximum safety, comfort and proper adjustment of the bindings, it is a nuisance, and indeed sometimes dangerous, for snow to be caked on the bottom of the boot. Accordingly it is both desirable and necessary for the skier to scrape this snow from the sole of his boot prior to putting on the skis. Ski apparatus heretofore available has not provided means for conveniently and effectively scraping snow from a boot.

It is an object of this invention to provide a ski pole adapted to provide an implement for simply and effectively scraping snow or any other foreign matter from a skier's boot.

It is a further object to provide apparatus which may be detachably mounted on a ski pole to provide an implement for easily and effectively scraping snow or any other foreign matter from a skier's boot.

Further objects and advantages of the invention will become apparent from a consideration of the following specification and claims together with the accompanying drawing.

The above objects and advantages of this invention are achieved in a ski pole described more fully hereinafter in which a scraping member, in the preferred embodiment channel shaped, is pivotally mounted on the shaft of the ski pole. Means are provided for limiting the pivotal movement of the scraping member at a scraping position in which the scraping member is disposed at a substantial angle to the shaft, e.g., about 90°. In such position the scraping surface of the scraping member faces upwardly. Means are also provided for locking the scraping member in a retracted position to the shaft of the ski pole when the scraping member is not in use. In operation the skier may use the ski pole to scrape the soles of his boot by placing the scraping member in the scraping position and holding the pole firmly with one hand at the handle with the tip of the pole imbedded in the snow. At the same time he may draw his boot across the scraping surface of the scraping member so that the snow and any other

foreign matter clinging to the boot are effectively and easily removed from the bottom of his boot.

In the drawing, FIG. 1 shows a view in perspective of a ski pole in which the scraping member is disposed in the scraping position.

FIG. 2 shows a cut away portion of the shaft with the scraping member in the retracted position in which it is normally disposed when not in use.

FIG. 3 shows a cut away portion of the shaft with the scraping member disposed in its scraping position.

FIG. 4 shows a horizontal section of the shaft taken along lines 4—4 in FIG. 2.

FIG. 5 shows a side elevation view of the scraping member taken along line 5—5 in FIG. 3.

FIG. 6 is a vertical section taken along line 6—6 of FIG. 3.

FIG. 7 is a view in perspective of an alternative embodiment of the invention in which the scraping member is detachably mounted on the shaft of the pole.

FIG. 8 is a horizontal section taken along line 8—8 of FIG. 7.

In FIG. 1 the ski pole is shown generally at **1**. The ski pole includes a handle **2**, a shaft **3**, a webbing **4** and a tip **5**. A channel shaped scraping member **7** including a channel shaped extension **8** is pivotally mounted on the shaft **3** by a pivot pin **6**. Scraping member **7** is provided with a pair of parallel elongated scraping surfaces **14**. A portion of the end of extension **8** is cut away to form a yoke **9** to receive the shaft **3** when the member **7** is in the scraping position (see FIGS. 2 and 3).

The middle of the yoke **9** is adapted to engage the shaft **3** when the extension **8** and scraping member **7** are disposed at the scraping position as indicated in FIGS. 1 and 3, i.e., when the scraping member **7** is disposed at a substantial angle to the shaft as for example 90°. The engagement of the yoke **9** with shaft **3** thereby limits the downward pivotal movement of scraping member **7** and extension **8**.

Scraping member **7** is provided with a pair of oppositely disposed inwardly facing lips **10**. Lips **10** may be formed integrally with the channel-shaped member **7**, as shown in FIG. 4 by simply providing an arc-shaped channel of greater than 180°. Scraping member **7** and extension **8** are of strong rigid material having some resiliency, for example, stainless steel. When not in use the scraping member **7** may be pivotally moved to a normal or retracted position (see FIGS. 2 and 4) where it is in substantial alignment with the shaft **3**. In order to pivotally move the scraping member from the retracted position, sufficient force must be applied to scraping member **7** to force apart lips **10**. Thus the cooperation of the shaft **3** and lips **10** resist movement of the scraping member **7** away from the retracted position and tend to keep it locked in place during normal use of the ski pole.

The extension **8** of the channel-shaped scraping member is also provided with a pair of inwardly facing oppositely disposed lips **11**. As shown in FIGS. 5 and 6 these lips may be formed by crimping the edges of extension **8**. Lips **11** may be forced apart by manual movement of the channel-shaped scraping member **7**. When so forced apart, as when the scraping member **7** and extension **8** are in a position shown in FIG. 3, the lips **11** of extension **8**, frictionally engage the shaft **3** and resist movement of extension **8** and hence of scraping member **7**. The result of the frictional engagement is that when the scraping member is in its scraping position it is relatively firmly held in its scraping position, i.e., it cannot

move downwardly because of the engagement of the yoke and upwardly its movement is resisted by such frictional engagement.

Scraping member **7**, extension **8** and shaft **3** should all be of material strong enough to withstand the pressure applied by a person scraping his boot on scraping member **7**.

In operation, a skier wishing to scrape his left boot for example, would manually pivotally move the scraping member **7** from its normal position to its scraping position by forcing apart lips **10** until the scraping member is freed from engagement with the shaft **3**. The scraping member would then be pushed downwardly until it reached the scraping position shown in FIG. 3. Further pivotal movement downward is prevented by engagement of yoke **9** with shaft **3**. Pivotal movement upward is resisted by the frictional engagements of lips **11** with shaft **3**. The pole tip may then be imbedded in the snow. The skier may then scrape the sole of his boot by drawing it over the scraping surfaces **14** until all snow and other foreign matter are removed. The skier may then rotate the pole 180° and proceed to scrape the other boot. When this is completed, scraping member **7** may be manually returned to its normal position where it may be locked in place by forcing lips **10** about shaft **3**.

In FIG. 7 an alternative embodiment of the invention is shown. (The elements of this embodiment which are the same as those shown in FIGS. 1 to 6 are given the same designating numerals.) According to this embodiment, which functions and operates in substantially the same manner as the ski pole shown in FIGS. 1 to 6, the invention comprises means for detachably mounting scraping member **7**. Thus the apparatus includes a scraping member **7**, an extension **8** both of which move about on pivot pins **15** which as shown in FIG. 8 pass through collar **12** and extension **8**. Collar **12** may be secured to shaft **3** by conventional means, for example nuts **13** and bolts **15**.

While the embodiments of the invention described above and shown in the drawing employ yoke **9** as the means for limiting downward pivotal movement of the scraping member, it should be readily apparent that many other alternative means may be used instead.

Channel shaped scraping member **7** may be easily adapted to receive a cartridge of ski wax. With a cartridge so received, the pole may be used for waxing skis in substantially the same manner in which it is used for scraping boots as described above.

The term extension as used herein is intended to be broad enough to include integral extensions, i.e., where the extension is integral with the scraping member.

While I have shown and described a preferred and alternate embodiment of my invention, other modifications will readily occur to those skilled in the art, and I therefore intend my invention to be limited only by the appended claims.

We claim:

1. A ski pole comprising

(a) a shaft;

(b) an elongated scraping member of resilient material shaped in the form of a first channel;

(c) a pair of inwardly facing oppositely disposed lips on the first channel;

(d) said scraping member having an extension of resilient material in the form of a second channel;

(e) a pair of inwardly facing oppositely disposed lips on the second channel;

(f) means for pivotally mounting the extension to the shaft;

(g) means for limiting the pivotal movement of the scraping member and the extension at a first limiting position where the scraping member is substantially aligned with the shaft;

(h) means for limiting the pivotal movement of the scraping member and the extension at a second limiting position where the scraping member is at approximately a 90° angle to the shaft comprising a yoke shaped portion of the extension which is adapted to engage the shaft when the extension and the scraping member are pivotally moved to approximately a 90° angle to the shaft;

(i) said lips of the first channel cooperating with the shaft to resist pivotal movement of the scraping member and extension when they are disposed in the first limiting position; and

(j) said lips of the second channel cooperating with the shaft to resist pivotal movement of the scraping member and extension when then they are disposed at and near the second limiting position.

2. A ski pole as defined in claim **1** in which the means for pivotably mounting the extension on the shaft are detachable.

3. A ski pole as defined in claim **2** in which the means for detachably mounting the extension on the shaft comprise

(a) a collar pivotally attached to the extension; and

(b) means for securing the collar to the shaft.

4. A ski pole comprising:

(a) a shaft;

(b) an elongated scraping member in the form of a channel with a pair of oppositely disposed inwardly facing lips at least one of which lips forms a scraping surface;

(c) means for pivotally mounting the scraping member on the shaft;

(d) the scraping member is made of resilient material;

(e) means for limiting the pivotal movement of the scraping member at a scraping position where the scraping member is disposed at a preselected and substantial angle to the shaft.

(f) means for limiting the pivotal movement of the scraping member away from the scraping position at a retracted position at which the scraping member is disposed in substantial alignment with the shaft; and

(g) the scraping member is so mounted with respect to the shaft that when the scraping member approaches the retracted position the lips of the channel are first forced apart by engagement with the shaft and then close about the shaft when the scraping member reaches the retracted position so that movement of the scraping member away from the retracted position is resisted by the cooperation of the shaft and the lips of the channel.

5. A ski pole as defined in claim **4** in which means are provided for detachably mounting the scraping member on the shaft.

6. A ski pole comprising:

(a) a shaft;

(b) an elongated scraping member having at least one scraping surface and including a resilient extension in the form of a channel;

(c) means for pivotally attaching the extension of the scraping member to the shaft;

(d) the channel of the scraping member is provided with a pair of inwardly facing oppositely disposed lips, i.e., the scraping member extension is so mounted with respect to the shaft that as the scraping member pivotally moves toward the scraping position the lips of the channel frictionally engage the shaft and are forced apart by it thereby increasing the friction between the shaft and extension of said shaft and the lips thereby cooperating to resist pivotal movement when the scraping member is at or near the scraping position; and

(e) means for limiting the pivotal movement of the scraping member at a scraping position where the scraping member is disposed at a preselected and substantial angel to the shaft.

7. A ski pole as defined in claim **6** in which means

are provided for detachably mounting the scraping member on the shaft.

References Cited

UNITED STATES PATENTS

869,682	10/1907	Autenrieth	135—47
3,179,436	4/1965	Choy	280—11.37

FOREIGN PATENTS

1,150,548	8/1957	France.
56,134	1/1936	Norway.
50,842	1/1910	Switzerland.

LEO FRIAGLIA, *Primary Examiner.*

MILTON L. SMITH, *Examiner.*