May 31, 1955 P. M. OSMUN 2,709,603

SKIER'S SEAT AND SUPPORTING MEANS THEREFOR

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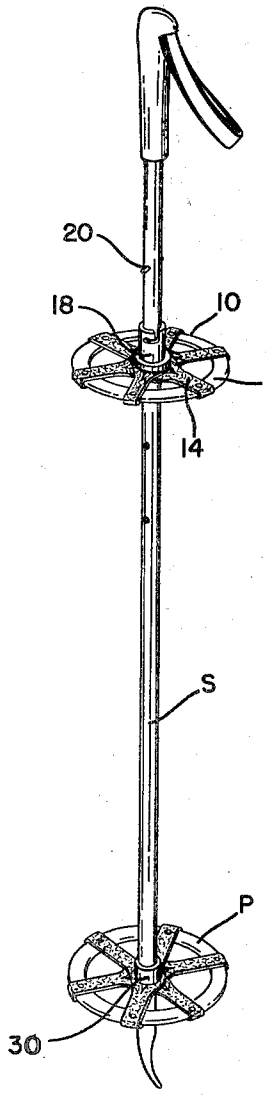


FIG. 1

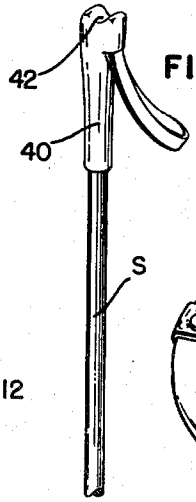


FIG. 2

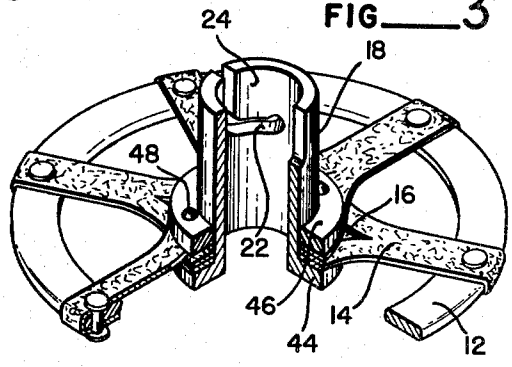


FIG. 3

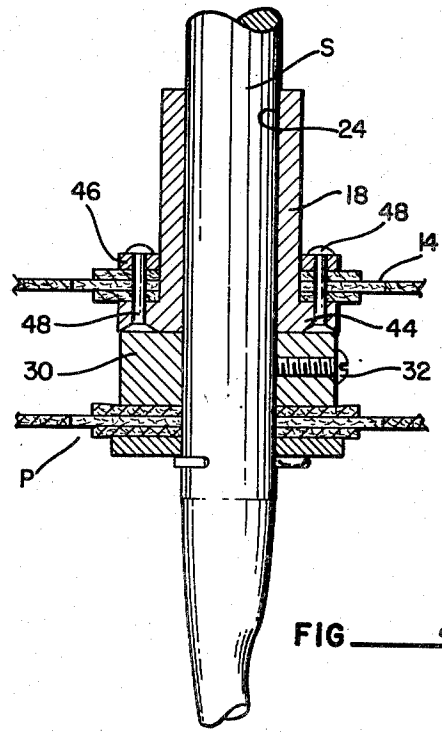


FIG. 4

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FIG. 5

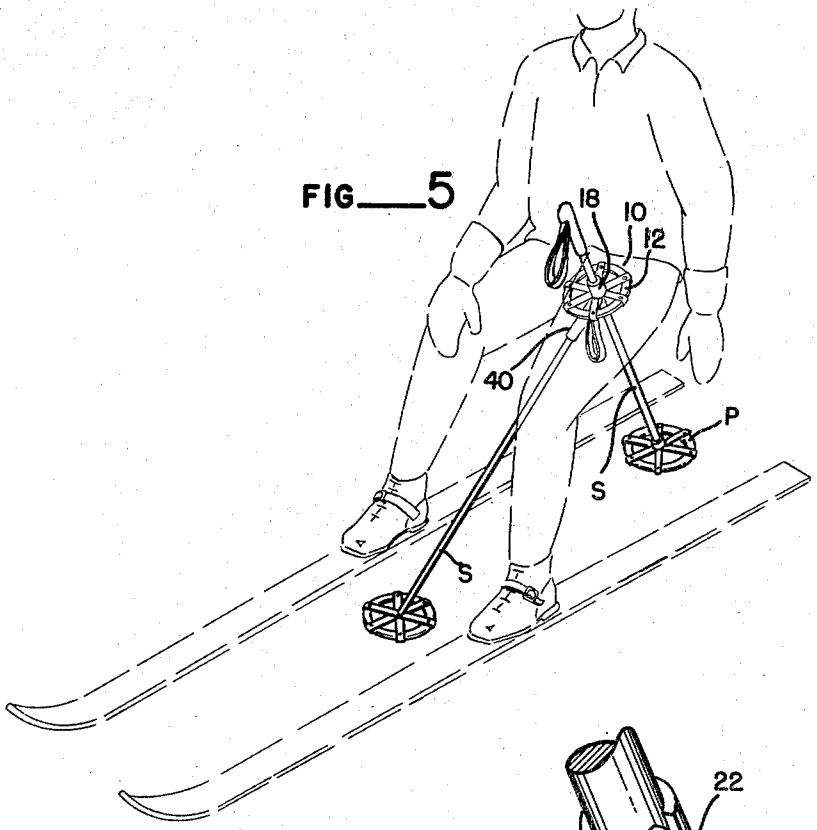


FIG. 6

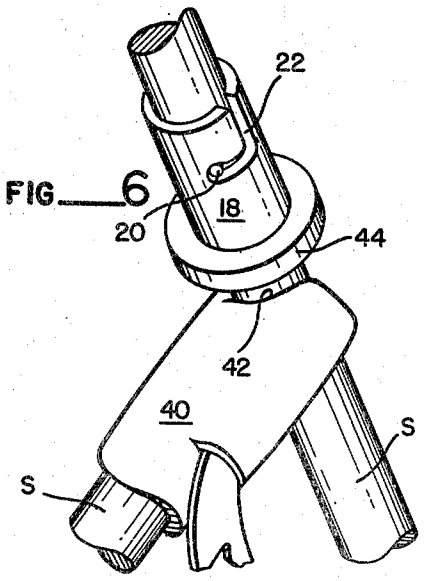
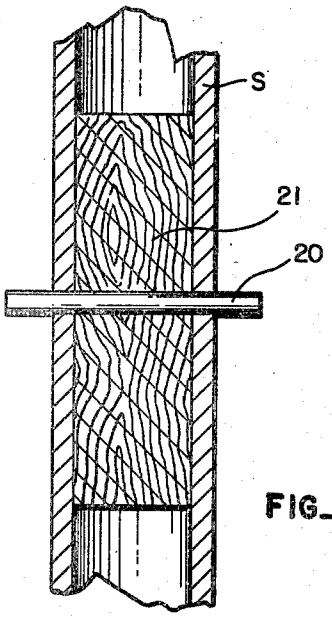


FIG. 7



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SKIER'S SEAT AND SUPPORTING MEANS THEREFOR

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8 Claims. (Cl. 280—11.37)

This present invention consists of a seat member adapted for longitudinal movement upon one of a pair of ski poles and having means whereby the seat member may be secured near the upper end of the ski pole when the seat is put into use. Means are provided whereby the seat, when it is not in use, will overlie the snow pad or ring of the ski pole which it resembles and be held in position in the abutting relationship. The second ski pole of the pair has means, at the handle end, which when properly positioned, will engage the first ski pole in a manner to support it and give rigidity to the skier's seat when in use. Both ski poles are disposed in a vertical plane substantially parallel to the longitudinal axis of the skier when in use.

The present day skier normally employs special shoes for use in his sport, and these shoes are clamped or otherwise secured to the ski in a manner to maintain at all times the axis of the shoe substantially parallel to the axis of the ski in order that he may have full control of the skis when in use. Such an arrangement makes it very inconvenient for the skier to rest, especially in a sitting position. The desirability of providing some form of seat for skiers has been well recognized and a large number of different inventors have approached this problem from many different points of view. Their constructions however leave much to be desired. Too often the equipment provides an inadequate seat, or the seating means so encumbers the ski poles as to render them clumsy in use, and many times the added material greatly increases the danger to the skier in case of the falls which are so common in this sport. Other inventors have approached the problem from the standpoint of an attachment that is carried by the skier and put into use by applying it to the ski poles. This is very undesirable in that the average skier, encumbered as he is with his skis, his heavy boots, and binding means, habitually dresses very lightly, and any attachments for the providing of a seat are bulky and difficult for him to carry about, and too often, again, it increases the danger of injury should he fall on these detached members. After a careful study of many of the devices that are now available to skiers, it is believed that this present invention overcomes to a large degree the deficiencies noted and provides a very lightweight ski seat that is adequate for the purpose, is very stable when put into use, and can be transported very conveniently as part of the ski poles without encumbering them to the extent that would make them unwieldy.

The principal object of this present invention therefore is to provide a skier's seat and supporting means therefor which are incorporated as fixtures on the ski poles and used without detracting from the general utility of the ski poles themselves.

A further object of my invention is to provide a skier's seat slidably mounted upon a ski pole with means to effectively secure the seat in using position of the ski pole, and during periods when it is not used, to provide for securing the seat in intimate association with the

ordinary snow pad of the ski pole so that the same is entirely out of the skier's way.

A further object of this invention is to provide means which permits the effective association of the two ski poles forming a pair to the end that the same will provide a very stable support for the ski seat in the fore and aft plane.

A further object of this invention is to provide a skier's seat and supporting means therefore in such a form that the same may be transported easily by the skier as part of the poles themselves and can be put into use very quickly when a seat is desired during a resting period.

Further objects, advantages and capabilities will be apparent from the description and disclosure in the drawings, or may be comprehended or are inherent in the device.

In the drawings:

Figure 1 is a perspective view showing a ski pole with my ski seat substantially in its position of use;

Figure 2 is a fragmentary perspective view of the companion ski pole showing one means for positioning the same in abutting relationship with the ski pole of Figure 1 when the seat is placed in operation;

Figure 3 is a perspective view, partly in section, illustrating a preferred embodiment of my seat member;

Figure 4 is a vertical, sectional view on enlarged scale, and with certain parts broken away, illustrating the lower end of a ski pole and showing the hub members of the usual snow pad and my seat member in its position of non-use;

Figure 5 is a perspective view showing the general manner in which my seat is used by a skier, the body of a skier and his skis shown in dashed lines to illustrate more clearly this manner of use;

Figure 6 is a fragmentary, perspective view partly in section, illustrating means for securing the two ski poles in a mutual-supporting arrangement and in this figure only the hub member of my seat is shown; and

Figure 7 is a fragmentary sectional view showing a desirable method of securing the seat positioning studs and providing reinforcement for the shaft at that point.

Referring more particularly to the disclosure in the drawings, the numeral **10** designates generally my seat member. This may take on various forms. However it has been found to be adequate if it conforms in general appearance and structure to the ordinary ski snow pad or ring which is a component of the usual ski pole and is secured near its lower end. A satisfactory construction for this purpose is that illustrated and shown in enlarged views in Figures 3 and 4, with the hub member probably most fully illustrated in Figure 6. The hoop or ring member **12** in this instance is preferably made of a lightweight metal alloy so that it will have adequate resistance to distortion and will accept the skier's weight which will normally be applied in the greatest amount on two diametrically opposed sides, and will distribute this weight well throughout the entire hoop without distorting the same. It has been found that the usual thong spoke members **14** are adequate and have many points in their favor among which are the flexibility of the arrangement which permits the hoop **12** to assume whatever angular position, with respect to the ski pole shaft S, as may be required to support the skier's weight adequately. The thong spoke members **14** are split in the usual manner at **16** so as to encircle hub **18**, and generally position hoop **12** coaxially with the hub and in turn with shaft S. It has also been found that the various forms of spoke members commonly employed in ski poles such as various rubber compounds and the flexible plastics may also be used. It is desirable that the seat assembly **10** take on the same general appearance and be of substantially the same size as the usual pad P to

the end that it will not be particularly outstanding to the casual viewer when the seat is not in use.

In order to achieve its objects, seat member **10** must be provided with means so that it may be positively secured in place on shaft S when the seat is put into operation. There are many ways in which the member might be anchored in place and the choice among these will depend somewhat upon the structure of the ski pole itself. Formerly ski poles were usually made of bamboo or like naturally-grown shaft materials. However the very great increase in the number of skiers has caused manufacturers of this equipment to develop many other types of shafts. Some are constructed much like a split bamboo fishing rod on a little more generous scale. Probably however the most common at this time is a tubular shaft, formed either of some of the newer plastic materials such as are used in fishing poles, or metal tubes made of various types of metal which will lend themselves to the processing required. A form of securing means that has been found rather generally adaptable to the various types of shafts is that shown throughout the accompanying drawings in which studs are provided at **20**, usually by means of passing a single pin through the shaft so that two such studs are provided one at each side of the shaft. The pole can best be provided with a wood filler, **21**, at this point to secure the pin in place and to reinforce the pole. These studs then are adapted to coact with the bayonet slots **22** formed in hub member **18**. This form is probably best illustrated in Figure 6, in which it will be noted that a depression is formed near the end of slot **22** so as to provide a degree of locking when studs **20** are engaged in the slots in their final position as shown. It is to be noted that bore **24** of hub **18** should be shaft size with the minimum clearance which is workable when the hub is in its uppermost and secured position. Quite often shafts S are tapering, being largest up at the grip end of the shaft, and smallest down at the pad end. The normal ski snow pad is also provided with a hub member as **30** so that it can be definitely affixed to the bottom or lower portion of the shaft as is illustrated in Figure 1. This may be secured in place by any convenient means as by the screw **32**. Experience has shown that it is desirable to provide means for securing the seat member **10** and pad P in abutting relationship and for holding them in that relationship. One convenient means is to provide that hubs **18** and **30** be of metal which is magnetic, and to have one of these members magnetized so that seat member **10** can be held in definite position without the need of threaded portions or locking lugs. Any such arrangement only complicates the parts, particularly is it objectionable further in that icing and packed snow might seriously interfere with the functioning of such an arrangement, which some adequate form of magnetic attraction would entirely overcome.

In forming a seat which relies for its support on the two rather light shafts of the ski poles, it is essential that these be used as close to perpendicular as possible. Reference however to Figure 5 illustrates the physical limitations imposed, as, in order to give fore and aft security, the two snow pads of the ski poles must be spaced at appreciable distance apart. The forward pole, illustrated in Figure 5, is used as a strut to limit the forward movement of the rear pole. Consequently some adequate form of engagement between the two poles is necessary. A satisfactory form of such engaging member is shown in Figures 2 and 6 in which the usual handle **40** is modified at its upper end to provide a grooved rest member at **42**. Groove **42** should be of a width to encircle snugly the shaft of the rearmost pole, and then when the handle is raised until it abuts flange **44** of bushing or hub member **18**, a sufficiently secure engagement is had, without the need of dowels or other locking means.

The manner of using my skier's seat is probably best illustrated in Figure 5 in which it is to be noted that the two ski poles and their associated seat member **10** are adequate to accept the full weight of the skier. However practice has shown that a good deal of the skier's weight will still rest upon his skis. This includes the weight of the heavy boots and the lower legs. It has been further found, in order to provide lateral stability for the seating arrangement, that some force of necessity will be applied by the skier to his two legs, and this in turn reduces the actual dead load on the ski seat. This is a desirable arrangement, in that the ski poles, which are themselves of light weight, are thus never under any danger of being overstressed when used in the seating arrangement.

Experience with this device indicates that it is desirable to provide additional leverage to loosen bushing **18** if it should become frozen to shaft S as may occur under certain climatic conditions. A convenient means is to provide a pressure ring **46** and to secure it to flange **44** as by a plurality of rivets **48**. The pressure of ring **46**, which may be knurled on its under surface, assisted by rivets **48** passing through straps **14**, makes it possible to apply rotary pressure to ring **12** and in effect to create a wrench. Such action is sufficient to break bushing **18** free should it be frozen to shaft S.

It is believed that it will be clearly apparent from the above description and the disclosure in the drawings that the invention comprehends a novel construction of a skier's seat and supporting means therefor.

Having thus disclosed the invention, I claim:

1. A skier's seat and supporting means therefor, comprising: a pair of ski poles, each having a snow pad secured near an end thereof; a seat member slidably disposed on a first of said ski poles for movement longitudinally thereof, said seat member having a hollow hub, in which said first ski pole is positioned, and having an annular ring member and spoke members connecting said hollow hub and said annular ring; securing means on said hollow hub and said first ski pole for securing said hollow hub to said first ski pole intermediate the ends thereof; and engaging means on the grip end portion of the second of said ski poles to engage said second ski pole in supporting relationship to said first ski pole in position angularly disposed thereto.

2. The subject matter of claim 1 in which said securing means is a stud on said first ski pole and a bayonet slot in said hollow hub.

3. The subject matter of claim 1 in which there are means for securing said seat member in position abutting said snow pad of said first ski pole when not in use and in which said engaging means is a crotch shaped grip end on said second ski pole to engage said first ski pole below said seat member.

4. A skier's seat and supporting means therefor, comprising: a pair of ski poles, each having a snow pad secured near an end thereof; a seat member slidably disposed on and encircling a first of said ski poles for movement longitudinally thereof from a position adjacent to its pad to a position intermediate the ends thereof, said seat member including a platform extending laterally of said first pole about either side thereof adapted to support a user seated in position with the legs straddling said first pole; means on said seat member and said first ski pole operative to secure said seat member to said first ski pole intermediate the ends thereof; second securing means operative to secure said seat member in position adjacent to said snow pad of said first ski pole when not in use; and engaging means on the grip end portion of the second of said ski poles operative to engage said second ski pole in supporting relationship to said first ski pole in position angularly disposed thereto providing duo-directional support for the seat member by the two poles.

5. The subject matter of claim 4 in which said second securing means comprises magnetic metal hubs on said seat member and on said snow pad of said first ski pole, whereby they are secured together by magnetic force.

6. A skier's seat and supporting means therefor, comprising: a pair of ski poles, each having a snow pad

secured near an end thereof; a seat member slidably disposed on and encircling a first of said ski poles and positionable in a position intermediate the ends thereof, said seat member including a platform extending laterally of said first pole around at least a substantial part of the circumference thereof in a manner adapted to support a user seated in position with legs straddling the first pole; securing means on said seat member and said first ski pole operative to secure said seat member to said first ski pole in such position intermediate the ends thereof; and engaging means on the grip end portion of the second of said ski poles operative to secure said second ski pole in supporting relation to said first ski pole in position angularly-disposed thereto providing duo-directional support for the seat member by the two poles.

7. The subject matter of claim 6 in which said engaging means comprises a rest member secured to the grip end of said second ski pole, said rest member having a crotch for engaging said first ski pole immediately below said seat member.

8. The subject matter of claim 6 in which said first ski pole has a pin running transversely therethrough in its intermediate portion and said pin having an exposed stud end, said first ski pole being hollow and having a block therein disposed in said intermediate portion and said pin running through said block, and said seat having a hollow hub encircling said first ski pole and said hub having a bayonet slot therein to coact with said stud end of said pin forming said securing means for securing said seat member in place.

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