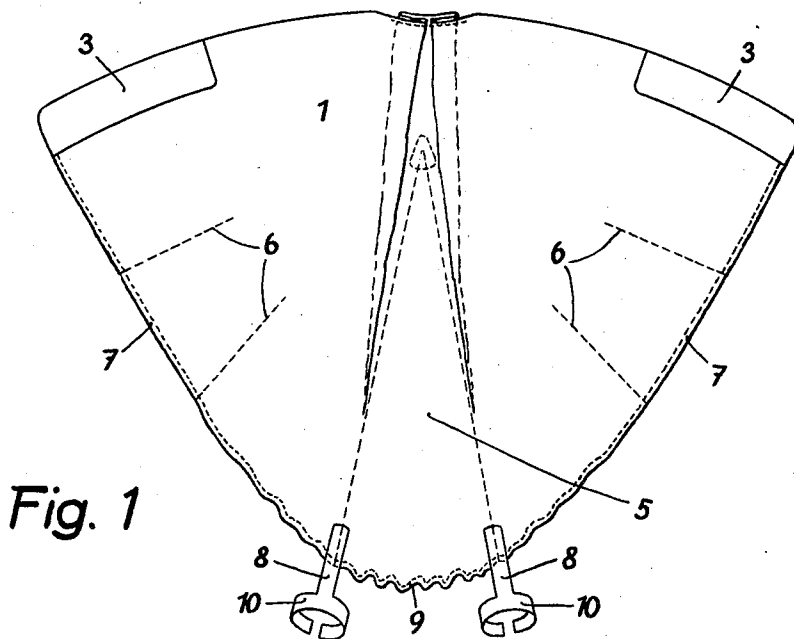
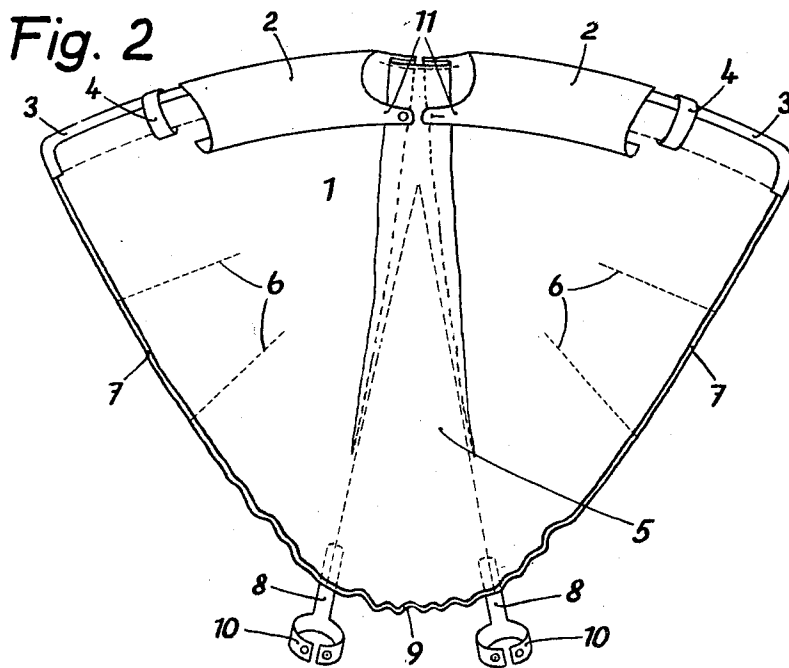


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H. THIRRING
BRAKING DEVICE FOR SKIING

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BRAKING DEVICE FOR SKIING

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5 Claims. (Cl. 280—11.37)

This invention relates to a novel braking device for use in skiing, with the aid of which the skier is enabled to vary his rate of travel within wide limits by controlled alteration of air resistance. This result is achieved in accordance with the invention by providing the skier with portable air baffle sheets which afford an obstacle to the headwind or to the relative headwind by the movement of the skier downhill. These air baffle sheets are preferably so designed that their size may be varied at will by the skier during running. The air baffles act as adjustable air brakes, and with their aid it is possible to adapt running to the nature of the country traversed. The carrying out of turns may also be very considerably facilitated by the aid obtainable by one-sided use of the accessory device according to the present invention. When using this device, the skier experiences, on downhill runs, a peculiar sensation akin to that of flying, since part of the weight of the body is carried on the air and to this extent the legs are relieved of load.

The air baffle sheets of wings according to the present invention may be constructed and designed in a large variety of ways. It is preferred not to use skiing sticks or any other extraneous aids such as poles, frames, or the like for spreading the sheets, but to effect such spreading by means of the limbs and the body of the user. A preferred form of construction for instance consists of a cloak-like garment secured along the arms and legs of the skier and so cut that, as seen from in front, when the skier stretches out his arms laterally a trapezoidal or triangular sail is spread out between the hands and the legs. The hands themselves are left free to hold the skiing sticks in the usual manner. If the skier, when travelling downhill, spreads out his arms and leans well forward so that the air baffle sheets or surfaces assume an appropriate angle of incidence, a part of the weight of the body is carried by the sail thus formed, with the result that a sensation of flying is produced. Folding up of the baffle sheets by bringing the arms together or to the side of the body renders the sheets inoperative and cancels the gliding action. It is thus possible to utilize the speed gained down a slope to obtain a long run out on the level. If only one arm is brought in to the side while the other is left stretched out the skier describes a turn.

Since the effectiveness of the air baffle sheets becomes greater with increase in the speed of travel the use of this device sets a limit to the

maximum speed attainable down any particular slope, according to the pitch of such slope. Expert skiers may therefore run straight down very long steep slopes, when equipped with this device, without danger of attaining such speed that they no longer have full control over their running.

If it is desired not to check the speed of the skier beyond a moderate extent the air baffle may be made with a relatively small area. In this case a suitable effect is obtained by the use of a tunic or the like having a triangular piece of windproof material inserted between the sleeve and the body on each side and extending down for instance as far as the hip. A more pronounced effect may be obtained by using an overall or one-piece suit with similar triangular wings extending down as far as the knees or as far as the ankles. It is preferable, however, to provide a one-piece air baffle sheet in the form of a cloak or cape which is gathered in such a manner that it is cambered and bulges out at the back of the wearer during running. The rucksack is preferably worn underneath a swooping cloak of this type. To increase the total area of the baffle sheet the portions of the cloak adjoining the ends of the sleeves may be stiffened, for instance with felt reinforced with sea reed. These stiffened portions may extend beyond the hands of the wearer and be provided with hand-loops by which they may be held fast and to which the hem of the cloak is attached. The lower end of the cloak is attached, by means of bands or straps, to the wearer's legs. In order to enable the legs to be spread apart, as is necessary in "stemming" and turning, the cloak is provided with a fold preferably extending up to the back so as to allow the cloak to belly out in the wind. It is also advisable not to make the cloak directly fast to the feet or ankles, but to insert a suitably elastic intermediate element consisting for example of rubber bands. To prevent the cloak from fluttering in the wind it is further advisable to sew on to or insert into the outer edge of the cloak elastic bands, for example of rubber. The air resistance set up by the cloak may be increased by the provision of longitudinal slots kept from spreading by means of transverse or bridging webs, so that they retain their longitudinal shape even when the cloak is strained by air pressure. Air streams through these slots with the formation of eddies which set up suction action on the back of the cloak.

In order that the cloak may also be serviceable as a garment it is preferably waterproofed,

provided with a hood, and adapted to be closed in front over the upper part of the body of the wearer, so that it may serve in case of need as a weatherproof coat.

5 When suitably designed, the accessory device according to the invention may also be used in connection with ski-jumping, in which case the carrying action of the air baffle sheets enables longer jumps to be accomplished.

10 A form of construction embodying the invention is shown, by way of example, in the accompanying drawing, in which:

Fig. 1 is a back view of a braking device in accordance with the invention, in the form of a 15 cloak, while

Fig. 2 is a front view of the same.

Referring to the drawing, the cloak 1, consists of windproof material, for example balloon silk, sail-cloth, bed ticking, or the like. To the upper 20 edge of the cloak sleeves 2 are sewn throughout their entire length. 3 denotes stiffened portions provided with hand loops 4 and preferably made from felt-covered sea reed. 5 is the back fold the lower hem of which is gathered by means of an 25 elastic band 9. 6 denotes the tucks by means of which the air baffle sheet is rounded or cambered. 7 is an elastic band which serves to tension the hem of the cloak as soon as the skier stretches out his arms and thereby spreads out 30 the air baffle sheet. 8 is a likewise elastic band to which there are preferably secured straps 10 for attachment to the ankles of the person using the device. 11 denotes the front portion of the cloak adapted to be buttoned up across the wear- 35 er's chest. If it is desired to use the cloak as a protection from the weather this front portion may also be increased in size to such an extent that it covers the whole of the front of the upper part of the body.

40 I claim:

1. Braking device for skiing comprising an air baffle sheet having the form of a coat, cloak or 45 of the coat, the back part of said coat being

cut to a form which causes the coat to belly out at the back of the wearer when subjected to air pressure coming from in front of said wearer, and means for securing the lower end of the coat to the legs of the wearer.

2. Braking device for skiing comprising an air baffle sheet having the form of a coat, cloak or the like provided with sleeves which are sewn throughout their entire length to the upper edge 5 of the coat, stiffened portions attached to the outer ends of each sleeve provided with hand loops and means for securing the lower end of the coat to the legs of the wearer.

3. Braking device for skiing comprising an air baffle sheet having the form of a coat, cloak or 15 the like provided with sleeves which are sewn throughout their entire length to the upper edge of the coat, hand loops attached to the outer ends of the sleeves, the back part of said coat being cut to a form which causes the coat to belly 20 out at the back of the wearer when subjected to air pressure coming from in front of said wearer, and means for securing the lower end of the coat to the legs of the wearer.

4. Braking device for skiing comprising an air 25 baffle sheet having the form of a coat, cloak or the like provided with sleeves which are sewn throughout their entire length to the upper edge of the coat, a fold or gusset stretching down the back part of the coat to enable the cloak to belly 30 when subjected to air pressure from in front and means for securing the lower end of the coat to the legs of the wearer.

5. Braking device for skiing comprising an air baffle sheet having the form of a coat, cloak or 35 the like provided with sleeves which are sewn throughout their entire length to the upper edge of the coat, a fold or gusset stretching down the back part of the coat to enable the cloak to belly when subjected to air pressure from in front, an 40 elastic band incorporated with the lower edge of the said gusset and adapted to gather said gusset and means for securing the lower end of the coat to the legs of the wearer.

HANS THIRRING. 45