

did see as the mist hung so low we could only see the snow beneath our feet. It was snowing slightly, seracs and avalanches booming down from the cliffs on the far side of the glacier. We kept straight up till our knees were nearly in our mouths, then zig-zagged until we could go no further and so over into Paradise Valley. As we glided through the trees we saw against the cliffs, stepping daintily, five mountain goats trailing their long white trousers through the deep snow. We hoped they would come nearer but they climbed away where it would have been difficult to follow in nail-less boots, so we left them regretfully, changing their company for a ptarmigan who was sitting looking stupid in the snow. He flew away a few yards and looked even more foolish, so we left him too.

Skoki half-way camp was our next stop, so like a European Alpine hut and our own Alpine hills, that it was difficult to realize there were trees and a creek close at hand; all round the best ski terrain that we had found, treeless slopes, a delight after the obstacle races we had had in the

woods. Then a comfortable night at Skoki Ski Camp itself before we returned to find the Fay Cabin in the woods behind the Ten Peaks. It was difficult to locate, but anyway most of the cabins were hidden away in the woods and we had a map and full directions from the Swiss guides, with added information how to be comfortable if we had to spend the night out. We crossed from Lake O'Hara over Opabin Pass and down the valley at a gentle run beside the creek and by early afternoon had reached the cabin, a pretty lonely little place covered deeply in snow. The glacier provided good skiing and most of the ten peaks should be possible under winter conditions.

From a pass above Moraine Lake all the hills near and far appeared like old friends, then we climbed higher, and looked round again. It was a fitting picture to take back with us to Europe of the mountains spread out before us for miles, and to realize that we had been lucky enough to get to know them in winter with no one else about. We turned, and skiing down the glacier soon reached the shadow of the wood.

London Letter from Arnold Lunn

THE OLYMPIC WINTER GAMES have revived in an acute form a perennial controversy. According to F.I.S. Rules a ski runner is an amateur if he is declared to be an amateur by his own national association, and if he has not competed for money prizes. Every national association is free to stiffen up these rules for its own purposes. The British, for instance, regard ski teachers as professionals, and the Swiss, Austrians and Germans regard them as amateurs.

The point of view of our Club is that the chief competitions of the year, the F.I.S. and the Arlberg-Kandahar, should in effect be open competitions on the analogy of the open golf championship, for which professionals and amateurs compete. We also hold that amateur championships should be organized for amateurs, and we are resolutely opposed to the attempt to exclude ski teachers from those principal ski meetings which owe their prestige in the main to the magnificent performances of men like Furrer, Zogg, Seelos and other great racers.

The Olympic Committee suddenly sprang upon the F.I.S. their decision to exclude ski teachers from the Olympic Games, whereupon the Swiss and the French announced that they would send no teams. We had everything to gain from this decision. We have no ski teachers in our team, but we decided that a great question of principle was involved, and supported the Swiss and the French and informed the F.I.S. we should refuse under these conditions to enter a team at Garmisch.

In this connection may I observe that I have never been able to understand the self-righteous complacency with which people often refer to the exclusion of professionals from big competitions. We exclude ski teachers from our own British open championship for one reason and for one reason only. Ski teachers are too good for us. As we are holding our championship on foreign soil, which is in itself a great handicap, we have decided to restrict the British championship to amateurs under our own rules. But we do not soap ourselves all over with satisfaction or indulge in rhetoric about keeping the sport pure from the taint of commercialism because we are not good enough to beat the professionals.

A compromise has now been arrived at. The F.I.S. Meeting will be held at Innsbruck shortly after the Winter Olympics. Members of the F.I.S. are invited to send their teams both to Garmisch and to Innsbruck, to Garmisch where the competition will be easy, and to Innsbruck where it will be difficult. We sincerely hope that Canada will be represented both at Garmisch and at Innsbruck.

An interesting event will be held for the first time next winter on January 26 for the Duke of Kent's Cup. H.R.H. the Duke of Kent has honoured the Kandahar by becoming the Patron of the Club. The Duke of Kent's Cup will be open to "townsmen." Individuals may enter, and towns may enter teams of four. A Montreal team would receive a great welcome.

The F.I.S. Downhill Racing Meeting at Murren last winter was a great success in spite of the traditional bad weather which we have learned to associate with the F.I.S. The surprise of the meeting was the brilliant performance of the French, who jumped in one season from a fifth class skiing power to a first class skiing power. I need not inflict details on you, for these may be known to you.

The British teams suffered a catastrophic series of misfortunes both before and during the race. Miss Jeannette Kessler broke a leg and R. E. Gardner had to retire owing to an injured back. In the Straight Race Peter Lunn was tenth, 16 seconds behind the winner, the best British performance in a F.I.S. Straight Race since Mackintosh finished second in 1931.

Lukin Robinson did reasonably well in the F.I.S., but he is not as yet in the same class as his brother Peter who put up such an astoundingly good performance the previous winter.

The best British performance last winter was to the credit of the British Universities Ski Club. They entered a team for the Winter University Games and won as a team the Straight Race and the Slalom, and also produced the individual winner in Bill Clyde.

Peter Lunn won the Roberts of Kandahar, his third successive entry, and the Prince Chichibu for the third time in succession. Miss Jeannette Kessler won the Swiss Ski Championship. She was outstandingly our best lady runner at the time of her accident, and we are all wondering very much whether she will regain her old form for the Olympics.



A Golden Rule of Slalom

By Peter Lunn

THE golden rule of slalom racing is to make all your turns as gradual as you can, and to do them as much as possible by steering and not by swinging.

This point is illustrated by the diagram, which shows two ways in which the pairs of flags A, B, and C can be taken. Track beta shows the incorrect method; the racer has rushed straight up to the B pair, turned sharply in them and then gone straight on to the C pair.

This track is bad for two reasons:—(1) If the slope is steep or the snow icy, it would be very difficult to hold the turn and there would be a serious risk of being carried down the hill below the C pair; (2) The change of direction at the B pair is so sudden, that the runner inevitably loses the greater part of his impetus and speed.

The alpha track represents the ideal line from the A pair through the B pair to the C pair.

In order to obtain the most gradual turn, you must start at the top flag of the A pair (A₁), cut

as closely as possible the near flag of the B pair (B₂), and finish beside the lower flag of the C pair (C₂).

Similarly a racing motorist, who has the road to himself, takes a bend from right to left by swinging out to his right before the bend, then coming across to the left of the road so as to cut the corner, finally ending up on the right hand side of the road; he thus takes the corner in the smoothest possible manner.

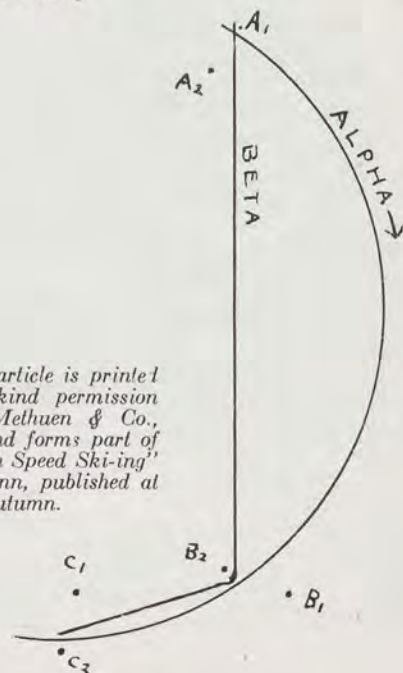
The ideal line on the diagram through the three pairs of flags A, B and C would, therefore, practically go through the three points A₁, B₂ and C₂.

The most gradual line through these or any three points is the segment of a circle, that is the alpha track in the diagram; this fact can be proved mathematically, as also that it is possible to draw the segment of a circle through any three points.

We have seen that by taking the beta track the racer lost nearly all his speed over his sudden change of direction in the B pair. The man who takes the alpha track, on the other hand, changes direction very gradually, doing about three-quarters of his turn before he reaches the B pair, and he consequently loses the minimum amount of speed.

The alpha track, therefore, represents the ideal line from the A pair through the B pair to the C pair; this track would, of course, have to vary slightly according to the arrangement of the flags above and below.

I realize that an exact calculation of this type, to discover the ideal line through three pairs of flags, cannot be carried out on the skiing slopes, but if the runner knows exactly how to do it in theory he will be able to do it approximately in practise. It is illogical to argue, as so many people do, that because one cannot do a thing exactly in practise it is a waste of time to work out exactly how to do it in theory.



The above article is printed through the kind permission of Messrs. Methuen & Co., publishers, and forms part of a book, "High Speed Ski-ing" by Peter Lunn, published at 3s. 6d. this autumn.