

turning at the end of each tack you literally seemed to hang out over space. We climbed slowly but steadily and gradually the valley dropped beneath us. This strange process continued for an hour and a half when we finally emerged on a shelf 1,500 feet above our starting point. It was quite a relief to be on level ground again after feeling for so long like a human fly climbing up the face of a skyscraper.

Some distance back from the "cliff" we found a spot where the wind had carved a deep trench around a boulder so we dropped into it for shelter from the wind to munch our sandwiches.

We headed upwards, this time on the snow which covered the actual glacier. Visibility was much worse and those at the end of the line could barely discern the first members of the party through the mist. After some time we reached a vertical face left bare on the glacier by an avalanche. It was impassable so, perhaps reluctantly, perhaps with a slight feeling of relief, we turned about and headed down. The trip over the "headwall" was exciting but uneventful. It consisted of an endless number of connected stem turns, drops and checks, and within a short time we were back on the lake and heading for camp.

Without doubt the finest skiing which we encountered was on Douglas Glacier, some five miles by trail from Skoki Camp. Jim Boyce had placed a tent here equipped with a good stove. This gave us a chance to fit climbing skins in comfort and also to rest for a moment before and after the run. From the tongue of Douglas Glacier quite close to the tent there is a vertical rise of 3,500 feet to the saddle. The grade is fairly uniform and the surface is about a mile wide between the rock walls which enclose it. We made two ascents on different days and in both cases found deep powder snow extending to within a quarter of a mile of the summit. Above this the wind had beaten the surface to

a hard wind-crust. The climb took just an hour and three-quarters of hard pulling. Once on top there is little shelter from the howling gale that seems always to rage at that altitude of 10,000 feet and one is not tempted to linger. Sealskins must be removed with the mitts in place; otherwise the hands become numb and useless; and ski poles which are not driven firmly into the crust have an annoying habit of blowing away.

After counting heads to see that no one was missing, we set off in a group. We were glad that we had steel edges as they bit into the hard surface and gave us control. Now the powder snow approached and as the footing became surer a desire for speed overtook us and almost as one we wheeled and "pointed 'em down the hill." The snow was soft as velvet and very uniform and as the pace increased a plume of white streamed out behind each runner. The roar of the wind in our ears was the only gauge of our speed apart from our criss-cross climbing tracks which seemed to fly by at an alarming rate. Everything else was a blur of white and our eyes watered from the wind which penetrated our goggles. Half way down we halted to make sure that no one had come to grief and then pushed off again and reached the tent unbelievably quickly. That last "schuss" down Douglas was the highlight of the trip and came as a fitting climax, because time had now caught up with us. Next day we must climb out of Skoki Valley over Deception Pass and descend to the world of ordinary things.

We boarded the train again for the run to Field, where our familiar tourist car awaited us. All too soon we were heading East, back to mundane work, to run again in the familiar ruts from which we had escaped only three weeks before. But what a store of memories we carried with us, what a tonic to mind and body this had been. Western hospitality, good companions and such skiing! Could one ask for more?

## The Evolution of Modern Ski Technique in Canada

By *W. L. Ball*

**T**HE TECHNIQUE used in Canadian downhill and slalom skiing today has been developing only a little over ten years.

Prior to 1928 McGill University skiers had made a start toward developing a more efficient style by introducing the "Proficiency Test." In this event competitors were required to make a straight run in good style, a right and left

christiana and a right and left telemark. The winner of this daring stunt was he who had been judged to have performed the manoeuvres with the greatest grace and finesse. Though amusing when compared with modern ski events, the proficiency test was a step in the right direction.

The author, for example, as a result of one of these tests found his complement of turns to

amount to a right "christy" and a left telemark.

In the winter of 1927 the Intercollegiate Ski Meet was held in Montreal. Besides the cross-country race and the jump, a downhill race and proficiency test were held on Mount Royal.

The following December the first Intercollegiate slalom was held at Lake Placid. From this time on technique advanced rapidly.

Prior to 1928 Herman Johannsen had not appeared very actively on the Canadian scene and slalom's strongest backer was H. P. Douglas, who had caught his enthusiasm from Arnold Lunn. In 1928 a few informal slaloms were held in the Laurentians. The first one the author recalls was laid on what is now Hill 70. It was on breakable crust and marked with spruce branches. Why the crust was not tramped down is not now apparent as Jack Rabbit was on the scene. In fact he even appeared to be winning the race by virtue of a step turn technique. Then he caught a ski under the crust, did a couple of somersaults, and ended up at the bottom of the hill. In those days it was not unusual to lay a slalom through bush and over fences and miniature cliffs. There is still at large a now highly respected member of the skiing fraternity who once set a slalom over a ten-foot rock on the Big Hill at Shawbridge.

The burden of developing slalom technique continued to be carried by the Intercollegiate skiers. McGill held a number of races on Mount Royal on a slope just east of the Lookout, facing the city. The team skied as a group and as one developed a new idea it was tested by the others. Thus a fair technique was developed as a result of their pooled efforts.

In 1929 the first Dominion slalom race was held at Shawbridge. It was won by Harald Paumgarten, of Austria, who completely outclassed the rest of the field.

About 1930 downhill racing began to go ahead. A number of trails were cut but they were for the most part very narrow and the best times were frequently turned in by pole-riders. However, as trails became more open, speed increased and pole riding was outlawed.

Until 1931 Canadians had not competed with anyone but Americans and the excellence of our ski-ing was highly overrated. That year the sport received considerable impetus when the Oxford and Cambridge teams came to Canada. They were far superior to McGill in slalom and, for the first time, Canadians saw steel edges. Even after the visitors had demonstrated the superiority of their equipment it was felt that edges would never be essential in Canada where soft snow could always be found.

In 1932 McGill skiers went to St. Moritz for

a return meet with Oxford and Cambridge. At that time the Canadian contingent appeared to be about as good as any team from the European universities and no very startling changes in technique were inaugurated.

The advent, in 1934, of Dick Durrance who had learned his ski-ing in Germany, however, served to indicate that we still had something to learn.

In the following three years skiers improved but technique remained much the same. We had discovered the principle of unweighing the skis and kicking the tails out at the right moment. The introduction in 1932 of Amstutz springs had furnished a certain amount of down-pull. It was insufficient to be leaned on, as in the newer types of cable bindings, but did keep the tails of the skis from running away.

A mistaken conception of what constituted the Arlberg style did much to retard the advancement of the average skier. This was that the arms should be held well in front with the hands almost touching and a low crouch assumed. This awkward position was never accepted by those of a more analytical turn of mind except when maximum speed down relatively slight grades was desired.

The Canadian Olympic team which went to Garmisch in 1936 found themselves completely outclassed by the best Europeans both in training and technique. This difference depended on both technique and the racing spirit of the competitors and manifested itself in the higher speeds and recklessness shown by European racers. Here we saw for the first time the extreme forward position of the body and knees, the utilization of the inside edge of the outer ski, the tucking of the knees into the hill, and the sinking into the turn as it progressed to bring about an even distribution of pressure over the entire arc of the turn. In slalom they worked harder to gain speed, executed their turns above the flags, used their poles for pivoting, and left the ground more frequently. The advancement of Canadian technique as a result of these new ideas was greater than that of any other period in its history.

In 1937 the Swiss Universities' Team were in Canada and they, in conjunction with Dick Durrance, further demonstrated the new style.

In 1938 the German Universities' Team competed here and also had their influence.

In 1939 the sojourn of Heinz von Allmen and other Swiss and Austrian instructors in Canada was of great value. This year the Canadian Ski School began to function effectively and the value of taking lessons from a competent instructor early in one's ski-ing career was generally recognized.