

give. For a third of a mile we shot along over gently dipping curves, skimming down into the valley without a motion of our feet. In that great untrodden waste, with snow-fields bounding our vision on every side and no marks of life save the tracks of chamois and of foxes, it was glorious to whizz along in this easy fashion. A short zigzag at the bottom of the slope brought us, at half-past nine, into the mouth of the pass, and we could see the little toy hotels of Arosa away down among the fir woods, thousands of feet beneath us.

Again we had half a mile or so, skimming along with our poles dragging behind us. It seemed to me that the difficulty of our journey was over, and that we had only to stand on our "ski" and let them carry us to our destination, but the most awkward place was yet in front. The slope grew steeper and steeper, until it suddenly fell away into what was little short of being sheer precipice. But still, that little, when there is soft snow upon it, is all that is needed to bring out another possibility of these wonderful slips of wood. The brothers Branger agreed that the place was too difficult to attempt with the "ski" upon our feet. To me it seemed as if a parachute was the only instrument for which we had any use, but I did as I saw my companions do. They undid their "ski," lashed the straps together, and turned them into a rather clumsy toboggan. Sitting on these, with our heels dug into the snow, and our sticks pressed hard down behind us, we began to move down the precipitous face of the pass. I think that both my comrades came to grief over it. I know that they were as white as Lot's wife at the bottom. But my own troubles were so pressing that I had no time to think of them. I tried to keep the pace within moderate bounds by pressing on the stick, which had the effect of turning the sledge sideways, so that one skidded down the slope. Then I dug my heels hard in, which shot me off backwards, and in an instant my two "ski," tied together, flew away like an arrow from a bow, whizzed past the two Brangers, and vanished over the next slope, leaving their owner squatting in the deep snow. It might have been an awkward accident in the upper fields, where the drifts are twenty feet to thirty feet deep, but the steepness of the place was an advantage now, for the snow could not accumulate to any very great extent upon it. I made my way down in my own fashion.

My tailor tells me that Harris tweed cannot wear out. This is a mere theory, and will not stand a thorough scientific test. He will find samples of his wares on view from the Furka Pass to Arosa, and for the remainder of the day I was happiest when nearest the wall.

However, save that one of the Brangers sprained his ankle badly in the descent, all went well with us, and we entered Arosa at half-past eleven, having taken exactly seven hours over our journey. The residents at Arosa, who knew that we were coming, had calculated that we could not possibly get there before one, and turned out to see us descend the steep pass just about the time when we were finishing a comfortable luncheon at the Seehof. I would not grudge them any innocent amusement, but, still, I was just as glad that my own little performance was over before they assembled with their opera-glasses. One can do very well without a gallery when one is trying a new experiment on "ski."

"SKI BOOKS"

By CHAS. E. DURAND, First Vice-President Toronto Ski Club

EXTREMELY interesting, indeed, is ski literature. Ski-running seems to lend itself so well to study and discussion. We shall here assume that "ski literature" applies only to the textbooks and technical articles on ski-ing and excludes such abortive literature as is very often included in books devoted to a consideration of winter sports as a whole.

The text book of ski-ing has made but a comparatively recent appearance, for, while the earliest record of ski-running dates back to Procopius

(De Bello Gothico) in 526-559 A.D. and we have other historical references during the Sixteenth and Seventeenth centuries, all the knowledge of the art was empiric in origin. The Scandinavian was, from his infancy, so thoroughly accustomed to the use of the planks that never did he stop to inquire into the mechanical explanation of the swing he performed with such ease.

In 1895 Urdahl published his "Haandbog i Skiløbning" in Norway, and four years later Zdarsky published the first textbook in Middle Europe, "Die Lilienfelder Schilary Technik," which gave rise to the Lilienfeld School of Ski-ing of Austria and Switzerland.

While the Richardson Brothers brought a knowledge of ski-ing from Norway to Davos, Switzerland, in 1893, it was not until 1904 that the first textbook appeared in English—"Ski-Running," by Richardson, Rickmers and Somerville.

Since then a score or more of books have appeared, distinct schools of ski-ing have arisen, and wordy battles have been waged over questions of technique.

The advent of ski books rapidly spread a knowledge of ski-ing on the continent, as might be expected as a result of the controversies which stimulated the systematic probing and formulation of ski theory and practice.

It is unfortunately true that not only is the standard of ski-running proficiency low in North America, but also there largely appears to exist an ignorance of the technique of ski manœuvres, a knowledge of which is not necessary to the competent cross-country runner.

Let us presume that the final object of ski-running science is to travel over snow-covered country of any character in the fastest and most efficient manner. This idea is the foundation on which is erected the elaborate superstructure of technique, and so fine has this become that we know, for example, that a certain condition of a snow surface at a certain time of day can be most readily negotiated by a certain kind of swing or turn.

It may be of interest to apply the personal equation and allow the supposition that we were once more in the position of approaching ski-running as an utter novice, and to examine just how integral a part the best ski books can play in our mastery of the art of ski-ing.

Even before we bought our equipment we should have first read "The Ski-Runner," by E. C. Richardson, because he logically tells us what equipment we need and how to discriminate between good skis and bad ones. His book is delightfully conversational and gives a very comprehensive sketch of the sport, giving us an insight into not only ski manœuvres and their uses but also into the very philosophy of ski-ing.

Having carefully read the books, and not before, we should sally forth on the snow and probably be able to at once perform the easy manœuvres, and if not, at least to analyze our performance and find what was wrong.

With a growing confidence in our running we should then take up Arnold Lunn's "Ski-ing," because it is a later and more advanced consideration of the subject, but still is replete with recollections and prepared purposely for a beginner.

The next step is Caulfield's "How to Ski," where we are introduced to a distinct style of ski-running and a comprehensible consideration of ski dynamics. This is probably the best book on ski-ing and is written by the recognized leader of the sport. Caulfield is an exponent of the Norwegian School, and as a sort of swing of the pendulum our next book might be W. R. Rickmen's "Ski-ing for Beginners and Mountaineers," which represents the opposite pole of ski opinion.

Arnold Lunn's "Cross-Country Ski-ing" is a compact and valuable work which follows Caulfield's principles, but which throws an original light on some of the swings. It is an exceedingly practical treatise. This might be a good place to mention the contribution of a woman, Katharine Furse, "Ski-Running," which is valuable as a comment on the sport from a woman's point of view and to which she contributes several new thoughts, among which is her chapter on "The Attractions of Ski-ing."

The last word in ski technique is undoubtedly Caulfield's "Ski Turns." This is exclusively a deep, scientific discussion of the mechanics of ski manoeuvres, and is unquestionably the highest authority in the world on ski-running. It is recommended as a final post-graduate course to ski-runners who have served their apprenticeship in actual experience.

This does not exhaust the list, nor do we even touch on the British Ski Year Books, the official organ of the Federal Council, but the books we do mention we feel to be the outstanding ones, and we have recommended them in a way that should be most helpful to either the novice or the initiated skier who wants to see ski-running in the light of "The Sport of the Gods."