THE DARWIN RANGE: TIERRA DEL FUEGO

By ERIC SHIPTON

THE Cordillera Darwin occupies most of a large peninsula running westward for more than a hundred miles from Tierra del Fuego. The area covered by the range would easily accommodate the whole of the Mont Blanc and Pennine ranges of the Alps, and most of the Bernese Oberland as well, while the extent of its glaciers must be far greater than those of the entire Alpine chain. Moreover, though the highest peaks are only some 8,500 ft. high, they rise straight from sea level, so that from the climber's point of view the mountains are equivalent in size to most of their Alpine rivals.

Yet, until we went there this year, almost the whole of this great range, with its scores of splendid peaks, was untrodden ground. That redoubtable mountain explorer, Father Alberto de Agostini, had landed at several points along the northern coast and had climbed two peaks ('Italia' and 'Francis') above the Beagle Channel on its southern side; but no one had penetrated to the interior: an alluring prospect for any mountaineer prepared to accept rough conditions. For, like the Andes of Southern Patagonia, the range has an evil reputation for weather. It is lashed by the same westerly gales that rage around Cape Horn; savage storms that bring long spells of fog and rain and snow. When I decided to go there early this year I was well aware that we might spend the whole of our allotted time immobilised by foul weather, achieving nothing.

My companions on the journey across the ice-cap had proved ideal and I hoped that they would all join me on the expedition to the Darwin Range. Unfortunately Ewer was unable to do so. His place was taken by a third Chilean mountaineer, Francisco Vivanco. I equipped and provisioned the expedition in much the same way as previously. Short skis, however, replaced the snowshoes, we took no sledge, Burberry's kindly provided our outer garments, and we had light Terylene smocks, or 'ponchos', as well. We also took two lightweight tents for high camps; but we did not use them, always preferring, when it came to the point, to accept the burden of the pyramid rather than forego its security and comfort.

It was believed that the chief obstacle to gaining access to the interior of the Darwin Range would be the almost impenetrable barrier

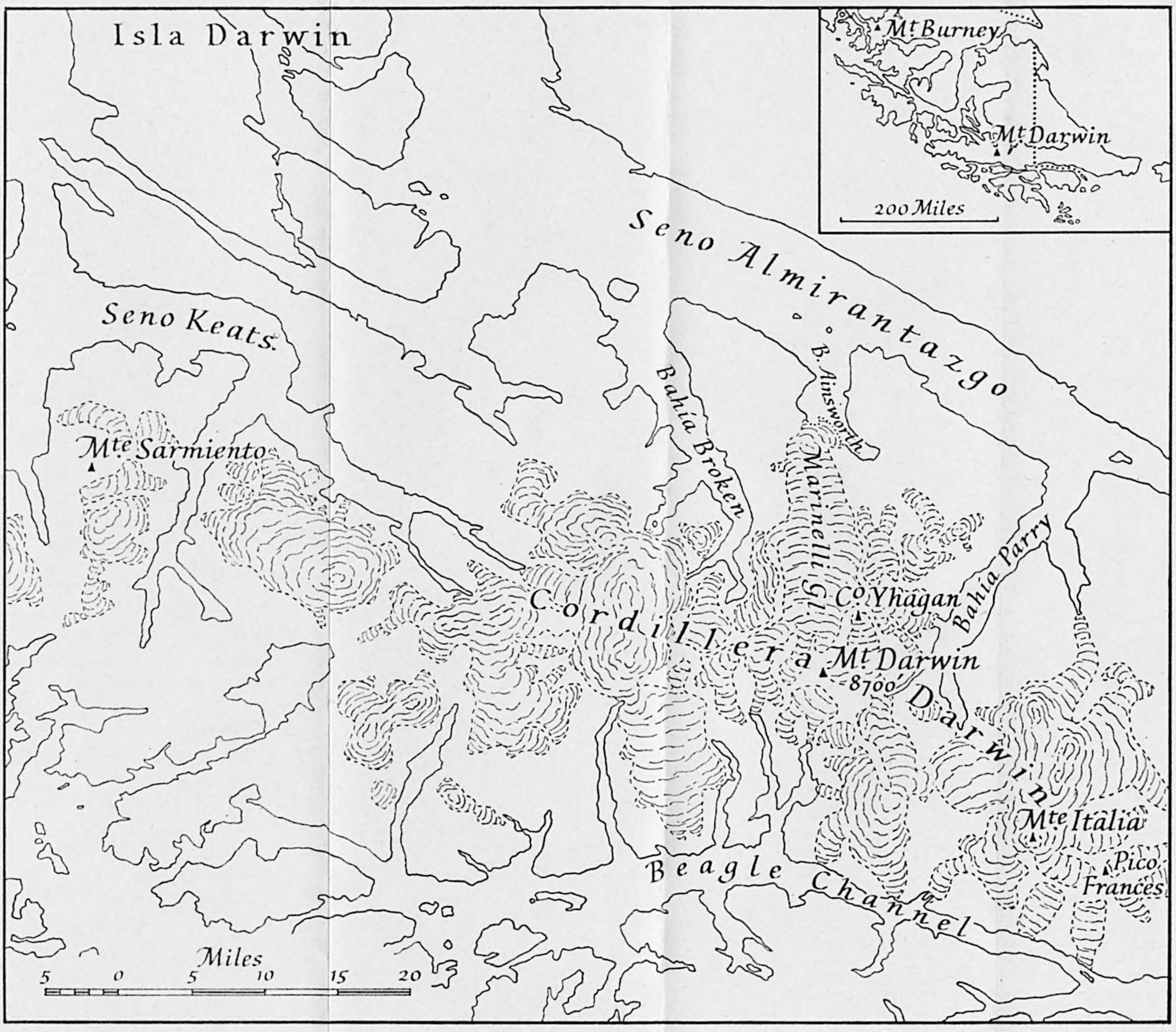
of bog and forest surrounding it. We had found in Patagonia, however, that this type of obstacle could generally be overcome by a careful choice of route, and by taking advantage of clear, firm ground left by retreating glaciers. The entire peninsula is uninhabited, and it is accessible only by sea. Like the whole coastline of Southern Chile it is penetrated by a remarkable network of fjords. Many of these have been charted, and the outlines of the remainder have been plotted by aerial photographs. Garcia and Marangunic made a careful study of these photographs, which proved invaluable in selecting a suitable landing place and a route to the interior. We chose a spot near the head of a fjord running twenty miles southward from an inlet known as Broken Bay in Admiralty Sound, which is a wide channel separating the north coast of the peninsula from the mainland of Tierra del Fuego. The fjord had not been charted and, so far as I know, no one had been up it, except perhaps the Yagan canoe Indians that used to inhabit these waters.

The Chilean Naval authorities very kindly undertook to provide us with transport from Punta Arenas to Broken Bay and as far up the fjord as it was possible to go by ship. I brought from England an inflatable rubber boat known as a 'Zodiac' and a 10 h.p. Evinrude outboard motor. The Zodiac is a remarkable little craft, able to withstand very heavy seas. It is in fact a replica of the boat used by Dr. Bombard for his crossing of the Atlantic. Capable of carrying more than a ton, it is difficult to capsize and it can also withstand a surprising amount of battering against rocks and ice.

On the evening of January 18 we set sail from Punta Arenas in the Naval Patrol ship *Lientur*, and by dawn the following day we were steaming up Admiralty Sound. It was a dismal scene: mist hung low over the water and the southern shore of the channel, though only half a mile away, was barely visible through the cold rain that was falling. At 7 o'clock *Lientur* entered Broken Bay, but after proceeding another five miles she could go no further owing to a reef, formed by an old terminal moraine, which stretched right across the fjord. We were put ashore with our baggage at the mouth of a small river which emerged from the dense forest on the eastern shore of the bay. I had requested Admiral Balaresque to have us picked up on March 5, and it was now arranged that this place should be our rendezvous.

We still had fifteen miles to go to our destination at the head of the fjord. It was still raining, but there was no wind; so, taking advantage of the calm water, we loaded the Zodiac and set off immediately. After carefully negotiating the reef we settled down to a steady 4 knots in the clear water beyond.

Presently it stopped raining, the mists cleared, forming horizontal strands of cloud which lent an enchanting air of mystery to the scene.



THE CORDILLERA DARWIN

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To starboard, at the far end of a wide gulf, a vast glacier, also swathed in cloud-bands, swept down to the water on a massive front. Above was a glint of snow peaks. It was exciting to find my life-long imaginings of this fabulous land so closely reproduced in reality.

Hundreds of black and white ducks rose from the water at our approach; apart from some steamer ducks and an occasional cormorant they seemed to have a monopoly of these waters. We encountered several pairs of dolphins, which played about us with the enormous zest of their kind. Though they came within inches of the boat they never touched it. We also saw some sea-lions.

The weather continued to clear; soon the sun came out and one by one the great peaks began to appear, floating incredibly high above the mist which still clung to the sombre forest on either side of the fjord.

By 2.30 we were approaching the head of the fjord. We landed at a point where it made a sharp turn to the west into an almost land-locked lagoon, surrounded by a cirque of glaciers and mountains rising abruptly to 7,500 ft. The lagoon was partly covered with blocks of floating ice, calved from three large glacier fronts along its shore. We spent the hot, sunny afternoon sorting out our food and equipment to be carried inland, and stowing the boat and surplus gear in the forest. We had brought supplies enough for forty-five days; three days' food was left in the dump, and the rest was to be taken with us.

The next day, in mist and rain, we began carrying the loads, in three relays up into the mountains. We were extremely fortunate in our choice of a landing place. Any other would have involved us in weeks of extra toil. As it was we found our way over a 3,000 ft. pass which led directly to the upper basin of the Marinelli glacier which flows for more than fifteen miles northwards into Ainsworth Bay, and is probably the longest in the whole range. In six days we had established an advance base (Camp 3), with all the loads, at the head of this great glacier.

We avoided the worst of the forest by climbing 800 ft. up a rock ramp left by the shrinkage of a small glacier which came steeply down almost to the water's edge at Camp 1. From Camp 2, in a wide grassy combe, we looked down over the treetops and a tumbling ice-fall to a lagoon 1,500 ft. below, and across to the tremendous cirque of mountains surrounding it. In fair weather or in foul, it was one of the loveliest places I have ever seen.

During most of this time the weather was bad. But the morning on which we carried the first relay to the pass was brilliantly fine, and we were greeted by a glorious view of the whole length and breadth of the Marinelli glacier and the scores of peaks surrounding it, including

Mount Darwin[1] itself, and a lovely mountain rising above Parry fjord which de Agostini had named Luis de Savoya. Immediately above the pass stood a tall granite spire, which, though only some 5,000 ft. high, would be a tough proposition to climb.

It is not my usual practice to take a radio on these expeditions. I grudge the weight, and have always thought that in most emergencies a few pounds of extra food would be a greater asset. On this occasion, however, I had been persuaded to take, at least as far as our landing point, a small transmitter, designed for use in sea rescue. It had been arranged that we should have daily contact with the Naval station on Dawson Island, who would relay our messages to Punta Arenas. Though we had made it clear that we would probably not take the instrument beyond our base, it was arranged that Dawson Island would continue to listen for us at 5.30 every day throughout the period of the expedition in case of an emergency.

Though Dawson Island was well within range in normal conditions, I doubted if we would be able to make ourselves heard because of the high mountains surrounding us. This in fact was the case. Having failed to establish contact from Camp 1, we reluctantly decided to hump the wretched instrument to Camp 2, hoping that we would have more success from a greater altitude. Again we failed, so we carried it on to Camp 3. But even from here, at 3,000 ft., we could not make ourselves heard. We had with us a small transistor set with which we could hear both Dawson Island and Punta Arenas talking to us. Night after night while we were on the glacier we heard them telling us to light fires, one if we were all right and two if we were in trouble. Presumably the idea was to send a plane to spot for the fires; but by then, of course, we had no means of complying with their request.

One of the chief purposes of the expedition was to examine the geological structure of the range, and to make collections of rock samples from appropriate places. We set ourselves three main objectives; to climb the highest peak of the range, Mount Darwin; to cross the range to a point on its southern coast, and to climb Luis de Savoya. In view of the predominance of the foul weather we knew we must expect, we would probably have been satisfied with the accomplishment of any one of these objectives; we scarcely hoped to achieve all three.

Although Camp 3 was near the northern foot of Mount Darwin, the only direct approach to the mountain from that side lay up a

[1] On some Chilean maps of the area the name 'Cerro Darwin' is applied to a peak standing above the Beagle Channel (Lat. 54° 45′ S., Long. 59° 29′ W.), presumably because it is a prominent feature seen from that direction. The highest peak of the range, however, is one of a group at the head of the Marinelli glacier, and it is obviously more appropriate that this should bear the name. It is, therefore, the latter peak that I refer to when I mention 'Mount Darwin'.

Photo, Eric Shipton]

MOUNT DARWIN FROM THE HEAD OF THE MARINELLI GLACIER.

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2,000 ft. ice-fall. This looked so broken and complicated that we did not fancy the job of tackling it heavily laden and in foul weather. The alternative was to make a long detour to the west in the hope of finding an easier line of approach. As we also hoped to find a route across the range in that direction we set off with three weeks' provisions. Using skis, partly as a protection against falling into hidden crevasses, we climbed another ice-fall and reached a broad snow ridge above the junction of two glaciers. There, on January 29, we established Camp 4 (5,000 ft.). The weather was continuously bad, our tracks were obliterated by wind and drifting snow almost as soon as we had made them, so that our chief concern was to avoid losing our way among the crevasses of the ice-fall.

Leaving a dump of twelve days' provisions and the skis at Camp 4 we headed southward. Carrying our loads in two relays we climbed an icy slope for 3,000 ft. to a little saddle which we had seen during brief clearings of the weather, and which seemed to offer the only route towards Mount Darwin.

The saddle was more than 8,000 ft. high, only a few feet below the highest summits of the range. We reached it with the second relay at 5.30 p.m. on February 1, during a short spell of fine weather, and found ourselves looking eastward across a deep glacier combe, on the opposite side of which stood Mount Darwin. We were delighted to see that there was a practicable way down to the floor of the combe and from there up the western side of the mountain.

There were two other high peaks flanking the head of the combe, which we called Darwin II and III. The latter stood close to the saddle and it seemed a pity to waste the opportunity presented by a few hours of fine weather. So we hurriedly pitched the tent on a ledge below a huge ice-cliff, climbed rapidly up a steep ice-ridge and reached the summit as the sun was setting in a blaze of colour. Our view extended east and west along the whole length of the range, and southward far across the snow-capped islands beyond the Beagle Channel. The long summer twilight gave us plenty of light for our return to camp.

The fine weather was short-lived, and that night there was a severe storm, from which the ice-cliff gave us little protection. In the general confusion a bag containing two days' food was blown away, and to compensate for its loss we put ourselves on short rations for a few days.

We descended to the valley below where we set up Camp 6 at the western foot of Mount Darwin, a short way above the ice-fall that we had seen from Camp 3. It was well protected by the high mountains surrounding it, and at first seemed so peaceful after the storms to which we had been exposed, that I called it the 'Silent Combe'. Though at times we had reason to doubt the aptness of the name it was on the whole a pleasant spot.

The morning of February 4, though by no means fine, was comparatively calm, and we decided to set out for the summit of Mount Darwin, now some 3,000 ft. above us. We reached the top in thick mist, so we repeated the climb on the following day, and this time were lucky enough to get there with five minutes to spare before it was once more enveloped in cloud.

Using two aneroids we recorded a series of pressure readings throughout the expedition and from this record we estimated the height of Mount Darwin to be 8,750 ft.

On the 6th we climbed Darwin II. The day was perfectly clear, but a tremendous wind was sweeping across the range from the south-west. As we were climbing on the northern side we were largely protected from it until we were 300 ft. below the summit. Fortunately we were then on easy ground, for when we met the full force of the gale we could not stand and had to crawl forward on hands and knees, digging the picks of our ice-axes into the hard, wind-packed snow. From the top we descended to an ice plateau from which we could see a large section of the southern side of the range, which helped us to plan our crossing to the Beagle Channel, the next item on our programme.

On the 7th we started back across the saddle, and two days later reached a high pass on the main divide having picked up further supplies from the dump at Camp 4 on the way. We also took two pairs of skis from the dump, with which we constructed a sledge to drag out loads across a wide plateau to the west. For most of the time we were in thick mist and had to find our way by compass, but on the 11th we descended below the cloud level and reached a saddle, 3,800 ft. high, between two inlets from the Beagle Channel.

The next day, leaving the camp standing, we climbed down a series of cliffs to some beautiful alps covered with wild flowers, and on through the forest to the shore, which we reached at a point where a large glacier flowed into the bay. Returning to camp by a different route we became involved in some difficult rock climbing, which cost us so much time that it was almost dark before we got back after a long, but most delightful day.

On the return journey, though we had one clear day, the weather was extremely bad, with powerful winds and exceptionally heavy snowfall. For two days we were unable to move, and when, on the 19th, we reached Camp 4, we found that the dump was buried under six feet of fresh snow. We had fixed its position by compass bearings to surrounding objects and in relation to a nearby crevasse, but even so we had to dig and probe for a couple of hours before we found the tip of one of the upright skis.

We were afraid that our main depot at Camp 3 might have been

similarly buried, for if so it would have been almost impossible to find, situated as it was in a flat, featureless expanse of snow, which extended more than a mile in every direction. Fortunately we had planted the 12 ft. aluminium wireless mast to mark the spot, and when we reached it the next day, we found that although the mast had been snapped by the wind it was still protruding above the surface. So the radio had been worth bringing after all!

We reckoned that we should start back on February 28 at the latest, so as to reach our rendezvous in Broken Bay by March 5. This meant that we had seven days left in which to achieve our final objective, the ascent of Luis de Savoya.

On the 21st, after a long haul eastward across the huge upper basin of the Marinelli glacier, and a climb up an ice-fall, we reached, late in the evening, what seemed to be a sheltered hollow at the foot of one of the great granite buttresses of the mountain. Above us was a second ice-fall, and we had intended to carry our camp up this the next day, so as to get close enough to the top to reach it in a short clear spell. But that very evening the weather cleared, and we decided to attempt the summit the next day if it was still fine. Hitherto fine evenings had always been followed by bad days, but when I awoke at 2.30 the next morning and looked out of the tent, I saw the moon shining in a clear sky. We made a hasty breakfast and set off. Though it was freezing hard, the snow had a breakable crust which made the going heavy. In spite of this we climbed rapidly, and achieved a thousand feet in the first hour. It was a golden dawn. Already the view had expanded over the mountains behind us. Sixty miles away stood the lovely spire of Sarmiento, ghostly white against the dark blue shadows of the western sky, and, nearer at hand, the icy ramparts of Mount Darwin were already lit by the first rays of the rising sun.

We were now faced with a series of enormous crevasses which stretched right across the steep glacier, backed by vertical or overhanging walls. Each in turn seemed to present an impassable barrier: but each time the lucky chance of a slender snow bridge and a crack in the wall beyond enabled us to overcome the obstacle. The most difficult of the walls (led by Garcia) took an hour and a half to surmount. I could hardly believe that the fine weather would survive the delay; but it was still clear and windless when, at 10.30, we reached the top of the ice-fall.

After climbing a slope of soft snow, we reached the crest of a steep ridge of hard ice, from which we looked straight down nearly 7,000 ft. to the blue waters of Parry Fjord and the dark green forest surrounding it. At the top of the ridge there was a bulging wall of ice, which seemed to extend right across the upper face of the mountain. Traversing downwards to the left, however, we found a gangway which

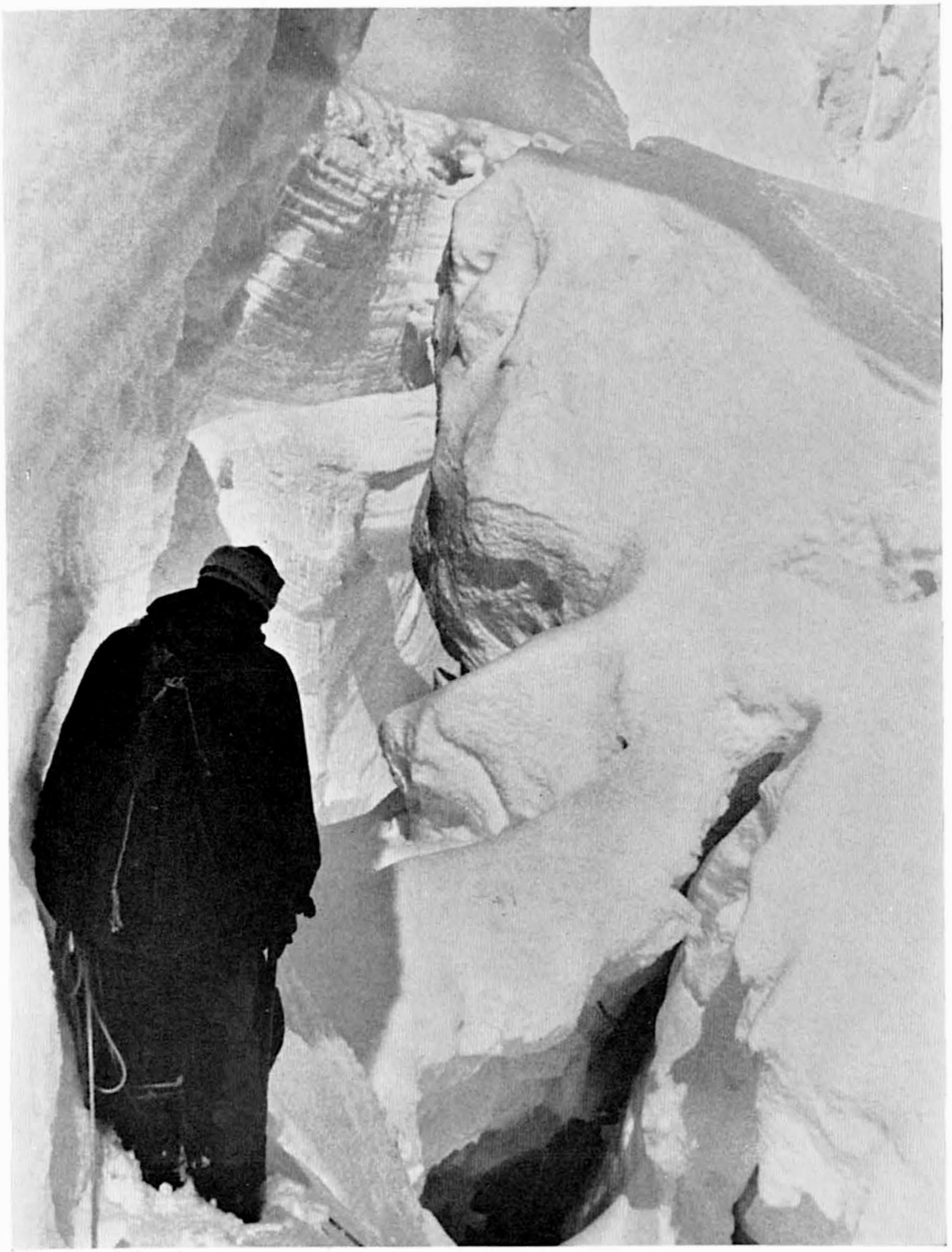
led us to a col on the summit ridge, between two bosses which looked like gigantic cauliflowers. We chose the right-hand one, as it seemed to be the easier to climb, but when we reached the top we saw that the other was a few feet higher. From where we stood the latter seemed to be overhanging on all sides, but having returned to the col and made our way round behind, we found a way of climbing it. We reached the summit (about 7,500 ft.) at 12.30.

By then the cloud had formed about many of the higher peaks of the range; but, if anything, this enhanced the splendour of the view. But we had not long to admire it, for ten minutes later we ourselves were enveloped in mist. It had been an exciting climb; not because it was particularly difficult, but because the issue had been in doubt until the very last moment. My companions were keen to change the name of the peak to one of local application. I suggested 'Cerro Yagan', and we decided to adopt this name.

After a successful and tiring day we were looking forward to a long lie-in the next morning. But this was not to be. Around midnight I awoke to find a storm of unusual violence raging. The wind was coming at us in intermittent gusts, funnelled through the trough we were in, and there continued to increase in force. At 3 o'clock I crawled outside to check the guys. Soon after 4.30, when it was quite light, the tent collapsed over our heads. We thought that two of the poles had snapped, but we discovered later that the whole of one side of the tent had been driven four feet into the hard-packed snow beneath. In the pandemonium of madly flapping canvas we managed to dress and collect our personal belongings. I crawled outside, stood up, and was immediately blown flat, while my balaclava was whipped off my head and disappeared, flying high over the rim of the ice-fall.

Our movements during the next two hours must have resembled one of those slapstick comedies of the old silent films. As we struggled to dismantle the tent and pack up the loads, we were constantly hurled to the ground. Marangunic's pack, weighing nearly 50 lbs., was swept away and fell into a crevasse 200 yards away. Fortunately it lodged on a ledge twenty feet down and we were able to recover it. Vivanco's pack started on a similar escapade, but he intercepted it with a neat rugger tackle. When at last we had picked up all the loads, we started off, reeling and falling like drunks. Matters improved on the ice-fall which was comparatively sheltered, and although crossing the Marinelli glacier we were again exposed to the wind, it blew steadily and not in those devastating gusts.

We had decided the night before to start back at once. We still had four days in hand; but Marangunic thought that he could most profitably spend the time examining the geology along the fjord. Also I had been asked to make a collection of 'collembola' from the forest



Photo, Eric Shipton]

NEGOTIATING AN ICE-WALL ON CERRO YAGAN.

litter, and this would give me an opportunity to do so. Moreover, we were well satisfied with the accomplishment of our three main objectives, and the prospect of some days of comparative idleness along the wooded shores had a powerful appeal.

The next day we reached Camp 2 in warm, sunny weather. If we had thought it a beautiful place before, it seemed even more lovely now, with the wide meadows around the camp carpeted with wild flowers, the peaks and glaciers of the cirque framed by a tracery of fresh, green leaves and mirrored in the still waters of the lagoon.

On February 25 we reached the shore at Camp 1, and in the halcyon days that followed we cruised slowly down the fjord, stopping at one or other of the scores of charming little bays we passed, basking in the sun, fishing for edible crabs in the clear deep pools at low tide, eating enormous quantities of mussels and sea urchins and lying beside camp fires under the starlit sky. All this time the incredible spell of fine weather held, and every day the ice peaks of the Darwin Range were clear.

On the 27th we made our first and only radio contact with Dawson Island, and late in the evening of March 2, the naval patrol ship *Cabrales* arrived to pick us up.

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Soon after our return to Punta Arenas, Marangunic and I, together with a friend of his, Ricardo, set off with a fortnight's provisions to attempt to reach Mount Burney from the south-east. This mountain, which stands near the north-west corner of a large block of uninhabited land known as the Muños Gamero Peninsula,[1] is alleged to be an active volcano. Very little is known about it, and it seems that, hitherto, no one had penetrated to the interior of the peninsula.

On March 9 we went by lorry to Estancia Skyring at the end of the road, where we launched the Zodiac and headed westward. Our progress was retarded by powerful headwinds; but on the 13th we reached the north-west corner of Skyring Sound. From there we carried the boat across a narrow isthmus to a system of freshwater lakes which occupies a large part of the Muños Gamero Peninsula. These lakes do not appear to have been visited before except by Alakaluf Indians. On the 14th we went for twenty miles through a labyrinth of narrow channels, flanked by fine mountains and beautiful forests of nothofagus, cypress and magnolia, and reached what appeared to be the northern extremity of the lake system.

On the 15th leaving the boat behind, we started marching northward with a week's provisions. After climbing through dense forest,

[1] The Muños Gamero Peninsula is a part of the mainland, lying to the north-west of Punta Arenas; it is not a part of Tierra del Fuego.

we reached a ridge at about 3,000 ft., where the going was good. The next day, however, we found ourselves cut off on three sides by another system of large lakes which rendered further progress impossible. The day was fine and we had an excellent view of Mount Burney, now some ten miles away. We were surprised by its appearance; for instead of the simple volcanic cone we had been expecting to find, it was a massive affair, more like Monte Rosa, heavily glaciated and with several peaks, one of which, perhaps the highest, was a towering white fang.

Though the mountain may be of volcanic origin it certainly did not look like it. However we found a great deal of pumice lying about, which was sufficient evidence that there is a volcano in the vicinity. The Muños Gamero Peninsula contains many remarkable features, including a small ice-cap near its southern extremity.

On the return voyage we met with severe westerly gales and very rough seas; but with the wind behind us we travelled fast and reached Estancia Skyring late in the evening of the 20th. We were very much indebted to the Friedli family, the owners of the estancia, not only for their delightful hospitality but also for the help they gave us at the start of the journey.