the valley. The first actual traverse of the glacier itself was made by me, alone, in 1894, when I made the ascent of Chancellor Ridge and also explored the Victoria Glacier. In 1895 I showed Mr. E. A. Fitzgerald and his guide the route via the Fox and Victoria Glaciers, over the Fritz Range to the Franz Josef, thence via Grahams Saddle to the Tasman Glacier (the first crossing of this now well-known pass). Later in the same year Messrs. W. Wilson and C. E. Douglas surveyed the glacier, reaching about the same point as I had. In 1913 Dr. Teichelmann (A.C.), Rev. H. E. Newton (A.C.), with Peter Graham as guide, were the first to reach the divide at the head of the glacier. Of late years it has become a favourite playground for both climbers and skiers. There are two huts in the valley—one on Chancellor Ridge and a small one on a rocky outcrop under Douglas Peak 8,000 ft. above sea level.

Description.—The main branch of Cook River has very fine mountain peaks at its head in addition to the La Perouse Glacier, which is beautiful and in many ways interesting. But to reach the upper basin of the valley involves much hard work, unrelieved by the beautiful scenery of Copland and Karangarua.

After passing the inflow of the Balfour branch the valley is deep, narrow, and heavily timbered—so shut in that views are very limited. The chief interest lies in the enormous boulders in the bed of the river and distributed up the hillsides in the bush with great trees growing on them. These are undoubtedly "erratics" deposited by the ancient glacier which at one time occupied the valley (see below under "Glaciology"). In places almost equally large boulders are found in other rivers, but I know of no other stretch of four miles which shows such a collection of these huge blocks, making travelling very slow and difficult anywhere near the river. We measured two when making the original exploration, the dimensions are—Castle Rock: 120 ft. high, 348 ft. in circumference; and Tony's Rock: 158 ft. high, and 843 ft. in circumference.

Above the inflow of the Balfour this narrow boulder-filled valley runs south and then swings round to the east up to the La Perouse Glacier, the last four miles being an unexpectedly wide scrub-covered basin bounded on the south by great precipices of over 2,000 ft. from the Copland Range and dominated by Mounts La Perouse (10,101 ft.), Hicks, or St. David's Dome (10,410 ft.), Dampier (11,323 ft.), and Silberhorn (10,757 ft.), while over Harper's Saddle (8,559 ft.) is seen the top of Mount Cook, which lies on the eastern side of the divide (see Fig. 7).

The main points of interest are the enormous boulders, especially Tony's Rock, and a narrow gulch cutting into the base of Mount La Perouse and the big La Perouse Glacier.

Balfour River drains a glacier coming off Mount Tasman and, after cutting through a spur of Craig's Range, flows through what we believed to be an impassable gorge to join Cook River about four miles above where it emerges on to the low country.

The Balfour Valley is exceptionally fine, forming a quadrangular basin seven miles long by a mile to two miles wide and completely shut in by mountains. At the western end is the spur of Craig's Range, over 5,000 ft. high, on the north and south it is walled in by very steep slopes of 2,000 ft., while its eastern end is blocked by the stupendous buttresses of Mount Tasman (11,475 ft.), rising fully 7,000 ft. from the floor of the valley, its black and frowning cliffs only relieved by one small ice-field (see Fig. 8). This is, I believe, the highest almost sheer face of any peak in our alps, but is closely challenged by Elie de Beaumont's north face.

The trunk of the Balfour Glacier is covered with moraine and, except for one insignificant little inflow of ice, it is entirely cut off from its *névé* supply and is fed chiefly by avalanches. The river falls very rapidly a mile below its outlet from the glacier and must drop 1,500 ft. in two miles through the gorge, into which it leaps beneath enormous cliffs. There are traces of gold in this valley.

Expeditions and Notes.—There is practically no fording of dangerous rivers needed in this reserve, but experience in rough bush country is required. A short slasher or bill-hook is essential for bush work:—

(1) To ascend Main Branch keep on the south bank. A good boulder shelter available a mile or so above Balfour inflow. Above this is a very high bluff over which, for 800 ft. or so in height, a track must be blazed, and the best route is to keep well up on the hillside and not too close to the river, as the boulders are terrific; but these should be inspected for sake of interest. A blazed track now exists to the more open valley at the head, which can be reached in one day from Weheka.

Just about the point where the valley swings round to the east is "Tony's Rock" the huge boulder mentioned above. This affords a good shelter; beyond this point the bad boulders cease and river travelling is easier and more open right up to the glacier. Some scrub work, however, is necessary.

(2) An ascent on Ryans Range to the West of the Main Branch, or on Balfour Range coming off Mount Tasman, would afford very fine views of the great peaks.

(3) In order to avoid returning down the river from above Tony's Rock a saddle to the west of Lyttle's Peak could be crossed into Architect Creek, and so to the Copland Track. This has not been done yet.

(4) To reach Balfour Glacier go up on north bank of Cook River to inflow of creek from Craig's Range well below the Balfour River junction. Ascend this creek to large erratic boulder, which affords good shetler. Thence continue up the creek for about half a mile and ascend, by a tributary, coming in on the right, to the top of the spur from which a wonderful view is to be seen (see Fig. 8). Descend straight down into the Balfour Valley; good camping ground in McKenna's creek.

Points of Interest.—Fine specimens of quartz crystals on Craig's spur; colours of gold in surface moraine of Balfour Glacier; look into Balfour Gorge.