

Jurassic Period the Cariboo region was affected by strong mountain-building movements which developed Pacific Coast ranges from California to Alaska. At that time the rocks composing the present Cariboo mountains lay deeply buried in the deformed mass. Though strongly metamorphosed, they were not greatly folded. Rapid denudation of the mountains during the Cretaceous Period swept away the overlying rocks and deposited the material in the form of thick Cretaceous sediments in the Rocky Mountain area and the Great Plains to the E. The close of the Cretaceous Period witnessed the birth of the Rockies and the further uplift of the Selkirks and Cariboos. Sculpturing by the agencies of weathering, running water and glaciers, interspersed with regional uplifts, have produced the present beautiful range.

In the vicinity of Albreda peak in the northern Gold range the principal rocks are biotite gneiss and hornblende schist of metasedimentary origin, together with intrusions of amphibolite and pyroxenite. The biotite gneiss is hard and firm, affording splendid hand-holds and foot-holds for the climber.

NEW ASCENTS AND EXPEDITIONS IN THE CANADIAN ALPS IN 1924.

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reprinted from *Appalachia* (with additions).

THE past season in the Rockies has seen a continuation of the great activity of the previous year. The weather during June and July was generally favourable for climbing and mountain travel, but broke badly in August.

Early in June, Mt. Iconoclast, 15 miles N.W. of Glacier, B.C., and two near-by unnamed peaks were climbed for the first time by Dr. Cora J. Best and Mrs. Audrey F. Shippam of Minneapolis, led by the guide, Christian Häsler. These three, with one other local man, back-packed up Mountain Creek from the railroad, crossing alder slides on the deep winter's snow still in place, and made what are probably some of the earliest season's climbs on record in the Selkirks.

Dr. J. Monroe Thorington of Philadelphia, with Mr. Alfred Ostheimer, Dr. Strumia, and the guide, Conrad Kain, journeyed up the Whirlpool from Jasper, accomplishing first ascents of Mts. Oates, Kane, and Hooker, the latter being the peak early made famous by greatly exaggerated reports of its altitude. Hooker (10,782 ft.) was conquered only after three attempts.

On the final climb the party was caught in a severe storm and forced to spend two nights near the summit under most trying conditions. Later the party moved into Tonquin Valley, making the first ascent of Simon Peak (10,899 ft.), the highest summit of Mt. Fraser, from which springs the river of that name. From the Mt. Robson camp of the A.C.C. they made a new traverse of Resplendent by the N. arête and the first ascent of an unnamed peak E. of Resplendent.

Probably the most noteworthy purely climbing feat of the season was the first ascent of the rock tower Mt. Geikie (10,854 ft.) by Mr. Val A. Fynn of St. Louis, accompanied by Messrs. C. G. Wates and M. D. Geddes of Edmonton. This peak, previously adjudged by competent observers to be one of the most difficult unclimbed summits in the Rockies, had been attempted several times in 1922 and 1923 by Messrs. Wates and Bulyea, who were never able to overcome the last 300 ft. Led by Mr. Fynn, the guideless party accomplished the climb from their camp at the N.W. base of the peak and back in 27 hours. Mr. Fynn characterises the climb as very intricate and fairly difficult, but less difficult than a number of peaks in the Alps. The rock is not always firm, however.

Mr. Fynn with Christian Häslér later made a new route on Sir Donald at Glacier. The route can best be described, in the absence of a diagram, as a letter 'Y' on the W. face (opposite the hotel). The ascent was made up the centre of the face for a few hundred feet, then to the right and eventually by the ordinary route to the summit, traversing summit ridge, descending by N.W. arête about halfway, then swinging back diagonally downward across the face, to effect juncture with right arm of 'Y,' and thence down again to the base of the rock pyramid. This rock work was accomplished in 5 hours, equally divided between ascent and descent.

Foremost among the exploratory climbing expeditions of the summer was that of Mr. Allen Carpe of New York and Professor Rollin Chamberlin of Chicago into the Cariboos. Leaving the railroad at Tete Jaune on the Prince Rupert line of the Canadian National, the party moved at first with pack-horses and later by back-packing S.W. into the practically unknown Cariboo Range. From a base camp at 4500 ft. near the tongue of a large glacier, no less than eight first ascents were made of peaks ranging from 10,000 to 11,900 ft., the altitudes of these unnamed peaks being approximated from aneroid readings and levels taken from other distant known points. The peak calculated at about 11,900 ft. is the highest in the group, and its discovery and ascent may be said to be

one of the most noteworthy achievements of recent years in Canadian mountaineering, inasmuch as no peak over 11,000 ft. was supposed to exist in that region. None of these peaks are visible from the railroad, though the nearest are but a dozen miles away. Another interesting first ascent was made by this party in the Gold Range of a peak just E. of Clemina station on the Canadian National line to Kamloops. This ice-covered peak of about 10,000 ft. is seen prominently from the railroad at a point some miles N. of Clemina station, itself only 2700 ft. It was named, according to Mr. Carpe, 'Mt. Milton' by the early travellers, Milton and Cheadle, but appears to be known in the railroad literature as 'Albreda Peak.'

Messrs. L. U. Harris, W. O. Field, and F. V. Field, with the guides, Edward Feuz and Joseph Biner, the latter brought over from Switzerland for the occasion, went into the Columbia ice-field from Lake Louise and accomplished the first ascent of South Twin (11,675 ft.) and second ascent of North Twin on the same day, being out 24 hours from their camp at Castle-guard Meadows. They made also a third ascent of Mt. Columbia, the first time by the S.W. arête, and also the first ascent of an unnamed 10,800 ft. peak at the E. edge of the ice-field. On the return journey they made first ascents of Mt. Outram (10,670 ft.) two miles N.E. of Mt. Forbes, an unnamed peak between the Mistaya and Howse rivers of about 10,000 ft. (climbed from the Howse Valley side), and Mt. Patterson (10,490 ft.) a few miles N.W. of Bow Pass.

Messrs. L. Coolidge, G. Higginson, and J. Johnson, with the guide, Alfred Streich, made the first complete traverse of Mt. Edith Cavell (first climbed in 1916); and in the Tonquin Valley district, first ascents of Mt. Erebus (10,234 ft.), and the unnamed rock peak, between Paragon and Bennington Peaks.

In August, Messrs. Howard Palmer of New London and J. W. A. Hickson of Montreal, with the guide Conrad Kain, went in to the headwaters of the Athabasca, making the first ascent of Mt. King Edward (11,400 ft.), but were prevented from attacking their main objective, Mt. Alberta, by continual bad weather.

Mr. A. A. McCoubrey of Winnipeg, with the guide Edward Feuz, made three first ascents in the southern Purcell range. He writes :

'Leaving Wilmer, B.C., and travelling *via* Toby Creek we made base camp on W. side of Earl Grey Pass. Thence back packed to source of Hamill Creek and from camp there climbed three peaks as follows :

- (1) Highest peak of the range, formerly known as Earl Grey, perhaps 11,000 ft.
- (2) Peak N. of it, sometimes called Lady Grey.
- (3) Peak immediately S.W. of Mt. Toby, formerly known as Mt. Gleason.'

The last two were well over 10,000 ft.

Measurements were taken of the Toby Glacier tongue, which is steadily retreating and more markedly during the last three years. (Measurements have been carried out during a period of nine years.)

As there are no accurate maps of the above region it is difficult to locate the peaks precisely.

W. E. Stone (killed on Mt. Eon, 1921) and A. H. MacCarthy (the Mt. Logan leader) travelled and climbed extensively through this region. Their articles appear in *Appalachia* and *The Canadian Alpine Journal*.

In the Wind River Range of Wyoming, almost the only remaining partially unexplored mountain district in the United States, three first ascents were made by a party of the Colorado Mountain Club led by Professor Albert R. Ellingwood. The peaks climbed were Mt. Helen (13,600 ft.), an unnamed peak N.E. of Helen, slightly lower, and an unnamed peak N.-N.E. of and slightly higher than Helen. A new route was made on Fremont Peak by the N. face.

It will readily be seen that the season of 1924 in the Rockies has been probably a record one, both in numbers of first ascents accomplished (something over thirty altogether, all but three being in Canadian territory) and in the number of separate parties and the total of different climbers engaged.

THE MOUNT LOGAN EXPEDITION.

THIS expedition, which has been before the minds of members of the Alpine Club of Canada since it was mooted by Professor Coleman in 1922, has now been launched, and already its energetic leader, Mr. A. H. MacCarthy, is on his way from Cordova in Alaska to push the transport of supplies and equipment over the proposed route. The peak itself, 19,850 ft., is the highest unclimbed mountain of the continent, the pre-eminence of which was recognized by the American explorer, J. C. Russell, who estimated its height at 19,500 ft. and named it after Sir William Logan, founder and first director