

REVIEWS AND NOTICES.

Jahrbuch des Schweizer Alpenclub, vol. xxviii.

THIS volume (xxviii. 1892-3) is the third on the enlarged scale, and is quite equal as regards matter and illustration to its predecessor. No doubt by degrees the interest attaching to exciting mountain ascents diminishes, whilst that attaching to history and science increases. The editor, Dr. Dübi, in the preface complains of the dilatoriness of many sections in sending their communications. He still has to depend for material upon a small number of old and tried friends in the Swiss Alpine Club, and in this volume he has been aided by a valuable contribution from a member of the Alpine Club. Hardly any of the new ascents were communicated to him directly, and he has had mostly to collect them himself from various Alpine publications. No doubt it is natural that expeditions should be inserted in publications appearing more frequently than once a year. The labour of editorship is greater, he says, than anyone would suppose. He might, however, diminish it by asking some of his friends to review some of the many books (about twenty) which he has reviewed himself.

The following new expeditions are not already recorded in the 'Alpine Journal.' These were all made in 1892, unless specially mentioned. On July 2 Herr F. Werner, with the guides Fankhauser and Cognez, from the Pavillon de Lognan, attempted the second peak (3,626 m. = 11,896 ft.) of the Aiguilles Rouges du Dolent. After 9 hours' labour they found the last 40 mètres impracticable. On August 30 Mr. V. Fynn and Dr. Murphy from the Cabane d'Orny ascended the second peak (3,540 m. = 11,614 ft.) of the Aiguille de la Varappe. MM. Attinger, Colomb, and Kurz, with the guide Fr. Biselx, from a bivouac on the right bank of the Saleinaz Glacier, ascended, on July 10, the Pointe de Planereuse (3,156 m. = 10,355 ft.); on July 11 the Grand Clocher de Planereuse (2,900 m. = 9,515 ft.); on July 12 the Col de la Petite Fourche (3,400 m. = 11,155 ft.), and the Petite Fourche (3,531 m. = 11,585 ft.) by the N.E. ridge; and on July 13 the Petite Pointe de Planereuse. On August 8 M. Jules Janin, with the guides Delez and Revaz, from the chalets of Salanfe ascended the Eperon (Dent du Midi) (3,116 m. = 10,223 ft.). On August 4 M. R. de Breugel Douglas, with Delez and Revaz, from Salanfe ascended the highest point between Champéry and the Glacier du Plan Névé (3,212 m. = 10,538 ft.), which they named Dent Noire de Champéry. The same on September 20 from the chalets of Chalin ascended the Cime de l'Est (Dent du Midi) (3,180 m. = 10,434 ft.) from the N.E. On August 15 Signor G. Mondini, with the guide L. Bich, of Val Tournanche, starting from the Lusency Alp, ascended the Becca di Lusency (3,506 m. = 11,503 ft.) by the N.E. face. On August 28 the same from Nuz ascended the Punta dei Terrai (3,400 m. = 11,155 ft.). On August 22 Signor Evan Mackenzie, with Dan. and Ant. Maquignaz, leaving Prerayen at 4.30 A.M., reached the Punta Margherita (3,877 m. = 12,720 ft.) at 2.15 P.M. The foot of the rocks was only

reached on the descent at 7.30 P.M., and they had to bivouac on the glacier. On August 24 the same from Prerayen ascended the Torre di Créton (3,583 m. = 11,757 ft.). On September 12 the same from the inn at Breuil ascended the Colle dei Cors (3,800 m. = 12,467 ft.). In August 1892, MM. H. Rieckel and L. Kurz, with Justin and Jos. Bessart, of Chables, ascended the Bec Epicouin (3,527 m. = 11,572 ft.) from the W. side. Here they found the card of the veteran mountaineer J. J. Weilenmann, dated July 21, 1866, and went on thence to the Monte Cervo (3,430 m. = 11,254 ft.) of the Italian map. On August 16 Signor Carlo Cressini, with the guides Franz Jarba and V. Roggia, starting from the Veglia Alp, ascended the Monte Leone (3,561 m. = 11,684 ft.) by the N.E., and then by the S.E. face. On August 22 the same ascended the Pizzo di Terra Rossa (Wasenhorn) (3,255 m. = 10,680 ft.). On July 19 Signori Gerla, Prina, Cressini, and Conterio, with the guides Marani, of Antronapiana, and Roggia, of Varzo, ascended from the Veglia Alp to the Bocca Mottiscia (2,921 m. = 9,584 ft.), thought to be impracticable, and thence by way of the Mottiscia Glacier reached the Punta Mottiscia. On July 27 the same, without Prina and Roggia, ascended the Punta di Val Grande (2,856 m. = 9,370 ft.). This hillock had before only been ascended from Berisal, on the Simplon road. The Rev. W. A. B. Coolidge, with Ch. Almer, jun., made the following first ascents in the Leone district: July 8, the Punta Mottiscia; July 10, Gross Schienhorn (2,942 m. = 9,653 ft.); July 11, GÜschihorn (3,084 m. = 10,119 ft.); July 16, Albrunhorn (2,880 m. = 9,450 ft.); July 19, Ober Turbenhorn (3,121 m. = 10,239 ft.); July 23, Neufelgiuhörner (2,946 m. = 9,666 ft.). On August 10 MM. H. Rieckel and L. Kurz, with the guides Chr. Lauener and Fritz Graf, jun., from the Ober Aletsch hut ascended the Geishorn by the W. face and N. ridge. On August 8 Herr A. Gassmann, with the guide H. von Allmen, made the first ascent (by tourists) of the Tschingelspitz (3,318 m. = 10,886 ft.). On July 3 Herr René König, Fräulein Sarah König, and Herr C. Montandon from the Pavillon Dollfus made the first ascent of the Brandlamhorn (3,115 m. = 10,220 ft.). On August 8 Mr. V. A. Fynn and Dr. Murphy from the Pavillon Dollfus ascended the Thierberg (3,202 m. = 10,505 ft.).* On July 26 Pfarrer H. Baumgartner, Herren A. Baumgartner, and E. v. Rütte, with the guides P. Baumann (father and son), from the Pavillon Dollfus ascended the N. peak of the Bächlistock (3,270 m. = 10,728 ft.). On September 27, 1888, the Pfarrer had ascended the S. peak (which is 4 m.—13 ft.—higher) in a dense fog. The volume contains a photograph from the Brandlamhorn. In this the two peaks of the Hühnerstock—the Vordere, ascended by Messrs. Coolidge and Gardiner in 1886; and the Hintere, by Pfarrer Baumgartner in 1889—are visible, but it is not stated which is the higher. On August 5 Dr. W. Gröbli, with the guide J. Gamma, from the Kühplanken hut, in the

* [This ascent had, however, been made as far back as 1842 by MM. Desor, Escher, and Sulger. See M. Desor's *Excursions*, 1st series, pp. 525 *seq.*—EDITOR A. J.]

Voralpthal, ascended the Hinter Sustenhorn (3,220 m. = 10,564 ft.). On May 22 MM. A. Bois de Chesne and V. A. Fynn made a traverse of the Ruchen (Mürtschenstock) (2,442 m. = 8,012 ft.). On July 25 the Rev. W. A. B. Coolidge, with Ch. Almer, jun., ascended the Wyttengewasserstock (3,084 m. = 10,119 ft.). On August 3 the same, with Mr. F. Gardiner, ascended the Pizzo Columbe (2,549 m. = 8,363 ft.).

A number of ascents made in the Adula group by Herr L. Darmstädter, with Joh. and Georg Stabeler, of Taufers, and also a number made in the Albula district by Mr. Oscar Schuster, with the guide J. Engi, of Davos, deserve the attention of those making a special study of those regions. On August 8 Herr A. Rzewuski, Dr. and Frau Tauscher, with the guides C. Jann and P. Allemann, of Klosters, ascended the Verstanklahorn by a new route from the Tiatscha Glacier. On July 8 a new descent was made from the Fergenkegel, and on July 9 the passage from the Gross Litzner to the Seehorn achieved, both by Mr. Oscar Schuster, with J. Engi, of Davos. On July 26 the same gentleman made the descent from the Drusenfluh (2,828 m. = 9,278 ft.) to the Schweizerthor. On August 12 the ascent of the Drusenfluh from the S. was effected by Herr D. Stokar, with the guide Michel; and on July 3 the first ascent of the Hornspitz (2,540 m. = 8,333 ft.), W. of the Scesa Plana, from the Swiss side, was made by Herr E. Imhof, with the guide Martin E. Sprecher. On August 13 the first ascent of the Grosser Thurm (Drusenfluh) was made by Herren A. Ludwig and L. Jeklin.

On the special district (the Rhätikon), whose period of three years ended in 1892, we have several papers, which pretty well exhaust it. Dr. Stokar was chiefly anxious to make the ascent of the Drusenfluh (mentioned above) from the south side. This was effected by the 'Rote Gang,' a limestone fault of a peculiar colour to the east of the Schweizerthor, up which chamois had been observed to pass. Herr E. Imhof (Scesa Plana) has already spent much time in the district, and would have done more had he not been called away to prepare the excellent Itinerary for the new district (Albula), in which he made as many as thirty ascents in the remainder of his holiday. Herr U. Obrecht (Scesa Plana) writes on the woods and wood trade of the Prättigau. This is specially a valley of woods. Many of the trees reach to 4 ft. in diameter, and in the winter of 1866-7 a tree was cut and transported to Glarus which measured 8 ft. in diameter, and was the largest ever cut in Graubünden. Special tracks have to be made to the woods that are cut. In one parish in 1892-3 a very large number of bridges were constructed across ravines. The work requires special training, and many workmen are imported annually from Italy, more than 100 coming from the village of Sondalo (Valtelline). Herr W. Zwicky (Scesa Plana) contributes an interesting article on the towers and castles of the Rhätikon, compiled from many excellent authorities. The castle of Maienfeld is said to date from 340 A.D., but this date must be considered very doubtful. The oldest castle which is still inhabited, and which is, perhaps, the most interesting in the district, is Schloss Marschlins, a little to the S. of Malans. This is

said to have been occupied in 1154 A.D. by Frederick Barbarossa when on his way to the campaign against Milan. It passed into the hands of the Salis family in 1633, and in 1770 became the seat of Planta's philanthropic school. Near this castle were planted the first maize and potatoes in Graubünden in 1717. The servants would not eat them. In 1787 tobacco was grown here, and silk of excellent quality was manufactured, but the late spring frosts too often destroyed the mulberry leaves. The natives too were unwilling to look properly after the worms, especially in unwinding the cocoons, and the cost of introducing Italian workmen was too great. In this castle originated the first map of any part of Graubünden based on trigonometrical measurements, the little map of the Rheinthal, between Chur and Luziensteig, made by Magister Rösch. The castle is now the property of Fräulein Meta von Salis-Marschlins, well known as one of the foremost champions of woman's rights.

Amongst the expeditions out of the special district (*freie Fahrten*) the Rev. W. A. B. Coolidge contributes a number in the district between Binn and Airolo, several of them new ascents already mentioned above. He was able to make various notes for the next edition of the Guide Book to the Lepontine Alps, and was successful in making good his claim to the first ascent of the Pizzo di Pesciora by finding on the adjacent Kühbodenhorn the cards of the two former supposed climbers of the Pizzo di Pesciora. Dr. W. Gröbli (Uto) gives an account of a number of ascents in the month of October in the years 1888-92, with the guide A. Pollinger, in the neighbourhood of St. Niklaus. These seem to have been thoroughly enjoyable, but require the exercise of more caution than in summer—*e.g.* on the Aeussere Stellhorn, where a surprised poacher nearly brought the expedition to an untimely end. He insists that the first ascent of the Innere Stellhorn (3,415 m.) was not made by Messrs. Coolidge and Conway on August 23, 1890, but by Mr. Stafford Anderson, with the guide Pollinger, on August 5, 1882,* and that the first ascent of the Barrhorn was made by Mrs. Jackson, with Pollinger, in 1883, and not by himself.

Herr Emil Huber (Uto) gives an account of a number of winter ascents in the Alps of Canton Schwyz. These involve a considerable element of danger when the ascent is over steep frozen grass slopes covered with powdery snow. The ascent of the Brünnelstock (2,150 m. = 7,154 ft.), E. of the Hintere Wiggithal, from the Sulzboden Alp, on its E. side, is remarkable. He states the vertical distance to be 1,090 m. (3,576 ft.), and the horizontal 1,350 m. (4,430 ft.), giving an angle of no less than 81° (!), and the ascent seems to have been tolerably direct. It must have been like going up a staircase with very high and very narrow steps; worse than going up a ladder, for there the feet can be put over the rungs. The winter ascents are, as he remarks, generally very enjoyable, from the steadiness of the weather, the clearness of the atmosphere, and the absence of excessive heat.

* [See, however, Dr. Gröbli's later view, above, p. 63.]

Herr A. von Rydzewski (Davos) contributes a second paper on his ascents in Bergell, with the guides C. Klucker and M. Barbaria. Amongst these are the first ascent of the Punta Pioda di Sciora and that of the Cima di Sciora by a new route.

Herr Th. Borel (St. Gall), in a paper on the Grödnerthal, gives some interesting particulars about the valley and its inhabitants.

On August 11, 1888, along with Professor Kellerbauer, of Chemnitz, he made an attempt (without guides) on the Langkofel from the south side. The 'alps' in this neighbourhood are not used during the summer, as in Switzerland or many other parts of Tyrol, and it was only after much searching they got a night's lodging in a hut on the ridge between the Grohmannspitz and Col Rodella, which divides the Sella Alp into two parts. The mountain on this side looks forbidding, not to say impossible. Next day, after a difficult climb of $7\frac{1}{2}$ hrs., they only reached an inferior summit separated by a deep chasm from the top. The ridge here was so sharp that they held on by their hands on opposite sides, and each could only see the tips of the other's fingers. They attempted a new line of descent, and at one point were nearly stuck fast, not being able for nearly 2 hrs. to make further progress, and at last were only able to extricate themselves by a dangerous leap across a chasm. On August 16, 1888, with the guides G. and L. Bernard, he ascended the Grohmannspitz, and on August 20 the Langkofel, the latter of which, under the circumstances, he still considers the most difficult of the group.

Of miscellaneous articles there are two dealing with the Alps generally. Herr Frisch-Lochmann (Uto) tries to answer the question, 'Why do we visit the mountains?' To this the answer may well vary with the temperament of the tourist, but it certainly will be some form of advantage or enjoyment. The guides, who have the most labour, and who earn by it their daily bread, have often a satisfaction in overcoming difficulties far beyond that of their mere pay. What money payment, indeed, could reward the care and devotion they show to their employers, sometimes even to death? He quotes with admiration Mr. Whymper's opinion of M. Croz and Christ. Almer; and to these a long list of guides might be added who have climbed or are climbing for love of the mountains as well as for reward. Herr S. Simon (Oberland) describes the peculiar character impressed upon mountain peaks by their geological formation, taking for examples the primitive rocks, limestone, and nagelfluh; with numerous illustrations. Herr A. Wäber (Bern), the former editor, discusses the mountain nomenclature of the Bernese Oberland before the present century. It seems hardly credible that before the middle of the eighteenth century the principal mountain peaks of the Bernese Oberland were either without names or were named quite uncertainly. In the oldest Swiss map (Conrad Türist, 1495-7) only two passes, the Grimsel and the Gemmi, are named, and no peaks. In the course of the next century a few passes and mountains are added; but no very great advance was made until the publication of Scheuchzer's map (1712) and the measurement of the boundaries of Canton Bern by Sam. Bodmer (1701-10). Again nearly 50 years elapsed without further advance. Then came Micheli

du Crest's 'Panorama from the Castle of Aarburg' (1755), and the 'Eisgebirge des Schweizerlandes' (1760) of Gottlieb Sigmund Gruner (b. 1717, d. 1778), and the first guide book (1777) to the Bernese Oberland by Sam. Wytenbach (b. 1748). In 1779 Archdeacon William Coxe's 'Travels in Switzerland' made considerable additions. But the greatest advance was made by Gottlieb Sigmund Studer (1761-1808). He drew a great number of panoramas and views, varying from mere outlines to finished drawings. In these the summits are often named, and here we find that his difficulties from conflicting authorities were great. Names are often crossed out and others supplied, sometimes as many as three names given. There was special confusion about the Jungfrau group. Between 1755 and 1790 the Eiger had four different names, the Mönch seven, and the Jungfrau four. The article is illustrated by one of Studer's drawings (1788) reproduced in colour, a view from Thierachern, on the Lake of Thun, extending from the Ralligstock to the Niesen. But the reproduction is said not to convey the delicate charm of the original, which is still fresh in colour though more than 100 years old. G. S. Studer died in 1808, and the work at which he had so zealously laboured was carried on by his son Gottlieb, who inherited from him the spirit which urged him ever to visit the wild beautiful mountains.

Herr R. Reber (Bern) writes on earth curvature and refraction, and on the conditions under which a mountain may be visible or invisible from a fixed point.

Professor Forel contributes another report (No. xiii.) on the periodic variations of glaciers. The present article deals largely with the catastrophe which destroyed the Baths of St. Gervais in July 1892, and that of Täsch, August 15-17, 1892. In the Mont Blanc chain all the glaciers are advancing, in the Valais Alps most, in the Bernese Alps some, whilst in Central and E. Switzerland they are stationary or retreating. Amongst shorter articles are an ascent of the Morgenhorn (Blümlis Alp), by Herr K. Knecht and the brothers C. and P. Montandon; one of the Kammlistock (Clariden), by Herr Heinrich Streiff (Tödi); an account of the Schächenthaler Windgällen, by Herr E. Huber, who thinks they are unfairly neglected for their more pretentious neighbours over the way; and another of an excursion from Airolo, through the Val Canaria, over the Piz Ravetsch, to the Oberalp Pass and Göschenen, by J. Eggermann and friends. Dr. A. Baltzer relates the explorations of an ice cave, or rather ice crack, near Meiringen. This was a rather difficult expedition, and much must be done before it is accessible to ordinary tourists. It is much more easily got at than the Schafloch, which is, however, a far finer cavern. The same author describes an ascent of Djebel Resas (? 1,400 m. = 4,593 ft.), a principal peak in the Tunisian mountains. The Rev. W. A. B. Coolidge gives a list of the excursions of Herr Gottlieb Studer in the Tarentaise, amongst which are the first ascents of the Punta Violetta (3,031 m. = 9,945 ft.), of the Pointe de la Réchasse (3,223 m. = 10,574 ft.), and of the Ruitor (3,486 m. = 11,437 ft.). Dr. E. Bosshard (Rhätikon) describes the use of the thermometer for measuring heights, and claims that when properly understood it pro-

duces more accurate results than the aneroid barometer. Dr. A. Bähler (Biel) describes the silver lead mine at Goppistein (Lötschthal), so rich that it produced more than 18 oz. (av.) of silver to the ton; it has failed, owing to mismanagement and extravagance; also, probably, to the difficulties of transport, which have wrecked many promising mines. The reviews occupy no less than 23 pages, and must be a great addition to the editor's labours.

Herr Francke (Bern) contributes a catalogue of the Alpine literature of the year 1892.

The map of the new special district (the Albula Alps) is not yet issued to the club. At the General Assembly held at Olten, September 26, 1892, the principal question was that of a new periodical for the S.A.C. which should connect more easily and closely members and sections. This was commenced in July 1893, under the name 'Alpina,' and is to be continued monthly.

The huts are still a source of trouble, and there is a great deal of abuse of them, owing to inefficient supervision. Persons are said to have used them as lodgings for weeks as a kind of 'Sommerfrisch.'

Of the chronicles sent in by the sections there is not much to be said, except that it hardly seems worth while to send in such ascents as the Gornergrat. Section St. Gall is conspicuous for the great number of ascents. It reckons amongst its members the well-known climbers Herr L. Purtscheller, Professor K. Schulz, and Herr Robert Hans Schmitt. The former of these, in 1892, made 63 ascents.

On December 31, 1892, the club numbered 3,855 members, and had a balance to its credit of 38,326 frs. (1,533*l.*) J. S.

Climbing and Exploration in the Karakoram-Himalayas. By William Martin Conway, M.A., F.S.A., &c. (London: T. Fisher Unwin. 1894.)

'We spent, in all, eighty-four days on snow or glacier; we traversed, from end to end, the three longest known glaciers in the world outside the polar regions, and we climbed to the top of a peak approximately 23,000 ft. high.' This extract from Mr. Conway's preface sums up, from the mountaineer's point of view, the results of his sojourn in the Karakoram-Himalayas from the middle of April to the same part of September, 1892. He spent a fortnight on his journey into the hill country from Abbotabad, and remained about a month longer in the mountain region, visiting Leh, and returning to Srinagar (from which he had started) by the Dras valley and Zoji-la Pass. In the Alps the last would be reckoned as an excursion, for it is 10,300 ft. above the sea; but it is a way for man and beast in the more gigantic Himalayas. These lie, as in reading of them we are constantly reminded, some ten degrees nearer to the Equator than the Alps. If, then, we would compare the former with the latter, we must begin by deducting some 7,000 ft. from the altitudes. We read of oppressive heat at 7,000 or 8,000 ft., of camps pitched, as a matter of course, 5,000 or 6,000 ft. higher. The snout of one of the larger glaciers may be found somewhere about 11,000 ft. above sea-level. A track, free from snow in summer, may cross the mountains at 14,000 ft., while the peaks and

passes* at from 17,000 to 18,000 ft. appear to find their Alpine equivalents on either side of the 11,000 ft. contour-line in that chain. The portion of Mr. Conway's book which appeals especially to the frequenter of peaks and glaciers may be arranged under three heads: Expeditions into the range between Rakipushi (25,550 ft.) and Emerald Peak (22,390 ft.); the passage of the Hispar and Biafo glaciers; and the exploration of the Baltoro Glacier, with an ascent of a peak of the Golden Throne *massif*. The approach, however, to his field of work involved the crossing of a pass (the Burzil) higher than the Grandes Jorasses. This, under ordinary circumstances, would have been no more than a journey over the Col du Bonhomme some half-century since, but towards the end of April, and in bad weather, it became a very long and weary trudge, which was not accomplished till the party had waited in camp for two or three days among the fresh-fallen snow in the upper part of the Burzil valley.

Mr. Conway's party consisted of the Hon. C. G. Bruce, Messrs. Eckenstein and Roudebush, Mr. McCormick, the artist, Matthias Zurbruggen, of Macugnana, as guide, three or four Gurkhas, and some native servants, with coolies hired, as required, for porters. It was reduced in numbers from time to time by the illness of some of its members, and occasionally was divided for hunting or for exploration. The commissariat difficulties were serious, because the journey lay through regions as inhospitable as the upper valleys of Dauphiné in days before the French Alpine Club had come into existence, and everything had to be carried for long distances, often even imported into the country. Thus a large camp-following was necessary, and the commissariat and transport service must have required no little forethought and capacity for organisation, and must have added immensely to the anxiety and labour. Fortunately, though not without danger from both accident and disease, the journey was accomplished without harm to limb or loss of life.

The Himalayan season, evidently, is no longer than the Alpine, for when the travellers arrived, early in May, at Gilgit (4,890 ft.), in the centre of magnificent scenery, they found they were too early, and the higher mountains would not be fit for serious work for at least a month, perhaps even more. They determined, however, to begin by exploring the valleys which descend from the southern side of the range which is ended by the magnificent peak of Rakipushi, in the faint hope of effecting a direct passage to Nagyr over the head of the Bagrot Glacier, and thus avoiding the long detour by the main valley. They succeeded in exploring not only this, but also the Gargo Glacier, a grand mass of ice, which descends from the flank of Emerald Peak. Among other interesting excursions, they climbed a rocky needle, 17,580 ft. in height, in the neighbourhood of Rakipushi, and they camped out at a height of 15,680 ft. below a pass on the west side of the Emerald Peak, which, however, the obstinately bad weather compelled them to abandon, while any attempt on the other one was pre-

* Occasional passes, traversed by man and beast, exist, as is well known, in some districts at rather greater elevations.

vented by the condition of the snow. Thus they had to be contented with the exploration of a magnificent mountain region, the lower part of which, owing to its rich vegetation, is far more beautiful than the ordinary valleys of the Karakoram-Himalayas.

The northern side of the range was examined in the course of two expeditions from Nagyr. They explored the Samatyar Valley, and succeeded, after camping out at an elevation of over 15,000 ft., in climbing to a gap, which Mr. Conway names Daranshi Saddle, 17,940 ft.; but here again they were driven away by hopelessly bad weather. Next the fine Barpu Glacier, descending from the northern side of Emerald Peak, invited their attention. They explored it, and succeeded, after the usual opposition from the implacable weather, in climbing an aiguille (the Daskaram Needle) 17,660 ft. high.

Next they had to prepare for the most serious part of their undertaking, the journey from Nagyr to Askole, by the Hispar and Biafo glaciers; or, in other words, for crossing the enormous spur from the southern side of the Karakorams, which overlooks one of the upper portions of the Indus Valley, and terminates in Rakipushi—a spur which stands in somewhat the same relation to the main chain as the Graians do to the Pennines. But a separation of the party became necessary in consequence of commissariat difficulties: one section, in two divisions, took the more direct route to Shigar (below Askole) over the Nushik-la Pass—which apparently had not been previously crossed by Europeans, though the summit had been reached from the south in 1861 by Lieutenant-Colonel Godwin-Austen; while Mr. Conway, with Mr. McCormick and Zurbriggen (who, however, diverged to conduct the second detachment to a camping-place on the south side of the Nushik-la) proceeded up the Hispar Glacier. Starting from the foot of this huge ice-stream—40 miles in length—on July 12, they crossed the pass (17,650 ft.) on July 18, and arrived at the end of the Biafo Glacier, after some halts by the way, on July 26. We have not space to enter into the interesting details of this long journey over ice and rocky slopes, for the whole time at an elevation above that of the Théodule Pass, and in the very heart of the most magnificent mountain scenery; but must be content to refer to Mr. Conway's narrative, and to Mr. McCormick's admirable illustrations.

At Askole the third episode of the journey began. The party was once more united; but prior to this Mr. Eckenstein was obliged to return to England, as his health had begun to suffer. The others ascended the Biahlo Valley to the foot of the Baltoro Glacier. This issues from a loop of gigantic peaks, which in several cases exceed 25,000 ft., the highest being the famous K_2 (26,278 ft.), which overlooks the northern side of the upper portion of this huge ice-stream. After passing the tributary glaciers which descend from the two cols bearing the name of the Mustagh Pass—the western one reached by Colonel Godwin-Austen in 1861, and the eastern crossed by Captain Younghusband in 1887*—they ascended a peak 19,400 ft. high, and

* *Alpine Journal*, vol. xiv. p. 50.

finally camped out, on August 22, at 20,000 ft., and remained to explore the neighbourhood till August 25, when Messrs. Conway and Bruce, with Zurbriggen and two Gurkhas, succeeded in climbing a peak which forms part of a huge mountain called the Golden Throne. The summit of the latter rose about 1,100 ft. above them at a distance of nearly half a mile, and was cut off by a deep depression. Thus no more could be done, but even this subordinate—Pioneer Peak, as they named it—was 22,600 ft. above the sea by barometric measurement, and if judged by an estimate of the height of Golden Throne from that of K_2 must be more rather than less than this altitude, so that very probably it is about 23,000 ft. The day, fortunately, was fine, and they remained more than an hour on the summit, reluctantly quitting it at four in the afternoon and arriving that evening at a camp previously prepared (19,000 ft.). On September 5 they were back at Askole, and thus happily brought to an end their real mountain work.

When at high levels, and especially on their last expedition, the climbers were much affected by the rarified condition of the air. They found exertion difficult during the whole time spent above 18,000 ft. The slightest exertion, even lacing a boot, often caused panting for breath, quick and irregular action of the heart, and a sense of extreme lassitude. These and other symptoms of 'mountain sickness' were commonly felt on approaching elevations of about 17,000 ft., and sometimes at lower levels. Occasionally one of the attendants was affected even at from 13,000 to 14,000 ft., but the others were not generally conscious of inconvenience till they arrived near the higher limit. Mr. Conway's journey, however, has demonstrated that peaks of 25,000 or 26,000 ft. can be almost certainly reached by seasoned mountain climbers. Progress however will become slower and slower as this altitude is approached, and the ascent of such a summit as K_2 will probably require the last camp to be pitched at an elevation not less than that of Pioneer Peak; hence serious difficulties will arise as to the transport of proper food and shelter, and the attempt can only be made in the most favourable weather. Here, unless Mr. Conway's experience was exceptional, the mountain climber seems to find his worst foe. From the beginning to the end of the journey the weather was generally detestable; a fine day was the exception rather than the rule: two or three in succession seldom came. The vapour-laden air draws northward from the plains of India towards the vast mountain masses of Central Asia, and is not deprived of its moisture until it has crossed the Karakoram Chain. Doubtless on the northern side of this more favourable conditions can be found, but it will probably be long before the valleys of Turkestan become sufficiently accessible to strangers for an attack to be made upon K_2 from this quarter. Still, as Mr. Conway sometimes incidentally reminds us, certain districts which he visited have but recently become safe for travel, so possibly the inhospitable regions across one of the great watersheds of Asia may be fairly accessible in another generation.

Mr. Conway tells his tale most clearly and pleasantly. He avoids the fault, not unknown among writers on Alpine travel, of mild facetiousness, but he is never dull. We find, scattered through his

pages, much interesting information about the geography, the people, and the customs of the regions which he visited, with a little about their geology and natural history. But the more scientific results of his expedition, with reports from various specialists, will be published in a few months' time as a separate volume. The present one, however, demonstrates that his journey was more than a mere scrambling expedition. Mr. Conway does not belong to the 'greased pole' school of climbers, or think that a love of the mountains is best demonstrated by a contempt for science. He made extensive collections, and took careful notes as to the effect of diminished atmospheric pressure on the action of the lungs and heart. He has furnished us with a valuable sketch-map of the regions visited; indeed, sometimes the attractions of the plane-table seem to have prevailed over those of the ice-axe. Part of this region had been already surveyed by Colonel Godwin-Austen, but Mr. Conway has amplified and improved the details of that officer's work and has added to it considerably. The book is admirably got up, and abundantly illustrated from Mr. McCormick's beautiful drawings, which, however, sometimes hardly receive full justice in the process—reproduction. We will not compare 'Climbing in the Himalayas' with 'Travels among the Great Andes of Ecuador,' because we remember the well-known dictum; but we will say that the one book is worthy to take a place beside the other, and that the Alpine Club may feel just pride in numbering among its members two such travellers as W. M. Conway and E. Whymper.

T. G. BONNEY.

ALPINE ART IN 1894.

It is a frequent custom of the journalist, when any change is made that he has advocated, to ascribe the improvement wholly to his initiative, and to assume the whole credit for his own article. Without going so far as this we may at least look upon it as matter for congratulation that in matters of Alpine Art a full year should have succeeded the barren season that we deplored in these pages in 1893. So much, indeed, is there of interest that any preface is even more than ordinarily uncalled for. In view of the promised opportunities to be afforded to lovers of mountain painting in December next (another step in advance which was advocated first in the 'Alpine Journal,' but which in our modesty we are willing to ascribe to the energy of others) a rather more detailed criticism may not be out of place, seeing that we may hope to meet again some at least of the works now under review later on in the year.

The collection at the Royal Academy displayed such a laudable advance in catholicity of selection, and was so distinctly more varied in interest than usual, that it is not surprising that many more pictures of mountain interest were included than on former occasions. No doubt the orthodox mountain scene, even though accepted—after discussion—is often unplaced, owing to the representations of the Hanging