

qualities of heart and mind, the unanimous opinion of his friends cannot be better summed up than in the word 'gentleman,' of which he was one of the noblest types.

W. R. RICKMEERS.

TO THE OBERAAR HUT FROM MUNSTER.—On August 14, 1901, Messrs. W. T. Kirkpatrick and R. P. Hope, being driven down by bad weather from the Pavilion Dollfus, crossed the ridge between the two Siedelhorns to Munster, in the Rhone Valley. Next day, the weather having cleared, they decided to make for the Oberaar hut, and, starting rather late, went up the slopes on the W. of the Munsterthal, striking the Munster Glacier between points 2820 and 3091. They crossed the glacier in a N.W. direction to its upper plateau, and climbed on to the ridge dividing it from the Oberaar glacier, followed this extremely rotten ridge towards the W., and as soon as possible descended on to the upper shelf of the Oberaar glacier, which is separated from the Oberaarjoch route by a line of séracs. As it was now foggy and nearly dark they gave up the attempt to descend these séracs, and followed the shelf upwards to the Oberaar-Rothhornjoch. Traversing thence to the right over snow and rocks, they reached the diminutive Oberaar Hut, where they found twenty-three persons in occupation! They had intended to cross from the upper plateau of the Munster Glacier to the Galmifirn, keeping the Oberaar-Rothhorn on the right, and this would probably have been a much better and quicker route.

REVIEWS AND NOTICES.

GIOVANNI SEGANTINI.*

A PASTORAL PAINTER.

SIGNOR VILLARI (not to be mistaken for the well-known authoress of the same name) challenges our notice for the subject of his biography by his unqualified assertion of Segantini's claim to be considered the first painter of the High Alps. Be this as it may—and we shall frankly indicate our own opinion later on—we are grateful to him for having given us an opportunity of renewing and improving our acquaintance with a most interesting artist.

Segantini's work has been more or less known in England for many years. A group of his pictures was exhibited in the Italian Exhibition at Earl's Court in 1888. One of the most important is in the Liverpool gallery; several were shown before one of our Club's Winter Meetings, and some half-dozen were included in the recent International Exhibition in Piccadilly. But there has been no comprehensive selection, such as was to be seen at Milan shortly after the painter's death, exhibited in this country, and the English critic is, therefore, at a disadvantage in attempting to estimate Segantini's place in art.

* *Giovanni Segantini*. By L. Villari. The Story of his Life; together with seventy-five Reproductions of his Pictures in half-tone and photogravure. London: T. Fisher Unwin, 1892.



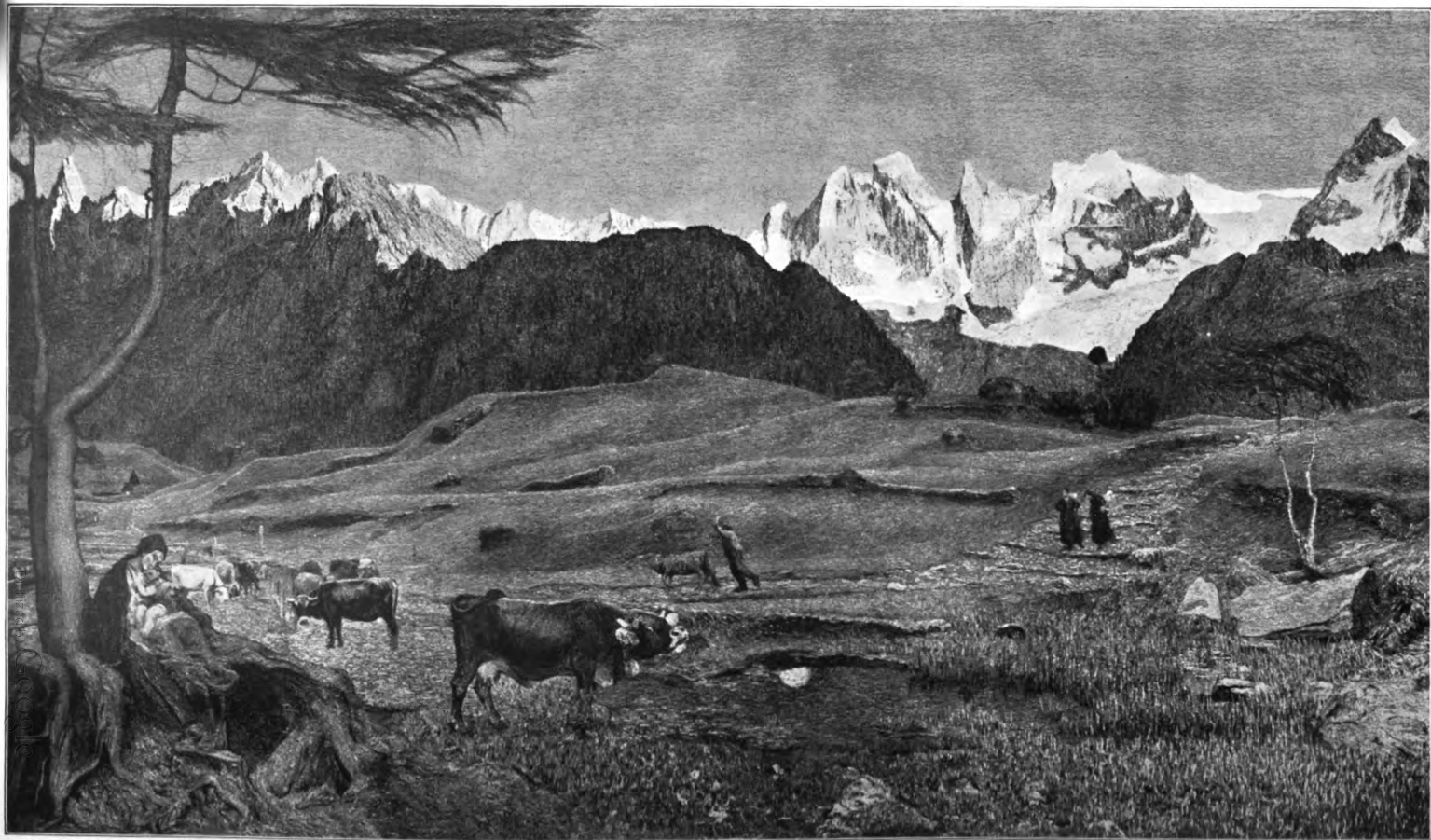
The story of the painter's life is something of a romance. He was born, the child of humble parents, at the town of Arco, above the head of the Lago di Garda, and within sight of the Campiglio Dolomites. The household was broken up by death and emigration, and at the age of five the boy was left in charge of a half-sister at Milan. Here he passed an unhappy childhood, and two years later he ran away from the city, to be luckily picked up within a few miles by kind farming folk, with whom he lived some two or three years, imbibing the impressions which most permanently affected his subsequent career. He returned to Milan and attended a drawing school, but soon afterwards was found on the streets and shut up for two years as a vagrant in an asylum for abandoned children. He seems to have studied subsequently at the Brera, but rather as a decorator than as a painter. He must have made, however, some way in the world, for in 1882, at the age of 24, he was able to marry and to take an old villa in the pleasant hill-country of the Brianza, south of Lago di Como. Hitherto Segantini had painted chiefly *genre* or religious subjects, which gave but imperfect indications of his talent. Among the country folk and the labours of the fields he found himself more at home. He drew and painted a number of studies and pictures illustrating the life and nature by which he was surrounded. His subjects were, for the most part, homely and realistic rather than idyllic—the weariness of toil, the anxieties of motherhood, the relations and sympathies of human beings with their flocks and herds. In 1886, for some reason unexplained by Signor Villari, Segantini set out in search of an Alpine home. He first tried the one Italian valley on the north side of the Alps, Livigno; but, failing to establish friendly relations with the inhabitants, he wandered on to Savognino, a village in the Oberhalbstein, north of the Julier Pass. This district is found wanting in variety and sublimity by most Alpine tourists, but it satisfied the artist. It was not till 1894 that he moved to the Engadine, making his home at Maloja, but spending half the year at the beautiful village of Soglio, above Val Bregaglia, where an old villa of the De Salis family (now an inn) stands with its walled garden at the meeting of the chestnuts and the pines in full view of the granite peaks of Val Bondasca. He died in September 1899, in the little restaurant of the Schafberg, above Samaden, where he was residing in order to complete one of a series of three vast Alpine landscapes intended for the Paris Exhibition. These were exhibited there after his death in the unfinished state in which the painter left them.

In the Alps, as in the Brianza, Segantini painted, as a rule, subject and not landscape pictures. As time went on, however, the exceptions grew far more frequent. A girl spinning, the cows in the stable, or at the village fountain, the flocks in the fold—such subjects as these filled his most characteristic canvases. But gradually a spirit that had always been latent in his work grew towards predominance. He had never painted actual scenes for themselves, but rather in order to express to others the sugges-

tions they made to his own mind. None of his pictures are cattle pieces or portraits of places; they are all more or less records of ideas. In his later work the Alpine landscape frequently became the primary motive, the figures in the foreground subsidiary indications of feeling. After a time the artist's mode of self-expression underwent a still further change. Whether the rare air of the Grisons produced a state of morbid sensibility in a frame born and bred in the warmer and damper atmosphere of the Prealpi of North Italy, or whether he fell under some German influence (his symbolism has a lack of Latin and classical grace), Segantini began to have recourse to the Supernatural. His landscapes were peopled with phantoms in place of peasants; he hooked 'bad mothers' on to crooked branches; he made the ghosts of luxurious ladies expiate a life of pleasure by floating round wintry ranges on a bed of frozen mist. He introduced heavy figures with badly attached wings to represent Love and Life. At the last the painter again returned to Nature, but to inanimate nature. In the so called 'Triptych' planned for the Paris Exhibition the artist seems to be striving to express that dim sense of a unity pervading all creation, the material world as well as the life that exists on it, that has forced itself at rare moments, as a suggestion rather than a conviction, on the minds of most poets and some less gifted individuals.

We have endeavoured hastily to trace the facts, both external and mental, of Segantini's career, as they are recorded or indicated in Signor Villari's volume. It remains to add a few words as to his position as a painter of the High Alps. As we have already said he was not a topographical painter. Only one picture bears the name of a locality. We can recognise here and there the landscapes of the Ober Engadin, or the mountains of Soglio, but the artist arranges his material without scruple to suit the idealistic intention of the work. He composes an eclectic, decorative landscape; he takes only what suits his purpose, and that he modifies. He ignores the valleys and their pines and chestnuts; he does not seek to impress on us the force of the torrent or the majesty of any individual peak. He removes the mountains from him until distance softens their excess of detail and gives scope for arrangement of line. He treats them as a whole, as ranges; they serve him for a background. Their heights and depths do not affect him; he paints them almost on a level, from their shoulders—from the highest pastures. He avoids or softens vertical lines; he dwells on horizontal lines, until in the triptych of his last year his pictures become panoramas. He does not lift up our eyes to the hills, but he brings down the multitude of the hills to the level of our eyes, so that he may reduce the Alps to their relative place in creation. As a French critic writes, 'to paint the mountains he has climbed the high plateaux. He has climbed high enough for the landscape not to be overpowered by an isolated peak, but so that the summits should appear to be nothing but a series of undulations, like those of the sea.'

'In all the artist's great alpine landscapes,' writes Signor



Villari, 'the mountains, with their hard uncompromising outlines, are like the walls of a mighty fortress that guards the high tablelands and dominates them, keeping their human denizens in grinding subjection.' This interpretation of the artist's feeling is probably true, though not the whole truth. Morally the Alps oppress Segantini as barriers, while physically they interest him as 'links in a globe-circling chain.' He does not love the ice and snow for themselves, and therefore can hardly paint them for their lovers. His heart is set in the primitive 'alps,' the pastures that have witnessed the life of his progenitors. The snowy peaks and glaciers to him are no more than a 'mystic mountain range,' hemming in the works and days of his fellows; and he sees no 'rose of dawn' on their summits.

Much might be and has been written of the technical peculiarities of Segantini's work. He was of no school, but in practice he followed the system of the 'plein air' enthusiasts. He was constantly trying experiments with varying results. He made use of the methods known among art critics as 'divisionism' and 'pointillism.' This apparently means, being interpreted, that to obtain certain effects he 'painted in short, rapid strokes and points of light.' 'He discovered that the secret of obtaining light lay in dividing the colours, *i.e.* in putting them on to the canvas side by side, so as to let them blend in the eye of the observer, instead of mixing them on the palette.' The trick is familiar in the works of French impressionists. To persons of average eyesight the colours do not always blend, and the result is apt to appear streaky and spotty. The picture resembles tessellated work; the rough brush strokes destroy illusion. But from a just distance great results in representing the quality and movement of colour and light are sometimes obtained. Segantini's colour is often extremely vivid; he has no timidity. Yet it can be, when it suits him, subdued and harmonious, and the atmosphere of the Alps in winter had never before been represented with such convincing vivacity and power as in some of his backgrounds—for instance, in that of 'The Punishment of Luxury,' now at Liverpool.

Segantini's treatment of Alpine landscape was undoubtedly original and often impressive. But it is on the figure subjects and less eccentric methods of his earlier, or Brianza, period that his fame will, we think, ultimately rest. How far in his figure subjects he may have been influenced successively by the engravings his friend and adviser, Signor Grabicz, sent him, by Millet, Mauve, or Böcklin, it is difficult to determine. His peasants closely resemble in pose and sentiment those of the Barbizon painter, but without attaining their almost statuesque nobility of line.

Signor Villari has done his work, on the whole, very well. He writes clearly, and at times eloquently. He has given us autobiographical material which enables us better to understand the man as well as his work. While enthusiastic in his admiration for his subject he does not entirely ignore or lose sight of Segantini's limitations and occasional failures. He leaves us with a clear

impression of having been in the company of a genius, if an imperfectly trained and equipped genius. There are certain incidental matters in which we cannot agree with him. It was surely not Töpfer, of the 'Voyages en (not à) Zigzag,' who first realised 'the substantial difference in the aspect of Nature in passing from the plains to the high mountains,' but Leonardo da Vinci. The influence of Calame's academic Swiss landscapes in postponing the birth of alpine art is, we think, singularly exaggerated. Turner, Elijah Walton, not to mention some foreign and a bevy of living British artists, have essayed the Alps. Has not there been a prize given lately at Turin for the best Alpine picture? And is there not a 'Society of Mountain Painters' in Paris? Again, is it not rather late in the day to quote Buskin's perverse descriptions of the gloom of Alpine peasant life in winter? Not a few of Signor Villari's readers may smile as they recall the cheerful shouts of the woodcutters, the whirl of the sledges, the riotous rush of the children's toboggans on their way to school, the light air and bright sunshine which met them when they last escaped from the cold frost-fog of the lowlands and the gloom of northern towns on a Christmas visit to the Alps—and that not only in the regular resorts and round the great hotels, but in comparatively remote villages.

To conclude with some minute criticism: it is wrong to put two 't's' in *arête*, and it is better not to circumflex the 'a' in *chalet*. The volume is handsomely printed and ornamentally bound. The quality of the abundant illustrations may be judged by the specimens the publisher has kindly allowed us to reproduce. They represent two of the large pictures, Segantini's last work, sent to Paris in 1900. In one of them it is easy to recognise the view from the Schafberg above Samaden, in the other the more romantic landscape of the mountain shelf of Soglio and the peaks of Val Bondasca. But we have searched in vain, beyond the frontispiece, for the 'photogravures' promised on the title-page.

Aus den Hochregionen des Kaukasus. Wanderungen, Erlebnisse, Beobachtungen.
Von Gottfried Merzbacher. (Leipzig: Duncker & Humblot. 1901.)

The welcome appearance of Herr Merzbacher's long expected work furnishes another proof of the enthusiasm which inspires every mountaineer who visits the Caucasus, and also a striking example of the scrupulous care and thoroughness which we have come to expect from a German writer.

The author's aim, as he explains in the introduction, has been to remove the reproach that German geographical and Alpine literature possessed no work of worth and importance on the Caucasian mountain range. As the result of his labours we have two excellently got-up volumes of nearly two thousand pages, well printed, freely illustrated, and provided with numerous panoramas and three large-scale maps. The illustrations are reproductions of drawings by E. T. Compton, E. Platz, and M. Z. Diemer, from photographs by the author, S. Sella, M. de Déchy, and others, and are, for the

most part, excellent examples of half-tone work, those in the text especially being distinct in detail and well printed. The average reader will probably be somewhat disconcerted on contemplating the size of the book and the long array of closely printed pages; but a glance at the list of contents will enable the busy man to select those of the thirty-four chapters he has time to read, and for purposes of reference there is a wonderful index of 118 pages, drawn up with almost excessive minuteness and elaboration. It is, however, doubtful whether the inclusion of so many subjects under the heading 'Caucasus,' occupying thirteen pages, will simplify the work of reference.

Herr Merzbacher is nothing if not thorough; he makes no sacrifices to brevity or conciseness, and seldom leaves a subject till he has exhausted it. The bibliographical lists will be a surprise to most English readers. A brief study of the references in the foot-notes conveys some idea of the number of authorities—Russian, German, French, Italian, and English—consulted by the author, and on reading two or three of the earlier chapters one gradually realises the amount of laborious care and patient research brought to bear on the work. In recording the results of his own experience and observation Herr Merzbacher is equally conscientious. Geology is a favourite study with him, and the length of the frequent geological and orographical disquisitions contributes materially to the dimensions of the book. Keen and careful observation have evidently become habitual; even while climbing difficult rocks he contrives to look out for any variation in their structure, and during the drive over the steppe from Naltchik to Kotliarevskaja, which most mountaineers find sufficiently tedious and devoid of interest, he counts twenty-two different kinds of birds, besides describing the flora and other features, which many would pass without notice. Striving himself after precision and accuracy, the author insists also on accuracy in others, and seldom fails to correct inexactness or vagueness of expression in previous writers, even at the risk in some cases of exposing himself to a charge of hypercriticism. These more serious aspects of the work are, however, pleasantly relieved by the freshness and vigour of the descriptions of scenery and of the various incidents of travel, in which the author makes effective use of his notable faculty of vivid expression.

The first nine chapters are devoted to geology, glacial area, river systems, ethnology, &c. The author criticises Mikhailovsky's and also Freshfield's methods of classifying the mountain systems of the Central Caucasus, and presents a scheme of arrangement having regard to geological structure as well as other aspects. From a climber's standpoint the least successful part of Herr Merzbacher's grouping is that of the main chain and its complex ramifications between the Betsho and Tviber Passes.

The chapter on travelling and equipment contains many useful hints, and may be consulted with advantage by those who intend to visit the country. The author disparages the Caucasian *burka*, but strongly recommends the *bashlik* to mountaineers. Novel sugges-

tions are made as to the use of aluminium flasks filled with hot water as foot-warmers inside the sleeping bag, and as to the efficacy of a small hunting-horn in repelling the attacks of the Caucasian dogs, of evil name, without exciting the hostility of their owners. As the travellers, however, when in the Belinki Valley in 1892, carried their revolvers as a protection against their four-footed enemies, it must be presumed that the Lesghian dogs decline to be intimidated by musical instruments. We miss a description of the form of package used for carrying provisions, &c.—so much depends on having packs which can be quickly and securely loaded on horse-back. The ethnographical chapter is a lucid and well-arranged compilation from the best and most recent authorities, dealing with some twenty-five of the chief races dwelling in the mountain regions, more detailed accounts of the Suanetians, Khevsurs, and Tushes being given in later chapters.

In reviewing the exploration of the Caucasus the author freely acknowledges the valuable services rendered by the scientist Hermann Abich and the earlier mountaineers. We notice that M. de Déchy is stated to have ascended Adai Khokh (4,647 m.) in 1884 from the Tseia Glacier, whereas his paper in the 'Alpine Journal' certainly gives the impression that he climbed a lower but by no means less difficult peak overlooking the Chanchakhi Valley. The reference to an ascent of Khrumkol Bashi in 1889 arises, no doubt, from some misunderstanding; we believe that this point has never been climbed. It is also stated that in 1896 Mr. Cockin's party climbed Gumichi (3,805 m.). The peak ascended on that occasion was Mikhailovsky's Gumichi—the Cheget-tau-chana of Merzbacher's map (4,109 m.).

The remaining sixteen chapters in Volume I. are devoted to the expedition of 1891. Early in July of that year Messrs. Merzbacher and Purtscheller, with their two Tirol guides, Kehrer and Unterweger, arrived at Kutais, crossed the Latpar Pass and arrived at Betsho on July 18. Travelling so early in the year up the Tskenes-tskali, the author, like M. Levier, is struck by the richness of the vegetation, and especially by the wonderful beauty, size, and profusion of the upland flowering plants. He repeatedly expresses unbounded admiration of the magnificent scenery of Suanetia, and the enthusiastic and picturesque language describing his first impressions will revive delightful memories in those who know the country. For the Suanetians, however, he has little praise, and certainly his patience was sorely tried by their indolence, churlishness, and extortion. Nevertheless, those who have paid repeated visits to Suanetia observe a steady improvement in the people, which is, indeed, remarkable when it is remembered how deeply the fathers and grandfathers of the present generation were concerned in robbery and manslaughter.

The first mountain expedition—an attempt on Ushba by the great eastern ice-couloir, under very unfavourable conditions—was unsuccessful. Under the circumstances the time (9½ hrs.) occupied by the climb from the Gul Valley to the saddle between

the two peaks must be considered surprisingly short. The party seem to have taken an almost direct course from the glacier up the couloir to the saddle, and must have been exposed during several hours to great danger from avalanches and stone-falls. In attempts on the peak by English parties since 1890 it has been usual to avoid these dangers as far as possible by ascending the ice slopes much more to the E. and by not entering the couloir till forced to do so by the perpendicular rocks of the N.E. peak. An aneroid observation on the saddle gave a height of 4,612 m., only 86 m. below the summit of the S.W. peak! It is difficult to believe that these figures are correct. Mr. Cockin, who ascended the N.E. peak, estimated its height above the saddle to be at least 200 m. Unwilling to wait till the mountain was in favourable condition, the party made no other attempt on Ushba, but consoled themselves by climbing the three points of Laila, and reached the summit of Tetnuld by the S.W. ridge. They then crossed the Adyr-su Pass and ascended Elbruz from the Terskol glen. It is singular that this should have become the favourite route for the ascent from Urusbieh, as in actual distance the Kiritik-su route is the shortest of all the approaches from that village. Three days later the highest peak of Dongusorun was gained by the N. ridge—a climb so difficult and dangerous that the descent had to be made on the W. side into the Nakra Valley, and then followed the first ascent of Sulukol Bashi (4,259 m.), a peak in the Jailik group. Proceeding to Bezingi the party ascended the E. peak of Janga, encountering an unusual depth of fresh snow, and a day or two later Herr Purtscheller, whose patience was exhausted by the bad weather, left for Germany. Herr Merzbacher, however, made another attempt to reach the highest point of Janga, but turned back just in time to escape a huge avalanche, and was then driven from the valley by renewed bad weather. Within forty-four days they had climbed, in addition to the Ushba saddle, six fine mountains, two of them for the first time—a fairly successful result considering the amount of bad weather. A noteworthy feature of these ascents is the early hour at which most of the summits were gained. Even taking into account that the party was an exceptionally strong one, including two powerful step-cutters, and that time was also economised by climbing, in pairs, on two ropes, we think that the use of *Steigeisen* must have contributed considerably to the rapidity of their ascents. The lesson to English climbers is that the neglect of climbing-irons in the Caucasus means probably a larger proportion of failures and increased chances of being benighted during the descents.

Herr Merzbacher complains bitterly of the rapacity and extortion of the Bezingi Tartars, and especially of the tall Starshina now gathered to his fathers. Probably their outrageous demands were instigated by the evil genius of the party—Ali, the Urusbian. Travellers in the Central Caucasus are only too familiar with the officious outsider who appears in almost every Tartar village, and whether from self-interest, *Schadenfreude*, or a pious determination

to spoil the unbeliever, uses his influence in creating difficulties and in raising prices.

From Bezingi the author journeyed *viâ* Vladikavkaz to the head of the Ossete Valley of Genaldon; but bad weather returned, and it was not till the end of September that he was able to ascend Kasbek from the N., and on October 4, starting from the same camp, he concluded his operations in the Central Caucasus by making the first ascent of Gimarai Khokh.

The second volume is of special interest to geographers and mountaineers, as it contains the narrative of Herr Merzbacher's journey in 1892 through the Eastern Caucasus, and deals with three important ranges of snowy mountains, which are now described for the first time by an experienced mountaineer. These are: (1) The Tebulos (Shebulos and Gebulos of the old maps) Group; (2) The Donos Range, farther to the E., forming the boundary between the Tushes and the Chechens; and (3) The Bogos or Andian Group in Daghestan.

Turned by the prevalence of cholera from his original plan of revisiting the Central Caucasus, it was not till August 17 that the author, accompanied this time only by two Tirolean guides, J. Windisch and H. Moser, was able to leave Tiflis. The journey northward to the mountains, by way of Tioneti and the Iora Valley, lay through districts inhabited by two branches of the Georgian family, the Pshavs and the Khevsurs, and to the latter race is devoted a long chapter giving a very full and carefully compiled account of their religious rites, marriage customs, and other extraordinary characteristics. Some of their customs bear evidence of having been influenced by Mosaic law, and amongst the people themselves a pronounced Jewish type is often seen. At Tioneti a young Georgian named Levan was engaged as interpreter and factotum, and was retained throughout the expedition. He proved a capable and cheery servant, but rather artful withal, and given to inconvenient outbursts of conviviality. After leaving the Iora Valley Herr Merzbacher crossed the Andaki and Atsunta Passes, and, descending into the country of the Tushes—another Christian offshoot of the Georgian race—pitched his first camp at the sources of the N. branch of the Alasan stream (Pirikitelish Alasan), made the first ascent of Tebulos (4,507 m.), the highest mountain of the Eastern Caucasus, and on the following day climbed a fine peak—point 4,204 m. of the 1 verst map—to which he gave the name of Tugo-mta.

From the foot of Tebulos the author continued his journey south-eastward down the valley of the Northern Alasan, having to the N. the snowy Donos or Pirikitelish Range, and, deviating in succession into three of the side valleys descending from the N., made the first ascents of the three principal peaks. The most W. and highest of these—Komito (4,272 m.)—has since been climbed by M. de Déchy (1897) from the Chechen or N. side. The second peak, lying farther E.—Donos-mta (ca. 4,150 m.)—was ascended from the Motshekh Valley, and from the same valley the author

climbed three unnamed rock towers (ca. 3,840 m.) of such surprisingly bold and imposing forms that on first seeing them he thought the slate formation must have given place to granite or dolomite. The third summit—Diklos-mta—near the E. end of the chain, was gained from the Avgos-khevi Valley after a long and exhausting climb. No height is given to it in the 1 verst map, but Herr Merzbacher, from altazimuth readings from Komito and Donos, estimates it as 4,189 m. Tushetia, which is bounded on the N. by the snowy range in which these ascents were made, is comparable in certain respects with Suanetia, inasmuch as it is encircled by mountain ranges, the passes over which are closed during the winter months, and is traversed by the two branches of the Alasan, whose united waters leave the country by a deep gorge. These rivers, however, unlike the Ingur and Mulkhra, flow from W. to E. The author graphically describes the remarkable scenery of the northern basin. In the upper part of the valley the torrent has cut its channel deep down into the soft sedimentary rocks, which rise 1,000 m. on either side to bare ridges, on which stand the deserted watch-towers built centuries ago by long-forgotten generations of warriors. Lower down the valley the hills are clothed with trees and the scenery becomes still more striking. The Alasan thunders along at the bottom of narrow, tortuous chasms, between vertical rocky walls, whose serrated crests are crowned with fir trees, and in places where the valleys open out the path leads through dense woods with rich undergrowth, above which soar fantastic cliffs, which recall the Dolomites. The Tushes themselves are a brave and sturdy race, who in the past have not only defended their own country against the vastly more numerous Chechens and Lesghians, but have also, jointly with the Khevsurs, prevented the Mohamedan races from overrunning Georgia, and have rendered the Russians invaluable service during their wars with Shamyl. Their villages are usually built in strong, defensible positions, walled and provided with towers 20 m. to 30 m. high as a protection against their formerly hostile neighbours. Of all the Caucasian mountain tribes, the author was most favourably impressed by the Tushes, whose sincerity, good nature and hospitality he highly praises.

The Tushan mountains, which are of slaty formation (crystalline rocks seldom appear), are characterised by broken outlines and narrow, jagged, steep-sided ridges. These are generally due to the unusually steep tilting up of the strata, whose deeply weathered edges form the sharp, ragged arêtes. The summits do not rise, as a rule, much in height above the converging ridges. Although these peculiarities produce, as evidenced by the illustrations, very picturesque mountain forms, they are not very satisfactory to the climber, who has to contend with crumbling, shaly ledges, often loaded with splinters and flakes of *débris* or, still worse, with fresh snow—conditions which render the unusually long *Gratwanderungen* trying and laborious. In the descents from the ridges there is, however, some compensation, as it is often possible to slide, for long distances, easily down soft slopes of shale.

In order to reach the Bogos Mountains it was necessary—owing to the unfriendly attitude of the Mohamedan Andis, who dreaded the introduction of cholera—to make a long détour through Southern Tushetia, so that it was not till September 20 that a camp was pitched in a side glen at the head of the Kvarshi Valley. Here the author discovered that the name Bogos was quite unknown to the surrounding Lesghians, whose name for the range is Botshokh. Nor is it surprising to hear that the natives were unfamiliar with the mountain names of the 1 verst map, and that the people of different valleys were far from unanimous in the use of their own local names. In the Tebulos and Donos, as well as in the Bogos groups, it was found that the official map frequently only partially represents the extent of névé and glacier, and in some cases omits the smaller glaciers altogether. In the Bogos group especially, the map is very defective, giving little idea of the extent of the glacier systems, and also omitting several fine snow peaks. This part of the Eastern Caucasus appears to offer unusual attractions to sportsmen, abounding not only in the ubiquitous steinbock, but also in Bezoar goat. Herr Merzbacher states that there are no chamois in the Tushan district, and considers that the horns deposited in the *khati*, or shrines, have been brought from the Central Caucasus. In 1897, however, Mr. E. N. Buxton saw chamois at the head of the Avarian Koisu, E. of the Bogos Range.

While amongst the Dido and Andi tribes of this part of Daghestan, the author received much assistance from the native Naibs, who correspond to the Pristavs of the Central Caucasus, and are deeply respected and implicitly obeyed by the villagers; and he agrees with Von Eckert in attributing the speedy pacification of the wild and fanatical Lesghians in great measure to the wisdom of the Russian Government in retaining the services of Shamyl's Naibs, and placing them in positions of authority over their fellow-countrymen.

The mountain system at the head of the Cherotl Glen, where the camp was placed, is in arrangement (replacing granite by schists) a repetition of the Adamello group, so that it was possible to climb from one centre three of the highest peaks—Anchovala, Kosaraku, and Botshokh-mëer—all over 4,000 m. The last, though the highest of the three, not being marked on the 1 verst map, was named by Herr Merzbacher. But in order to ascend the highest mountain of the Bogos group it was necessary to journey to the next parallel valley to the N.W. Here is the most picturesquely situated village of Tindi, above which the Kilia torrent passes through one of those wonderful gorges so numerous in the Eastern Caucasus. The head of this valley gives access to the magnificent Belinki ice-basin, surrounded by splendid peaks, and here the author successfully completed his season's work by climbing Addala (4,153 m.). His energy and enterprise had not been unrewarded. He had the satisfaction of having scaled, within thirty-eight days, in addition to the Donos rock towers, nine virgin peaks ranging from 4,000 to 4,500 m., and on six of these summits had been favoured by clear weather. A

pathetic reference concludes the account of the last expedition. Addala, climbed on his birthday, was poor Windisch's last ascent; shortly after his return home he lost his life while chamois hunting on the Tribulaun.

The Appendix contains, in addition to an explanation of the maps and a list of equipment, a chapter by Dr. L. V. Ammon—in illustration and treatment in keeping with the rest of the work—describing the author's collection of rock specimens. The maps, which are printed on rather fragile paper, and should be promptly mounted on linen, are based on the Russian survey (1 verst to 1 inch), reduced to 1 : 140,000—a sufficiently liberal and convenient scale. Sheets I. and II. cover the Central Caucasus, and Sheet III. takes in the three mountain groups visited in the Eastern Caucasus; Nos. II. and III. being, for reasons stated in the Appendix, more distinct in detail than No. I. These maps, especially Sheet III., will be of the greatest value to future travellers.

Herr Merzbacher has striven to adjust the discrepancies in the contiguous sheets of different surveyors, and has given special attention to the accurate placing of the summits and altitude figures and to the careful naming of as many mountains, ridges, and streams as possible. Sheets I. and II., however, inherit from the official map a certain vagueness in the delineation of the glaciers. As an instance of this, in the continuous expanse of snow and ice bearing the rather unsatisfactory title 'Northern Adyr-su Glacier' there is no attempt to indicate the various ice-basins and the rocky ridges which separate them. The same lack of definition in the 1 verst map is probably also responsible for the erratic course of the dotted line tracing the route up the Dykh-su Glacier. This line, after passing point 2,756, leaves the glacier altogether, ascends about 600 m. to the S.W., and then, turning N., returns to the glacier down almost impassable precipices. Without acquiescing in the substitution of other names for those of the official map, we can sympathise with Herr Merzbacher in his attempts to simplify some of the long Tartar names, and think he might have gone even a little farther in this direction—*e.g.*, Dykh-su Glacier is more convenient than Dykh-kotiu-bugoi-su Glacier. Such names as Koja-ugu-aush-chat-bashi quite reconcile one to the short and simple D1 and K2's of the Himalayan Survey.

We regret to see M. Mikhailovsky's convenient and distinctive names—Latsga and Gumichi—for the two fine peaks at the head of the Adyr-su Valley discarded for the Tartar names Ullu-tau-chana and Cheget-tau-chana, confusion being facilitated by transferring Latsga and Gumichi to less conspicuous points on the same range. This is only one of the cases in which it would be advantageous to ignore the vague, confusing, and often conflicting native nomenclature, and official precedents for doing so are not wanting. For instance, take a Balkar hunter on to the Dykh-su Glacier and ask him the name of Shkara. He will answer 'Dykh-tau' (pronouncing it 'Dookhtau'); yet Dykh-tau has been adopted by the Survey, and is generally accepted as the name of the peak

above Misess Kosh, although—in spite of the author's impression to the contrary—no drop of water drains from it into the Dykh-su basin. When a name has been finally adopted in the official map it is, of course, inadmissible to alter it, and even in cases where a previously nameless peak or glacier has received a title from a competent traveller we hold that, in the interests of simplicity, it is inexpedient to rename it except in extreme cases. Herr Merzbacher evidently thinks otherwise. In the Adai Khokh group—which he was unable to visit—we find that names already in use have actually been reshuffled and transposed, and consequently several fresh sources of confusion are provided for future travellers.

Considering the dimensions of the work, remarkably few errors in the text have been overlooked. Curiously enough, the most important uncorrected errors are in the titles and names connected with the illustrations and panoramas. We mention the following instances as they are calculated to mislead:—

In the full-page illustration of the Mishirgi Glacier (p. 28), the name Mishirgi-tau is placed over Ullu-az-bashi, and the same error is repeated in illustration No. 28. In the panorama (F) of the Shikhildi Glacier, the real Chatuin-tau is left unnamed, its name being given to Shikhildi-tau (Sella's Little Ushba), while the depression between these two peaks is named Shikhildi Pass, although the author on p. 238 very justly doubts the existence of a native pass at this point.

On p. 119 the fine view of Ushba from the Ushba Glacier (S.W.) is erroneously described as taken from the Shikhildi Glacier (N.W.). In the full-page illustration (p. 710) of the Bezingi ice-wall, which does not include Gestola at all, Katuin-tau is named Gestola, the name Katuin-tau being placed over part of the ridge of Janga. Fortunately not one of these errors appears in the map.

In the course of both volumes frequent interpretations are given of the native place-names, whether Georgian, Tartar, Ossete, or Lesghian. When the author has given so much it may seem unreasonable to ask for more; but these translations are of such great assistance to the reader that one cannot but wish that a complete glossary of the various native place-names were included in the Appendix.

In concluding this notice we heartily congratulate Herr Merzbacher on the completion of this valuable work—a model of methodical arrangement—a remarkable record of earnest and conscientious achievement.

H. W.

Le guerre di Augusto contro i popoli alpini. Di Giovanni Oberziner. (Roma : Ermanno Loescher e Co.)

Under this modest title the author has given what is, as indeed he himself remarks in his preface, really an account of all that is known or has been conjectured concerning the early inhabitants of the Alps. All Alpine travellers whose activity is not confined to their limbs must in the intervals of more serious business have felt some curiosity as to what went on in the well-known valleys before

the days when Rome swept them into her all-embracing system and their affairs became part of Roman history. Who and what were the people we used to read of in our Horace, the fast Breuni and the Genauni, a fearless race, and the rest of them? Thanks to Pliny, who has preserved for us the famous inscription which once stood on the trophy that gave its name to Turbia, we know the bare names indeed of a good many more, and we recognise them in more or less distorted forms as we study our modern maps—the Seduni, for instance, at Sion, the Venostes in the Vinstgau. Occasionally one is struck by curious coincidences. How, for example, does it come about that there are Suanetes on the north side of the Splügen, as in the Caucasus; Vennonnes in the Valtellina no less than in Brittany? No certain answer to these questions is indeed yet to be had; but Signor Oberziner will in any case put his readers in the way of seeing what has been said about them. (Not indeed the Suanetes; there he is disappointing.) But on questions like that of the Etruscan origin of the Rhaeti—in which, be it said, the modern Rhaeti firmly believe—the materials for forming an opinion are very fully indicated. If the author himself leaves his own in doubt that is no more than every cautious person in the present state of the evidence will probably do also.

In reading of these tribes and their relations with the Roman Empire one is constantly reminded of modern parallels. If the Salassi, as Strabo relates, swooped down on the money which Augustus was sending to pay his soldiers in Gaul, are there not sportsmen at this day in or about the Khyber Pass who would, if the opportunity came to them, make use of it with great promptitude? Indeed the impression which a perusal of this book leaves on the mind is that these Alpine tribesmen must have been singularly like the people who keep Britain in 'little wars' to-day.

The book, it should be said, is illustrated with some boldly drawn maps, which enable the reader to get a clear idea of the distribution of the various tribes as the author is disposed to locate them.

Über Fels und Firn—Bergwanderungen von Ludwig Purtscheller.
(Munich: F. Bruckmann. 1901.)

This fine volume, which is edited by Herr H. Hess, is a selection from the contributions of the late Ludwig Purtscheller to Alpine literature. Ludwig Purtscheller had, we believe, ascended more peaks than any other climber; his record in the Western Alps may have been equalled by Mr. Coolidge, but his knowledge of the Eastern Alps was unrivalled. He had also visited the Caucasus, and in 1889 he and Dr. H. Meyer made the first ascent of Kilimanjaro, the highest peak in Africa. A list of his expeditions, which is appended to the book, is sufficient of itself to show his untiring energy and marvellous Alpine experience. It will be remembered that the well-known 'Hochtourist in den Ostalpen,' which is a veritable model of what a climber's guide should be, was compiled by Purtscheller and Hess.

A photograph of Purtscheller forms the frontispiece of the

present work, and Herr Hess contributes a short life and appreciation of his departed friend, who was born at Innsbrück in October 1849, and died in March 1900.

The papers which follow include twenty-two on the Eastern Alps, eight on the Western Alps, one on Elbruz in the Caucasus, and another describing the first ascent of Kilimanjaro. There is also reprinted a paper by Purtscheller on the 'History of the Development of Alpine Climbing in the German and Austrian Alps.'

We have read with interest the graphic account of the guideless traverse of the Matterhorn from Zermatt to Breuil, made in 1884 under very unfavourable conditions, by Purtscheller, Schulz, and the brothers Zsigmondy. There is also an interesting account of the numerous attempts that were made on the Meije, culminating in its conquest by M. de Castelnau and the two Gaspards in 1877. This is followed by the story of the discovery by Purtscheller and the two Zsigmondys of the new route to its summit over the East ridge, only a day or two before Emil Zsigmondy lost his life on the same mountain. We have also descriptions of traverses of the Grand Paradis and the Grivola, and various ascents in the Tarentaise and the Bernese Oberland.

The papers on the Eastern Alps describe the direct climb of the Watzmann from St. Bartholomä, a new route up the Sorapis, and various ascents in the little-known Piazz group, Ferwall group, &c.

The volume is illustrated with numerous sketches by Mr. E. T. Compton, and various photographs by Signor V. Sella and others, and forms a fitting memorial to the great climber, as a tribute to whose memory it is published.

A. E. F.

Bollettino del Club Alpino Italiano. Vol. xxxii. 1899.

This volume is worthy of its predecessors. The climbing interest is strong, the illustrations are excellent, the maps are most helpful, and the article on the Valpelline alone is worth a volume of ordinary Alpine papers.

We do not propose to treat exhaustively of the article on the Valpelline, pages 1-172, though its merits deserve a lengthened study, and we had at one time hoped for a full notice of it by one who has every qualification to speak with authority on the district. The authors, SS. E. Canzio, N. Vigna, and F. Mondini, already so well known to students of Alpine literature by their valuable account of the long neglected Val St. Barthélemy,* have laid all visitors to the Valpelline under the greatest obligation. Their work is an exhaustive monograph on the district. In its preparation they received much help, as they gracefully acknowledge, from Mr. A. G. Topham, who has more than once contributed valuable information on the subject to these pages.

The special subject of their paper is the district between the Col Fenêtre and the Col des Bouquetins—a portion of the Alps which, owing to the application of the same names to different peaks by

* See *Alpine Journal*, vol. xviii. p. 133.

different writers, has given great trouble to climbers and caused much confusion. In future there will be little excuse for such confusion if this article is, as it should be, carefully studied by those who would write of the district. Such names as Morion, Faudery, Rajette, used to strike us with terror mingled with a certain sardonic amusement. Now we can regard them with equanimity. Besides the painstaking and excellent accounts in the text the illustrations are of the greatest assistance. It seems almost invidious to mention particular plates when all are so good, but we have been particularly struck by the 'Monte Morion and Monte Faudery from the Aroletta col,' from a photograph by S. Mondini [a formidable brotherhood of rock peaks is here revealed]; the 'Panorama looking S. from the Ruinette,' by S. V. Sella; and the 'Panorama looking S.W. from the Col de Vuignette,' by A. G. Topham. These plates, as well as others which we have not space to indicate, will be found a great help to the understanding of the topography and nomenclature of this part of the Alpine chain. We hope that SS. Canzio, Vigna, and Mondini will be encouraged by the great success of their efforts here and in the Val St. Barthélemy to continue their good work in other districts. It should be said that the large map at the end of the volume is that of the Instituto Geografico Militare, with additions and corrections by the authors. In the portions we have examined we have found it of great assistance. For example, the ridge which runs from the Col de Faudery to the Monte Berio explains much that was previously ambiguous.

S. Guido Rey's paper, in which he describes, amongst other successes, his conquest of the Punta Bianca, in the ridge between the Dent d'Hérens and the Matterhorn, will be found very interesting. It is excellently illustrated.

SS. G. F. and G. B. Gugliermi contribute an account of their new climbs in the Monte Rosa group, the two most striking of which, the Colle Zurbriggen and the Colle Vincent, lie, the former between the Schwarzhorn and the Ludwigshöhe, and the latter between the Piramide Vincent and the Schwarzhorn. The paper is also provided with a capital sketch map, which we have ourselves found very useful.

Other subjects beside climbing find a place in this volume. Thus we have a paper by S. M. Cermenati on Alessandro Volta 'Alpinista'; another (geological) by S. A. Cozzaglio, and another by S. A. Hess on Norwegian Ski and their various uses. The author, at the conclusion of his paper, gives an account of an Alpine excursion on Ski. The peasants, who were at first incredulous as to the virtues of Ski, were converted when they saw the 'skiers,' if such a word is admissible, take a sort of preliminary shoot, and then looked upon them as 'maghi o demoni.' The paper is illustrated.

Swiss Jahrbuch.

This volume (xxxvi., 1900-1901) appears with the usual fulness of illustration. Of the two coloured plates that of the St. Gotthard appears almost unreal in its colouring; the other is a view of the

Breithorn and Breitlauenen (Lauterbrunnen) from a painting of 1776. This year the editor (Dr. H. Dubi) contributes a large portion of the contents of the volume, there being three papers by him, as well as the reviews, only three of which, however, out of forty, are by other hands. He regrets that his appeal to French-speaking members has been so ill responded to, there being only three articles on the special district, of which only two are by members of the S.A.C. Of ascents (new or by new routes) which have not already appeared in the 'Alpine Journal,' or are not mentioned in this volume, are the following. (Where no year is given the date is 1900.) On July 18 the Aiguille du Glacier was climbed by the W. ridge by MM. Archivard, Dunard, Ch. Fontannaz, Géry, Miney, and Montandon, jun.; on September 6 the Dôme de Miage by the N.E. ridge by MM. Maurice l'Huilier and Albert Trondlé; on September 12 the Aiguille Rouge du Dolent by M. F. Chavannes with Maurice Crettez. On July 20 the Aiguille du Géant was traversed from N. to S.W. by Dr. H. Pfannl, J. Maischberger, and E. Zimmer; on July 18 the Aiguille de Rochefort was traversed from the Grandes Jorasses Cabane to the Rifugio Torino by S. Ettore Allegra with Lorenz Croux and Pietro Dayné and the porter Brocherel; on September 2 the Col Capucin (between Col Valsorey and Mt. Capucin) was crossed by Signor Guido Cibrario with Pietro and Albino Dayné; on July 20 the Pte. de Zinal was climbed by the N.W. ridge by Dr. E. L. Fankhauser and Dr. E. Panchaud; the same on July 25 climbed the Ober-Mominghorn by the W. face; on June 27 the Balfrin was climbed by Herr J. J. Eberli with Alex. Burgener; on July 20 the Fletschhorn was attempted by the E. ridge by SS. G. F. and G. B. Gugliermi, Giov. Caron, and Paolo Schiavi, with the porter Ant. Pernetz; on August 7 a new descent was made from the Diablerets by Dr. C. Blodig and Gottlieb Stopper, only due, however, to losing their way; a traverse was made (no date) by Herr M. Liedtke from the Hochtürlihütte. Starting at 12.20 A.M., he traversed the Morgenhorn, Weisse Frau, Blumlisalphorn, and Oeschinenhorn to the Oeschinenjoch. An attempt to climb the Frundenhorn failed, and he returned over the two last-named peaks to the Rothhorn Sattel, where at 9.10 P.M. he was forced to bivouac. On October 5 the Gross Lauteraarhorn was climbed direct from the Strahleck by Dr. E. F. L. Fankhauser, with Ch. Jossi; on September 16 the Klein Strahlhorn (3,146 m. = 10,322 ft.), S.E. of the Kirchlistock, was climbed by Herr and Frau Montandon; on July 1 the Todi was ascended by a new route from the Fridolin Hut by Herr Joh. Farner and party; on September 15 the Vorder Sulzhorn (2,740 m. = 8,990 ft., between the Scheidstockli and Ruchi, near the Kisten Pass, but both name and position seem to be uncertain), by HH. G. A. Guyer, Max Wanner, and Eug. Wortmann; on July 19 Piz Platta was ascended by a new route by HH. D. Stokar and Alb. Munsch, with Os. Mettier; on July 29 the Pizzo di Ferro Orientale (3,178 m. = 10,426 ft., in Val Masino) was climbed by SS. Angelo Perotti and Hans Ellensohn.

with Bart. Sertori; on September 17 the Punta Sertori (3,192 m. = 10,492 ft.) by SS. Giuseppe Gugelloni and Ugo Monti, with Bart. Sertori, from the foot of the Badile; on July 2 Herr Victor Sohm, with Jos. Both, climbed the Zimbaspitz by the W. ridge; on August 31 the Kirchlispitzen (Prättigau) were for the first time traversed by Dr. C. Blodig from the Douglas Hut; on August 19, 1899, the Drusenfluh was climbed from the Ofen Pass by HH. Hans Wodl and C. Bernhard; on July 18, 1899, the same mountain was climbed by HH. F. Eyth and Vict. Sohm, with Jos. Both, from the Eisjoch Glacier; on July 14, 1899, the Sulzfluh, direct from the Drusenthor, by Herr Vict. Sohm, with Jos. Both; on July 13, 1899, the Gross Thurm was climbed from the Eisjoch Glacier by Dr. C. Blodig and Vict. Sohm; on July 29 the Pateriol was climbed by the E. face and N.W. ridge by HH. Fritz Miller, Hans Kremser, and Heinz v. Ficker; on August 26 the same mountain was climbed by the N. face by HH. K. Mayr and E. Pichl.

In the special district (the Swiss side of Mont Blanc from Salvan to the Great St. Bernard) Herr W. Flender (Unterengadin) describes a traverse of the Aiguille d'Argentière in 1899 from the Cabane de Saleinaz to the Pavillon Lognan. He calls it one of the most interesting expeditions he ever made, but his guide (the young Heinrich Burgener) said, 'Oh! I could take a cow over it.'

Dr. A. Walker (Weissenstein) describes various tours with Onésime Cretiez from the Cabane d'Orny and Cabane de Saleinaz. Both of these are well equipped, the latter especially having both a medicine chest and a library. None of the expeditions can be called difficult, but all are interesting. In descending on June 29, 1897, from the Grande Fourche (3,616 m. = 11,864 ft.) the upper edge of the bergschrund was overhanging, and they had to leap. On June 30 they descended from the Grand Darrey (3,523 m. = 11,558 ft.) by the S. face and the glacier to La Neuva, which was new. He thinks that later in the year the glacier would be impracticable.

Two expeditions were made in the special district by the Rev. W. A. B. Coolidge—the Col d'Argentière in 1866 and the Col du Tour in 1874. His alpine career began in 1865, when he was only fifteen years of age. In that year with his aunt, Miss Brevoort, he traversed the Strahleck, the Théodule Pass, the Col du Géant, and climbed the Cima di Jazzi—for that age a remarkable performance.

Out of the special district Dr. W. Paulcke (Davos) describes a number of tours in Dauphiné with Lt. Lohmüller. The most interesting is the traverse of the Meije from the Chatelleret Hut to the Tabuchet Glacier and La Grave on August 26, 1899. On the same day an English lady, with two guides, and an English gentleman, with two guides, made the traverse. This will always be one of the most difficult expeditions known. The mountain well deserves its French title, 'La Grande Difficile.' No less than twenty-one attempts were made in seventeen years before

M. Boileau de Castelnau succeeded in reaching the summit in 1877. The party started at 1 A.M. The Grand Pic was reached at 10.15. The Brèche Zsigmondy was very difficult. Miss B. exclaimed, 'Oh! I'll never make such a tour again.' The Pic Central was reached at 3.20 P.M. After 25 min. they descended. The bergschrund was passed at 5 P.M., and La Grave reached at 9 P.M. He mentions with satisfaction that the only guideless traverses have been made by parties of German-speaking nationalities, viz. the two Zsigmondys and Purtscheller in 1885, Robert Hans Schmitt and party in 1892, and the present traverse. Mademoiselle Eugénie Rochat, with the guide Jos. Demarchi and his brother Jean, on August 31, 1900, made the traverse of the Aiguille de Charmoz. They started from Chamonix at 12.30 A.M. The first tooth was reached at 10.10 and the fifth at 12.15 P.M. The view of the Aiguille du Grépon from this tooth is remarkable. Both in the ascent and descent the passage of the bergschrund was dangerous. In both cases a leap had to be made on to snow of doubtful quality. The Chamonix guides said it would be impassable. In the leap on the descent Demarchi sank to the breast. In this bergschrund in 1898 Mr. Aston-Binns and the guide Xavier Imseng perished. The party reached Chamonix at 5.30 P.M. On September 1 they bivouacked in the dried-up bed of a lake at the foot of the Aiguille du Tacul, and on September 2 started at 3.50 A.M. for the Dent du Requin. This is considered the most difficult climb in the district. Here again the bergschrund gave much trouble. The top was not reached till 2.15 P.M., and the bivouac at 7.15 P.M. Dr. E. F. L. Fankhauser (Basel) describes the passage of the Dent d'Hérens from Breuil to Prarayé with his friend Dr. E. Panchaud. They started on July 28 at 3.10 A.M. They had great difficulty in passing the bergschrund. At another point he had to stand on his friend's shoulders and use both axes. Having *steigeisen* much step-cutting was saved, but even thus the top was only reached at 4.15 P.M. They descended by the W. ridge, and only got off the glacier at 11 P.M. Here they luckily fell in with a shepherd with a lantern, who guided them to Prarayé at 1 A.M.

The editor with his wife and two of his sons visited the Saas-Fee district, after an interval of ten years. Then there were only two inns and a church; now there are four large hotels and a number of *pensions*. He laments the want of sympathy between the hotel proprietors and the *Gemeinde*, which has hindered many improvements in paths, seats, &c. The Clara-Imseng Hütte, on the moraine of the Fee Glacier, so much frequented, exists no longer, and the project of building an inn on the Langenfluh between the two arms of the Fee Glacier has fallen through. Various excursions were made to complete his topographical knowledge of the group, amongst others the ascent of the Allaleinhorn, Fletschhorn, with traverse to the Laquinhorn. On July 27 the whole family, without a guide, crossed the E. Fee Glacier to the Langenfluh. They found the glacier dangerous from the softness of the snow, and were then surprised by the storm in which the guide Alphonse

Furrer perished on the Matterhorn and Jos. Simon on the Aiguille du Géant. Several of the party were affected by the lightning. M. Julien Gallet (Chaud de Fonds) writes of some neglected peaks in the Bernese Alps. Several of the expeditions were new. On July 14, 1900, the descent from the Frundenhorn by the N.E. arête; on July 17 the ascent of the Rinderhorn by the N.N.E. face; on July 24 the ascent of the Sattelhorn by the N.E. face and descent towards the N.; on July 28 the Schienhorn, ascended by the N. arête and traversed; on August 1 from the Oberaletsch Hut the Rothstock was climbed, then the Geisshorn (Sattelhorn of the Siegfried map), and finally the first ascent made of the point (8,686 m. = 12,093 ft.); the descent was made by the glacier of Triest which gave much trouble, owing to the absence of snow, not uncommon elsewhere in 1900. He found much help from the new edition of Studer's 'Ueber Eis und Schnee,' which he says has been carried out with a precision 'presque impeccable.'

Herr v. Lauterburg (Bern) had settled at Cremeo, in Val Mesocco, with a friend, the one to sketch, the other to catch butterflies, when they were induced by a friend to go to Promontogno. They crossed the Passo della Forcola in September. This is only 7,270 ft. above the sea, but the wind was so strong that they were only able to cross by stooping and going backward (!), and arrived in a miserable condition at Chiavenna.

Herr R. Zeller (Bern) describes a visit to the volcanic district of Auvergne. The article is largely geological. With his friend Herr Otto Fischer he climbed the Puy de Dôme, from which he made an almost complete panorama of the different Puys. The view is wonderful over the plain country. Mt. Blanc is said to be visible in favourable weather. The proverb says, 'If Dôme was on Dôme you could see Rome.' They also climbed the Pic du Sancy, the highest point in Auvergne (1,886 m. = 6,187 ft.), but the view here is not so striking, owing to the less elevation above its neighbours.

Dr. Raimond Schäfer (Uto) describes a tour through Spain and Morocco. In Murcia the vegetation was wonderful—palms, cedars, cypresses and laurels, oranges and citrons—the inhabitants, the girls especially, often handsome, but everything so backward. Not a tourist, not a bicycle, not a picture card: no other language but Spanish. The train slower than the omnibus, so that the children were often tempted to jump on the footboard. From Quadix to Granada, by diligence with sixteen mules, the road so bad that the motion was like that of a ship in a heavy sea. The hotel, however, at Granada was better. They climbed a lower summit of the Sierra Nevada, the Peño de S. Francisco (2,570 m. = 8,482 ft.). The guide wore linen sandals and carried a double-barrelled gun and a pair of pistols. At a farm where they passed the night the guide slept with his pistols cocked beside him. On the return to Granada the hotel seemed a palace. Then to Gibraltar and across to Tangier, the most picturesque of African towns. Thence an excursion to Tetuan, escorted by a soldier. The population is

made up of Arabs and Jews. The postman here was unable to read (!) and was mobbed by those who expected letters. The annual report on glaciers (twenty-first) is made by Dr. A. Forel, Dr. M. Lugeon, and Herr E. Muret. The maximum was in 1892. In 1900 eighty-two glaciers were observed, of which only one was certainly advancing, that of Boveyre, in the Val d'Entremont (Valais), whilst sixty-one were certainly retreating.

Herr G. Meyer v. Knonau (Uto) writes of the trade and intercourse over the Swiss passes in the Middle Ages. This is largely a *résumé* of Professor Aloys Schulte's work on the intercourse between Germany and Italy. The traffic over the S. Gotthard gradually became the most important. This is now, of course, enormously increased, and it is said that two goods trains carry as much as formerly passed in a single year. Dr. H. Dubi writes of mountain travel and mountain-climbing before the nineteenth century. Though in the main alpinism is a product of the second half of the last century the roots of it were laid in the sixteenth, if not earlier. Chief among the earlier admirers of the Alps was Conrad Gesner, of Zürich, who, in 1541, wrote to a friend that he meant every year to climb at least one mountain. In 1574 Josias Simler wrote a really wonderful description of the mountains of Canton Wallis. Many early ascents are mentioned, beginning as early as 1285 A.D.

The crystal holes in the mountain districts of the Reuss, Aar, Tessin, and Adula are described by Dr. Julius Königsberger (Basel). He visited two of the most remarkable—the Sandbalmstock, in the Göschenerthal (Canton Uri), which was discovered in the fifteenth century, and that on the Tiefen Glacier (Uri), discovered in 1868. He describes the outward signs from which the presence of such holes may be inferred, and the different crystals and minerals found in them.

The alpine accidents of 1900 have already been reported in the 'Alpine Journal.'

Dr. H. Dubi, referring to the articles on the Fünffingerstöcke which appeared in the 'Alpine Journal' in 1900, contributes an account of an excursion made in 1871. In September, with a friend and the guide Mohr, of Gadmen, he climbed the Hinter Urathhorn and two of the summits of the Fünffingerstöcke, one of which he thinks is the 'Mittelgipfel' of the map in the 'Alpine Journal.' Next day they crossed the Titlis to Engstlen. In descending they passed the Rotheck, where Eugen Imfanger and his tourist perished many years ago, and where, on August 6, 1900, Dr. Paul Voigt and his guide, Karl Hurschler, perished from exactly the same cause, the tourist slipping and carrying the guide away, whereas the guide ought to have been behind him.

Herr F. W. Sprecher, in September 1900, after ascending the Tambohorn alone from the Splügen Pass, was not satisfied either to return by the same way or to descend into the Val Curciusa, but attempted a direct descent to the W. After various difficulties he came to an overhanging cliff, which he could by no means circum-

vent. After hacking out a hold for the rope he first let down his axe and rucksack, and then proceeded to slide down himself, in doing which he skinned most of his fingers. He estimates the height at about 20 m. (65 ft.), but in the sketch it does not appear so much.

Now that the Simplon tunnel is approaching completion the project (first started thirty years ago) is brought forward of a railway between Bern and Wallis through the Lötschberg. At no point are the Bernese Alps so narrow as here. The plan most favoured for the tunnel is under the Balmhorn from Klus to Ferden, in the Lötschthal, 11-12 kilometres in length (7-7½ miles). Curiously enough it is proposed to construct the tunnel with only a single line of rails, and to have a central subterranean (!) station (Gasteren), where the trains should cross. The line Spiess (on Thunersee)-Frutigen was opened in 1901. The Canton Bern has agreed to pay 60 per cent. of the cost of this portion, and to contribute four millions of francs (160,000*l.*) to the cost of the line Frutigen-Brieg.

The new Club hut on the Weisshorn was opened in July 1900. It is about 200 ft. above the old hut and can accommodate twenty-two persons.

Herr Albert Bosshard, who is drawing a panorama of the Alps as seen from the Minster at Ulm, describes the changes produced in the appearance of the mountains by a fine haze (caused largely by smoke from the town). The outlines were generally steeper, but sometimes were quite transformed into a semblance of vast church spires, or even of inverted bottles, hindering his work in a dreadful way.

Herr M. v. Déchy (A.C., S.A.C., &c., and honorary member of the Karpathian Club) complains of many remarks of Dr. W. K. Nippold (in the last 'Jahrbuch') about Transylvanian affairs, especially about the railway trains, which he declares, as to speed and punctuality, will compare favourably with any in Europe.

The idea of restoring the upper Matterhorn hut is abandoned. The lower one is to be enlarged. The complaints of its being little better than a pigsty are said to be unfounded, but it is henceforward to have a permanent caretaker.

At the end of September 1900 the number of members in the S.A.C. in forty-four sections amounted to 6,016, being an increase of 246. The balance to credit of the Club at the end of 1900 was 38,292*f.* (1,531*l.*), being an increase of 5,058*f.* (202*l.*). In the year 1900 402 guides were insured (increase of 32) for 1,386,000*f.* (55,440*l.*), being an increase of 181,000*f.* (5,240*l.*). Up to November 6 about 13,000*f.* (520*l.*) had been paid in compensation.

In the folding case which accompanies the volume are a map of the Club district for 1901 (the Swiss side of Mt. Blanc from Salvan to the Great St. Bernard), a panorama from the Oberalpstock (with key), a map of the Lötschberg from an old map of 1698, and a very interesting pamphlet (of no less than 111 pages and richly illustrated) by Dr. F. G. Stebler on the village of Visperterminen

(700 m. above the railway station at Visp). This is perhaps the most out-of-the-world and old-fashioned village to be found in the Alps. He describes the inhabitants and their ways, their dwellings, trades, agriculture, and many quaint old customs.

Geographical Journal. January 1902.

This number contains the report of a paper read by Sir Harry Johnston on 'The Uganda Protectorate and Ruwenzori,' and of the discussion which followed, in which Mr. Stanley and Mr. Moore took part. Of Ruwenzori Sir Harry Johnston says, 'The highest point is not under 20,000 ft. . . . There must be over twenty miles of almost uninterrupted glaciers. . . . To effect a successful ascent requires as elaborate a preparation as the exploration of the Andes or Himalayas. An enormous deal remains to be done in the exploration of this the most important range of Africa. . . . The obstacles are the distances to be travelled at high altitudes . . . the extremely arduous nature of the last part of the climb . . . the non-existence of any guides . . . the deficiency of any means of transport.' Mr. Moore considered the height would probably turn out to be about 16,000 ft., but Sir Harry Johnston thinks that the amount of snow and ice present indicates a much greater height, and in this he is supported by Mr. Wylde, who attempted a high ascent in August last, and whose report also appears in this number of the 'Journal.' Mr. Wylde ascended to 15,000 ft., a higher point by about 500 ft. than any previously reached. He considers it is doubtful whether even a fully equipped traveller will reach the summit peak. Will not some member of the Alpine Club take this fascinating work in hand?

Die Alpinisten: Roman. Von Franz Wichmann. 8vo, pp. 397.
(Berlin: Janke. 1900.) M. 5.

This is the first novel yet published in which the characters are primarily climbers, and for that reason it deserves special notice. The poet-hero at the start considers that no married woman ought to climb, 'for she belongs to her husband and not to neck-breaking mountain peaks.' Impressed by the flattering remark made to him that he too should not risk his own neck, as the world might thereby be a great loser, he refrains for a day from climbing, and the worthy man is rather unhappy, though he employs the time in falling in love with one of the heroines. In a few days, however, he is climbing again, alone as usual, and in a stone-swept couloir meets another heroine, also a solitary climber. He gets no thanks for dragging her under cover, only the honour of rummaging in her rucksack for her cigarettes. She hurts his pride a little by telling him that she has never read any of his poetry, 'for I rarely have time for any reading, and when I have I take up something alpine.' Truly a most excellent heroine. They arrange to make a dangerous ascent together. On the top the lady's stocking—for she does not

wear puttees—bursts at the ankle, and the poet, seeing her fair skin, must needs kneel and kiss it energetically, despite her question, 'You know, of course, that I am a married woman?' and on that icy summit they make violent love to each other, heedless of an approaching thunder-storm. This, however, at last forces them down, and they take shelter in a two-storied hut, where, in perfect propriety, they pass the night alone. Next morning the husband, who has heard rumours that the lady 'prefers climbers to climbs,' turns up casually at the hut and——. The reader who gets the book may finish the story.

Commission Internationale des Glaciers. Sixième Rapport. (Genève: Georg. 1901.)

From this report we learn that the decrease in the Swiss glaciers continues, with the one exception (as last year) of the small Glacier de Boveyre. In the Eastern Alps the Vernagtferner has continued to advance and increase in volume; but decrease is noted elsewhere. An epitome is given of M. Rabot's work on the Scandinavian glaciers. The glaciers of Switzerland are reported on by Messrs. F. A. Forel and E. Muret; of the Eastern Alps by Herr S. Finsterwalder; of the Italian Alps by Professor F. Porro; of the United States by Mr. H. F. Reid; of British Columbia by Messrs. Vaux.

In connection with this report it may be mentioned that under the auspices of the French Alpine Club a 'Commission Française des Glaciers' has been started, which has offered a prize of 900f. for an essay upon a glacier within the limits of France.

Les Variations de Longueur des Glaciers dans les Régions Arctiques et Boréales. Par C. Rabot. 2me Partie. (Genève et Bâle: Georg. 1900.)

The first portion of this work, published by the International Commission on Glaciers, has already been noticed in the 'Journal' for February 1901. In this second portion M. Rabot deals fully with the glaciers of Spitsbergen, Northern Norway, and Sweden. The general conclusion arrived at is (p. 298) that 'the increase in the glaciers of the Alps from 1830 to 1845 occurred also in Greenland, Iceland, Spitsbergen, and Scandinavia, and the secondary advance which was seen in the Alps between 1875 and 1892 corresponded to the increase observed in Iceland, Spitsbergen, and Norway at that time.' A bibliography of books and maps relating to Spitsbergen is given on pp. 82-6; and throughout the work the particulars are given of the writings, mostly in Society publications, of the authorities for observations on the Scandinavian glaciers. The material is very carefully and clearly arranged, and the author has a personal acquaintance with a great part of the territory he deals with, which he has already described in 'Au Cap Nord,' 1898, and 'Aux Fjords de Norvège,' 1898.