

BOOKS ON MOUNTAINS.¹

DURING the last forty years we have had many books on Alpine climbing, as Mr. Baillie-Grohman observes, but not one on Alpine sport; for the late Charles Bonar wrote his delightful little volume on "Chamois Hunting" before the first Alpine Club was founded. That, however, dealt with a rather limited portion of the Alps, and was chiefly concerned with the chamois, though it also gave some account of stag shooting. Mr. Baillie-Grohman takes a wider range, both of space and of subject. Still, even he writes mainly, as did Mr. Bonar, of the Bavarian and Tyrolean Alps; indeed, the Graians are the only district that receives more than a casual notice. The reason for this is obvious; in the Central and Western Alps the red deer is unknown, and the chamois, as a rule, is not common. The latter, indeed, might have followed the former; for republican principles, as all the world knows, are not favourable to the preservation of game; but the Swiss authorities, whether actuated by sentiment or by an eye to the main chance, have taken steps—and with considerable success—to save this animal from extermination. But in the limestone range which lies north of the Inn, on the frontier of Bavaria and Austria, and in one or two parts in the main range of the Tyrol, there are large mountain



FIG. 1.—The largest Red Deer Antlers in existence.

districts which are strictly preserved by their owners. One of these districts, as Mr. Baillie-Grohman says, might be called "the Dukeries," for all its masters are at least of that rank; the finest "shoot" belonging to Saxe-Coburg-Gotha. Mr. Baillie-Grohman tells many interesting anecdotes of the late Duke, one of the keenest of sportsmen, whose shooting party he was frequently invited to join.

The book, of course, is written for sportsmen, and is to a considerable extent occupied with the author's own experiences, his successes, and disappointments; but he also gives many particulars of the chase in bygone

¹ "Sport in the Alps in the Past and Present; an Account of the Chase of the Chamois, Red Deer, Bouquetin, Roe Deer, Capercaillie, and Black Cock, with Personal Adventures and Historical Notes, and some Sporting Reminiscences of H. R. H. the late Duke of Saxe-Coburg-Gotha." By W. A. Baillie-Grohman. With numerous illustrations and photographs from life. 1 vol. Pp. xvi + 356. (London: A. and C. Black, 1896.)

"Aus den Alpen." Von Robert von Lendenfeld. Illustriert von E. T. Compton und Paul Hey. I. Band, Die West Alpen (pp. xii + 486); II. Band, Die Ost Alpen. Pp. xii + 512. (Wien: F. Tempshy, 1896.)

"Chamonix and the Range of Mont Blanc." A Guide. By Edward Whynper. With illustrations and maps. Pp. 192. (London: John Murray, 1895.)

"Climbs in the New Zealand Alps; being an Account of Travel and Discovery." By E. A. FitzGerald, F.R.G.S. With appendices, many illustrations, and a map. Pp. xvi + 364. (London: T. Fisher Unwin, 1895.)

"Mountaineering and Exploration in the Japanese Alps." By the Rev. Walter Weston, M.A., F.R.G.S. With maps and 35 illustrations. Pp. xvi + 346. (London: John Murray, 1895.)

times, which are illustrated by reproductions of some quaint old pictures. But he incidentally brings in some matter interesting to the naturalist. Mr. Baillie-Grohman of course has much to say on the horns of the quarry—the chamois, the red deer, the roe deer, and the bouquetin—and he gives details of the growth and of other peculiarities, with illustrations of horns notable for size or for singular deformities. An exceptionally large pair are represented in the annexed illustration (Fig. 1), for the use of which we are indebted to the publishers. These appendages often exhibit slight differences depending on locality. According to the author, the horns of chamois from the crystalline districts of the Alps run a little smaller than those from the calcareous; but besides this, slight differences in form are exhibited in places widely apart, and this is yet more strongly exemplified in the case of the chamois of the Alps and the izzard of the Pyrenees. The horns, also, of the Alpine stag considerably exceed in size those of the Scotch red deer. This subject is discussed at some length, Mr. Baillie-Grohman bringing forward evidence to show that the growth of the horns depends, among other circumstances, upon the food supply, and that the size of the antlers is affected in any one year by the nutriment of the stag during the period when these were growing. The Scotch antlers, he says, are comparatively small, because the food supply is insufficient and irregular;

"the survival of the fittest" is not properly secured, and the improvement of the breed is neglected. The continental sportsman cares most for the antlers, the British for the venison, or simply for the number of the slain, so that the quality of the stag is deteriorating in the so-called forests of Scotland. The chase, by the way, in the Alpine regions takes place in actual forests, and the quarry is stalked during the rutting season, when the stag betrays his situation by his roar, and is forgetful of danger while on amorous thoughts intent. The roe deer is abundant in the north-eastern Alps, and is a plucky little animal; but the bouquetin or steinbock is now restricted to the Graian Alps, though formerly it ranged over every part. It finally disappeared from the Pennines about the middle of the present century, and would have been exterminated in the Graians by now had it not been taken under royal protection. This animal does not appear to have fallen to the author's bullet. For the details of all these and other matters we must refer to the book itself. It is well printed and well illustrated, full of interesting details of the chase and anecdotes of sport; it is redolent of the perfume of the forests and the clear air of the mountain peaks; it is the work of a ready writer, and of a lover of the Alps.

Dr. von Lendenfeld's work might be called a version of "The Alps from end to end," adapted to the ordinary traveller. It is neither a guide-book nor a systematic treatise, but it consists of a series of sections or short articles, describing all the most interesting and characteristic districts of that great mountain chain, from the shore of the Mediterranean to the neighbourhood of the Semmering Pass. There is no preface, so that we are not informed how far the book is the result of the author's personal experience, and how far a compilation; but in any parts he has drawn upon the experiences of others, the tale is told so as to make them seem his own. We can vouch from personal knowledge for the accuracy of some drawings of not very accessible places, such as the sketches of certain high peaks; so that the artist, at any rate, must have been on the spot. The stories of mountain climbs, one or two of which are introduced into each article dealing with the chief Alpine centres, are suc-

cinctly and pleasantly told. There is some history and some science, but not too much for the ordinary tourist. Alpine geology, of course, is not forgotten; but here, as the author has had to rely on the work of others, the statements sometimes are open to question. The following may be taken as an example: "Wie am Splügen durchsetz auch am Bernhardin die Trias das Urgebirge des Hauptkammes." But the infolds in the gneissic *massif* on these two passes are crystalline rocks, varying usually from marble to darkish calc-mica schists. They are identical with rocks which elsewhere are indubitably very much older than the Trias, and are about as unlike as they can be to any rock which can be proved to belong to this system. In fact their Triassic age is only a "pious opinion," and, like many such, has no scientific foundation. But the Swiss geological surveyors have not distinguished themselves in the district of the Hinter and Vorder Rhein.

The illustrations are numerous and varied; sketches

ally too prominent, the pictures are remarkably good, and exceed in quantity and quality what we should get in a book of similar price "made in England." It forms a very agreeable souvenir of the Alps, for its pages will recall pleasant memories to every tourist. So attractive indeed is it, both in illustrations and in text, that we hope the publishers will have it translated, for an English edition ought to find many purchasers in this country.

In his book on Chamonix Mr. Whymper has endeavoured, as he says, "to give in a small compass information which some may desire to have at home, and that others will wish for on the spot." Thus, while it contains all that is usual in a guide-book, it gives a good deal more, so that some of the chapters are very interesting reading. One, for instance, is devoted to the early history of Chamonix and Mont Blanc; the one, as we learn from the information which Mr. Whymper has obtained, can be traced back almost for eight centuries, while the other

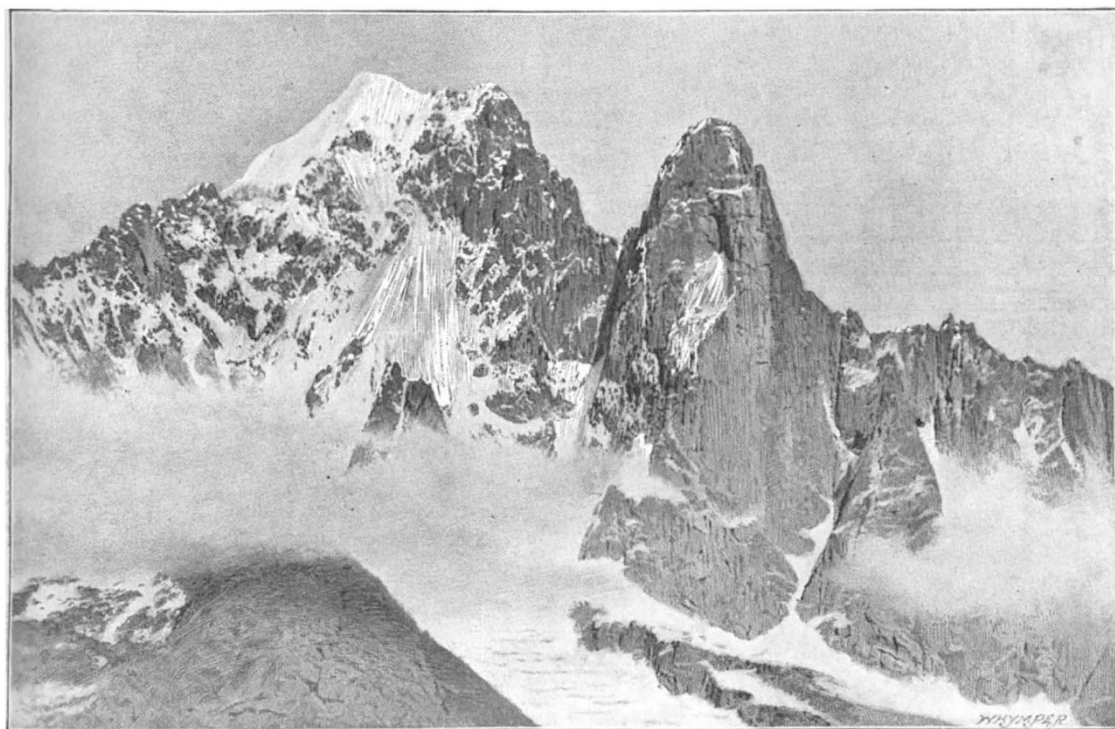


FIG. 2.—The "Aiguille Verte and the Aiguille du Dru."

of characteristic incidents of travel, such as scenes in an hotel, at the station of a mountain railway, in a market-place or at a *fête*; views by the wayside, groups of *châlets*, or bits of old architecture, churches, castles, villages, or towns. With these are numerous examples of Alpine scenery, ranging from some little wayside nook to one of the snowy giants of the chain. Many of the former are admirably done; the latter (the scenery) are more unequal. Some, such as the full-page view of the Matterhorn (by Mr. Compton), are very effective, but in others the artist has failed to catch the character of the rocks, and they are merely conventional. Another fault may be noticed, which is becoming too prominent in modern sketches—namely, a tricky disposal of the lights and shadows, which produces a "splashy" effect, and an exaggeration of the features of the scenery, so that nature is caricatured rather than depicted. Still, though the style which illustrated journals have fostered is occasion-

appears not to have acquired its distinctive name until the earlier part of the last century. We read in his pages the tale of the first attempts to ascend the mountain, of Jacques Balmat's success in discovering the route to the summit, of H. B. de Saussure's ascent, and of some of the more interesting of those accomplished by later travellers. Next comes a "chapter of accidents," giving a brief outline of those numerous catastrophes which associate the mountain with so many sad memories. Then follows an account of the attempts to use it for scientific purposes; and the remainder of the book is occupied by descriptions of the means of approaching Chamonix, of the modern village—or town, as now it might almost be called—of the various excursions from Chamonix or the immediate neighbourhood, both small and great, of the different routes to the summit of Mont Blanc, and, lastly, of the "tour" of the mountain. Needless to say that the book is well designed and well

written, because Mr. Whymper, as we know from his larger books on the Alps and the Andes, can describe as well as he can depict. It is impossible to criticise, when the author stands almost alone in his thorough knowledge of the district. There are illustrations—one of which (Fig. 2) we are permitted to reproduce—plans, and an excellent map of the snowy range. So much is given in a short compass, that it seems greedy to ask for more; but we think that, notwithstanding the full table of contents, an index would be an improvement, and that a few paragraphs on the geology and natural history of the range might be added with advantage.

Mr. FitzGerald's book, as he states, is "a simple record of adventure," but he adds very much to our knowledge of the most interesting districts of the New

Zealand Alps, the topography of which is made clear by his excellent map, founded on the latest Government Survey. The Alps of the Southern Island correspond in structure more nearly with the Pyrenees than with their European namesakes—that is, they are a single range rather than a chain consisting of a series of great parallel folds. Though the highest peak, Aorangi or Mount Cook, introduced to the notice of English climbers by the Rev. W. S. Green, attains an elevation of 12,349 feet, not many exceed 10,000 feet. The snow-line, however, is quite 2000 feet lower than it is in Switzerland, and the glaciers descend much nearer to the sea-level. On the eastern side the great Tasman glacier comes down to about 2350 feet; while on the western side, where the valleys are considerably steeper, for the watershed is much nearer that coast, the glaciers

descend more than once to 1200 feet, the Fox glacier actually ending about 700 feet above the sea. Yet the mean temperature in the latitude of Mount Cook is about 52°. As the temperature of the Swiss lowland, at an elevation of some 1300 feet, is about 47°, the difference, so far as this cause goes, is not large, and the greater extension of the snow region and descent of the glaciers must be partly due to the heavier rain (or snow) fall. Probably this is something like 150 inches on the higher parts of the western slopes, or nearly double of what it is at corresponding positions in the Alps.

The mountaineer finds the peaks and glaciers of New Zealand in many respects more difficult than those of the "playground of Europe." They are not easily reached, for at present no good roads have been made in the higher valleys; the weather is most unfavourable,

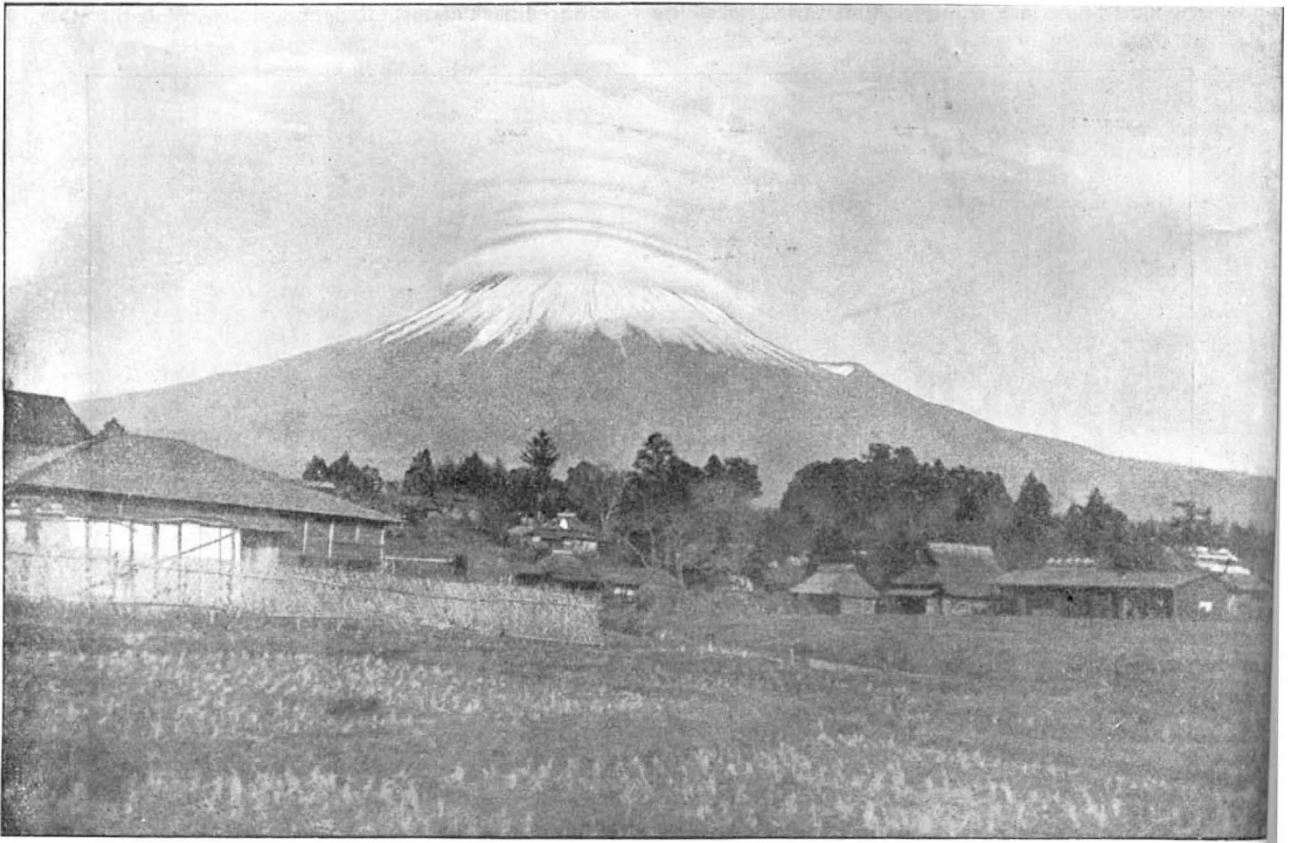


FIG. 3.—Fuji-san, with cloud cap, from the South-west.

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often persistently bad, always liable to sudden change; there is one mountain inn in the whole region; there are no châteaux, practically no guides or porters. Thus the traveller must bring a guide from Europe, must be prepared to bivouac—under what discomfort readers of Mr. FitzGerald's book will learn—on the mountain side, and to carry his own "swag." "Expensive, laborious, and often disappointing," seems to be the motto of a tour in the high Alps of New Zealand. The climber also has to face considerable difficulties, and even dangers: certainly more on the average than among peaks of corresponding elevation in Switzerland. The rock, in the parts explored by Mr. FitzGerald, is bad slate or slabby greywacke, very incoherent and untrustworthy. He had many narrow escapes, and near the summit of one peak—Mount Sefton—was only saved from a fatal fall by the

skill and strength of his guide, Mattias Zurbriggen, and by his own readiness of resource. The accident was caused by the wholly unexpected fall of a great block of stone. Notwithstanding all difficulties, Mr. FitzGerald made the ascent of four peaks hitherto unclimbed—Mount Tasman (11,475 feet), Mount Sefton (10,350 feet), Mount Haidinger (10,054 feet), and Mount Sealy (8,631 feet), and crossed three new glacier passes. One of these, though it hardly deserves the name of a glacier pass, is a discovery of importance to the colony. Till this time the great mountain wall had prevented any communication between the eastern and western coasts except by sea, so that a direct route across this barrier anywhere near the middle of the island was much desired. Mr. FitzGerald discovered a pass, which now bears his name, leading direct from one of the branches of the Tasman valley to the west coast. There is a very small glacier on the east side, and none at all on the other. It is, as he says, a pass comparable with the Monte Moro in Switzerland, and so, with some expenditure on making the track, may be easily crossed by packhorses and cattle, at any rate during the summer season. His own experience was the reverse of agreeable. Preliminary explorations with Zurbriggen showed them that the eastern side presented no difficulty, and suggested that the descent on the western would be easy. So it was for a while; then they found themselves confronted with an impenetrable "scrub" at a place where the river entered a gorge. After attempting the former, they were forced to follow the latter as the less evil way. But the result was that, instead of reaching the west coast in about twenty-four hours from the starting-point, they were out for two nights and nearly three days, having taken provisions for one day only! This difficulty of course will not recur, for a road can be easily cut through the scrub. The book is well written and illustrated, though perhaps one or two of the pictures—not made from sketches taken on the spot—are slightly sensational. Some appendices contain details of interest as to geology and natural history. It tells unaffectedly and most attractively a tale of careful preparation, bold climbing, and wonderful endurance.

Mr. Weston, while British chaplain at Kobe, spent his holidays for four years in wandering about the mountain regions of Central Japan. Of course he was often far away from beaten tracks, and saw much of the native life in its original simplicity. His experiences are described in the brightly and pleasantly written volume before us, which also contains some curious information as to the customs and the religious beliefs of the people, demonology, the "possession" of human beings by animals, ghosts, rites of incantation, such as those for affecting the weather, and the like. He seems to have found no special difficulties in travel, and generally met with a kindly reception from this quaint and courteous people, except once or twice when impediments were caused in regard to passports, or from a belief like that which formerly kept the Swiss away from Pilatus; but he had often to rough it, for the accommodation frequently is very primitive, and food is scanty. But there is one set-off in Japanese travel, that the "honourable hot-bath," as it is politely called, is a general institution. As, however, this serves many bathers without change of the water, it is well to secure an early turn.

The backbone of the Japanese Alps consists of granitic rocks with crystalline schists, through which igneous masses have been extruded. Thus some peaks are of granite, others are of felstone or old volcanic rocks, others are cones which still retain their craters. Hence the rocks are of very different ages, and some of the older exhibit marked indications of mechanical disturbances. The higher summits seem very commonly just to overtop 10,000 feet. Thus Hodakadake, the highest granitic peak in Japan, is 10,150 feet; Yurigatake, the boldest in out-

line and a "brecciated porphyry," is 10,300 feet; while Fuji-san, which exceeds all the rest by 2000 feet, being 12,400 feet, is a crater. This indicates considerable difference in age, and the chain very probably is of a complex character. Mr. Gowland, who contributes a few remarks on the geology, thinks its beginning was in Paleozoic times, when it consisted chiefly of granite and schists. All the above-named peaks and sundry others were ascended by Mr. Weston, who also crossed several passes. These generally range from about 5000 to rather more than 7000 feet. In fine weather the climbing does not seem to present many serious difficulties, but the great rock slabs are apt to be slippery in wet, and the distances traversed on foot are sometimes rather great. His verdict is that while these mountains do not display the glory of glacier-shrouded peaks, and are on a scale only two-thirds of the Alps of Switzerland, they surpass anything he has met with among the latter in "the picturesqueness of their valleys and the magnificence of the dark and silent forests that clothe their massive flanks." The larger illustrations show that this praise is not exaggerated; two of the most striking represent the granitic pinnacles of Hodakadake and the singular cone of Fuji-san capped by a "bonnet cloud." For the use of the latter illustration (Fig. 3) we are indebted to the publishers. The smaller cuts also, which represent a variety of subjects, and are in several cases excellent, add to the value of this attractive work.

T. G. BONNEY.

OYSTER CULTURE IN RELATION TO DISEASE.

UNDER the above title the Medical Officer of the Local Government Board has just issued a supplement to his report for 1894-95, dealing with reports and papers on the cultivation and storage of oysters and certain other edible molluscs in relation to the occurrence of disease in man. An inquiry on this subject was bound to be instituted sooner or later. There has been an uneasy feeling for many years past that the infection of enteric or typhoid fever is at times due to the consumption of uncooked oysters; and in his report on cholera in England in 1893, Dr. Thorne Thorne expressed his conviction that the distribution of shell-fish from Cleethorpes and Grimsby, as a centre, had been concerned in the diffusion of scattered cases of cholera over a somewhat wide area of England, owing to the fact that oysters and other molluscs at these ports were so deposited and stored as to be almost necessarily bathed each tide with the effluent of sewers at that time receiving cholera discharges. In the early part of 1895, Sir William Broadbent also publicly announced his conviction that oysters were occasionally capable of transmitting the infection of typhoid fever, and the fact received startling confirmation from a report to the State Board of Health of Connecticut, U.S.A., by Prof. Conn, on an oyster epidemic of typhoid at Wesleyan University, Middletown, Connecticut, in which some twenty-six cases of that disease were indisputably traced to the consumption of raw oysters, which had the opportunity of becoming specifically contaminated by sewage delivered at the time the discharges of typhoid patients. A similar outbreak of Saint-André de Sangoins, in the Mediterranean Department of Herault, was investigated by Dr. Chante-messe, and traced to oysters received from Cette, on the coast of the same Department, where, according to a Commission subsequently appointed, the oysters had been stored in waters highly contaminated with sewage.

Under these circumstances, the Local Government Board determined to institute a searching inquiry into the conditions of oyster cultivation and storage along the coasts of England and Wales, and to cause bacteriological investigations to be made as to the power of the