which some 169 species are recorded, the voracious habit of swallowing a prey several times its own size is extended to a powerfully dentigerous Scopeloid Odontostomus, living at 573–870 fathoms.

Most interesting among the fishes is a Scorpænoid (*Minous inermis*), trawled at 45–70 fathoms both N. and S. of the Bay of Bengal and in the Malabar Sea. It has a compound Hydroid (*Stylactis minoi*) living commensally about its branchial region, and of this creature we recall the fact that, in his original memoir upon it, the author tells us how, in the presence of two species of the genus Minous, it will select that after which he has now named it.

Numerous other fantasies are attractive features of the book, as, for example, certain stories of bird-life which have come within the experience of the author and his wife, which almost baffle comprehension. And as a noteworthy scientific fact, the author tells us that while his greatest haul was one at 188 fathoms in the Andaman Sea near the Cinque Islands, his successor, Dr. Anderson, obtained nothing on repeating it.

For those who love sensation and admire pluck, the story of the carrying away by a big shark of a drift-net, which with its sinkers weighed more than 450 lb., the two becoming involved "past all surgery," like that of the fate of the cork of a bottle of "Bass" when lowered to 439 fathoms, where the pressure is equal to two tons to the square inch, and, above all, of the loss of the cap of one of the lieutenants, while returning to the ship after the successful rescue of a gunner from the attentions of three man-eating sharks, are tales of the sea as instructive as they are exhilarating, which must be read to be appreciated.

Among the more important discoveries of the voyage emphasised in the book are those of a "solitary" coral (*Caryophyllia ambrosia*), and the giant ostracod Bathynomus and blind lobster *Phoberus caecus*, hitherto thought to be characteristic of the depths of the Gulf of Mexico; and there are endless other records little less important than these, as all familiar with Dr. Alcock's scientific memoirs may well imagine. The book is interesting and attractive from cover to cover, worthy its author's reputation as a naturalist and explorer; and we know of no popular work of the kind more trustworthy and at the same time better calculated to give the reader an insight into the nature and methods of marine investigation, and to arouse an interest in this charming pursuit and the quaint resources of the deep sea. It is one of the best natural history books published for some time, altogether admirable, and it cannot fail to be widely read and appreciated.

A TRAVELLER IN PATAGONIA.[1]

HUDSON, in his "Idle Days in Patagonia," says "It is not strange that the sweetest moment in any life, pleasant or dreary, should be when nature draws nearer to it, and, taking up her neglected instrument, plays a fragment of some ancient melody, long unheard on the earth." Perhaps in Patagonia, more than in any other part of the western continent, the traveller feels the touch of *aeons* of forgotten centuries. He finds himself in a strange, unfinished world. On the west, a belt of volcanic peaks, snow-crested and glacier-dotted, represents the last fiery effort of the Andes to divide the world into two fractions. Cradled in their ramifications lies an extensive system of great lakes of surpassing beauty—lake succeeding lake for a distance of 600 miles from north to south. On all sides are found ancient moraines and the remains of mountains which have been torn to fragments by volcanic action, and vast cañons and deep river beds through which streams have sometimes found their way to the Atlantic and then again to the Pacific Ocean, or *vice versâ*, according to the convulsions of nature. Between the Atlantic coast and this Andean belt rises terrace after terrace, representing one of the greatest Tertiary deposits known. The shingle- and basalt-covered plains are scored by violent rivers and deep, broad depressions. Everywhere are found evidences that the country has been several times submerged and raised. The plains are the home of the guanaco, the huemul, the puma, the American ostrich and countless varieties of the feathered tribe. Primitive man must have found here a rare hunting-ground. His numerous, sturdy descendants, a nomadic hunting race, without trace of agricultural life, presented a bold front to the Spanish *conquistador*. They had several tribal divisions; the Moluches, or warriors (called Araucanos by the Spaniards), occupied both sides of the Cordillera in Patagonia, and were subdivided into Pehuenches and Huilliches. The former extended to 35° south lat. and derived their name from *pehuen*, a pine tree, and *che*, meaning people. The Huilliches, or southern Moluches, had four subdivisions, and extended along the whole west side of Patagonia south to the Straits of Magellan. The Puelches, or eastern people, so-called by the Moluches, occupied the whole of Patagonia between the Atlantic Ocean and the Andes, but were split into several fractions; the most southern one was known as the Tehuelhets, but called themselves Tehuel-kunny, or southern men, generally known in early writings as Patagones, but in modern times writers have fallen into the error of calling them Tehuel-ches, applying the Araucano *che* instead of the Tehuel *het* to denote people.

All these tribes south of 36° south lat. were the scourge of the Viceroyalty of Buenos Ayres and incessantly raided the Spanish settlements as far north as the line of the present Central Argentine Railway, even as late as 1868. In 1845, they proposed to the Government of Buenos Ayres that the southern frontier of the province should be the River Salado, only eighty miles south of the city of Buenos Ayres. There is now but a remnant of them left.

Such is the country the interior of which Mr. Prichard traversed from the mouth of the River Chubut to Puerto Gallegos, covering about nine degrees of latitude, and such the "Tehuelches," the only indigenous tribe whom he met, from time to time, *en route*. His expedition was generously financed by Mr. Pearson, proprietor of the *Daily Express*, of London, with the hope of discovering a living specimen of the Giant Ground Sloth—the prehistoric Mylodon—a portion of the remains of one having been previously found, at Last Hope Inlet, by the well-known Argentine *savant*, Dr. F. P. Moreno. In his quest, Mr. Prichard was unsuccessful; and it recalls to mind that a King of Spain was also unable to obtain a live Megatherium which he had ordered a Buenos Ayrean Viceroy to obtain and send to him. But if Mr. Prichard could not bring a Mylodon to life, he has at least given a life colouring to Patagonia in his charming book. It is profusely and richly illustrated from photographs and maps drawn from the inexhaustible collection made by Dr. Moreno during his years of explorations there. After devoting a few interesting pages to the physical features of Patagonia, its discovery, and some mention of some of the travellers and writers who preceded him, Mr. Prichard takes us with him to the Welsh Patagonian settlement, at the mouth of the River Chubut, and tells us that "the older and younger generation are unlike each other now, and will probably continue to become more so as time goes on. Physically, the younger people are far better developed than their elders." The splendid climate is evidently destined to grow a superb race of men—such, in fact, as Pigafetta and others, of Magellan and Drake's

[1] "Through the Heart of Patagonia." By H. Hesketh Prichard. (London: William Heinemann, 1902.)

time, found round the margin of the country. Mr. Prichard says: "Although not giants, the Tehuelches are certainly one of the finest races in the world. Most of them average six feet, some attain to six feet four inches, or even more; and in all cases they are well built and well developed." . . . "Progress, the white man's shibboleth, has no meaning for the Patagonian. He is losing ground day by day in the wild, onward rush of mankind. Our ideas do not appeal to him. He has neither part nor lot in the feverish desires and ambitions that move us so strongly. As his forefathers were, so is he—content to live and die a human item with a moving home. . . . He is far too single-minded and too dignified to stoop to a cheap imitation."

Like many other travellers, Mr. Prichard appears to have initiated his explorations with much impedimenta, the care of which, for weeks, entailed a life of misery—eight men, sixty horses, two wagons with luxuries, and "drafts on Cook and Son" (not easily cashed at a Tehuelche bank) might have provoked some criticism from the army which San Martin marched across the Andes. But our author, be it said to his credit, soon redeemed himself and put his expedition into light marching order. In time, he might have got down to gaucho methods of travel, five horses to a man, a herd of horned cattle for food and nothing more, for months together.

A sportsman's veins must throb as he reads Mr. Prichard's volume, for it is one long tale of hunting exploits; but one must applaud the author for killing for food alone, and not for gratification of the love of slaughter. Of large game, the guanaco proved to be most abundant, but bird life was myriad. Altitude seems to make no difference to that representative of the camel species, the guanaco; he thrives equally at sea-level and, in great herds, at an elevation of from 10,000 to 13,000 feet among the Bolivian and Peruvian Andes, almost rivalling the condor in this respect.

Here and there, the author makes an interesting remark upon the effect of his surroundings on the mind: "The farther you penetrate into Patagonia, the more its vast emptiness weighs on you and overwhelms you. . . . Out there, in the heart of the country, you seem to stand alone with nothing nearer or more palpable than the wind, the fierce mirages and the limitless distances. A man accustomed to cities would here feel forlorn indeed. . . . Nature, with her large, loose grasp, enfolds you. There is no possibility of being mentally propped up by one's fellow man."

On reaching Lake Buenos Ayres, he found it "measured seventy-five miles in length; vast masses of milk-white timber, blanched by the influences of sun and water, and eloquent of the mountain land and forest whence they have been washed down, lie at the lip of the flood-level. . . . Around the lake lay piled the skulls and bones of dead game, guanaco and a few huemuels."

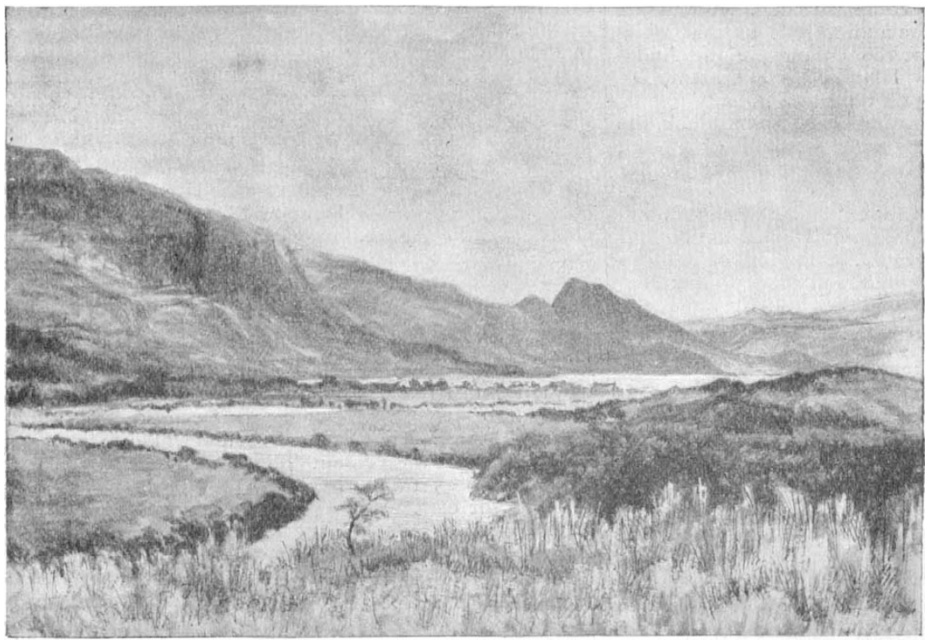

FIG. 1.—Cañadon of the River Katarina. (From Prichard's "Through the Heart of Patagonia.")

"There are many thousands of square miles of unexplored forest in Patagonia. It is a region unknown and mysterious, which has never been deeply penetrated by man owing to the practical absence of game on which he might subsist."

Mr. Prichard's book is replete with interest, and shows that he put himself into close touch with the region which he examined. His final chapter treats of the future of Patagonia, a large portion of which he believes suited to pastoral purposes. It is evident that the emigrant will soon destroy the varied and beautiful forms of animal life which nature has placed there, and substitute for them horses, sheep and other cattle—then Patagonia will be civilised.

G. E. CHURCH.

THE GEOGRAPHY OF NORTH-WEST EUROPE.[1]

IN this second volume on Europe in the new issue of Stanford's "Compendium," the chief place is given to the British Isles. Chapters on Belgium, the Netherlands, the Grand Duchy of Luxemburg, Scandinavia, Denmark and Iceland occupy about a quarter of the volume, and contain descriptions of the physical features of these countries, with brief references to the geology, and accounts of the climate, the agricultural, mining and other industries, the ethnology, and of the changes introduced by man, notably in the Netherlands. These subjects are necessarily dealt with far less fully than in the case of the British Isles.

The chief aim of the work is to show "how geographical conditions have affected the course of history." Hence it is needful to gather the lessons which geology teaches, and in dealing with our country the author

[1] "Stanford's Compendium of Geography and Travel" (new issue)—Europe. Vol. ii. The North-west. By G. G. Chisholm, M.A. Pp. xxviii + 742. (London: Edward Stanford, 1902.) Price 15s.