

The Fishes of Great Britain and Ireland. Being a Natural History of such as are known to inhabit the Seas and Fresh Waters of the British Isles, with remarks on their Economic Uses, and Various Modes of Capture. By Francis Day, F.L.S., &c. (London: Williams and Norgate, 1880-1883.)

THIS new work on the "Fishes of Great Britain and Ireland" is to consist of nine parts and about 200 plates. Of these the first six parts, bringing the pages to 176, and the plates to 132, have already appeared. Not only is the natural history of the marine and freshwater fishes given with very copious synonymy, but we find in addition the habits of the fish detailed, the means of their capture, the artificial breeding, the use for food, and the best methods of cooking given. The scientific merits of the book are such as we might expect from the author of "The Fishes of India," and from one who occupied the important post of Inspector General of Fisheries in India, while there is further, in the accounts of the habits of the fish and of their means of capture, an amount of most interesting details to the general reader and sportsman. The plates are from drawings by the author, and though uncoloured are very effective. In most cases where desirable the stomach and pyloric appendages, the air bladder or the mouth with the teeth are added to the portrait of the species. When completed the work will form a handsome royal octavo volume.

Parrots in Captivity. By W. T. Greene, M.A., M.D., and with Notes on several of the Species by the Hon. and Rev. F. G. Dutton. Coloured Plates. (London: George Bell and Sons, 1883.)

THREE parts of this well-illustrated work on parrots kept in captivity have already been published, and considering the extent to which these splendidly coloured and interesting birds are to be found domesticated in our country, this treatise on their habits will no doubt be very acceptable to many of our readers. The directions given as to their food seem based on practical experience, and will be welcome to some who in this respect may have wrongly treated some favourite bird. The author insists pretty strongly on not characterising a species by the behaviour of an individual, fairly arguing that it is just as wrong to declare that all the cockatoos are noisy and spiteful or that all the lorries are amiable and well-behaved as it would be to declare that all Englishmen are lively or all Frenchmen sad because persons of these nations had been met with having these characteristics.

Voyages of G. S. Karelin on the Caspian Sea. Memoirs of the Russian Geographical Society; Section of Physical Geography, vol. x. 497 pp. (St. Petersburg, 1883.)

M. KARELIN, who died in 1872, in the province of Orenburg, to which he was exiled in 1824, was well known to naturalists in Russia and Western Europe as an indefatigable collector in mineralogy, botany, and zoology, who supplied Russian and foreign museums with rich collections from Eastern Russia and Siberia. But, with the exception of a few papers in botany and zoology, none of his most valuable works have appeared in print. Most of his manuscripts are lost, and of his remarkable journey to the Altaï and Sayan, where he spent several years making his richest collections, only a few fragments of diaries have been discovered. Prof. Bogdanoff publishes now the two diaries that Karelin kept during his journeys to the eastern coasts of the Caspian Sea, performed in small vessels in 1832 and 1836. During the first of these voyages Karelin visited the north-eastern coast and the Gulf of Mertvyi Kultuk; four years later he visited the Gulfs of Astrabad, Krasnovodsk, Kara-Bugaz, &c., and penetrated also into the country, making an excursion into the Astrabad province, and another to the great Balkhan Mountains, where he entered into

communication with the Turkomans. All these tracts have been visited and described since, but still the reading of Karelin's diary, which shows a fine observer of the physical characters of the countries visited, and of the people met with, is a real pleasure; while numerous remarks on the flora and fauna, scattered in the diaries, have lost very little, or nothing, of their interest from the more recent descriptions. Both diaries are followed by most valuable general descriptions of the flora and fauna of the shores of the Caspian; the lists of species met with, altogether exactly determined, have been revised by Prof. Strauch and M. Gobi, thanks to the numerous collections he made during his journeys. His remarks on the old bed of the Amu-daria, which he visited and mapped in 1836 as far as 37° E. long., are fully confirmed by recent researches; whilst his descriptions of the nature and inhabitants of the province of Astrabad and of the Turkoman coast, and his remarks on the falling of level of the Caspian, are still as valuable as if they were written today. The work is accompanied with maps of the Gulfs of Astrabad, Hassankuli, and Krasnovodsk, and of the Balkhan Mountains, which enable us to conclude as to the changes in the configuration of the coast line during the last fifty years.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts, No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

The Green Sun

FOR two or three days we have been having a modified repetition of the phenomena respecting which I wrote you at some length by the last mail; while, curiously enough, if there is no connection between them, the telegraph announces fresh eruptions in Java on the 16th inst. This time, however, while there is apparently about the same smoky haze in the sky, it is much thinner, showing very plainly after the sun has set, but invisible while the sun is much above the horizon. There is also very little of the refracting medium to which I referred in my last, as there is only a slight discolouration of the sun before setting, and scarcely anything of the succession of colours afterward as compared with what we had two weeks ago. I send herewith a few clippings from Indian papers in regard to the matter. The curious appearance of two weeks ago, so far as I can learn, was not seen north of Masulipatam on this side, or Calicut on the west coast. W. R. MANLEY

Ongole, India, September 24

The following cutting, sent us by Mr. Manley, is from the *Englishman's Overland Mail* of September 23:—

Some excitement has been caused in Madras lately by the fact that many persons have observed that both the sun and the moon presented a green appearance when near setting. Prof. Michie Smith thus explains the phenomenon in the *Madras Mail*:—The appearance of a green sun is very uncommon so far as I can discover, but fortunately there is one recorded observation which throws much light on the subject. Lockyer once observed the sun to be of a vivid green when seen through the steam of a little paddle boat on Windermere. This at once points to the solution of the difficulty, and shows us that the cause of the appearance is due to water vapour in the atmosphere. That it is entirely due to this I am not prepared to affirm, for some observations of Dr. Schuster point to an influence produced by suspended matter in the air. This, however, I think we may neglect at present, and consider why the vapour which usually gives us the red sunset tints should at present give green colours. To settle this point I have made careful spectroscopic observations, and, though I have not yet reduced them, I find that they indicate a very marked absorption in the red end of the spectrum extending nearly to B, with a great development of the "rain band" near D on the red side accom-