

Barisal Guns.

IN reference to Sir Edward Fry's letter in NATURE for May 7, a fuller account of the mysterious sounds heard at Jebel Musa, and Jebel Nagus, in the Peninsula of Sinai, will be found in Palmer's "Desert of the Exodus," vol. i. pp. 217, 251. The former, which an Arab legend attributes to a fairy maiden, who fires off a gun one day in every year to give notice of her presence, "are," says the writer, "in all probability caused by masses of rock becoming detached by the action of frost, and rolling with a mighty crash over the precipice" (of 3000 feet) "into the valley below." The sounds at Jebel Nagus, which have also a legend connected with them, are undoubtedly due to the friction of rolling sand. From experiments made by the explorers, the degree of coarseness of the sand, the angle of inclination of the slope, and temperature, seem to be the controlling conditions. B. W. S.
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THE SPERM WHALE AND ITS FOOD.

OUR fund of accurate knowledge of the Cetacea being at so low a level, it is to be deplored that trained scientific observers have hitherto had few opportunities for noting under normal conditions the habits of these most interesting animals. And therefore naturalists generally will certainly hail with delight the news of the resolution of the Prince of Monaco to endeavour by all the means at his disposal to make an effective study of that least understood of all the deep sea mammalia—the great sperm whale. An observer like Dr. Scoresby who, while gaining his livelihood by the pursuit of the Greenland whale, lost no opportunity of studying that monster's manners and customs for the benefit of science generally, is still to seek for the world-wide fishery of the cachalot. This may be said without in the least minimising the excellent work done by Surgeons Beale and Bennett, who remain almost the only first-hand authorities we have on the sperm whale. They were not in command, and were consequently at a great disadvantage for making observations; for the whole crew of a whaleship are co-partners in the venture, and the essential business of oil-getting must on no account be hindered, or there is trouble all around. And since their day, unfortunately, British shipowners have had little or no interest in the southern whale fishery, while none who know what a motley crowd constitute the crews of American whalers, will be surprised that no contributions to natural history come from that quarter. I am the more pleased, therefore, that in the course of my career as a seaman, it happened that I was induced some twenty-one years ago to join a whaleship in New Zealand for a long cruise in the Southern and Eastern seas. All the average sailors' usual ignorance of the differing characteristics of different whales was mine; but so interesting did I find the study of these great denizens of the deep sea, under my extended acquaintance with them, that I seized every chance I could obtain to learn whatever I could of them, without any idea at the time of putting the knowledge so gained to any practical use. The first occasion worthy of note here was also my initial encounter with a cachalot. We were cruising the wide stretch of ocean in the South Pacific known as the "Vasquez" grounds, and sighted a small pod of sperm whales, mostly sprightly young cows, under the guardianship of two or three immense bulls. We lowered four boats, and very soon the boat in which I happened to be "fastened" a medium-sized cow, who promptly returned the compliment by rising bodily beneath the boat and ripping the bottom out of it with her hump. Of course our connection with that whale was at once severed, the task of keeping our heads above water, with our boat hardly more than a bundle of loose planks beneath us, being amply sufficient to occupy all our energies until we were rescued. In the meantime the second mate had successfully harpooned and

slaughtered another and much larger whale very near to us—so near, in fact, that we weltered in a gory sea lashed into foam by the monster's dying struggles.

Just before she died, we noticed her in the act of vomiting, and several masses of the matter-ejected floated all around us. Some of them were exactly like large blocks of blanc-mange of no particular shape, almost white, but in some instances spotted with various colours. Many of the smaller pieces, however, were unmistakably portions of tentacles; lengths bitten or torn off. These it was most easy for me to identify, even under the awkward conditions, having been long familiar with the leaping or flying squid so often picked up on deck during heavy weather, or taken from the stomachs of albacore (*Scomber thynnus*), bonito (*Thynnus pelamys*), or dolphin (*Coryphæna hippuris*). This peculiar sight, although witnessed under such difficulties, made a very definite impression upon me, and as I had always examined the contents of the stomachs of such fish as I caught, so I longed to eviscerate the captured cachalot for a like purpose, although it was evident that she had probably ejected all the food that her maw had contained. Such anatomical pursuits are, however, quite out of the question at sea in a whaleship. Those who would essay the tremendous task of disembowelling a whale while it floats beside the ship, might indeed be rewarded by a find of ambergris worth more than the whole of the blubber and spermaceti, but the chances are not sufficiently inviting to tempt whalers to undertake such Herculean labours in addition to the already heavy toil of "cutting in."

Long afterwards, while cruising in Foveaux Straits, we caught a gigantic cachalot—the largest I think I have ever seen, even in that haunt of monstrous whales. We had an easy capture, for our prize had been previously attacked by some other ship, and in various parts of his body were the *dissecta membra* of seven exploded bomb-lances. Hardly was he fast alongside when one of those furious westerly gales so common on the southern shores of New Zealand sprang up, and it was well indeed for us that we had a good port under our lee. In spite of the load we had to tow, we arrived in Port William early the next morning with our prize all safe, and at once proceeded to cut him in. While engaged in this satisfactory, if filthy, operation, some Maories and half-breeds came off, and civilly asked if they might have the carcase when we had done with it. As it was of no earthly use to us, permission to take it when we cast it adrift was graciously accorded.

By dint of strenuous toil we got to the last joint of the vertebræ by 4 p.m., and, having disjoined it, the mountain of flesh floated majestically away, to be seized immediately by the waiting beach-men, who, with incredible labour, succeeded in landing the carcase near the western horn of the little bay.

That handful of men, six in all, laboured night and day for the best part of a week to get whatever oil was contained in the skeleton, bowels, and fat about the muscles. As we had finished our labour, a grand opportunity presented itself for examining the interior economy of this whale.

The vast cavity of the stomach contained a goodly assortment of cephalopoda in a more or less fragmentary condition; for I should have said that this whale, unlike most, had not ejected his food before his death. Judging from the sizes of the tails and the girth of some of the pieces, I estimated the largest of the squid at not more than six feet long, exclusive of the head. But what struck me as most peculiar was the large quantity of *bonny* fish contained in the stomach of this cachalot. Blue and red rock-cod, groper, barracouta, and sea-bream were there—two or three bushels of them. Some were so recent as to be hardly soiled, and none bitten or damaged in any way except by digestive process.

How so vast and comparatively clumsy a creature could