

Capt. Trauzl's volume is specially and mainly devoted to the consideration of one particular class of operations to which dynamite, like gun-cotton, has recently been applied with considerable success, namely, to the removal of tree-stumps from forest-ground which is being cleared, as also to the felling of trees, the removal of piles, and similar operations. By the judicious application of these explosive agents, tree-stumps may be removed with much greater expedition than by manual labour, and the experimental results collected by the author, with special reference to this utilisation of dynamite, will be found valuable to large landowners or to those engaged in clearing land in new settlements. Many of the data given by him in regard to this application of dynamite, are confirmed by corresponding results obtained in this country in extensive experiments with both gun-cotton and dynamite.

The special information with regard to the removal of tree-stumps, &c., is prefaced by a concise account of the properties of dynamite and of the methods of preparing and exploding dynamite charges. Capt. Trauzl has done well to direct special attention to the necessity for care in handling dynamite, and especially in carrying out the essential operation of thawing frozen dynamite, the careless or ignorant performance of which has given rise to many frightful accidents. It has unfortunately been the practice with many whose interests are identified with the sale of explosive preparations of this class, to lay undue stress upon their great safety in transport and use, as compared with gunpowder, and thus to foster, to a very lamentable extent, the tendency to recklessness which is specially prevalent among the class of people who have to employ those explosive agents.

Capt. Trauzl concludes with a chapter on the application of dynamite to the breaking up of ground for agricultural purposes. It appears doubtful whether even the less violent forms of dynamite, the employment of which is suggested for this purpose (for which a comparatively gradual explosive effect is most advantageous) are likely to prove superior to gunpowder for this special application.

OUR BOOK SHELF

The Crimea and Transcaucasia; being the Narrative of a Journey in the Kouban, in Gouria, Georgia, Armenia, Ossety, Imeritia, Swannety, and Mingrelia, and in the Tauric Range. By Commander J. Buchan Telfer, R.N. Maps and Illustrations. Two Vols. (London: King and Co., 1876.)

THE author of this work took advantage of a three years' residence in Southern Russia to make acquaintance with the region to which his work refers, and which is pretty adequately indicated in the title. He does not, however, give a regular narrative of the visit he made to various places at various times, but arranges all the information he has collected along a route supposed to occupy ninety-two days. In this way a large tract of ground is gone over systematically, commencing at Sevastopol, visiting the surrounding district, coasting and touching at several places in the Crimea, crossing over to Circassia, coasting south to Poti, and penetrating through Mingrelia, Imeritia, and Georgia, south to Mount Ararat, and as far north as the country of the Ossety and the Swannety. Although no doubt many travellers pass through these countries, yet they have really been little explored, and in

Commander Telfer's work will be found much information that, we are sure, will be new to the majority of readers. His account of the Swannety, especially, a curious mongrel, half savage people, to the north of Mingrelia, will be somewhat of a surprise to many. But the author has trusted not only to his own observations; he has taken evidently great pains to make himself master of all that is known of the history and antiquities of the region to which his work refers. This information he judiciously mixes up with his own observations, and the result is a work which may be regarded as a standard book of reference for the extremely interesting districts to which it refers. With its two good maps and its many illustrations, and its substantial and attractively put together information, it ought to take a prominent place among works of travel.

LETTERS TO THE EDITOR

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The Basking Shark

IN NATURE, vol. xiv. p. 313, Prof. E. Perceval Wright gives some account of the Basking Shark, with especial reference to the curious pectinated appendages which lie along the branchial arches of that huge fish. His paper is illustrated by a characteristic woodcut from a drawing by Prof. Steenstrup, who had recently described these appendages, and who finds that they were alluded to by Bishop Gunnerus, about 100 years ago. Prof. Wright also gives a very interesting original figure of one of the branchial arches with the appendages attached.

Prof. Wright's notice will be welcomed as a further contribution to the history of a very remarkable and little-known structure. In one point, however, his description will need correction, for he speaks of the appendages in question as composed of a whalebone-like substance. They are nevertheless essentially different from whalebone, and were it not for their whalebone-like colour and for their pectinated arrangement, somewhat like that of the balene-plates of a whale, their comparison with whalebone would scarcely have suggested itself. Though elastic, they are hard and brittle, and when bent beyond a very limited angle, they snap like a plate of steel.

In consequence of the rarity of the opportunities afforded to anatomists for the examination of the Basking Shark, the pectinated appendages have hitherto received but little of the notice which is due to such a singular anatomical character, and the readers of Dr. Wright's communication might easily believe that since the days of Bishop Gunnerus no one but Prof. Steenstrup and himself had called attention to their existence.

It is now more than thirty years ago that in a communication to the Dublin Natural History Society I placed on record the capture of a Basking Shark on the south coast of Ireland and described the pectinated appendages as fully as the mutilated state of the specimen would allow. Since then I have in vain watched for an opportunity of further investigating the anatomy of the great shark.

The following is the abstract of this communication, published at the time in *Saunders's Newsletter*, which was then the vehicle for the proceedings of the Society. It contains perhaps little which has not been since noticed by Prof. Steenstrup and Prof. Wright, but I may nevertheless be permitted to quote it in order to show that the subject has not been so entirely ignored as the readers of Dr. Wright's paper might suppose:—

"A paper was read by Mr. Allman upon the recent occurrence on the Irish coast of the great Basking Shark, *Selachus maximus*, Cuv. This fish had been entangled in the trammels of the fishermen, and towed into the strand at Coolmain, on the southern coast of the county of Cork, when it was almost immediately cut in pieces by the country people with the expectation of obtaining oil from it. . . . The principal object of Mr. Allman's communication was to notice an interesting fact in the anatomy of this fish, which had not been hitherto described. The fact alluded to was the existence along each of the branchial arches of a very curious and beautiful pectinated structure consisting of a series of narrow elastic laminae arranged with great