

vations, occupy at this season a belt of loose rocks along the shore, varying in width from five to forty rods. Twelve miles of shore line at least are taken up by what is called their "breeding rookeries" in this island, and are tenanted by not less than 1,152,000 breeding males and females, according to Captain Bryant's estimate. Each male seal stations himself in a particular spot, usually the same as he has occupied in former years, and keeps about a square rod of ground free around him to afford space for the reception of his ten or fifteen wives. By the 15th of June all the males have arrived, and have stationed themselves each in his own domain, not without constant growlings and fightings with his neighbours for what he considers the best station. The young males are not allowed to take a place in the "rookeries," but are driven by the patriarchs back into the sea, or compelled to resort to the high rocks above. After the middle of June, the females arrive; in small numbers at first, but increasing as the season advances, until the middle of July, by which time they are so crowded together that they often overlap one another. The old males who are nearest the shore seize upon the females at once, and of course fill their harems first. But the males who are higher up on the rocks select the time when their more fortunate neighbours are off guard to steal their wives, taking them up in their mouths, and carefully carrying them off to their own dominions, as a cat would her kittens. Struggles often occur between two males for the possession of the same female, and both seizing her at once, terribly lacerate her with their teeth. When his harem is full, the old male struts complacently around reviewing his domestic circle, and fiercely driving off all intruders. Two or three days after landing and taking up her abode, the female brings forth her single pup, after which she is ready to associate with the male. By the middle of August the young are all born, and the females are again pregnant. The old males having been constantly in their stations for four months *without food*, now leave the females and young to the company of the younger males, and go off-shore to feed. At the end of October the whole body of seals leave the island and journey southwards.

The greatest care is taken by the hunters never to disturb the breeding places of the seals in any way, and the only seals killed for the sake of their fur are the younger animals (principally males) that resort to the higher rocks above the rookeries to pass the night. A party of men armed with clubs surround a portion of the herd and drive them off sometimes six or seven miles across the island, to the place selected for killing and skinning them. By this plan the rookeries are less liable to be alarmed, and the seals are made to carry their own skins to the salting houses, which would otherwise be a work of much labour. At the present time the annual yield of seal-skins from the Pribyloff Islands is estimated to have reached 100,000, and the killing yearly of this number is believed in no way to check their increase, but rather to augment it.

This short sketch will serve to give an idea of Captain Bryant's account of the extraordinary habits of this animal, and of the way in which the large annual supply of the much-valued seal-skin coats of civilised life is produced. Many other details of the highest interest are added, for which we must refer our readers to the original article. Although several accounts have been already published of the habits of other species of this group, none, we believe, is so full and perfect as the present, which forms a valuable appendix to Mr. Allen's excellent essay already spoken of. In short, it may be truly said that, by this single memoir, more extensive knowledge has been gained concerning this little-known group of mammals than by the half-dozen different systems of arrangement of them which have lately emanated from the British Museum, and the publication of an indefinite number of (so-called) new genera and species founded upon stray skulls and imperfect skins.

P. L. S.

SCIENTIFIC TEACHING IN ELEMENTARY SCHOOLS

THE following address, signed by Prof. Huxley, as President of the British Association, has been presented to the Vice-President of the Council by a deputation, consisting of the President of the Association, the General Secretaries, and the Treasurer; Sir Charles Lyell, Bart.; Sir John Lubbock, Bart., M.P.; Dr. Lyon Playfair, M.P.; and Mr. Francis Galton:—

"The deputation from the Council of the British Association for the Advancement of Science waits upon you for the purpose of urging the advisability of including elementary Natural Science among the subjects for which payments are to be made under the authority of the Revised Code. We have asked you to receive us at the present time because we understand that you have announced your intention of making certain modifications in the Code. Our reasons for requesting you to give direct encouragement to the teaching of Natural Science in elementary schools are three. Firstly, we conceive such teaching to be one of the best instruments of education in the sense of intellectual discipline, and in many respects better calculated to awaken intellectual activity than other studies; secondly, we think that a knowledge of the elements of Natural Science has a high value as information; and thirdly, we are of opinion that scientific training and teaching in the elementary schools will afford the best possible preparation for that technical education of the working classes which has become indispensably necessary to the industrial progress of the country.

"We take the liberty of pointing out to you that, in asking for the introduction of scientific teaching into the elementary schools, we are not seeking for the creation of a new system or even of new executive machinery. The Science and Art Department does already provide for elementary scientific instruction; and all that is necessary to fulfil our desire is, that the system of the Science and Art Department and that of the Revised Code shall be brought into harmonious co-operation. In preferring the request that instruction in the elements of Science shall be made part of the regular course of instruction of all elementary schools, we desire carefully to guard against the supposition that we are seeking for such an amount of this kind of instruction as would interfere with the teaching of reading, writing, and arithmetic, and the other essential constituents of primary education. On the contrary, we think it very desirable that systematic instruction in elementary Science should be given only to those scholars who are able to read and write fairly; that it should be limited to certain well-defined subjects, such for example as elementary physical geography, elementary physics and chemistry, elementary botany, and, in consequence of its relation to the public health, elementary human physiology; and that care should be taken to make the instruction, so far as may be, real and practical.

"Finally, we desire to point out that such scientific instruction in the elementary schools as we pray for, would afford a means by which any child of exceptional aptitude for scientific pursuits might obtain the education suited to its capacity in the higher schools, and that in this way advantages similar to those which are offered by the scholarships and exhibitions of grammar-schools to the children of the well-to-do classes of society, would be extended to the poor and necessitous. In other countries in which well-organised systems of secondary education for the working classes exist, it has been found necessary to give a taste for Science in the elementary schools, so that the youth of the country may be induced to take advantage of the more advanced schools. While, therefore, we look with pleasure to the introduction of Science into the endowed schools of the country, we still believe that it will be necessary to link them to the elementary schools by commencing instruction in Science in the latter."