## BIRDS, GAME, AND TREES.[1]

MR. KEARTON'S books on British birds (1) are so well, and deservedly, known, that the new edition of his work entitled "British Birds' Nests" calls for only a brief notice. The original edition first saw the light in the autumn of 1895, and was the first book of its kind to be illustrated throughout by means of photographs taken direct from nature, and was declared by the late Dr. Bowdler Sharpe to "mark a new era in natural history." This was followed in 1891 by another volume, entitled, "Our Rarer British Breeding Birds." The present revised and enlarged edition of the first work contains the best of the pictures that appeared in the pages of the second, together with numerous photographs secured during the intervening years. To give an idea of the time and labour expended in gathering materials for this book, it may be mentioned that Mr. Richard Kearton, with his brother, Mr. Cherry Kearton, to whom, we understand, most of the photography is entrusted, have travelled more than thirty thousand miles and exposed more than ten thousand plates to secure the necessary illustrations of nesting sites and birds. In addition to the photographs, the book is illustrated with fifteen coloured plates of eggs.

Within the last ten years or so, the question of the preservation of wild animals from extermination at the hands of sportsmen and traders, who serve the fur and feather markets of the world, has pushed itself insistently to the front, and Dr. Hornaday's powerfully worded appeal (2) for the instant passing of legislative measures to arrest the imminent extinction which threatens some of our finest mammals and most beautiful birds—an appeal backed by incontrovertible statistics—is addressed to the sportsmen and governing bodies of every civilised state in the world. Much has been attempted already in this direction both in America, Africa, and Australia; but Dr. Hornaday's investigation of the question so far as Canada and the United States are concerned has revealed "a mass of evidence proving that . . . the existing legal system for the preservation of wild life is fatally defective," and that those who imagine the protective measures to be effectively operative are living in a fool's paradise. In a great measure this is due to the circumstance that fully 90 per cent. of the protective laws have been practically dictated by the killers of the game, with the result that in all but a few instances "open seasons" for slaughter have been carefully provided for so long as any game remains to be killed. According to Dr. Hornaday, whose authority in such a matter no one will be prepared to dispute, the point has now been reached where a choice has to be made between the enforcement of long closed seasons and a gameless continent!

An osprey and its eyrie. From "British Birds' Nests."

[1] (1) "British Birds' Nests: How, Where, and When to Find and Identify Them." By Richard Kearton. Illustrated from Photographs by Cherry and Richard Kearton. Pp. xii+520+plates. Revised and Enlarged Edition. (London: Cassell and Co., Ltd., 1913.) Price 14s. net.

(2) "Our Vanishing Wild Life: Its Extermination and Preservation." By Dr. W. T. Hornaday. Pp. xvi+411. (New York: Charles Scribner's Sons, 1913.) Price 1.50 dollars.

(3) "Trees in Winter: Their Study, Planting, Care and Identification." By Dr. M. F. Blakeslee and Dr. C. D. Jarvis. Pp. 446. (New York: The Macmillan Company; London: Macmillan and Co., Ltd., 1913.) Price 8s. 6d. net.

The first part of the book tells the pathetic tale of the causes and factors of extermination, mainly of birds and mammals, in process all over the world, from the song-birds of Europe and the Southern States of America, to the pheasants of the east and the big game of Africa. In the second part he deals with the economic and other reasons for the preservation of species, with the laws that should be passed to achieve that end, with game reserves, &c. The book is well illustrated with figures of many of the interesting species threatened with extermination, and with maps showing their past and present distribution.

"Trees in Winter" (3) is essentially a work on arboriculture. By the term winter the authors mean that period when the tree is in its resting condition, a period which may be considered to extend from the shedding of the leaves in the fall to the bursting of the buds in the spring, which varies for different trees in different localities. In the north-eastern United States, for instance, it may begin as early as the latter part of September, and may extend even into the middle of May.

The subject-matter is divided into two parts. Part i. deals with the buying, planting, and care of trees mainly during their dormant condition, but it also contains much valuable information, and many important hints on spraying and the treatment of fungus growths and insect pests during the growing season. It was written primarily for the use of those who possess trees of their own in gardens or parks, and not for a municipal tree-planting commission. Nevertheless, it will be of inestimable service to those responsible for the well-being and upkeep of trees in the streets and public squares within city precincts. This part was specially written at the request of the publishers as an economically useful addition to part ii., the material of which first appeared in pamphlet form as a bulletin of the Storrs Agricultural Experiment Station, and proved in such demand, especially for use in schools, that it seemed desirable to issue it in book form, and thus render it more widely available than would be the case if its circulation were restricted to the limitation of a State publication. This part deals with the identification of trees. It leads off with an analytical key to the genera and species; and this is followed by detailed descriptions of the species, systematically arranged, every species being illustrated by photographs showing its mode of growth, its twigs, fruit, and other structural details.

Although the trivial names employed are not always the same as those used in England—what we commonly know as the plane tree, for instance, is called the sycamore—this fact will in no way detract from the value of the book to arboriculturists in this country, because the admirable descriptions and pictures make confusion of the species impossible.

R. I. P.

## THE MINERAL RESOURCES OF THE UNITED STATES.[1]

THE record of the annual mineral production of the United States has now increased in size until it occupies two large volumes of 2242 pages in all. These form a storehouse of information concerning a number of matters connected directly or indirectly with the mineral industry of America, whilst statistics of, and information about, the production of minerals in other parts of the world are given for the purpose of comparison. The methods are the same as those employed in previous years, one of the two volumes being devoted to the metalliferous minerals and the other to the non-metals. From the economic point of view the latter are the more important, the value of the coal production of the United States being nearly one-third of the total value of the whole of the mineral products, this latter amounting to the huge sum of close upon 400,000,000*l*. As the population of the United States is just about 92 millions, the annual mineral production amounts to well over 4*l*. per head of the population.

The above total shows a small decrease, equal to 2·65 per cent., on the value of the production in 1910, in which latter year the record value attained in 1907 had again been nearly reached. Practically the whole of the above drop was due to a decline in the value of the pig-iron production, the statistics for the metalliferous minerals being based, as in previous years, upon the metals produced from the ores, and not upon the ores themselves. The production of pig-iron in 1911 was 23,649,547 tons, as against 27,303,567 tons in 1910, a decrease of 13·3 per cent., whilst the output of iron-ore declined simultaneously from 51,155,437 tons to 40,989,808 tons, equal to a decrease of 23·4 per cent. The only cause that can be assigned for this decrease was over-production in 1910, which necessarily caused a decreased demand in 1911. It is quite certain that this decrease was in no way due to natural causes, the capacity of the mines to produce the requisite supply of iron-ore being in no way diminished.

The output of gold was practically unchanged, whilst that of silver showed a moderate increase; in the same way there was but little difference in the copper production, whilst in the production of lead and zinc increases were shown, though in no case of any great importance.

The coal output in 1911 was but little less than in 1910, namely, just over 496 millions of tons, as against about 501½ millions of tons in 1910. In 1911 the production of petroleum, on the other hand, showed an increase, namely, 220½ millions, as against 209½ millions of barrels.

In a similar way fluctuations, though not to any marked extent, occur in the less important mineral products, but the net result left by the perusal of these statistics is the distinct impression

[1] "The Mineral Resources of the United States, Calendar Year 1911. Part i. Metals. Pp. 1013. Part ii. Non-metals. Pp. 1224+maps. (Washington: United States Geological Survey, Government Printing Office, 1912.)