yard or two the position of his boundary, and made the fact quite clear to any other robin who did not. Moreover, the author found that it was not easy to drive them out of their own little estate, to which they invariably returned immediately.

The intention of making life habits the chief feature in the work is fully carried out in the last two sections. A notice inserted in the last part informs readers that in order to render the notes on Distribution more complete, the range of each species outside its breeding area will be briefly indicated.

Mr. A. W. Seaby's pictures are as charming,

Photo] [*W. Farren.*

FIG. 2.—Reed-warbler feeding its young. From "The British Bird Book."

spirited, and lifelike as ever—quite the most original and refreshing bird pictures we have seen for long—and there are excellent plates of the rosy pastor, golden oriole, and waxwing by some of the other artists who contribute to the work.

A MONUMENT TO JANSSEN.

AN influential committee has been formed to raise to the memory of Janssen a durable monument which shall recall to the minds of those who see it the enormous and brilliant services rendered to astronomy by the great French *savant*.

A man of rare breadth of mind, it was not simply to any one branch of the oldest science that Janssen turned his attention, but he will be remembered chiefly for his fruitful researches in astronomical physics. That brilliant discovery, shared by Lockyer, in 1868, will probably be the *lucida* of his labours, the method of observing solar prominences, of drawing and measuring those enormous solar flames, without waiting for the rare and uncertain seconds of a total solar eclipse. Only those whose work it is to observe and to study solar phenomena know how much of our present knowledge is due to the timely discovery of this method. By this have the labours of the discoverers, of Respighi, of Young, of Tacchini, Ricco, Hale, and Deslandres, and of many others become productive. Janssen from India and Lockyer from West Hampstead sent messages to the French Academy which arrived almost simultaneously, and immediately a new era in the rapidly expanding knowledge of the sun's physical and chemical attributes was opened.

Janssen also studied with great assiduity and marvellous results the laws of the absorption and transmission of light travelling through gaseous media, and thereby laid foundations on which have since been erected wonderful superstructures. As an organiser he was in the forefront. His photographs of the solar surface were magnificent and have never been excelled. It is to Janssen that we owe the establishment of the solar observatory on Mont Blanc, whither, in spite of his lameness, he made many ascents.

All this will count as an imperishable monument to those who know aught of astronomical physics. We heartily sympathise with the aims of the committee which has charged itself with receiving subscriptions to this end, and below give the names of those who have already joined:—MM. Armand Gautier, président de l'Académie des Sciences; G. Lippmann, vice-président; G. Darboux, secrétaire perpétuel; Ph. Van Tieghem, secrétaire perpétuel; C. Wolf, doyen de la Section d'Astronomie; Henri Poincaré, de l'Académie Française; G. Bigourdan, de l'Institut; J. Violle, de l'Institut; B. Baillaud, directeur de l'Observatoire de Paris; Prof. Chauveau, de l'Institut; De Selves, préfet de la Seine; Daumet, de l'Institut; Edmond Perrier, directeur du Muséum; Prof. Bouchard, de l'Institut; Alfred Grandidier, de l'Institut; Prof. Lannelongue, Sénateur; Dr. Roux, directeur de l'Institut Pasteur; R. Radeau, de l'Institut; G. Lemoine, de l'Institut; H. Deslandres, directeur de l'Observatoire de Meudon; M. Hamy, de l'Institut; P. Puiseux, astronome à l'Observatoire de Paris.

PIERRE ÉMILE LEVASSEUR.

BY the death of Pierre Emile Levasseur both geography and economic science in France have sustained a severe loss. Born on December 8, 1828, Prof. Levasseur devoted his energies during a long life to demonstrating the importance of a right appreciation of geography in its application to man and of economic science. As early as 1863 he published a "Précis d'Histoire de France" and a "Précis de Géographie," and throughout many years of active work in economic geography he always aimed at the highest precision in his studies with the view of building up a truly scientific type of geography and insisting upon the educational value of the subject when so treated. He especially directed his efforts towards a thorough understanding of the economic geography of France, but he also travelled widely in order to study economic conditions occurring in other lands; a journey to the United States in 1853 resulted in an important work, "L'Ouvrier Américain," and the same line of investigation, followed up both historically and economically, produced important studies on the working classes in France up to the time of the Revolution, and a later work dealt with their

condition under the Third Empire. Working in such fields, his attention was early directed to statistics, and in his important work "La Population Française" he not only treats of the geographical aspects of the question, but deals with it statistically and points out the importance of the proper use of statistics in all questions of applied geography. In all that relates to human geography, the definiteness which we meet in physical geography is only attained with difficulty, and by the careful and prudent use of the best statistical material available. In this direction Levasseur's work furnishes many examples of the highest value as giving a truly scientific form to investigations which, from the numerous factors involved, are too often treated superficially.

H. G. L.

THE BRITISH ASSOCIATION AT PORTSMOUTH.

AS we went to press last week, the concluding meeting of the British Association at Portsmouth was being held; and the thanks of the Association were being expressed to the local authorities for the work they had done and the trouble they had taken to make the visit to Portsmouth pleasant and memorable. Everyone agrees that the Portsmouth meeting was most enjoyable; and well it might be, considering that it was held at a seaside resort during the season when "sunny Southsea" is full of attractions. In spite of great difficulties, the Mayor (Alderman T. Scott Foster) was able to arrange for the accommodation of the secretaries and other officials in the best hotels, and to provide hospitality for distinguished visitors. There was little private hospitality, and the grant of 3500*l.* made to the Mayor by the Corporation of Portsmouth for the entertainment of the visitors can scarcely have covered the expenses involved.

The best thanks of the world of science are due to the Mayor and the Corporation for the public spirit they have shown in making provision for the meeting, in spite of a certain amount of local opposition to the necessary expenditure. The actual work of local arrangements has, of course, fallen largely upon the shoulders of the local secretaries, namely, the town clerk (Mr. G. Hammond Etherton) and the medical officer of health (Dr. Mearns Fraser). Only those who have had to be responsible for the organisation of a meeting such as that concluded last week can understand how well the thanks received by the local secretaries are merited. The total attendance at the meeting was 1,241.

Of the attractions provided for the entertainment of the visitors, the naval display, which was viewed from the battleship *Revenge*, was most impressive; and it will long remain in the memories of the large party privileged to see it. The Association owes this distinctive feature to the Commander-in-Chief, Admiral Sir William Moore, who, in acknowledging the vote of thanks to him and the officers and men of the Royal Navy for the display, paid a generous tribute to the work of science. "When I am at sea," said Sir William, "Lord Kelvin's compass and sounding-line make me think of him with gratitude twenty times a day"; and, referring to Sir William White, who proposed the vote of thanks, he remarked, "He has given us the greatest essential in the design of our ships, namely, a steady gun-platform."

On account of the naval display, it was impossible for the Committee of Recommendations to decide upon the grants for scientific purposes on the Monday, so the subjoined list, which was adopted by the General Committee on Wednesday afternoon, was not available for publication last week. The total is 40*l.* less than last year.

GRANTS OF MONEY APPROPRIATED FOR SCIENTIFIC PURPOSES BY THE GENERAL COMMITTEE AT THE PORTSMOUTH MEETING.

	£
Section A.—Mathematical and Physical Science.	
Seismological Observations	60
Upper Atmosphere	30
Magnetic Observations at Falmouth	25
Establishing a Solar Observatory in Australia	50
Grant to the International Commission on Physical and Chemical Constants	30
Tabulation of Bessel Functions	15
Section B.—Chemistry.	
Study of Hydro-aromatic Substances	20
Dynamic Isomerism	30
Transformation of Aromatic Nitro-amines	10
Electroanalysis	10
Plant Enzymes	30
Section C.—Geology.	
Erratic Blocks	5
Palæozoic Rocks	10
Composition of Charnwood Rocks	2
Igneous and Associated Sedimentary Rocks of Glensaul	15
List of Characteristic Fossils	5
Sutton Bone Bed	15
Benbridge Limestone	20
Section D.—Zoology.	
Index Animalium	75
Table at the Zoological Station at Naples	30
Belmullet Whaling Station	20
Secondary Sexual Characters in Birds	10
Section E.—Geography.	
Equal Area Maps	20
Calculation of Areas on the Spheroid	25
Section G.—Engineering.	
Gaseous Explosions	60
Section H.—Anthropology.	
Glastonbury Lake Village	5
Age of Stone Circles	15
Anthropological Notes and Queries	40
Artificial Islands in Highland Lochs	13
Physical Character of Ancient Egyptians	40
Excavations in Easter Island	15
Anthropometric Investigations in British Isles	5
Section I.—Physiology.	
The Ductless Glands	35
Table at the Zoological Station at Naples	20
Anæsthetics	20
Calorimetric Observations	40
Section K.—Botany.	
Structure of Fossil Plants	15
Experimental Study of Heredity	35
Survey of Clare Island	20
Jurassic Flora of Yorkshire	20
Section L.—Education.	
Mental and Physical Factors	5
Overlapping	5
Industrial and Poor Law Schools	10
Influence of School Books on Eyesight	5
Corresponding Societies Committee.	
For Preparation of Report	25
Special Grant.	
Collections to illustrate Natural History, &c., of the Isle of Wight	40
Total	1050