

Catalogue of Scientific Papers. Fourth series (1884-1900). Compiled by the Royal Society. Vol. xiii., A-B. Pp. xcvi+951. (Cambridge University Press, 1914.) Price 2l. 10s. net.

THE fourth series of the Royal Society's Catalogue of Scientific Papers, of which the present is the first volume, comprises the titles of papers published or read during the period 1884-1900, and concludes the work undertaken by the Royal Society. The catalogue thus completed will contain titles of papers for the whole of the nineteenth century. The continuation of the work is now in the hands of the authorities of the International Catalogue of Scientific Literature, which deals with the titles and subjects of papers published after the end of 1900.

This volume contains 11,551 entries of titles of papers by 2001 authors with the initial A, and 51,720 entries of papers by 6928 authors with the initial B, making a total of 63,271 entries by 8929 authors.

A list of the 1555 serials which have been examined for the preparation of this section of the catalogue, with the abbreviations used for their titles, is given at the beginning of the volume.

The complete risk of printing and publishing the Catalogue of Scientific Papers and the Subject Index has been undertaken by the Cambridge University Press, and we echo the hope of the Catalogue Committee that the circulation of the volumes throughout the scientific world will be large enough to prevent financial loss.

LETTERS TO THE EDITOR.

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The Peregrine Falcon at the Eyrie.

IN the notice of Mr. Heatherley's "The Peregrine Falcon at the Eyrie" (NATURE, August 6, p. 586), that author is quoted for the previously "unrecorded fact that after the first few days the falcon turned over to the tiercel the duties of her sex, spending his time abroad hunting and bringing the quarry to the tiercel, who remained at home to feed and look after the young." This sentence in its wording appears to treat the falcon as male, the tiercel as female; the reverse being, however, the correct use of these terms. As Harting ("Birds of Shakespeare," p. 52) says: "By the falcon is always understood the female, as distinguished from the tercel, or male, of the peregrine or goshawk."

W. E. HART.

Kilderry, Londonderry, August 7.

MR. HART is quite correct. The term "tiercel" has always been applied to the male peregrine falcon, cf. Newton's "Dictionary of Birds" *et passim*. The notice in which the quoted sentence occurs was contributed from the reviewer's sick bed, and he is only now aware that a point of interrogation after "his" and before "time," which was in his original draft, had dropped from his MS. and its omission had escaped him in the proof.

THE REVIEWER.

PRACTICAL EDUCATION.¹

THE title of Mr. Legge's book is suggestive of a painting in the University of Bologna, in which Science is represented by a female figure with eyes in each of her extended hands. We are so apt to speak of "seeing" when we mean "perceiving" that we forget that the blind can see with their hands, and that science throughout the centuries has achieved most of her triumphs by the knowledge acquired by means of hand-work. It was early explained that the chief educational advantage of manual training was to exercise the hand from childhood as an instrument for acquiring knowledge, and so to create an additional perceptive sense.

Since the years 1887-1890, when hand-work was first introduced as a scientific experiment into elementary schools, and was then proved to be the means of stimulating the intellectual activity of children, making them more alert in all other studies, the advances in this new educational departure, if not rapid, have been unbroken, and have been carried forward in many different directions. The recognition of the value of manual work in the education of children is now very general. Nevertheless, Mr. Legge has devoted some of the few pages of his letterpress in answering those opponents who, in the early history of the movement, charged its advocates with infringing the principles of elementary education, with trenching on technical instruction and prematurely encouraging vocational teaching.

Mr. Legge has successfully refuted all these arguments. In the chapter of his book headed, "The Growth of an Idea," he has not attempted to give anything approaching to a history of the movement, or he would have referred to those early efforts which in 1890 induced the then Education Department to include in the Code of that year regulations for the teaching of hand-work under conditions carrying a Government grant. Indeed, the few short chapters of his book, although well worth reading, are not intended to add anything to what may be found in other treatises. In his own words, "The letterpress is here simply to explain and lead up to the illustrations," which, he states, are designed to give the general public a view of the practical side of the instruction now provided in schools.

These illustrations, more than four hundred in number, admirably fulfil that purpose. They show how varied may be the exercises which are now practised in the conduct of the modern side of elementary schools, and experience has fully borne out his contention that these exercises are all, or nearly all, equally efficient in stimulating the intelligence of children. Indeed, the value of manual training is shown to depend far more on the method of instruction than on the materials employed, or on the models that are made. The illustrations, of which this book largely consists, show children occupied with educational exercises in such diverse materials as wood and metal,

¹ "The Thinking Hand; or, Practical Education in the Elementary School." By J. G. Legge. Pp. x+217. (London: Macmillan and Co., Ltd., 1914.) Price 8s. 6d. net.