

under each, their insect enemies are enumerated. Fruit-growers who find their trees or bushes suffering from the attacks of insects, cannot do better than refer to this book to discover the cause and remedy. In a few touching lines, Miss Ormerod dedicates the book to the memory of her sister and co-worker, Miss Georgiana M. Ormerod, who was equally interested in entomological inquiries with herself. W. F. K.

Gas and Petroleum Engines. Translated and adapted from the French of Henry de Graffigny, and edited by A. G. Elliott, B.Sc. Pp. x + 140. (London: Whittaker and Co., 1898.)

A READABLE and instructive account of gas and petroleum engines is given in this little volume. The text can be easily followed by non-technical readers interested in gas and oil engines in use at the present time, and engineering students will find in the volume a good general survey of internal combustion motors. The subjects of the eight chapters are: the history of the gas engine, working principles of the gas engine, description of existing gas engines, carburetted air engine, petroleum engines, gas generating plant, engines for use with poor gases, and maintenance of gas and oil engines.

The Story of the Farm, and other Essays. By James Long. Pp. xv + 158. (London: *The Rural World* Publishing Company, 1898.)

THE essays in this volume refer more to the economics than the science of agriculture. The author, who has had a long experience of agricultural public life, and has contributed many valuable manuals to the literature of farming, acknowledges that agriculturists fail to recognise the two great elementary requirements of the hour—technical instruction, to which alone farmers can look for their advancement in knowledge and success, and co-operation. The Countess of Warwick contributes an introduction to the volume, on "Women and the Future of Agriculture."

Publications of the British Fire Prevention Committee. Edited by Edwin O. Sachs. Vol. i. (London: British Fire Prevention Committee, 1898.)

TEN papers on methods of fire prevention and kindred subjects appear in this volume, which represents the first fruits of the establishment of the British Fire Prevention Committee. The papers call attention to the need for increased protection from fire by preventive measures, wider knowledge of methods of fire-combating, investigations of materials and forms of construction, and research into the causes of fires. They should thus be the means of imparting very useful knowledge, and obtaining active support for the movement for better preventive measures against fire, which led to the formation of the Committee under whose auspices this volume has been published.

The Story of the Cotton Plant. By F. Wilkinson, F.G.S. Pp. 199. (London: George Newnes, Ltd., 1898.)

THIS latest addition to the Library of Useful Stories, written by the director of the Textile School at Bolton, gives a clearly expressed and popular account of the chief cultivated species of the cotton plant, the pests and other injurious agents which molest them, and the methods of cultivation in different countries. The processes of picking, ginning and baling are described, and the plans for manipulating the cotton in carding, drawing, &c., dealt with. The early attempts at spinning are passed under review, and pave the way for an account of the modern spinning mule and the other processes in the spinning of cotton. The little volume, though perhaps not likely to be widely read, should be very popular in Lancashire.

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LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

Asymmetry and Vitalism.

PROF. JAPP has so entirely changed his position that it is useless to attempt to follow him. I would desire, however, to correct misunderstandings into which he has fallen in respect of my contentions with reference to his original position.

I did not intend to suggest that life originated in a crystalline form; but merely that, as living things can now assimilate crystalline bodies, the first living organism may have originated in connection with and by utilising a crystal, and that the asymmetry of this original living organism may have been controlled by the accidental asymmetry of the original crystal.

Once life began, I presume it descended, as it does now, by section and so forth, and, as I cannot follow Prof. Japp's difficulties as to a particular asymmetrical system breeding the like, I cannot see how the intervention of intelligence is required for its propagation, any more than for the growth of a particular asymmetrical crystal, once it is started.

This preponderating influence of the parent entirely explains the other misunderstanding Prof. Japp has fallen into. I never suggested that the rotation of the sun, probably a very feeble cause, could make a seed, with its impressed asymmetry, grow into a tree with a different asymmetry merely by bringing the seed from the northern to the southern hemisphere. All I suggested was, with reference to Prof. Japp's original position—namely, that at the *origin* of life the first living organism may have been given a particular asymmetry by its having been produced in one or other hemisphere. A cause which may have been quite sufficient to give this asymmetrical bias during the time of origination, may be quite inadequate to produce a change in the bias once it has been given.

GEO. FRAS. FITZGERALD.

Trinity College, Dublin, November 10.

Connection between Mānasarowar and Rākas-tāl.

MR. LANDOR, in his account of his journey in Tibet, "In the Forbidden Land," claims to have disproved the connection between the lakes Rākas-tāl and Mānasarowar. The notice in NATURE of November 3 speaks of the connection as being possibly open to doubt.

But it is not so. My brother, then Captain Henry Strachey, in the account of his visit to the lakes in 1846, published in the *Journal* of the Asiatic Society of Bengal, vol. xvii., gives full details on the subject. He crossed the stream that flows from Mānasarowar into Rākas-tāl at a point about a mile from the latter lake. He describes it as about a hundred feet wide and three feet deep, running rapidly from east to west in a well-defined channel. He did not visit the actual point at which this stream leaves Mānasarowar, but in 1849 I did so (see *R.G.S.J.*, vol. xxi.), and there is no more doubt about the fact than that the Thames runs past Richmond.

Mr. Landor, so far as his map and descriptions enable us to judge, and as the notice in NATURE suggests, did not go far enough north between the lakes to admit of his ascertaining the facts bearing on the subject. RICHARD STRACHEY.

Lancaster Gate, November 12.

Arctic and Sub-Arctic Bees.

OF the wild bees of Alaska nothing is known, except that several species of humble-bees (*Bombus*) are common. Consequently, when Mr. Trevor Kincaid wrote me last year that he was going to Alaska, and would collect bees, I was expecting to see, on his return, quite a new bee-fauna. He collected carefully, and brought back a nice series, but all *Bombus*! No other genus was seen, although brightly-coloured flowers are quite numerous in Alaska. On the Pribilof Islands he found a fine new species of *Bombus*, which I named *B. Kincaidii*, but there was no other bee. I have written to Dr. W. H. Dall, to ask whether he ever saw any bees other than *Bombus* in Alaska. He replies that he collected there in 1868 four or five *Bombus*, and some wasps of the genera *Vespa* and *Pompilus*, but he has no record of other bees.