

Isles, Prof. Salisbury's present book could be utilised in English schools. Many geographical features can be best illustrated from the open lands of the United States; but the teacher will find in this volume a fair number of references to European countries. We can thus imagine a happy combination in a school course of Salisbury's *Elementary Physiography* and, say, A. M. Davies's "Geography of the British Isles."

G. A. J. C.

Mentally Deficient Children, their Treatment and Training. By Dr. G. E. Shuttleworth and Dr. W. A. Potts. Third edition. Pp. xviii+236. (London: H. K. Lewis; Philadelphia: Blakiston's Son and Co., 1910.) Price 5s. net.

THE third edition of Dr. Shuttleworth's well-known and excellent handbook has the advantage of an up-to-date revision by Dr. Potts. It is not too much to say that Dr. Shuttleworth's small book prepared the way for the recent Royal Commission on Care and Control of the Feeble-Minded. The main conclusions of that commission are dealt with in the present edition. Many details from actual special schools are given. The book is indispensable to those engaged in the management and supervision of feeble-minded children. The eugenics of the feeble-minded are lightly touched upon; but, in a practical handbook, one looks rather for direction than for theory. The illustrations have been increased in number, the bibliography, already copious, has been substantially added to. There is a good index, both of subjects and of authors.

The volume as a whole is so well-balanced that it forms an excellent handbook to the study of this whole department, which, within the last five years, has grown enormously in extent and in interest.

The Flower Book: Being a Procession of Flowers, passing from Meadow and Coppice through the Hedge to the Garden, Pool, and Herb-Patch. By Constance S. Armfield. Pp. ix+153; illustrated. (London: Chatto and Windus, 1910.) Price 7s. 6d. net.

IT would be difficult to find a more direct contrast to the formal method of nature teaching than the imaginative yet fairly accurate presentation of episodes in plant-life charmingly depicted in the pages of "The Flower Book." The elements and flowers are endowed with voices to express the tale of their difficulties, their ambitions, and their victories. The distress of the stock seedlings when transplanted, the aspirations of the snowdrops and the buttercups, the spread of the pinks in the border, should appeal to the imagination of any bright child, and as natural reasons for the various incidents are cleverly worked into the arguments it may be expected that grains of knowledge will be instilled. One item calls for immediate refutation, that is, the suggested origin of the water plantain from the common plantain. There is a general theme linking together the five sections noted in the title. The illustrations are not an entire success, as some suffer from a want of proportion, but grace and truth are combined in the pictures of the rose, the bluebell, and the iris.

Hygiene and Public Health. By L. C. Parkes and H. R. Kenwood. Pp. xi+691. (London: H. K. Lewis, 1911.) Price 12s. 6d. net.

IN its original form, the first edition of this book was reviewed at length in our issue of January 30, 1890 (vol. xli, p. 290). The present is the fourth edition under the conjoint authorship; it has been carefully revised, and new matter has been introduced where necessary to bring the treatise up to date.

NO. 2155, VOL. 85]

LETTERS TO THE EDITOR.

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Origin of Incense.

IT is natural that incense should interest a botanist. For at least 4000 years mankind has used for this purpose the product of several species of *Boswellia*, natives of S.E. Arabia and Somaliland (the land of Punt). The English name Frankincense, borrowed from old French, substantially means incense *par excellence*, and represents the fact that, except amongst the Hebrews, it has been the substance exclusively employed in ritual. At last Epiphany frankincense and myrrh, in accordance with custom, were offered at the altar of the Chapel Royal, St. James's, on behalf of the King.

The use of incense might have originated in two different ways, and it is not perhaps always easy to distinguish these developments. Fumigation with fragrant or pungent herbs would easily arise as a sanitary expedient. The Greeks called this *θυμίαμα*, which connects with *fumus*; the plant name, thyme, derives from the same root. This, as there is evidence it did, would develop into the notion of ceremonial purification and then of consecration and honour. For such purposes it would be natural to burn frankincense on a fire-pan or censor. This was the Egyptian practice. Mr. Arthur Evans has discovered in Crete censers of Minoan age with lumps of some undetermined incense still adhering. Much of the use of incense in modern religious ceremonies has only a sanitary significance. Thus, at the coronation of George III., an official held a fire-pan on which frankincense was burnt, and this appears to have had no ritualistic meaning. It was not until the seventh century B.C. that frankincense was exported to Mediterranean countries. It doubtless carried with it its religious significance, and from this period dates the use of incense both by the Greeks and the Hebrews. That incense was of exotic origin is shown by the fact that the Hebrews called it *lebannah* and the Greeks *λιβανωτός*, names which, like the Arabic *lubān*, probably all derive from some local name at the place of production.

The sacrificial use of incense developed gradually and from a different source from the sanitary. Sacrifices were primarily offerings of food to the gods. It was a later development to burn them so as to present them in an ethereal form. Starting from the idea that the gods were to be propitiated through the sense of smell, frankincense was sprinkled on the burnt offerings to make them more fragrant. The latest refinement was to burn incense on the altar alone. The former the Greeks called *λιβανωτόν ἐπιτιθέσθαι*, the latter *λιβανωτόν καθαγίζειν*. Aristophanes in the fifth century B.C. carefully distinguishes (*Clouds*, 426) the three sacrificial acts: the sacrifice proper (*θύος*), the libation, and the addition of incense.

The use of frankincense spread to Italy, where it was used much as in Greece. The Romans called it *tus*, which is the equivalent of *θύος*. The substitution of the letter *r* in the oblique case, *tus*, *tur-is*, shows that *θύος* could not have found its way into Latin later than the fourth century B.C. In Greece *θύος* was always a sacrificial offering. Mr. Christopher Cookson, who has taken much kind trouble for me in this matter, informs me: "I can find no passage where *θύος* need mean 'incense' and many where it cannot." Now, the Romans had their own word for a sacrifice, *sacrificium*. When they began to use frankincense, instead of borrowing its Greek name, they used *tus*, the latinised form of *θύος*, substituting the name of the whole rite for that of a mere incident in it.

The confusion so produced has existed for some 2000 years. There have been several notices in NATURE of the so-called "Incense Altar of Aphrodite" at Paphos. This is apparently based on the passage in the *Odyssey* (8.363), where Homer calls it *θωμός θυήεις*. But this is merely one of his common forms. He uses it of the altar of Jupiter on Mount Ida (*Iliad*, 8, 48), and (*Il.*, 23, 148) of the altar of Sperchius, on which Peleus had vowed that Achilles should offer fifty rams. It is quite true that *θυήεις* has been translated "smelling with incense"; it