

we may recall the suggestion put forward last January¹ by a group of ten members of Parliament headed by Major Waldorf Astor, now Parliamentary Secretary, Ministry of Food. The group advocated the combination and reorganization of existing departments for the setting up of a Ministry of Health, and submitted the heads of a bill providing that so soon as the new ministry had been established by Parliament all the powers of the Insurance Commissions for England and Wales, and all the powers of the Local Government Board, should be transferred to it by order in council, that the health functions of other departments should be taken over at such times as were found convenient, and that there should be power to transfer from the new ministry to other departments any functions transferred to it at first for the sake of convenience but found to be unsuitable for a health ministry to perform. Under this scheme the new ministry would be simultaneously acquiring and shedding powers, and although the method was recognized to be clumsy, the promoters believed that by this expedient matters of national health would be discussed on their merits undisturbed by conflicting claims of rival authorities. Writing on the subject some four months ago, we said that the indications then were in favor of the government bill being a measure to amalgamate the Insurance Commissions in England and Wales with the Local Government Board, leaving the non-medical functions of the latter department to be shed at a later date. There is general anticipation that the medical functions of the Board of Education would also be handed over, but with this possible addition the present position appears to be the same to-day as it was in March. If the bill is introduced in this form, it will undoubtedly come in for much criticism. If it means that the Ministry of Health, to quote Sir Bertrand Dawson's words, is not to have "a bigger horizon than the Local Government Board and Insurance Commission, then we must emphatically say 'No.'" On principles, as he said, there

¹ *British Medical Journal*, January 19, 1918, p. 98.

can be no compromise—"the practise of putting the skilled under the control of the unskilled must cease." One plan for preventing the perpetuation of this evil in the new ministry is outlined in the scheme of the British Medical Association, which proposes the establishment of an Advisory Council of experts. This council should hold regular meetings not less often than once a month, should have direct access to the minister, and should have the power of initiation—that is to say, it should have the right and obligation to tender its advice to the minister on any subject which it considered ought to be dealt with, and not merely on such matters as the minister referred to it. It is proposed to meet the objection that the Board's advice could always be overruled by the minister, acting perhaps under the influence of permanent officials—not experts either in medicine or any of the other professions concerned in the prevention of disease or the maintenance of health—by requiring reports of the Advisory Council to be presented to Parliament. What value this expedient would prove to have in practise is a matter upon which there is room for difference of opinion; but, provided the Minister had efficient permanent medical officials in an independent position of direct responsibility to him, it would undoubtedly afford some safeguard against the risk of "putting the skilled under the control of the unskilled."—*British Medical Journal*.

SCIENTIFIC BOOKS

The Ornamental Trees of Hawaii. By JOSEPH F. ROCK. Honolulu, published by the author. 1917. Pp. v + 210. Illustrated with 79 plates from photographs and 2 colored plates from paintings. \$3.50.

One of the charms of tropical cities is the profusion of flowering shrubs and trees. The reviewer has had the pleasure of spending several months in the Hawaiian Islands and can say that Honolulu is the most attractive tropical city he has ever visited. Much of this attraction is due to the wonderful variety and beauty of the cultivated shrubs and trees of the streets, gardens and parks.

Professor Rock has given us descriptions of the ornamental trees and also of many of the larger and more showy shrubs. The trees are arranged in natural sequence beginning with cycads and pines, and ending with *Ixora* (Rubiaceæ).

Probably the most striking street trees in midsummer are two species of *Cassia*, *C. fistula*, the golden shower, and *C. nodosa*, the pink shower. The golden shower (plate 43) has long racemes of golden yellow flowers followed by cylindric woody pods, 20 to 30 inches in length, straight and smooth like a musician's baton. The pink shower (plate 44) has dense racemes of pink and white flowers, a gorgeous sight when in full bloom in June. There is a colored plate of this in Mr. Rock's book.

Another showy tree is the flame tree, *Delonix regia* (*Poinciana regia*) (plate 45). This is frequently planted in south Florida, where it is called royal poinciana. The large bright scarlet flowers are in large terminal racemes.

The visitor to the Hawaiian Islands is at once impressed with the number and beauty of the varieties and hybrids of *Hibiscus rosasinensis* (page 137). In this country the species is sometimes called rose of China. In Honolulu the hibiscus is commonly used as a hedge plant, the large red or white flowers being conspicuous throughout the summer.

Another common hedge plant is a species of the Aralia family (*Nothopanax guilfoylei*) (page 168). This does not flower in Honolulu, but the white-bordered compound leaves are attractive. The crotons (*Codiaeum variegatum*) (page 128) are common in Honolulu as they are in all warm countries. The narrow leaves are variegated with white and red, in some varieties strongly spirally twisted.

The pepper tree (*Schinus molle*) (page 132), with feathery drooping foliage and racemes of small red berries, is extensively planted. The plumeria or graveyard flower (*Plumiera acutifolia*) (page 175), with thick stubby branches, milky juice and white or yellow fragrant flowers, is commonly planted around cemeteries. The flowers are much used for the familiar Hawaiian leis or wreaths made by stringing the corollas on a thread.

One of the most beautifully shaped trees of the parks is the rain-tree or monkey-pod (*Samanea saman*) (plate 33). The crown is slightly convex and very wide spread. Another member of the Leguminosæ is the now thoroughly naturalized algaroba (*Prosopis juliflora*) (plate 36). This tropical American tree is now common in a belt along the shore of all the islands. The pods furnish an excellent feed for stock and the flowers furnish honey. It is often planted along streets.

Professor Rock has devoted considerable space to the palms, of which many species are cultivated in the parks and gardens throughout the islands. To this group 23 plates are devoted. The commonest and probably the most beautiful of the palms is the royal palm (*Oreodoxa regia*) (plate 19), the smooth white trunk being very attractive especially when the plants are growing along driveways. The date palm (*Phoenix dactylifera*) (plate 3) is frequent, and the oil palm (*Elæis guineensis*) (plate 22) is not uncommon. The fish-tail palm (*Caryota urens*) (plate 16) is conspicuous because of the great drooping masses of flowers and fruit; the betel palm, because of the tall and very slender stem. Our California fan palm (*Washingtonia filifera*) (plate 10) is rather frequent.

The visitor to the Hawaiian Islands will find the book very helpful in identifying the cultivated trees. The plates are from excellent photographs and the descriptions give just that information that one wishes to know.

A. S. HITCHCOCK

U. S. DEPARTMENT OF AGRICULTURE

SPECIAL ARTICLES

A COMPARISON OF THE RESPONSES OF ANIMALS IN GRADIENTS OF ENVIRONMENTAL FACTORS WITH PARTICULAR REFERENCE TO THE METHOD OF REACTION OF REPRESENTATIVES OF THE VARIOUS GROUPS FROM PROTOZOA TO MAMMALS¹

THE behavior of animals in gradients of intensity of stimuli has long been studied.

¹ Contribution from the Zoological Laboratory, University of Illinois, No. 120.