

Reviews.

GOITRE.

AN English version of the French edition of the collected papers of Dr. F. DE QUERVAIN has been prepared by Dr. SNOWMAN.¹ The author is professor of clinical surgery at the University of Berne, and the volume may be taken as summarizing the teaching of a school which has contributed much to our knowledge of the thyroid gland and its diseases. The first two chapters are concerned with the anatomy and function of the thyroid, which, it is contended, produces a number of secretions each with its own properties. The functions of the parathyroid are said to be "even more doubtful than those of the thyroid"; next, the various theories as to the causes of goitre are briefly dealt with. The author considers himself justified in making the following statement "without fear of contradiction":

"Endemic goitre is a reaction of the thyroid gland, partially hyperplastic and partially neoplastic. It usually begins in intra-uterine life, and develops particularly during the second and third decade. This reaction occurs more frequently in the female than in the male, and is probably caused by auto-intoxication from the intestine. . . . The introduction of iodine into the organism in physiological quantities is capable of arresting this reaction without doing any evident harm to the general economy of the organism."

There are, as the author says, objections to the theory, "so plausible at first sight," that a deficiency of iodine in the food is the cause of goitre. Among these objections Professor de Quervain mentions "the striking variations in the state of the thyroid, from village to village, between one family and another, although the food conditions are identical." He concludes that the absence or presence of iodine cannot explain these variations. The objections raised to the use of iodine in prophylaxis—the danger of exciting hyperthyroidism or Graves's disease in the adult and the possible harmful effect of the drug on such organs as the mammary glands and the testes—are considered to be slight in comparison with the benefits resulting from its use. Nevertheless, the author concludes that "Science is not yet sufficiently advanced to institute a general campaign against goitre."

This view appears to be hardly justified by the facts, for it is established that contamination of water and food by faecal organisms has a profound influence in the causation of goitre, that intestinal antiseptics will cure a proportion of recent cases of goitre, that iodine will cure a like proportion, and, more significant still, that the simultaneous use of intestinal antiseptics and iodine greatly increases the proportion of cures that can be effected by the use of either alone. It is known, too, that a relative deficiency of iodine may be brought about by an excess of certain fats in the food. It may then be reasonably assumed that the assimilation or utilization of iodine by the organism or by the thyroid gland itself may be interfered with by certain conditions present in the gastro-intestinal tract of which a peculiar bacterial flora is the most important. But whether or not this assumption be correct, the facts, as at present known, provide a sufficiently stable foundation on which prophylactic measures may be based. The proof of the pudding is in the eating, and prophylactic measures adopted on these lines have already met with much success; the incidence of goitre among school children can be greatly reduced by the prophylactic use of iodine, while the almost complete disappearance of the disease has been brought about, without increasing the intake of iodine, when a bacteriologically impure water supply has been replaced by a bacteriologically pure one. It seems, then, that science has sufficiently advanced to institute a general campaign against goitre and that it is very desirable to undertake it, for it is by so doing that the inadequacy of our knowledge will be made manifest and the gaps in it filled. It is by recognizing the interrelation between imperfect hygiene of the gastro-intestinal tract and the assimilation and utilization of iodine by the organism and by the thyroid gland itself that prophylaxis can best be effected.

¹ *Goitre: A Contribution to the Study of the Pathology and Treatment of the Thyroid Gland and Goitre.* By F. de Quervain. Translated from the French by J. Snowman, M.D., M.R.C.P. London: J. Bale, Sons and Danielsson, Ltd. 1924. (Roy. 8vo, pp. xii + 247; 118 figures. 21s. net.)

The author rightly asserts that the term "goitre" embraces various modes of reaction of the thyroid gland, implying no doubt thereby that each reaction may have a different cause. He does not accept the view that cases of Graves's disease may be classified by the degree of toxicity of the goitre, as established principally by the respiratory exchange. He holds that "any biological classification would be premature at present when our views on the subject are so rudimentary." He contents himself with a classification based on histological features. The causes of the various states of thyroid activity are discussed, and the effect of goitre on the organism described. We are glad to see that the author is very sceptical about the diagnostic significance of lymphocytosis, which is frequently to be observed in goitre. He attributes more importance to the biological test that the venous blood of the goitre or the blood of the veins of the arm of certain goitrous individuals increases or does not affect the sensitiveness of the rat to deficiency of oxygen, according as the patient is the subject of Graves's disease, of simple goitre, or of hypothyroidism. Professor de Quervain discusses the relations between the histological form, the biological activity, the iodine content of the gland, and the clinical symptoms in different conditions of the thyroid.

For Professor de Quervain surgery is the true method of dealing with Graves's disease. "Physical calm and mental rest constitute the best non-operative means of reducing the basal metabolism." But he does not believe that "trust in physiology and philosophy" even combined with intestinal antiseptics and extract of hemp can replace a well conducted operation in a really serious and intractable case. This may be so. But surely it is by trust in physiology and philosophy, and by the more ardent study of the science of life and the causes or laws of phenomena, that we may hope to dissipate our ignorance of Graves's disease, and to arrive at a method of its cure less drastic than the sacrifice of an organ so intimately concerned with the regulation of metabolism. It is a curious comment on the present depths of our ignorance that the greater part of the first half of this book should be devoted to telling us how important the thyroid gland is to the organism, and the greater part of the other half to telling us how perfect is the surgical technique for its removal. It is no doubt a good thing to be able to remove the regulator when it no longer regulates, but it would be better to preserve it by restoring its function. Until modern medicine has found the means of doing so we must remain discontented with the best that surgery can do.

Those who are interested in the thyroid gland and its diseases will, when they peruse this notable addition to the literature of the subject, have reason to be grateful to its author and to his translator, who has done his work well. The volume is well illustrated, contains a fairly complete bibliography, and a convenient index.

R. McCARRISON.

THE PARATHYROID GLANDS.

DR. H. W. C. VINES, in *The Parathyroid Glands in Relation to Disease*,² has summarized and added to his interesting series of papers, but has not felt it necessary to go over all the extensive literature in relation to tetany. Not that this subject is left out of the account, and indeed it could not be in a work dealing with the relation of calcium metabolism and the parathyroid glands, which are believed to be its regulators, to the processes of disease in the body. It is in fact the investigation of tetany which has so stimulated research that the two functions at present ascribed to these glands—calcium regulation and detoxication of guanidine compounds—have been established. In the chapter on their physiology and pathology attention is drawn to the occurrence of parathyroid hyperplasia in rickets and chronic nephritis; in both of these disorders there is loss of calcium from the tissues—in the former by excretion, in the latter either by excretion or by immobilization of active calcium in calcareous deposits. It is suggested that this hyperplasia is the result of an

² *The Parathyroid Glands in Relation to Disease.* By H. W. C. Vines, M.A., M.D. London: Edward Arnold and Co. 1924. (Demy 8vo, pp. viii + 128; 14 figures. 10s. 6d. net.)

effort at compensation for the calcium deficiency, and is analogous to the simple parenchymatous goitre attributed to iodine deficiency.

The observations leading to the hypothesis of a detoxicating function of the parathyroids as regards guanidine compounds are described, but it is pointed out that there is not any evidence to show how this function is carried out or what, if any, relation it bears to calcium metabolism. The pathological results ascribed to parathyroid deficiency are described in two chapters under the headings of convulsive disorders, such as tetany, eclampsia, paralysis agitans, epilepsy, spasmodophilia, and the disorders without convulsive signs—namely, chronic sepsis and ulceration, alimentary and dental toxæmia, osteomalacia and rickets. There is not sufficient evidence to relate paralysis agitans with any definite lesion of the parathyroids or to regard parathyroid treatment as a specific remedy for this disease or for epilepsy. In the section on the disorders without convulsive signs ascribed to deficiency of the parathyroids the remarkable results obtained by the author and Dr. Grove in ulceration and chronic infective processes are detailed and explained. Hyperparathyroidism has not yet been proved to be a clinical entity. Chapters on the pharmacology of parathyroid preparations and on the interrelations of the parathyroid and other endocrine glands complete this interesting and well written record of research.

THE APOTHECARIES' PHYSIC GARDEN.

DR. F. DAWTREY DREWITT'S pleasantly written *Romance of the Apothecaries' Garden at Chelsea*, which was reviewed in our columns (1922, vol. ii, p. 1269) when it originally came out, has rapidly and deservedly passed into a revised and enlarged edition.³ Sir Hans Sloane remains the attractive figure, but new information has been incorporated about the visits of Linnaeus and his pupils Kalm and J. C. Fabricius to the Chelsea Physic Garden, including a letter from Gronovius proving that Linnaeus was drawn to visit this country by his desire to see the Physic Garden. Linnaeus was cursed with the habit of expressing the high opinion he had of himself, and thus, though welcomed as a guest to the Physic Garden, the bad impression he created made the subsequent proceedings rather frigid. Kalm was taken to see Sir Hans Sloane, then old, deaf, in his 88th year, and in bed, but highly encouraging about his visitor's projected expedition to America. Kalm's letter is perhaps worth quoting: "One and all looked upon this man with a particular interest, because he was the oldest of all the learned men living whose names, on account of their writings and learnings, are widely known." After alarms and delays Kalm carried through his mission to America, and the news of his return to Sweden with an American wife and many new plants promptly cured Linnaeus of an attack of gout. Written with a light hand and full of charming touches, this little book should be in the possession of every medical man with a taste for medical history and an interest in old or changing Chelsea. Moreover, it contains more pages and three more plates and is a third cheaper than the original edition.

ADMINISTRATION OF ANAESTHETICS.

It is some twelve years since the second edition of Dr. H. EDMUND G. BOYLE'S *Practical Anaesthetics* appeared, and in the interval much work has been done from the practical, the theoretical, the physiological, and the pharmacological standpoint, so that the appearance of a third edition,⁴ in which the author has had the collaboration of Dr. C. Langton Hewer, is opportune. A special chapter on blood pressure during anaesthesia, excellently written and most informing, has been contributed by Dr. E. I.

³ *The Romance of the Apothecaries' Garden at Chelsea*. By F. Dawtrej Drewitt, M.A., M.D., F.R.C.P. Second edition. London: Chapman and Dodd. 1924. (Cr. 8vo, pp. xii + 136; 15 plates. 5s.)

⁴ *Practical Anaesthetics*. By H. Edmund G. Boyle, O.B.E. (Mil.), M.R.C.S. Eng., L.R.C.P. Lond., and C. Langton Hewer, M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond. Third edition. Oxford Medical Publications. London: Henry Frowde, and Hodder and Stoughton. 1923. (Cr. 8vo, pp. vii + 187; 35 figures. 6s. 6d. net.)

McKesson of Toledo, Ohio, who probably knows more about the subject than anyone else. The physiology and pharmacology of the subject are cut down to a minimum, but practical questions are fully dealt with, and no fault can be found with the axioms enunciated—they are in no way extreme with regard either to apparatus or methods. Perhaps a few words more might have been devoted to the description of Shipway's apparatus, which is dismissed in four lines and an illustration, while the only endotracheal apparatus figured is a bottle devised by Dr. Hewer for the intratracheal administration of ethanesal, which it would appear does not in fact differ from other brands of anaesthetic ether. The author is enthusiastic with regard to gas and oxygen, and no doubt with good reason, though there is another side to the picture, at any rate in America, where the method, once acclaimed, has recently suffered something like an eclipse, owing, probably, to unskilful application and unsuitable choice of cases, rather than to any inherent defects in the method itself.

The book can be recommended to the student who desires to possess an easily read, concise handbook on the chief methods of producing anaesthesia, together with illustrations of the apparatus commonly employed.

NOTES ON BOOKS.

THE new number of *Brain* (vol. xvii, Part I),⁵ dated February, but only just issued, contains several interesting papers. The place of honour is given to the presidential address delivered before the Neurological Section of the Royal Society of Medicine last October by Dr. James Collier; it deals with cerebral diplegia. This is followed by an article on the dissociation of voluntary and emotional innervation in facial paresis of central origin by Dr. Monrad-Krohn of Christiania. To this succeeds a paper on the pathological anatomy of disseminated sclerosis by Dr. C. P. Symonds (Guy's Hospital), embodying a general review of the present situation, with some original observations. There are papers also on electromyograms of voluntary movement and of experimental convulsions, and one on the sequelae of encephalitis lethargica.

The second edition of *Geriatrics*⁶ has been revised by the author, Dr. MALFORD W. THEWLIS, and chapters on electrotherapy, opotherapy, emphysema, pruritus senilis, and other subjects added. Geriatrics is defined as including not only the treatment of senile diseases but also the care of the aged, the causes of ageing, and measures which can be taken for prolonging life. As we observed when reviewing the first edition, the book contains a great deal of information, and is one which the general practitioner will be glad to consult, as it contains many useful hints.

MR. H. F. WITHERBY'S *Check List of British Birds*⁷ provides a list of all the 496 birds that are known with certainty to have been procured in the British Islands, and is taken from the *Practical Handbook of British Birds*, of which an account appeared recently in our columns. The scientific name of each individual bird is given in trinomial, followed by its English name, while opposite, under the heading of "Status," occur such brief remarks as "occasional winter visitor, chiefly e. England," or, as in the case of the curl bunting, "Resident, breeds, local, England; Wales: very rare vagrant, Scotland, Ireland." The list opens with the genus *Corvus*, under the appropriate order and family, and ends with the red-legged partridge. This check list will prove useful to the working naturalist for labelling and for rapid reference, while on the blank page opposite each printed one there is space for notes to be written. Many field naturalists and sportsmen will find this check list useful for noting down any rare bird seen or the date of arrival of a migrant or note on unusual breeding localities, etc. There has been a need for such a check list as this for some time, and Mr. Witherby is to be congratulated on supplying a well printed, concise, and handy volume.

⁵ London: Macmillan and Co.; New York: The Macmillan Company. Price 6s.; yearly subscription, 24s.

⁶ *Geriatrics: A Treatise on the Prevention and Treatment of Diseases of Old Age and the Care of the Aged*. By Malford W. Thewlis, M.D. Second edition, revised and enlarged. London: H. Kimpton. 1924. (Med. 8vo, pp. 401; 24 figures. 21s. net.)

⁷ *A Check List of British Birds*. With a short account of the status of each compiled from *A Practical Handbook of British Birds*. By H. F. Witherby, M.B.E., F.Z.S., M.B.O.U. London: H. F. and G. Witherby, 1924. (Demy 8vo, pp. 78. 3s. 6d. net.)