

the gut in kala-azar is open to dispute. *Ascaris* in the larynx might have been mentioned on p. 613, and *paragonimus* and helminthic lesions in the brain on p. 614.

The chapter on serums and vaccines, by Colonel D. Harvey, is specially interesting, giving as it does a very clear conception of the matter; it should prove of the greatest use to the worker in the tropics. The section on snakes is written by Major Acton, I.M.S., in collaboration with Major Knowles. It is well illustrated, and contains much useful information. Dr. H. H. Scott, the discoverer of the part the akee plays in vomiting sickness, appropriately deals with vegetable and fish poisoning in the tropics. Lastly, Mr. Colles discusses the chemical investigation of medico-legal cases, an intricate and very difficult subject. It will be gathered from what has been said that the volume contains a wealth of material which will be most useful to many workers in different branches. Mention has already been made of the excellent coloured plates (35 in all), and of the other illustrations by which its pages are so profusely adorned. These lighten the tedium of reading through the text, and make the understanding of it much more easy. The standard set by this volume is high, and if this level is maintained in the other two volumes, which are to deal with the diseases proper, then the book may well become the authoritative standard reference work in English on tropical medicine.

#### THE ART OF GROWING OLD.

DR. LAPHORN SMITH has written a very readable, interesting and instructive little book entitled, *How to be Useful and Happy from Sixty to Ninety*.<sup>2</sup> It manifests throughout the work of a keenly observant man with multiform knowledge by no means confined to matters strictly medical. The author has certainly collected ample evidence in favour of the contention implied in the title of his book. Although a large part of this work consists of concrete examples of happy and useful lives led by men and women long after arriving at sixty, and by many up to ninety or over, there is no lack of illuminating comment on the way in which they achieved success. Apart from his repeated emphasis on the generally received medical maxims concerning sobriety, early rising and going to bed, dieting, and so forth, the author's insistence on the extreme importance of physical and mental exercise appropriate to each individual case, and continued persistently without counting the years as they pass, may perhaps be said to be the chief feature of his teaching. This is not to say that the book is marked by any dull repetition, for each chapter is enlivened by fitting anecdotes, by records of the author's own experiences, and by his evident conviction of the truth of the teaching he endorses.

Dr. Laphorn Smith dwells much on the harm of too much meat food for the old and elderly, of alcohol in any but small amounts, and of tobacco smoking generally. But in his last chapter, entitled "Axioms for the man over sixty," which is well worth studying and generally following, one of the axioms runs thus: "If you have been a smoker all your life keep on smoking in moderation, and if you have been a moderate drinker, keep on drinking in moderation (if you can get it)." In view of the author's somewhat excessive tirade against tobacco in Chapter XIII—where he surely exaggerates the number of persons who suffer from tobacco blindness, and probably of those who have disordered heart action from over-smoking alone, and thus draws the conclusion that 1 oz. a week is the limit of safety for a smoker—he is certainly to be credited with a generous exercise of his common sense and humanity when he enjoins a man over 60 "to keep on smoking." He seems not to be aware that a man who has smoked all his life and would be satisfied at 60 with 1 oz. if he could afford more, is not often to be found. Moreover, he makes no mention of the quality of tobacco smoked, a matter which general medical opinion holds, we believe, to be one of much importance.

But it may safely be said that in spite of a few other minor criticisms which might possibly be made here and there, of this book, no one could be harmed, and most would greatly benefit, by following the author's rules without doubt or quibble. We wholly agree with Sir Charter Symonds in wishing this attractive and useful volume "bon voyage" and a long one.

<sup>2</sup> *How to be Useful and Happy from Sixty to Ninety*. By A. Laphorn Smith, B.A., M.D., M.R.C.S., etc. With a Foreword by Sir Charter Symonds, M.D., M.S., F.R.C.S., K.B.E., C.B. London: John Lane, The Bodley Head, Ltd. 1922. (Cr. 8vo, pp. xiv + 235; 1 portrait. 5s. net.)

#### INTELLECTUAL EVOLUTION.

THE book on the genesis of psychical energy<sup>3</sup> which Dr. DANYSZ has written is an essay in biological philosophy. It is an attempt to mark out the place man occupies in Nature, and by tracing his evolution from the simplest forms of living matter to make a guess at the future progress of the individual and the State. It is divided into four sections: the first describes the evolution of man, the second details the reactions of living matter, the third gives an account of evolution generally, and in the fourth some general conclusions are stated. In this fourth section the author attempts a forecast of the lines upon which the human race is likely to develop in the future. His work may be recommended to the general reader; it is suggestive, and illustrates the difficulty of applying biological methods to the elucidation of psychological problems.

It is impossible to give the argument of the book and to explain the author's reason for his conclusions in a few words. He is an optimist, believing that man has not yet reached the highest intellectual development of which he is capable, nor human society the organization which will best ensure the greatest happiness for the greatest number. As a good evolutionist he is no believer in the doctrine of revolution so loudly preached by some to-day; in fact, he considers that quite a number of people who believe themselves leaders of "advanced" thought are, in fact, marching into the desert at an obtuse angle with the true line of advance. But though an optimist, he thinks that progress towards a better state of society must be slow, for the process of evolution needs much time, many generations, to achieve its beneficent results. Man is distinguished from the rest of the animal world by his intellect, and it will be by the evolution of his intellect that he will advance, but he "is not, and never will be, free to evolve in a direction arbitrarily chosen." The age of reason is coming; the present epoch will be remembered in the history of humanity as that in which "the sentiments and the passions were insufficiently controlled by the reason." For Dr. Danysz the doctrines of Marx are not constructive because they do not appeal to the desire for new and fruitful research, but arouse passions whose manifestations are the more opposed to progress the less enlightened the minds affected.

The merits and demerits of socialism of various shades and of anarchism cannot suitably be discussed in a medical journal; we have merely endeavoured to give a general indication of the argument of this book because M. Danysz is a distinguished biologist, because the book is suggestive, and because the biological aspect is usually neglected by political writers to whom this essay is primarily addressed.

#### NOTES ON BOOKS.

PROFESSOR BERNARD'S book on pulmonary tuberculosis<sup>4</sup> gives, from the French point of view, a picture of the disease in its clinical and sociological aspects, and may be read with profit by medical officers of health, medical men, and nurses who have to deal with phthisical patients. Originally designed to stir the inertia of the French, who are not yet, according to the author, fully awake to the necessity for an active antituberculosis campaign in their own country, this volume may be recommended also to the tuberculosis experts of Great Britain, for it throws interesting sidelights on problems that occur in our own country just as they occur in France, and on the solutions thereof that have been found and are in working order in England but are still to seek in France. Professor Bernard is all in favour of the governmental control of tuberculosis, and we trust that his well-written volume may meet with the attention it deserves.

The book on respiratory training<sup>5</sup> by Dr. J. PESCHER, who, we believe, practises in Paris, is the work of a whole-hearted enthusiast; he holds that most of the organic and functional ailments of children and adults can be cured or vastly ameliorated by graduated breathing exercises, use being made of his own variety of spirometer. The book is wordy; in

<sup>3</sup> *La Genèse de l'Énergie Psychique*. Par J. Danysz; avec une lettre-préface de J. Payot. Paris: J. B. Baillière et Fils. 1921. (Demy 8vo, pp. 312; 26 figures. Fr. 12.)

<sup>4</sup> *La Tuberculose Pulmonaire. Études de Phthisiologie Clinique et Sociale*. Par Professeur L. Bernard. Paris: Masson et Cie. 1921. (Demy 8vo, pp. 258. Fr. 10 net.)

<sup>5</sup> *L'Entraînement Respiratoire par la Méthode Spirométrique*. Applications Pratiques en Hygiène, en Prophylaxie, en Thérapeutique. Par J. Pescher. Ancien interne des hôpitaux de Paris. Paris: A. Maloine et Fils. 1921. (Cr. 8vo, pp. 287; 33 figures. Fr. 10.)

style it seems designed for the layman, but in matter it is more suitable for the medical practitioner. Rules for the application of the breathing exercises are given, and the amount of the respiratory work to be done by the patient is specified for each disorder. It would seem that Dr. Pescher expects too much of his method.

The authors of a little French book, the clinical interpretation of laboratory reports,<sup>6</sup> have set out in tabular form the conclusions to be drawn by the medical man from the reports he receives on the specimens sent to the pathological laboratory for examination. Comparatively little is said as to the methods employed; given his report, the medical practitioner will find in this book all the different interpretations that it may bear, or all the diseases or disorders it may suggest. At the end of the volume is a synoptic table in which the various diseases come first, and have opposite to them a list of the pathological changes in the blood, urine, faeces, and so forth, to which they may give rise. The book is well arranged and full of information, but has the fault of increasing the separation between clinical diagnosis and laboratory diagnosis that is so frequently deplored by physicians and pathologists alike.

The first number has appeared of a bi-monthly medical review entitled *Les Néoplasmes*, which is to be devoted to original articles, abstracts, and reviews dealing with the etiology, pathology, and treatment of tumours, malignant and benign. In addition to an analytical review of current literature the first number contains original articles on the red blood corpuscles in cancer, and on the treatment of cancer of the tongue. The new journal is published by Messrs. Vigot Frères, 23, Rue de l'École de Médecine, Paris, VI<sup>e</sup>, and the annual subscription (foreign) is 18 francs.

The name of the *Journal of Orthopedic Surgery* (Boston, U.S.A.) has been changed to the *Journal of Bone and Joint Surgery*; it will be published quarterly.

<sup>6</sup> *Comment Interpréter en Clinique les Réponses de Laboratoire*. Par Eugel, Delater, and Zoeller. Paris: A. Maloine et Fils. 1922. (Cr. 8vo, pp. 139. Fr. 5.)

## MEDICINAL AND DIETETIC PREPARATIONS.

### *Phyllosan.*

PHYLLOSAN is a preparation made up in tablets; each tablet is stated to contain 0.03 gram chlorophyll and 0.005 gram iron. The agents in this country state that the preparation is known by the name phyllosan in English-speaking countries, in Germany and Switzerland as chlorosan, with or without the name Buergi, and in Spain and Italy as foliosan.

The therapeutic value of chlorophyll was discovered by Professor E. Buergi, of Berne. He and his pupils made extensive laboratory experiments upon the action of chlorophyll on anaemia in rabbits, and also made clinical observations on the action of chlorophyll combined with iron in anaemia and various other diseases. Buergi<sup>1,2,3</sup> found that chlorophyll, when given to rabbits made anaemic by bleeding, had an action equal to that of iron in stimulating blood regeneration, and that a combination of chlorophyll and iron was much superior to either substance given alone; it was also found that chlorophyll and iron caused an increase in the haemoglobin content and erythrocyte content of the blood of normal rabbits.<sup>4</sup>

From clinical observations Buergi concluded that a combination of chlorophyll and iron was much superior to any preparation containing iron alone in the treatment of chlorosis and of secondary anaemias of various types. Buergi also found that a combination of chlorophyll and iron was of great value in the treatment of numerous diseases, particularly tuberculosis, cases of cardiac disease due to weakness of cardiac muscle, arterio-sclerosis, and cases of general debility. He concluded that chlorophyll acted as a general stimulant to the body tissues, and increased the vital force of the patient.

Buergi prepared a combination of chlorophyll and iron which he termed chlorosan, and this has been put on the market in England under the name of phyllosan. Phyllosan is stated to be prepared according to Buergi's directions, and is advertised in a pamphlet in which Buergi's claims as to its extraordinary therapeutic value are fully set forth.

The obvious question at once arises as to why the administration of iron, together with the addition of green vegetables to the diet, should not produce the same effects, only at much less cost, as those produced by the administration of phyllosan. Buergi meets this objection by saying that chlorophyll is not absorbed when given in its natural form, and that it is only of therapeutic value after it has been submitted to special purification. The results obtained by Buergi's pupils agree completely with those obtained by Buergi himself, but we can only find record of one research upon the action of phyllosan which was done outside Professor Buergi's laboratory; it was performed by Dr. W. Loeffler,<sup>5</sup> who made extensive chemical, pharmacological, and clinical tests as to the action of phyllosan (or chlorosan), and obtained negative results. Loeffler found that the phyllosan tablets contained less than 0.003 gram of chlorophyll, and calculated that 10 grams of spinach contained as much chlorophyll as fourteen phyllosan tablets. He found that phyllosan was inferior to Bland's pills in the treatment of anaemia, both in the laboratory and clinical tests. He considered that there was no certain evidence that chlorophyll had any therapeutic action, and argued that even if chlorophyll had a therapeutic action it was unlikely that the minute amounts present in phyllosan would be effective. These conclusions naturally evoked a lively controversy in the Swiss medical press.<sup>6</sup>

It is very difficult to decide on the merits of a preparation whose action is a subject of acute controversy. The chief laboratory evidence that phyllosan has any therapeutic action depends on the results of the experiments upon rabbits made anaemic by bleeding; experiments of this nature are, however, notoriously uncertain, on account of the great individual variations in different animals.

It is unnecessary to point out how difficult it is to obtain reliable evidence from clinical observation as to the action of drugs upon such diseases as chlorosis, tuberculosis, and general debility. In spite of the expressions of opinion by Buergi and his pupils quoted above, it still appears to us that the action of chlorophyll in experimental anaemia is extremely uncertain, and that the therapeutic value of phyllosan is the subject of a still unsettled controversy.

The agents for phyllosan in this country are the Chlorophyll and Chemical Corporation, Ltd., 26, Coventry Street, London, W.1.

## ABILITY IN CHILDREN.

In the days when schools and classes were still small an observant teacher might gain a very good knowledge of the individual capabilities of his pupils, and his judgement of ability did not always correspond with the show that a pupil might make in class work or in examinations. The advantages of the direct and intimate knowledge which the teacher of a small class or a small school possessed is impossible of attainment in modern schools, where the number of pupils runs into several hundred and a class may total forty. In addition to this, the organization necessary in large schools requires that pupils should pass from form to form or standard to standard at reasonably short intervals, so that a pupil knows many teachers but few teachers know the pupil.

To make up for the loss of the old pedagogue's intimate knowledge of the ability of a pupil many endeavours have been made to measure the mental ability of children apart from the routine knowledge to which they may have attained by diligent attendance at school. This work is inseparably associated with the names of Binet and Simon, two French investigators, whose tests have been generally accepted as the basis for a standardization of tests of mentality which can be of practical value.

The London County Council, the largest elementary education authority of the country, has issued in a substantial volume<sup>7</sup> a series of memoranda prepared by Mr. Cyril Burt, its psychologist on "mental and scholastic tests." In the first he considers in detail the Binet-Simon scale and the practical methods of applying it; in the second he discusses the theoretical validity of the results of tests made with the

<sup>1</sup> Buergi: *Correspondenz-Blatt für Schweizer Aerzte*, No. 15, 1916.

<sup>2</sup> Buergi: *Therap. Monatshefte*, 32, 1918, pp. 1, 33.

<sup>3</sup> Buergi and others: *Biochem. Zeit.*, 88, 1919, p. 256.

<sup>4</sup> Grigoriew: *Biochem. Zeit.*, 98, 1919, p. 284.

<sup>5</sup> Loeffler: *Correspondenz-Blatt für Schweizer Aerzte*, No. 46, 1918; No. 48, 1918, pp. 1521, 1618; and No. 49, 1919, p. 879.

<sup>6</sup> Buergi: *Schweizer Rundschau für Medizin*, No. 4, February 21st, 1919; *Correspondenz-Blatt für Schweizer Aerzte*, 49, 1919, p. 1604.

<sup>7</sup> *Mental and Scholastic Tests*. Report by the Education Officer of the London County Council submitting three memorandums by Mr. Cyril Burt, M.A., Psychologist on "Mental and Scholastic Tests." London: P. S. King and Son, Ltd. 1921. (Med. 8vo, pp. xv + 432; illustrated. 21s.)