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MEDICAL TREATMENT BY HEALTH  
RESORTS.

*Climatotherapy and Balneotherapy: the Climates and Mineral Water Health Resorts (Spas) of Europe and North Africa.* By Sir Hermann Weber and Dr. E. Parkes Weber. Being a third edition of *The Mineral Waters and Health Resorts of Europe*, much enlarged in respect to Medical Climatology. Pp. 833. (London: Smith, Elder and Co., 1907.) Price 15s. 6d. net.

AS the causation and character of chronic ailments are better understood, more and more reliance is placed upon baths and climates for their treatment. The health resorts combine many conditions favourable to health, and, in fact, represent more or less a return to nature, a reaction which becomes necessary in proportion to the increase of civilisation. The work of Sir Hermann and Dr. Parkes Weber upon these topics is well known in America and Europe, and is conveniently presented in the present volume, which has been much enlarged in the section of climatotherapy. It now affords the most complete account of the therapeutics of climate, waters, and baths that has yet been published in our language.

The real difficulty in the use of these natural agencies has been ignorance. Indeed, so vast an amount of detailed information of localities, which is apt to get out of date, must be combined with special experience and power of selection, that not even every physician is likely to be an expert in these subjects. In cases of difficulty, and where individual characters have to be primarily considered, the expert must, of course, have the last word, but for everyday purposes this book presents a clear account of general principles and a mine of useful information, and will form a work of reference helpful alike to the practitioner and the public.

Change of climate is but one of the objects of going abroad. The influence of environment at the health resort, and of travel *per se*, both upon bodily and mental functions, are rightly emphasised in this work. They are, indeed, often a more essential element of treatment than either climates or baths. As regards climate, it will now be generally admitted that there are comparatively few disorders for which the climates of Great Britain are not as well adapted as any other. If a necessary exception be made for some forms of consumption and of chronic joint disease and defective circulation, and for failing vitality of old age—for all of which a less humid and more sunny winter climate is sometimes advisable—our health seekers might well, as respects climate, remain within our own shores. The present authors, after a survey of many climates, give little countenance to the common complaint of the “changeable weather” of these islands, but rather affirm that “frequent moderate changes of weather are favourable to health and vigour.” Although we may be limited, as the meteorologists inform us, to less than

one-third of our possible sunshine, whilst Italy with a more translucent air enjoys more than one-half; although the microbes and spores in the atmosphere of our towns may reach to many hundreds or thousands in the cubic metre, whilst they are absent from the alpine, arctic, and ocean airs, yet notwithstanding our people have developed, thanks partly to the climate, a power of resistance to disease which gives them, on the whole, a standard of health and energy probably unsurpassed in the world.

We note the useful distinctions drawn between the various marine climates. The *warmer* group for winter use include the equable and humid climates like those of Madeira, the West Indies and Ajaccio, and also relatively dry climates like those of the western Riviera. Again, the *colder* seaside resorts of northern Europe and the Baltic are valuable bracing stations in summer. In dealing with the effects of climates of high altitude, an interesting fact, to which Sir H. Weber has already directed attention, is again stated, namely, that an elevation of 500 feet to 800 feet in Great Britain is equivalent or more than equivalent to 2000 feet or 3000 feet in southern Europe. The statement is well within the truth, and many instances could be adduced in confirmation, for example, the highlands of the north-east of Scotland. The quality of the air in that region appears to resemble that of the Alps without the rarefaction, and it is a remarkable fact that some of the disorders, such as degenerative vascular changes, dilatation of the heart, and nervous prostration, which are unfavourably affected by an alpine climate, are markedly benefited in our own more northern but less elevated and equally bracing climates. The effect of latitude upon conditions of disease might well receive more detailed treatment in a future edition.

The recent additions to our knowledge of soil and subsoil as factors in climate are here well summarised, but our appreciation of the effect of local variations is still very imperfect. Here, as elsewhere, there exists a body of valuable but empirical observation, which needs to be collated and systematised. For example, the influence both of soil and subsoil upon rheumatism is of acknowledged importance.

The second half of this volume is devoted to balneotherapy. This is a branch of medical science and practice in which, thanks to the conscientious work of modern spa physicians, a very salutary change has been effected of late years. Like other branches of treatment, it was once vitiated by charlatanism, and later obscured by irrational tradition and routine. Balneotherapy has been founded anew upon exact observation, and the present treatise is a striking testimony to the fact. We are here furnished with a good *résumé* of the effects of the different classes of mineral waters, of which some of the most active are but weakly mineralised. Not many years ago it was often denied by competent authority that ingredients in such dilution could have any therapeutic effect, and the curative results experienced were ascribed to the imagination. It is

now recognised that dosage is not to be measured by bulk. How far we have travelled from the older doctrine may be appreciated on reading such statements as the following:—"in very dilute solutions the salt molecules are supposed to be held in solution almost entirely in a state of dissociation, as *ions*" (p. 319); and "It must be confessed, however, that minute quantities . . . apparently too insignificant to deserve mention, may ultimately turn out to have a real importance" (p. 327).

The selection and employment of baths in chronic disorders belong mainly to the spa physician. The present volume contains much suggestive material, but there is still room for a good practical treatise on the use of baths by a practising balneologist. The need for an "after-cure" in all serious cases is here very properly insisted upon. It may be safely affirmed that the failure of health-resort treatment is due in most cases either to the neglect of the "after-cure" or else to the common error of indulgence in a too prolonged course of baths, or in baths at too high a temperature. The valuable place of *sub-thermal* baths, given at temperatures below blood heat, has never been sufficiently emphasised as a mode of treatment at all the spas.

The discussion of the indications for climatic and spa treatment in the closing chapters should be of service to all those who have to do with the selection of a health resort.

#### THE CORAL PORITES.

*Catalogue of the Madreporarian Corals in the British Museum (Natural History)*. Vol. vi., The Family Poritidæ, ii., The Genus *Porites*, Part ii. By H. M. Bernard. Pp. vi+173. (London: Printed by Order of the Trustees of the British Museum, 1906.) Price 20s.

WITH the publication of the second volume of the Poritidæ it may be said that Mr. Bernard's system of cataloguing the corals in the British Museum has been given a fair trial. A great deal of skilled labour has been devoted to this work, and a great deal of money has been spent upon it. It is therefore right that the merits of the system itself should be re-considered in the light of the results obtained.

That the catalogue is of some value no one would be disposed to deny. We have now, not only a record of the existence of a number of specimens of corals in the British Museum, but a careful, detailed account of their form of growth and skeletal characters. For those whose business it is to catalogue or study certain genera of corals, it is now possible to ascertain, without making a special journey to London for the purpose, that their specimens are similar to others in the possession of the British Museum. Students of coral structure have, moreover, the advantage of considering the general remarks on the variation in the mode of growth, of the arrangement of the septa, pali, &c., made by an authority who has had a very large number of specimens to examine.

But Mr. Bernard has abandoned the time-honoured

plan of arranging his specimens in groups of species and has adopted the system of ticketing each specimen with the name of the locality in which it was found and a meaningless number. Thus the specimen in the Paris Museum, which has for nearly a hundred years been known as the type of *Porites clavaria*, Lamarck, is recorded in the British Museum catalogue as *Porites americana incertae sedis secunda*.

It is true that the attempt to apply the Linnean system to the Madreporaria and other orders of Coelenterata is beset with many very great difficulties. Everyone who has worked at the systematic zoology of these animals has met these difficulties, and has probably realised that in the present state of knowledge his solution of them is crude and unsatisfactory. But we are still in the early period of the history of coral morphology, and until our knowledge of the anatomy of the coral polyps, of their tentacles, of their mesenteries, of their mesenteric filaments, and of other features of their anatomy is considerably extended, we are not in a position to conclude that the Linnean system is not applicable to them. The advantage of using the Linnean system, however, even in the present state of knowledge, is that it enables the naturalist who has made a special study of a genus to express his opinion, by the arrangement of the specimens into specific groups, of the relations he believes they bear to one another. His opinion may not be sound, it may even prove to be misleading, but the stimulus it gives him to careful and accurate observation is the very soul of his work, and alone gives life to systematic zoology.

In Mr. Bernard's catalogues we find simply a bald statement of facts. There are descriptions and figures of specimens, there are tables and lists, but there is not one word concerning the thoughts or opinions of the man who has devoted so considerable a part of a lifetime to the collection of these facts. It is like a quantity surveyor's estimate of bricks and stones without an architect's plan of the building they are to construct. We do not get in this system what we might expect to get, the benefit of the author's long experience, and, on the other hand, for those who would follow him in the systematic zoology of corals his volumes offer nothing but discouragement.

The time has come when a new line of research should be undertaken, namely, a systematic study of the soft parts of a large number of specimens of some one genus such as *Porites*, and a comparison made of the relation of the anatomy of the zooids to the different forms of skeletal growth. In this investigation some of Mr. Bernard's tables may prove useful, but the naturalist will have to go through a great deal of the work again in order to make the record valuable for systematic purposes. Such a study may achieve a great deal in clearing up the difficulty of distinguishing between characters that are intrinsic and transmitted by heredity to successive generations and characters that are due to the immediate influence of the environment. It may indicate to us the characters that are of value and those that are not of value for purposes of classifi-