midwife to call in the aid of a medical man in certain contingencies and yet make no provision for his fee? The truth is the State has always exploited the generosity of the most humane profession, and, like many private individuals, has got the credit for benevolence at the expense of the doctor.

It is of paramount importance, if the new order of things is to secure a real and permanent improvement in the health of the nation, that the terms of service under the Act should be such as to attract men of the highest possible stamp, both as regards intelligence and character. For it must be the object of the State, if it interferes in medical practice, to obtain for those it takes under its charge the best rather than the cheapest medical service, for the best will in the end be the cheapest. If those working under the Act are to be dragooned by a Government department, overworked, underpaid, and their time wasted by vexatious regulations, nothing but harm to the nation can result.

In order that the medical service may be truly efficient the following conditions must be fulfilled:

1. The relationship between the doctor and his patient must not be subject to any interference on the part of the State. It must resemble as closely as possible that obtaining in private practice.

2. Payment must be made for work done, and an end made of *per capita* contract agreements.

3. The doctor must be able to earn from his practice a sufficient income to requite him for his long and expensive course of training and for his hard and trying work, and the many risks it entails.

4. He must be able to do this without such overwork as would exhaust his strength and diminish his interest in individual cases or deprive him of the leisure necessary alike for study and for health.

For that which attracts into the profession the best stamp of men is not so much the hope of material reward as the satisfaction which belongs to the successful conduct of a difficult case; to the many opportunities for doing useful work; to the human fellowship and sympathies which centre round the sick bed; to the close friendships which grow so rapidly and become so firm and lasting between those who share a great anxiety; to the satisfaction to the scientific mind in adding something to the sum of human knowledge, and to the philanthropic mind in taking something from the sum of human suffering.

In the present necessarily heated controversy so much space has been given to the no doubt important question of fees that the far more important question of the health of the nation, which is the profession's true object, has been comparatively neglected.

For, although the doctor who thinks more of his fee than of his patient quickly degenerates from the physician into the charlatan, so, too, will the doctor who is overworked and underpaid soon change from the careful, painstaking physician into the rule-of-thumb empiric, and from the cheerful, willing servant to the grudging slave. You cannot divorce the true interests of the profession from the true interests of the nation; they stand together, or they fall together.

The storm cloud of the present crisis, though dark and threatening, is not without its silver lining. It has brought to the profession a unity of aim which has long been desired but never before reached. It has thrown us back upon first principles. It has taught us that, if our aim is as it should be, and as I believe it always has been, the welfare of the nation, we shall have behind us the support of all that is best in the nation in working out our own salvation.

EAST ANGLIAN BRANCH.

CHANGES IN THE CONCEPTION AND TREATMENT OF INSANITY DURING THE PAST TWENTY-EIGHT YEARS.

By JOHN TURNER, M.B.,

President of the East Anglian Branch; Medical Superintendent of the Essex County Asylum.

I PROPOSE to give a short account of the changes in our conception, classification, and treatment of insanity during the past twenty-eight years—a period of which I am able to speak from personal knowledge.

At the outset I may state that in my opinion, while we have progressed in our general knowledge of the nature and mechanism of insanity, we are not able to record much real progress in our treatment of this disorder. Unquestionably at the present time the insane are better looked after, their lives are rendered more bearable, and many more lead useful and productive lives than formerly. They are encouraged to work, and much care is exercised to find out their capacities in this direction; but when we come to speak of cures, even in the wide sense in which this word is used in asylum reports, I cannot see any progress whatever.

All over England, Germany, France, America, and the whole civilized world, are now numbers of enthusiastic workers, seeking not only to discover the real nature and cause of insanity, but also its cure, and in their attempts towards the cure of insanity they have accumulated facts which have greatly enriched our stores of knowledge in regard not alone to brain structure, but also to its functions.

The keen interest that medical officers generally now take in their work is one of the most hopeful features of the present day. Twenty-eight years ago, although there were brilliant exceptions, too often the superintendent of an asylum was some cultured gentleman, whose opinion on almost any subject but insanity was worth listening to, whilst his junior colleagues, generally chosen for their social or athletic qualities, even if they were interested in their work, produced little to show that such was the case.

We had a very simple and unsatisfactory classification. If a patient was noisy and excited, he suffered from mania; if he were low-spirited, from melancholia. Monomania was recognized by some of the more thoughtful, but did not find a place in the official classification. Patients defective in their habits were demented; the residue were idiots, imbeciles, and general paralytics; the cases, being duly labelled, possessed no further interest. The trouble was that patients would not conform to their labels; the maniac of to-day appeared to-morrow profoundly depressed, or vice versa. Some alienists got over this difficulty by dubbing the most obviously alternating cases *folie circulaire*; others ignored the individual vagaries and stuck to their diagnosis. The idea was almost universally accepted that there were distinct insanities—distinct nosological entities, like typhoid and scarlet fever. Juvenile general paralysis was unknown, and the intimate relationship between general paralysis and syphilis had not received—in England, at all events—much recognition. And yet under these conditions the yearly output of “recoveries” was as large as at present. The average duration of detention was no longer and the death-rate no higher.

But, as I have said, there was a bright side to this picture, for among the few students of insanity were mighty workers in the field of pathology, and it was hopefully expected that pathology would disclose the cause as well as the nature of insanity and afford a clue towards its treatment. One may broadly divide the period under review into three divisions:

I. The Pathological Period.

This began many more than twenty-seven years ago, and is identified in the early stages with the names of Griesinger in Germany and Sankey in England, but the study was only languidly pursued in England until in 1889 the appearance of Bevan Lewis's textbook gave it an enormous impetus. His book marks an epoch, and, although some of his deductions are now discredited, there is no doubt of the high scientific value of his researches.

A very important step in the furthering of pathological work was the opening of a laboratory by the London County Council in 1895. Dr. Mott was appointed director, and under his brilliant administration not only has he by his own researches advanced the knowledge of the pathological processes in insanity, especially in relation to the part played by syphilis in the production of general paralysis and tabes, but he has also trained many who have done good work of their own, and in this connexion the name of J. Shaw Bolton stands out prominently. Bolton's researches on the structure of the cerebral cortex are of profound interest. By the careful microscopic measurement of the different layers in the cortex

he has reached data which with a high degree of probability establish the part which each plays in cerebral function.

The aim of the pathologists was to establish a definite pathological basis for the different forms of insanity. This they have not yet succeeded in doing, or only to a very limited extent; but in my opinion they have produced evidence in favour of an anatomical basis. There are cogent reasons for Bolton's contention that the lunatic is born, not made, and that all insanity is associated with a deficiency in certain nerve cell layers in the cerebral cortex, or with cells inherently defective in structure.

II. *The Clinical Period.*

This in its modern development is largely associated with the name of Kraepelin, whose cardinal idea is that the different forms of insanity are distinct morphological entities, and that they can be differentiated from one another by the careful study of symptoms.

It is to this school that we owe the idea that mania and melancholia are only phases in one disease—manic-depressive insanity; and although, now that attention has been drawn to it, the great majority of alienists recognize that cases of pure mania or melancholia are practically never met with, yet this does not necessitate the adoption of the view that manic-depressive insanity is a nosological entity.

From Kraepelin also we get the term "dementia praecox," and a graphic and exhaustive account of its symptoms. This subject has dominated the whole world of alienists for the past few years, and has led to torrents of criticism and acrimonious debate. Unquestionably the name has come to stay, but there is still wide divergence as to what exactly it connotes. The abiding merit of Kraepelin's teaching is that it insists on the careful study of cases. We have to differentiate in every direction; excitement is no longer synonymous with mania or depression with melancholia, and so on; and to establish a satisfactory diagnosis of dementia praecox needs the most careful sifting of a large number of symptoms.

Although I have termed this the clinical period, it did not dissociate itself from pathology; it naturally rested on a pathological basis, and vigorously prosecuted a search, not only of the nervous system, but of all the tissues of the body, for evidence in this direction, and during this period clinical pathology came very much to the fore, and important researches were carried out on the blood and other fluids.

III. *The Psychological Period.*

In this, the latest period, associated especially with the names of Freud and Jung, pathology is no longer tolerated. We are distinctly warned by one of its ablest advocates against anatomical conceptions of psychic processes.

There is no doubt that we are greatly indebted to these men, who by their careful studies have let a flood of light upon many of the dark problems of insanity, but they cannot afford to dispense with the work of the anatomist. Each branch—anatomical, clinical, and psychological—is of equal value, and not one alone is capable of yielding the full truth.

According to the psychological school, dissociation of the "ego" or personality is the prime factor at the root of those large classes of cases termed respectively "hysteria" and "dementia praecox." The "ego" is split up and a new complex is formed, working more or less independently of the mutilated ego, and at the same time to a large extent, if not entirely, subconsciously. But although the patient is not clearly conscious of the activities of this newly formed complex, he or she experiences vague feelings of discomfort, dissatisfaction, or of unfulfilled (largely sexual) cravings. There is thus, as it were, a conflict in the individual, whereby the conscious part of the personality seeks by various means, of the nature of subterfuges, to submerge or keep down the painful feelings due to the activities of the split-off complex. Thus we may get what Freud terms a "defence psychosis," giving rise to what appears to the observers as meaningless or incoherent conduct, but which can be shown to be rational in the circumstances, if one can draw the activities of the split-off complex into the light of consciousness, and Freud and his followers claim to be able to cure a number of cases of insanity by this method.

The assumption of the split-off complex necessitates the further assumption of dissociation or disintegration of consciousness, or apperceptive dementia, because, instead of all the mental processes working to one harmonious end, some are drafted off in one direction, some in another. If we translate this into neurological terms we find that there is nothing startlingly new in it. It is the psychological side of dissociation of the nervous channels of the cortex; and it is these channels—or rather the areas which are believed to contain the mechanism for association—which Bolton has shown are most affected in the brains of the insane.

So with all the phenomena occurring in abnormal psychology, we may, so far as they are amenable to scientific treatment, express them in physical terms. And moreover, we may by means of diagrams greatly assist in the furtherance of our conceptions. Diagrams are very valuable aids to clear thought; unless atoms had been symbolized, the atomic theory would never have reached its present full development. There can be no doubt of the high value of the work of Freud, Jung, and their many British followers; but, speaking personally, much that they write is to me unintelligible unless we transfer their conceptions to a physical basis. I can picture a ruptured neurofibril stopping the passage of a nervous impulse, but not a split thought.

These doctrines have great value as a working hypothesis of what occurs, not only in hysteria and dementia praecox, but in every case of insanity, and afford a reasonable explanation of the symptoms in many cases hitherto found to be very baffling to unravel.

According to the view that I in common with some others hold, there is a lack of development, both quantitative and qualitative, varying in degree, of certain of the cortical layers of nerve cells, more especially the pyramidal, in every lunatic, and in every person who is susceptible of lunacy, and no one without this inherent defect can develop idiopathic insanity. In this sense, as Bolton insists, the lunatic is born, not made, and lunacy is an anomaly of nerve cell development. Nevertheless, to excite an attack of insanity in the very large proportion of cases an extrinsic factor is requisite; and, whatever the nature of this may be, it operates by producing a dissociation in the intercommunicating nerve paths connecting or linking together different nerve cell centres, chiefly in the cortex.

I endeavour to classify my cases on this basis, but the more closely one associates with, and the longer one lives with the insane, the more hopeless is the task of trying to sharply mark off one form of insanity from another. Those symptoms which the textbooks tell us are found only in this, we find also in that variety. We must be content to endeavour to appraise the relative value and intensity of the individual symptoms, so as to form some idea of the probable future of the case, and to discover in which niche of our classification it is most "at home."

Treatment.

Scarcely a week goes by without some startling statement in the press that the cure of insanity has been discovered. This generally refers to some procedure, may be of a surgical nature, by which one who is insane can be cured and rendered sane.

But apart from the actual cures for existing insanity, we are inundated with prophylactic measures for the prevention of the spread of insanity and the improvement of the race.

One scheme which finds much favour, not only with the public, but with a certain section of the medical community, is State regulation of marriage, but it is extremely doubtful whether, if practicable, it would in any way meet the case. In the first place, the assumption that the prevention of undesirable marriages would diminish the production of offspring is not very convincing. Probably if marriages were restricted, illicit connexions would increase, resulting in the production under most unfavourable conditions of more illegitimate children, more likely to swell the ranks of the insane. Secondly, if our aim were to produce a kind of prize cattle individual, whose value in the community was determined by his muscular development and physical fitness in general, there might be some reason in controlling marriage if we could thereby also control production.

It takes many sorts to form a flourishing community, and in these days of machinery mere bodily strength is one of the assets most easily dispensed with. The highest qualities of the brain are often found in association with a sickly body. Could we possibly, by legislative measures, contrive that only the physically fit should mate, we should, judging by breeders' experience, produce a stronger and more attractive race; but if this were done at the expense of the mental qualities, the result would be not a gain, but a catastrophe, to any community which achieved it. As a matter of fact, we know practically nothing of any means by which a desirable blend of the physically and mentally fittest is to be arrived at.

All we can reasonably expect is that, by legislative means, we could in some measure prevent patently undesirable or degenerate people from propagating progeny likely to be themselves undesirable or useless. This would be the case if greater facilities were allowed to the authorities of public asylums to detain cases which, although they may not be certifiable on a fixed date, are sure to relapse if discharged. But in this, the only practicable direction, the law insists on the discharge of hundreds of persons yearly, who, returning to their homes, breed, multiply, and relapse into insanity again.

The sterilization of the unfit as a means of stamping out insanity is another measure advocated. It, like the licence to marry, is a scheme which lends itself to newspaper reporters in search of any novel or startling remedy, but it is a measure that is not likely to be seriously entertained in England, for, were it enforced, what could it do towards lessening the incidence of insanity?

The suggestion is founded on deductions arrived at by breeders and students of heredity. But these deductions themselves contain a proof of its futility. What boots it to sterilize the unattractive, imbecile, degenerate, or insane members of a family, and allow the attractive or even the average members to propagate? This is what it would come to; for any taint in a family, so far as we know, does not restrict itself to any one particular branch, or to any particular members of that branch, although these may be the only ones with demonstrable signs of degeneracy—insanity or other nervous abnormalities. As a matter of fact, in the long run the more unfit an individual is to mate the less likely is he or she to leave descendants; the race dies out, and Nature sterilizes for us.

Among the more recent methods of dealing with the insane individual with the object of curing him of his insanity, I shall only mention psychotherapy. This is the latest form of exorcism; only drag out the evil spirit into the light of day, and it will flee from you and you are cured. I have myself had very little personal experience in this form of cure, so that it is not becoming to me to dogmatize on its merits or demerits, but I must confess I am sceptical as to its efficacy in the majority of insane cases, and I do not consider the evidence which has been adduced to show its benefit as at all convincing.

The term is misleading; if there is such a cure it is not psychotherapy. The spoken word, the written word, the gestures and appearance which form the weapons of the psychotherapist are as purely material factors as a dose of calomel, and they can only act by the impression they make upon the sensory end organs of the subject; they produce psychical effects, but, as must always be the case, through physical channels. It is not as I imagine the psychologist *quâ* psychologist who effects a cure, but a physical alteration in nerve cells. True it is the reason of the psychologist which induces him to apply the remedy, but equally true is it that it is the reason of the practitioner which leads him to prescribe a purgative.

But apart from such etymological cavils there are, even should it be shown that the means is a good one, grave objections to the procedure—namely, its complexity and its duration. The latter removes it quite out of the sphere of practical politics as a routine means of treating all but wealthy or well-to-do patients. In a public lunatic asylum for poor people, at best only a few favoured cases could receive the necessary time and attention which must be expended if it is to be properly carried out. Perhaps then, as I have seen it stated, a case may after six months' zealous attention gratify the physician by showing signs of improvement. Apart from its problematical curative properties, there can be no doubt of the value of this

method in investigating some of the most abstruse problems of the disordered mind.

Although it may appear from my account that we have very little to show for the large amount of time spent in investigating insanity from all sides, we are, I think, justified in assuming that we do know more about the subject than twenty-eight years ago.

We are more often able to give more precise scientific reasons in obscure, and not patently maniacal, cases, to show in what respect they are insane, than the dogmatic statements or vague formulae which formerly were so often all we had to offer. It is a step in the right direction. The only way that advance in treatment is possible is by the all round study of the subject. The enormous amount of research work now going on is not labour wasted. To borrow a metaphor used many years ago by Sir George Savage, it is like filling up an enormous pit; countless barrowloads of material are flung in without for a long time showing any effect; but each load tells its tale, and slowly but surely the chasm becomes obliterated.

With the spread of knowledge, not only in the field of insanity, but in other fields of scientific research, it is to be hoped that much of the unnecessary dread which now surrounds the subject may be dissipated, and the stigma now attached to its victims or their relatives removed. This will give treatment a better chance. Now it is the rule for friends to conceal or deny insanity in their relatives, until the disorder has become more or less fixed, chronic, and too severe to treat at home. Doubtless, if incipient nervous breakdowns were fully recognized and promptly cared for, many more recoveries would be recorded, and fewer persons would ultimately become chronic burdens to the State.

We hear a great deal nowadays about the increase of insanity, and the deterioration of the race to be feared; but all insane are not imbeciles or degenerates, and many of those who swell the ranks belong to that large class to which the term "dementia praecox" applies, who often reach adolescent life with the promise of abilities above the average. At the root of the matter in these cases there would seem to be a lack of durability in the nerve cells. These persons have the necessary cerebral mechanism for high mental attributes, but they lack staying power. It is, in my opinion, especially in this class that a recognition of the trouble sufficiently early might in many cases ward off a nervous breakdown.

But this would mean that these persons would have increased facilities for procreating their species. Why not? There are, as I have just said, insane and insane, and doubtless with many it is desirable that they should not beget, but with others, clever but unstable folk, it may be quite otherwise. I believe that the offspring of a clever parent who has had an attack of insanity stands a better chance of becoming a useful member of a community than one whose parents, whilst labelled sane, have not an ounce of intellect between them.

Gregor Mendel's discovery, half a century ago, of the peculiarities of reproduction in culinary peas when crossed, gives us reason to hope that the deductions drawn from his observations and experiments may be applied to human beings, and if so, it is not improbable that the so-called taint of insanity may, under certain conditions, be no insuperable bar to marriage in the possessors; nay, the possessor of such a taint may even be a desirable progenitor if he or she also combines other qualities or factors.

Personally I am no great believer in attempts to control destiny, but anyhow the knowledge that it is possible to breed true in a large percentage of cases from tainted or impure stock is comfortable intelligence, and should be the means of reassuring many troubled minds.

The burden of insanity is the price we pay for progress. All nations taking a foremost place in the world have already, or will have in time, a large number of lunatics. I believe that if England ever does reduce her number to any extent it will be only when she has lost her place in the front rank. Do not misunderstand me: it is not by the lunatic that we as a rule benefit—although there are many exceptions to this statement—but, among families in which lunatics occur are also often to be found men and women of great abilities. In these there is, we may suppose, the proper blend of instability with high attainments which makes for progress. Nature is ceaselessly carrying out experiments, and the lunatics are her failures.

All progress, as we understand the term, is the outcome of the activities of persons of high mental qualities and unstable nervous systems. The possessor of the stable nervous system is the placid bovine individual who is contented with his surroundings; but discontent is the very foundation from which all progress springs.

In conclusion, it appears to me that as the result of the labour expended on the study of insanity we are beginning to realize that insanity is not necessarily the bugbear we thought in the past. All insanity does not imply degeneration; we cannot make progress without that condition of the brain which makes for insanity.

YORKSHIRE BRANCH.

A PLEA FOR HARROGATE AND OTHER ENGLISH HEALTH RESORTS.

BY

CHARLES GIBSON, M.D., J.P.,

President of the Yorkshire Branch; Physician to the Royal Bath Hospital, Harrogate.

In the course of his address, on his installation as President, Dr. Gibson spoke as follows:

Notions of medicine have changed; men now understand physiology and believe in helping Nature in every possible way. How little we really know and how little we merely believe we know it is difficult to say, for simple authority is still largely the guide in ordinary medical practice. Nevertheless, we certainly have at the present time a much deeper insight into the exact character of disease than had our forefathers. We recognize that disease is the penalty paid for the violation of Nature's laws, whether consciously or unconsciously.

While we look upon physiology as the chief foundation of rational medicine, the science of medicine has been said to be the work of art in the field of Nature, but among many members of the profession there has been a want of trust in Nature and an over-trust in art; just as there is in physiology and pharmacology a tendency to deny anything where a scientific explanation cannot be given.

The peculiar and unexplained cures which are often effected by natural mineral waters confirm and justify the practice of spa physicians, and practical experience in the hospital is of more value to the doctor, from the patient's point of view, than any amount of research in the laboratory. The spa doctor does not belittle or dispense with the use of drugs, but uses them only as an adjunct, believing that the patient in most cases has had every advantage to be derived from their use before being sent to the spa.

In times past spa treatment was the subject of considerable scepticism and was regarded as being on the borderland of quackery, and we all know that no quack is worse than the professional quack; but now the spa doctor is recognized as a specialist who co-operates with his medical colleagues and is becoming more understood and looked upon as a valuable collaborator, and balneology is now one of the sections of the Royal Society of Medicine.

Of all the products of Nature or Art, water comes nearest to that universal remedy, that panacea, that elixir of life, so long sought after but as yet undiscovered. A large number of people look for panaceas, thinking that when found life will be easier and its privileges more apparent. Water is necessary for the digestion and solution of food; it is an essential alimentary principle, more necessary to our existence than solid food. Natural mineral waters produce effects far beyond what can be accounted for, either by their chemical composition or the power of their known constituents or by their temperature. As Gustave Monod said:

These qualities may be due to minimal quantities of the other salts in solution, to continuous synthesis, as described by Gautier, to radio-activity, or to some kindred property to be discovered by the Curies of the future.

At the present time it is believed by many that the presence of radium is the explanation of the therapeutical effects of mineral waters, and we are told radium emanation decreases arterial tension in arterio-sclerosis and increases the activity of the digestive ferments, but may also produce emaciation, albuminuria, and even haematuria.

Radio-activity is one of the many physical and chemical properties of waters which are only partially understood, and requires much careful and patient investigation. In 1905 Sir William Ramsay reported that the old sulphur well in Harrogate was markedly radio-active, and the water is recognized as the most powerful drinking water of its kind. If so much can be attributed to radium, may we not claim something for the subtle influence of barium, which we know is of great value as a heart tonic, and strontium, which aids assimilation and nutrition and improves the appetite, and calcium, which has such an effect on the blood, as well as sulphur, which Aretaeus the Cappadocian prescribed for skin affections and melancholy—that is, black bile—eighteen centuries ago? Who can say what effect these salts have upon the constituents of the water and what effect they have upon metabolism? As we have such an *embarras de richesses* in the Harrogate springs, is it not time they were thoroughly analysed? Our natural mineral waters may be taken for a considerable time without causing disturbance of the stomach or intestines, while distilled water withdraws the salts.

Mineral waters prepared artificially can never, in spite of the closest similarity of chemical composition, equal the natural product. There is always some, perhaps subtle, difference, and in the seemingly slight variation may be the peculiar therapeutic effect of the natural mineral water. We may build up a synthetical baby but we cannot give it life. The chemical and physical properties of mineral waters are not definitely understood, but it is a well known fact that to have their best and most marked effect they should be drunk at their source, the results being much more satisfactory than when they are drunk in bottled form.

The English spas are too frequently neglected by doctors in this country. Troops of patients go to foreign watering places every year. Why should they go? If it be mineral waters they require, they might quite as well, and oftentimes better, have gone to the spa in their own country. In Harrogate we have eighty springs, and no European health resort can equal it in the variety and richness in mineral constituents. In the Bogsfield alone we have thirty-four, no two being exactly alike. Our old sulphur spring is unequalled, our baths unsurpassed, and our sanitation unexcelled.

Surely it is a great gain to the invalid weary with the march of life, or worn with the anxieties of business—perhaps worried with a disordered liver, or restless with shattered nerves—to be able to go to a health resort within, it may be, a few hours of his home and his friends, where he can have the most efficient treatment in one of the most bracing and healthiest spots in England, and have the ablest advice of doctors who understand his habits, his manners, and his ways of life, and to have the advantage to be able to converse in his mother tongue, especially with his doctor, to know that his food is good and wholesome; and where he is under the protection of just laws, and where he can carry a camera if he wishes, and especially where the sanitation is of the best, and where there is no necessity for an after-cure.

In England, until the last few years, we have allowed our mineral waters to remain almost unknown, and, perhaps in consequence, doctors have sent their patients to Continental spas; and patients who have been sent abroad for gout and rheumatism and liver or skin disease, as they grow older object to expatriation, and quite naturally ask their doctor if there is no place in England where they can have treatment, and have the comforts of home life, as well as the society of their friends, and, after being sent to Harrogate, wonder—and wonder naturally—why they were not sent to Harrogate before.

If Harrogate were better known on the Continent, and its merits—its barium, strontium, calcium, lithium, ammonium, in addition to its radio-activity and its sulphur—were properly appreciated, possibly we might have the foreign doctors, if not jealous, recognizing the advantages of our spa, and sending their patients in legions.

Harrogate might be termed a family spa, on account of the extraordinary variety of the waters, as members of the same family might be sent here for quite diverse conditions and different treatment—that is, the father may be sent for gout, the mother for gall stones, the daughter for anaemia or neurasthenia, and the sons for skin or liver