AN ADDRESS ON SOME POINTS IN DIETETICS.

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MR. PRESIDENT AND GENTLEMEN,—Our advice is sought in the matter of diet in two different sets of cases. In the one set the patient is seriously ill, and disabled more or less completely from pursuing his ordinary avocations, or he is suffering from some disease which requires a special dietetic treatment, such as diabetes or gastric ulcer. In the other set the patient is only troubled with some slighter ailment or indisposition which does not incapacitate him from taking his part in the world's work, nor necessitate any deviation from his usual habits. In the former class of cases the diet often requires to be entirely transformed, the customary routine has to be abandoned, and the order, quality, and quantity of food have to be rearranged to suit the exigencies of the morbid state, with an almost complete abandonment of any thought as to what might be most suitable in health, and might best promote the success of the individual as an agonist in the struggles and competitions of life. When a man is struck down with fever, or is smitten with some organic disease, we need not consider what diet is best fitted to bring out his physical and mental powers; the business in hand is to advise what is best to keep body and soul together until the fever storm be passed, or what is best to minimise the incidence of the organic trouble, and to lengthen out existence to the utmost possible span.

But the case is far otherwise with the second group, which forms the larger proportion of those who seek our advice, and who question us anxiously as to what they shall eat, drink, and avoid. These have no organic disease, and go about their business or pleasure as usual. They complain perhaps of some dyspeptic trouble, some bodily discomfort, or mental worry or weariness; or of a want of a sense of tranquil and vigorous life; or they are getting on in years, and feel the premonitions of old age; or they belong to that class of neurotics who imagine themselves ill—persons who ponder over their sensations, and give excessive thought as to what they shall eat and what they shall drink. Most of these require of us what aid we can give them by a judicious management of their diet, not only to keep well and live long, but also to maintain that health with maximum vigour, both of body and brain.

Now, with regard to the first group, the advice tendered by us on points of diet displays a fair degree of unanimity. We do not differ much as to the dietetic management of a case of fever, or of diabetes, or of gastric ulcer, or, indeed, of any of the more serious forms of sickness. But, in regard to the second group, in the case of persons who are substantially healthy—and it is of these alone that I propose to speak—the advice tendered by different practitioners is apt to show a lamentable want of consonance, or even a total contradiction. Many patients of this group are persistent seekers after medical advice, and they go about from one adviser to another. The tales some of these have to tell of their dietetic adventures are not pleasant hearing to a medical ear, and are calculated to leave the impression on the public that our notions on dietetics are little better than a farrago of whims and fancies.

All this confusion is, I believe, to be traced mainly to a want of appreciation of the right method of investigating questions relating to diet. I have on previous occasions spoken on this point; but it cannot be too often or too urgently insisted on that the only true basis of a scientific knowledge of dietetics is to be found in a painstaking and unprejudiced objective study of the food customs and habits of mankind. These customs and habits are as much sober, unsophisticated facts of natural history as are the food habits of wild animals. They have grown up by the free play of natural instincts, under the regulating force of universally acting biological laws, under the pressure of the sleepless vigilance of the law of the survival of the fittest and the sure incidence of the laws of heredity. Neither physician nor physiologist has had anything whatever

to do with their formation; and, among European communities, and especially among English-speaking communities, the bungling hand of authority has not materially interfered with their normal development.

Some persons appear to think that civilised man is, to a large extent, a denaturalised creature, and they speak of civilisation as if it were the antithesis of Nature. No conception could be more fallacious; for, after all, strictly speaking, civilisation is but a branch of natural history. We can no more withdraw ourselves from the incidence of biological laws than we can from the incidence of physical laws. Biological, like physical, laws are absolutely inexorable, and all the apparatus of our civilisation and all the influences which flow from the initiative of our reason and the action of our intelligence can only modify the conditions under which they operate. I contend, therefore, that we have in our generalised food habits and customs a natural dietetic standard or model—as truly natural as the food habits of the squirrel, the blackbird, or the trout; and, further, that we are warranted in concluding beyond all reasonable doubt that there lies in each main feature of this standard some important beneficial purpose. Considerations of this order, if fully realised by us, would, I think, give greater steadiness and coherence to our notions on dietetics, and bring more uniformity into our rules of practice.

If these views are sound, the office of the medical adviser in matters of diet may be broadly defined to be to adjust the national standard of diet to the special peculiarities and the changing needs of the individual; and in carrying out this adjustment it is his duty to adhere, as far as is practicable, to the main features of that standard.

An attentive examination of the dietetic customs of civilised races reveals very clearly that there are two distinct indications aimed at: one is to subserve the needs of general nutrition, and the other is to subserve the needs of the higher functions of the brain and nervous system. It may be said that bread and other cereal articles, leguminous seeds, the various products of the dairy, fruits and vegetables, the harvest of the sea, and meat are designed to minister to the former purpose; and that tea and coffee, and the various forms of alcoholic beverages, are designed to minister to the latter purpose. With this second group should also be classed tobacco, for although tobacco cannot be regarded as food, its use must be ranked with our dietetic customs. Strictly speaking meat, or at least some kinds of meat, should probably find a place in both categories, for it possesses certain stimulating properties which distinguish it from vegetable and dairy products. Tea and coffee and alcoholic beverages are sometimes branded as luxuries. What is a luxury? You cannot rightly class as luxuries—meaning thereby something that has no solid utility to the species—articles that are in general use among a successful and ascendant community. The very fact that they have attained this position is, to a naturalist, evidence sufficient that in some way or other the community as a whole, and in the long run, benefits by their use. The struggle for existence—or, rather, for a higher and better existence—among civilised men is almost exclusively a brain struggle; and these brain foods, as they have been not inappropriately termed, must be regarded as a very important part of the equipment for that struggle.

One of the most characteristic features of our national dietary is its *variety or diversity*. Not only are our several daily meals framed on a different plan, but the meals of one day differ more or less from the corresponding meals of another day. We may be quite sure that this diversity serves some useful end. In drawing up schemes of diet we are not, therefore, justified in neglecting this feature and in reducing the diet list to a dead level of monotonous uniformity. A want of attention to this point leads us unwittingly to needlessly torment and worry our patients by placing unnecessary restrictions on their choice of food. Some of those commonly imposed are difficult to understand. There is to be observed a sort of fashion running through these restrictions, yet I know not on whose authority they repose. I do not think it is any medical authority. My impression is that most of them derive their origin from some crude notions floating through the lay press, and unconsciously lodged in the medical mind. Why, for example, should tea and coffee be so frequently forbidden without any evidence that they disagree with the patient? Or why should the bland, innocuous, and easily digested potato be so ruthlessly proscribed? Sometimes prohibition takes a wider sweep, and fruit and vegetables are included in one general condemnation. Nor are the rules laid down always self-consistent.

Sugar is forbidden while farinaceous matters are permitted, although, as is well known, these latter are all transmuted into sugar in the course of the digestive operations. Mutton is sanctioned, while beef (of which certain parts are quite as digestible) is denied; or both beef and mutton are condemned, while poultry and game are recommended. These kinds of restrictions are, for the most part, quite unmeaning; they stand on no ground of science nor of experience, and are gratuitously punitive to our patients. Some, I admit, seem to derive a sort of grim satisfaction from their dietetic fetters, and come to regard them almost as a mark of distinction; but to most persons these restrictions are very irksome, or even unendurable, and, indeed, many patients break through them, and may sometimes be heard complacently relating how they profited by their rebellion. I remember, some years ago, an amusing instance in point, where I was myself one of the incriminated parties. A fine old gentleman in this neighbourhood, on account of some vesical trouble, had his port wine, to which he was very partial, entirely cut off. His convalescence proved tedious and halting, and still the port wine was withheld. On some special occasion—I forget what—his powers of resistance gave way, and out came the port wine; and he used to recount with glee that he never looked behind him after. I hope I have learnt some useful lessons since then.

Now there is, I think, one very good rule in regard to the regulation of the diet in cases where there are no special indications to fulfil, and that is to put two questions to the patient when he inquires whether he may take this or that article of food—namely, Do you like it? and Does it agree with you? If the answer be in the affirmative, there is no intelligible reason why the use of that article should not be sanctioned. Such a rule is so plain and simple, and so obviously consonant with good sense, that it might scarcely appear worth while, or even dignified, to make formal mention of it, and I would not have done so had I not been satisfied, from actual experience, that it is constantly violated.

The indications of the palate are of great importance in the regulation of the diet, and should always be inquired into and carefully considered. The palate is placed like a dietetic conscience at the entrance gate of food, and its appointed function is to pass summary judgment on the wholesomeness or unwholesomeness of the articles presented to it. It acts under the influence of a natural instinct, which is rarely at fault. This instinct represents an immense accumulation of experience, partly acquired and partly inherited. It is, of course, not infallible—no instinct is, but so close and true are the sympathies of the palate with the stomach and the rest of the organism, that its dictates are entitled to the utmost deference as those of the rightful authority in the choice of food. I am of course aware that the palate—or, rather, the civilised palate—is not always credited with these solid good qualities. Some persons there are—not medical authorities—who distrust its office, and regard its indications with suspicion, as if they were the suggestions of some frivolous and wanton agency, tempting men to a vain gratification of the senses, rather than as those of an honest and skilful guide in the choice of food. This puritanical view of the palate is wholly unscientific; it moreover implies, to speak figuratively, a gross slander on a responsible and rarely endowed organ which has performed in the past, and still performs, most difficult and most complicated functions with conspicuous success; for who shall venture to say, that in the evolution of the human animal from the short-lived, immoral, and stupid savage, with his diet of wild fruit, roots, raw flesh, and unfiltered water, to the status of civilised man, the promptings of the palate have not played an important and even indispensable part? We are apt to forget that there is no such thing as an absolutely good or an absolutely bad flavour to the animal palate. Sweet things are indifferent to the palate of the carnivora; and, conversely, the taste of flesh has no attraction for the herbivora. Each animal has its own gustatory standard, which is accurately adjusted to the wants of its particular economy.

It must, however, be admitted that this eulogium applies rather to the typical or general palate than to the particular palate. Man is the most individual of all creatures, and his palate fully shares in this characteristic. And while it is true that the normal or average palate indicates automatically and correctly, not only the due quality, but also the due quantity of the eating and drinking, there are other palates that require more or less of the control of reason to steady their indications. Then there are eccentric or misfitting palates that appear—if one might so express it—as if they belonged to somebody else—palates which are not inherently defective, but which stand, in one or two par-

ticulars, in sharp discord with the organism to which they are attached. And, lastly, there are palates which are altogether perverse and depraved; that habitually betray their hosts, and lead them into endless digestive and other troubles. It is the business of the medical adviser to diagnosticate these eccentric or vicious palates, and to assist their owners by judicious counsel how best to neutralise their evil promptings, and to train them if possible—for the palate is, to a certain extent, an educable organ—to a more wholesome and more harmonious performance of their functions.

The next point to which I would call your attention is the advantage to be gained from *change of diet*. A readjustment of the quality of the meals has often the happiest effect. Change of diet is as refreshing as change of air. The gratifying results are sometimes credited to the skill of the medical adviser in making an improved selection of food when they are really due to the change itself. A course of two or three weeks of vegetarian regimen occasionally proves most grateful, especially in the case of habitually heavy feeders—and, similarly, a course of total abstinence from alcoholic beverages is often highly salutary, and, most of all, for those whose daily potations are on a liberal scale. The good effect of mere change of diet is, I think, deserving of more attention than it has hitherto received. There need not be such a departure from the general plan as is involved in vegetarianism or total abstinence. Slighter alterations are often of signal benefit—changes from tea to coffee or cocoa—from one kind of alcoholic beverage to another—from one sort of bread to another. Again, a revision of the order and times of the meals is sometimes beneficial. I have seen more than once an alteration from a mid-day dinner to a late dinner or substantial supper effective in removing a troublesome insomnia. In carrying out plans of change of diet it should ever be borne in mind that the effect is temporary, and that its benefits are exhausted in two or three weeks, or a month or two at the most, and that then a return to the old diet or a new change may be desirable.

Another point of practical interest is this: when certain articles disagree, it is better to *lessen the quantity than to forbid*. If fruit and vegetables prove difficult of digestion, it is certainly unwise to prohibit them altogether. It will generally be found that if the quantities are reduced to a certain level they can be tolerated and enjoyed. The antiscorbutic properties of fruit and vegetables cannot be safely foregone; and a very small proportion suffices to fulfil this indication. I may again refer to the use of potatoes. People do, no doubt, sometimes unduly stuff their stomachs with potatoes, which the organ finds difficult to deal with. But many persons cannot enjoy, or scarcely eat, their dinners without potatoes, and to abstain from them is a great privation. Nor is this necessary; a reduced allowance solves the dilemma perfectly. Then, again, some persons are abnormally sensitive to tea or coffee or alcoholic beverages, and suffer discomfort from the quantities usually taken. But abnormal sensitiveness is not a proof that the incriminated article is unserviceable; and a diminution of the quantity may prove a better remedy than total prohibition. Your late distinguished townsman, Dr. Angus Smith, was hypersensitive to tea, but he did not abstain from it. He was in the habit of taking a tablespoonful or two of ordinary tea, and filling up the cup with water; and he used to declare that he derived as much cheer and refreshment from this weak dilution as other people did from their stronger concoctions. While on this subject I may mention a useful suggestion which we owe, I believe, to Sir Andrew Clark—namely, that sensitive persons should take their tea infused for a very short time, only for one or two minutes. There are, as is well known, idiosyncracies in which some particular article cannot be tolerated even in the smallest proportions; prohibition is then a necessity. Much more common are the instances in which there is defective self-control as to quantity. This is especially the case with alcoholic beverages. Self-control is indispensable for the salutary use of these articles; and in the absence of this quality there is no safety except in total abstinence.

I alluded a while ago to the practice of imposing punitive restrictions on the choice of food; but there are cases in which a certain amount of coercion is salutary, and even necessary. In *neurotic and hysterical persons* the stomach sometimes shares in the general nerve instability, or it may even be the chief offender. This kind of stomach, if indulged in its whims, is apt, like other pampered beings, to give itself airs—it won't have this and it won't have that—and it may even grow proud of its eccentricities. I have known such stomachs reduce their hosts, by successive acts of self-inflicted restrictions, to a diet of dry toast and

water gruel—with what results of depressed vitality you can easily imagine. In this group of cases the medical adviser may with advantage insist on a gradual return to ordinary diet; and he will often find that the stomach, after a certain recalcitrancy, will submit, and consent to digest ordinary food, perhaps to the astonishment of the patient, and certainly to the common advantage of the organism. Patients of this class should be given to understand that there are some things worse than an aching stomach—namely, impoverished blood, failing strength, and enfeebled brain and nerve. Moreover, the lower the vitality is reduced by insufficient feeding the more prone is the stomach to neuralgic pains. An enforced administration of more and better food is often the surest as well as the shortest road to deliverance from gastric hyperæsthesia.

The last point I shall advert to is the necessity for a *revision of the diet to meet those changes in the type of nutrition which naturally take place as the individual travels on from youth to age*. Senescence invades the several organs and tissues in a varying order of time; and this want of synchronism is sometimes a source of trouble. When the hair falls off or turns grey before its time, our vanity but not our health is touched. When the teeth decay prematurely, we find succour in the invaluable art of the dentist. But if the prime organs and functions of the body age with unequal steps, the matter is more serious and less easily remedied. As years roll on the balance of nutrition alters; the exchange of material shrinks, and the organs concerned therein become correspondingly less active and less capable. In the normal course the palate and appetite adjust themselves automatically to these altered conditions, and there is a lessened intake of food. But sometimes this adjustment lags behind. The power of taking food continues unaltered, while the assimilative powers are on the wane; you have the palate and appetite of 30 with the liver and kidneys of 60. Some form of nutritive disorder necessarily follows. In most of these cases, but not in all, there is a tendency to stoutness. There are indications of digestive difficulties and of engorgement of the abdominal organs, and signs of that vague condition which is termed latent or undeveloped gout. The early recognition of this condition is very important, for thereupon depends the prevention or postponement of degenerative processes which hereafter prove formidable. In this conjuncture the observant medical adviser may render invaluable service in detecting the maladjustment, and in taking timely steps for its correction. The most obvious indication is to lessen the quantity of food, and this is a task of varying difficulty. In many cases of this class—perhaps the majority—the maintenance of an undiminished ingestion of food rests on the force of habit. The accustomed quantity of food and drink is taken, though with a somewhat flagging appetite and lessening gusto. The still small voice of the dietetic conscience is unheeded; or even there may be a little forcing in of the supplies, from a mistaken notion that a falling off might prove disadvantageous, or of evil augury. In these cases an authoritative hint from the medical adviser is sufficient, and is readily accepted and acted on. Full feeders are rarely aware that they eat too much. People constantly delude themselves on this point. I do not know how it is; men often are aware and acknowledge that they drink too much, but they hardly ever allow that they eat too much. They will tell you that they eat much less than most other men they meet with, and insist that they consider themselves to be moderate, or even small, eaters; and it is difficult or impossible to persuade them to the contrary. Possibly they are apt unconsciously to compare themselves with younger men. The medical adviser must in this matter rely mainly on his own judgment and on collateral evidence. In some cases, however, there is much more difficulty in controlling the intake of food. The appetite is really strong, and the powers of digestion—at least of gastric digestion—are abnormally active. Unsatisfied hunger is a painful and an urgent guest, and, with plenty in hand, is hard to resist. The less concentrated forms of food are here a useful resource—green vegetables, salads, and thin soups—which help to fill the aching void without adding materially to the albuminoid and fatty ingredients of the meal. Tea and coffee are also serviceable in allaying an unseasonable craving for food. A stiff cup of tea or coffee shortly before dinner certainly takes the edge off a troublesome appetite. It is, however, well to proceed cautiously and tentatively in this direction, for the promptings of Nature, however apparently to us misdirected, are not to be lightly set aside. The effects of a contracted diet should be carefully and

patiently watched, with an open mind for every sign or suggestion, whether of warning or retreat or of encouragement to advance. I need hardly add that in regard to this middle-life revision of the dietary, as it may be termed, particular attention should be given to the quantity of alcoholic beverages. As a very general rule the tolerance for these articles diminishes with advancing years, and it is necessary nearly always with persons who have used them freely to reduce their quantity when middle age is reached.

In regulating the diet of substantially healthy persons, it is imperative to beware of hard-and-fast lines. Cases of this group are very diverse; scarcely any two are exactly alike, and their management is complicated often by moral and social considerations which are difficult to justly estimate. We can only hope to avoid serious errors by a patient investigation of each particular case, and by bringing to bear upon it a full knowledge, combined with a large infusion of common sense.

AN ADDRESS ON ETHER-DRINKING; ITS PREVALENCE AND RESULTS.

Delivered before the Society for the Study and Cure of Inebriety.

BY ERNEST HART.

History: Geographical Distribution: Details of the Trade Methods of Drinking: Dose, etc.: Effects, immediate and remote; Remedies.

THE allegation of the use of ether as an intoxicant in Ireland is not a new one, but the references which have from time to time been made to the existence of such practice have been received with a good deal of indifference, if not incredulity. Moreover, the practice, so far as it has existed, was said to have largely died out. Lately, however, some very circumstantial statements which have appeared in the English and Irish press excited my interest so much that I determined to supplement some little personal knowledge which I had acquired of the facts on previous occasions by a detailed investigation conducted with a view to obtain all the available information as to the prevalence of the practice, its origin, localities, sources of supply, and the observed results. For this purpose, I applied for information directly to those in the best position to know all the facts accurately, that is to say, to the doctors and priests of the incriminated districts. Subsequently, I drew up a schedule of questions relating to the time at which ether drinking came into fashion, as to the prevalence of the habit, as to the quantities taken, and its effects on the health, both of body and mind, and on the duration of life, which I placed in the hands of persons likely to have personal knowledge. Detailed replies to the questions have been received from twelve doctors, four Roman Catholic priests, and one clergyman of the Church of Ireland. I have also been able to obtain information from other sources of the places of supply and manufacture. To all these gentlemen I take this opportunity of expressing my thanks for their courtesy. The results of the inquiry are embodied in the present paper.

History.—There is some difference of testimony, or rather of opinion, as to the date of the origin of ether drinking, and as to the causes which led to its introduction. The most generally received belief is that it came into use after Father Mathew's preaching had banished whisky from a considerable part of the North of Ireland. The "new drink" is supposed to have been introduced as a beverage which might be taken without "breaking the pledge"—in fact, as a liquor on which a man might get drunk with a clear conscience. Mr. H. N. Draper¹ says ether drinking was first practised at Draperstown, co. Derry, about 1842, while ether was sold for the first time at Maghera between 1845 and 1850, and the practice became very common there five or six years after its introduction, reaching its climax about 1869. Dr. B. W. Richardson says ether was introduced into Draperstown about 1846 or 1847, and for thirteen years at least it was sold freely. Dr. Walter Bernard, of Londonderry, whose personal experience extends over forty-two years, informs me that during all that time he has known ether drinking to be practised; he considers its

¹ *Medical Press and Circular*, May 30th, 1877.