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Force vs. Work: Some Practical Remarks on  
Dietetics in Disease.

BY



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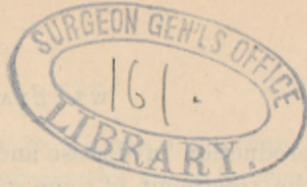
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*Mr. President and Gentlemen :*

I have much feared, since accepting your courteous invitation to address you on this occasion, that I should wholly fail in finding a subject of interest to more than a section of your body. Absorbed as I, in common with other clinical physicians, have been in the results and applications of recent investigations, confined chiefly to the province of practical medicine, I have hesitated about entering upon a discussion of any such topic, which might have but a limited interest for an association whose very name of Medico-Chirurgical denotes its comprehensive scope. But, mindful of the thoughtful work \* not long since published by your distinguished President, which, I am sure, attracted the same attention and met with the same favor here as elsewhere, I was led to hope that an informal presentation of some practical remarks upon the subject of dietetics might not be without interest. I must confess, however, that, in looking ahead over what I have prepared to say, it seems as though, as often happens to our children, real or literary, I had chosen in advance a title sufficiently inappropriate; for it can scarcely be said to treat of dietetics in disease except in so far as it offers some desultory thoughts upon the relations of dietetic errors to the

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\*Health and How to Promote It. By Richard McSherry, M. D.

production of disease and upon the value of restricted diet in the treatment of some special affections.

However, imperfect and partial though my handling of the topic be, I am sure that all of us will, at least, agree upon its importance; and I believe all of us would have to acknowledge, were we to review candidly our dealings with our patients, that this important subject fails in many instances to receive at our hands the sustained and minute attention it demands.

And yet it seems to me apparent that, amid the currents and counter-currents of medical opinion during the past decade—so prolific in speculations and hypotheses and new methods of treatment, too often hastily advanced only to be abandoned speedily—there has been a constantly growing appreciation of the importance of dietetics, and of the fact that in every case requiring medical or surgical care the adjustment of the diet is one of the indispensable elements of the treatment. It is, indeed, safe to go further than this, and to assert that it is becoming recognized more clearly that, in very many conditions of impaired health and actual disease, successful treatment depends chiefly or exclusively upon proper diet and regimen. I do not, of course, refer only to the familiar facts that in typhoid fever, in diabetes, in ulcer of the stomach, in functional dyspepsia, the diet must receive close attention, and that a neglect of this will render unavailing any other treatment, however judicious. But I wish to state clearly—and even at the risk of seeming to emphasize a trite commonplace—that many other morbid states can only be successfully treated when it is recognized that diet is the most important, and, in fact the one essential, feature in their management; and further, that many other morbid states, often regarded as distinct pathological entities and vigorously combated as such by special medication, are essentially dependent upon dietetic errors, relative or absolute, and are curable only by having first corrected these errors.

If time permitted, I should attempt to illustrate suitably the tremendous influence of diet on the normal condition of man, the wide range and varied character of the morbid symptoms resulting from the gift of food abused, and the wonderful remedial effects of special forms of diet. I believe it would appear

from such a study that the line in which, more than in any other, the greatest triumphs of therapeutics are to be won in the near future is in the direction of dietetics scientifically adapted to special morbid states.

In estimating the influence of the great factors of our physical life upon the development of the individual or of the race, I have long felt that far too much importance has been attached to climate and far too little to diet and personal hygiene. No more can the average man attain his full moral growth and the normal perception of freedom and of obligation under evil forms of government, or under the sway of gross religious superstitions, than he can attain his full physical development under the influence of bad dietetic traditions and of uneducated appetites. No weight can be attached to the fact that exceptional individuals in every community display the highest physical and intellectual health and vigor while pursuing courses of life admittedly injurious. A separate study of these exceptional cases is much needed, and would possess great interest and practical value. But, for the establishment of the laws of dietetics and hygiene, we are concerned only with the average man, and of him we may safely make the above assertion.

No people need the diffusion of sound information on these subjects as badly as we do. In India we have had the opportunity of observing the curiously interesting results of subjecting large numbers of Anglo-Saxons, and in many instances through successive generations, to climatic conditions diametrically opposite to those familiar to that race. In Australia a similar experiment is being conducted on an even larger scale. And I believe the verdict of the best observers is to the effect that, with suitable diet and regimen the characteristic health and energy of the race will be preserved unimpaired. But in this country we see a more complicated experiment tried on vast proportions. A nation growing in numbers with unprecedented rapidity, by aid of recruiting in all quarters of the globe; a vast territory, representing wide varieties of soil and climate to be occupied and brought under cultivation by this motley multitude; a fierce contest to be

waged with strange and untried climatic, industrial and social conditions; the gift of freedom, personal, political and pecuniary, to be borne by millions, heretofore comparative strangers to these blessings: these barely hint at the transcendent difficulties encountered by the people of this country in planting and establishing permanently in full and typical health and vigor the great Anglo-Saxon race. Small wonder that during the experimental stages of this great work, many curious effects, physical as well as social, have been developed, and that pessimists have found ample food for prophecies that this race could never become permanently established and productive under climatic conditions so different from those familiar to the chief components of our people.

The so-called typical American certainly came to be something quite different from his English, Irish or German ancestor, and his pale or sallow face, with tall slender figure full of the irritable restlessness bred of nervous dyspepsia has been rendered sufficiently familiar to us, more so in fact in the hardly good-natured or voracious pages of travelers and novelists than in actual life.\* Still there he has been and there, in considerable numbers, he still is; and the interesting question arises whether his physical peculiarities are inseparably dependent upon our climatic condition or upon other and transient influences. I confess my own observation has led me to the deliberate conclusion that it is to the latter almost exclusively that we are to attribute the results indicated. It is manifest that one must pay more attention to adapt himself successfully to the extreme features of a great continental climate like ours than is required in the comparatively uniform climate of England or Ireland. But it is equally true that malaria, damp soil and damp houses, due to defective drainage, are deadly but wholly avoidable foes to health. And it is no less certain that communities where, from earliest boyhood, the

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\* It is in fact to be noted that the contrasts used to heighten the effects of vivid pictures of the physical peculiarities of Americans, have been drawn from classes abroad who are living widely different lives, and that a truer description of foreign populations would show how ridiculously unfair it is to adopt the burly, ruddy yeoman farmer of the fat midland counties of England as the type of the laboring classes (civic and rural) of Great Britain and the Continent.

excessive use of tobacco in the most injurious forms is general, where bad whiskey is a staple drink between meals for the men, where for all alike, men, women and children, reeking strong tea and coffee in unlimited quantities are consumed at every meal, while beyond all this the reign of the frying pan and the soda baking-powder and the patent purgative pill is universal and undisputed, cannot be fairly expected to perpetuate the finer types of manly or womanly physique; and I repeat my opinion that it is to these latter influences that we are chiefly to attribute most of the physical peculiarities commonly assigned to the agency of the American climate. I believe myself that, with due regard to the conditions under which work must be prosecuted here, it will be found that there is no more favorable climate on earth, and I appeal to your observation of the generations now rising in support of the prediction that, with the correction of what may, and surely will, be corrected in our physical conditions and habits here, there will be a gradual advancement in our average physical vigor, until, even if a complete reversion to our ancestral type is not attained, there will be developed a new type, in no way inferior.

So, too, even at the risk of being misunderstood, I would like to call attention to the excessive share which has been attributed to overwork in the production of the many forms of nervous exhaustion and premature breakdown which we daily meet with. Unquestionably, there is a degree of eager, ceaseless absorption in exciting work, involving immense mental, moral and physical exertion, which is capable of breaking down the strongest and best constitution. But unless my own experience is altogether exceptional, such instances are rare, and the vast majority of cases met with are those in which an amount of work and excitement entirely consistent with the maintenance of good health, if the laws of health were duly observed, is rendered destructive by reckless disregard of those laws.

The familiar instance of a man who, at five and forty, is at the head of several large businesses and is a director in a dozen companies, and who finds himself breaking down with insomnia, headache, gastralgia or some of the myriad forms of nerve suffering,

will usually be found, on careful examination, to be due to the fact that he has combined with his incessant devotion to his work a disregard of the most common principles of dietetics and regimen, and frequently a reckless abuse of nerve stimulants or irritants which, of themselves, will often seem to have been sufficient to have induced the morbid condition present.

It is true that the conditions of our higher forms of work in this country have been more difficult than in older and better organized communities, but a rather close study of the habits of professional and business men in different countries has convinced me that vastly too much importance has been attached to the notion of overwork in this country and vastly too little to the question of "How to work" or rather "How to live while working." The main object of one who starts upon a large career is naturally how to get the greatest amount of work out of himself consistent with the maintenance of health and the prolongation of life. If it were possible for all to appreciate correctly their physical condition and capacity at the outset, so that they could adapt their method of work to their physical requirements, we should see quite as much or more work done with infinitely fewer instances of physical disaster. But there are many elements in the question which most of us realize only after painful experience, though I look to the introduction of thorough instruction in hygiene and physiology in the schools and colleges for a vast improvement in this state of things.

The velocity and range of a projectile are directly as the initial power and inversely as the mass to be moved, and this antagonism of force and weight enters into every physical problem. In its application to the human body it is a most pregnant truth. The mass to be moved before any effective forthputting work can be done is not merely the actual weight of the body, but embraces also the aggregate of the countless physiological and chemical acts ceaselessly performed within the frame. To adjust the actual weight of the body, therefore, to the physical powers of the individual, and to render these innumerable minute processes as easy and as complete as possible, is the aim of dietetics and regimen, and is the common-sense policy of every

man who aspires to work to the best advantage. Even if all of us were typically healthy normal beings this would be equally true, but the importance and necessity of this proper estimate of our individual capacity, and of the habits of life best fitted for each of us, is enormously increased by the fact that from inheritance most persons have a relative deficiency of some one or other organ as compared with the rest of their frame. The strength of a chain is tested by its weakest link. The enduring capacity of a man is measured by his weakest organ, only in our case we are able, by intelligence and self-restraint, to spare this weak spot, and thus to enable ourselves to tax our stronger parts their full capacity.

Undoubtedly the deficiency most commonly met with is at some point or other in the assimilative process, but it is far from being the case that this is usually in the stomach or intestines, or at least that it is manifested there most clearly. We have been too much in the habit of associating the idea of weak digestion only with gastric or intestinal disturbances. The truth is that while the original cause of the trouble may lie in some imperfection of the gastric or intestinal function, the assimilative trouble very often shows itself in the subsequent nutritive changes, whether interstitial or metabolic. From this result, among other disorders, those protean forms of deranged health which under the name of Lithæmia, are fortunately now becoming familiarly known. The absence of out-spoken attacks of gout long blinded our eyes to the fact that the gouty diathesis is widely prevalent in this country.

It is difficult to define gout. Indeed the danger seems to be that in trying to give a strict definition we may restrict too much our conception of the condition. It is certainly not possible to confine it to cases marked by arthritic symptoms, for in many of the worst instances the joints do not suffer at all or at the most merely present slight and non-progressive enlargement of the smaller articulations. Nor can we confine it to cases where the difficulty of assimilation affects nitrogenous elements only, since experience shows that the fault of digestion which lies at the root of lithæmia affects in different individuals different classes

of food. It seems necessary to include nearly all that large series of cases, with or without marked gastro-intestinal disturbances, in which there is obstruction and deficiency of the ulterior assimilative changes before the food reaches its final fully digested forms.

It is unnecessary to repeat here what has elsewhere been so fully and forcibly stated as to the manifold symptoms which result from the defective assimilation, the diffused tissue irritation and the circulation of abnormal elements in the blood. I wish however to make special allusion to the great frequency with which out of such causes there is gradually evolved the complicated condition to which of late it is becoming the habit to apply the name of neurasthenia, and which is too often regarded as the result of pure nervous exhaustion from overwork and as therefore requiring for its relief simply tonics, rest and high feeding.

In fact, however, these cases will not yield the same excellent results that can be obtained in pure neurasthenic patients by the special method of treatment developed and formulated scientifically by Weir Mitchell. At most, it can only suffice to bring the patient up to a certain level again, where a protracted course of thoroughly well-ordered regimen, dietetics and exercise will enable him to slowly regain his former vigor. Fortunately, however, when there has been but little original gouty vice and when the injurious habits of life have not been too long continued and have not developed any serious organic change, complete cure will often follow a full course of such philosophical treatment.

Nothing can be more evident than that any one special method of treatment can be applicable only to a special group of cases, and that its success will be proportionate in any instance to the accuracy of the diagnosis which assigns it to that particular group. The act of the skilled physician is shown in the selection of that one out of many methods which is best adapted to the case in hand, and in its modification so as to precisely meet the indications. If time permitted, it would be interesting and instructive to quote some of the notorious examples of special extreme methods employed by empirics, and applied indiscriminately without any scientific appreciation of the conditions to

be treated, and therefore (undoubtedly) often injuriously, but yet with the production, in the limited proportion of cases to which they are adapted, of such results as to show conspicuously the curative powers of mere regimen and dietetics. The familiar system of Pressnitz occurs as an example, and the simple and uniform methods practised at those popular spas, whose waters are totally inert, are equally instructive. It is too much the habit to deery all such methods as unscientific, absurd and useless. The fact remains that, by each and all of these methods, certain patients who have baffled the ordinary resources of medical art are restored to health, and even though, upon the whole, as much harm as good may be done, this is attributable to their indiscriminate use. They certainly demonstrate to us the truly remarkable results which may be obtained by a systematic and oftentimes extreme use of the simple agents—rest, exercise, food, drink and bathing.

As a single example, to show the lengths to which patients are willing to go, under the belief that they will be cured, and at the same time to show what a tremendous weapon for good or evil dietetics may be made, I would cite the following account, given me recently by one of my own patients, of the so-called Schrott's cure, as practised now at Lindewiese, a small German town near the home of Pressnitz. It is evidently based upon the familiar fact that, after an attack of typhoid or of simple continued fever the patient not rarely takes on flesh and acquires better health than previous to the attack. The principle of this treatment is, therefore, to develop an artificial fever, which is maintained for a length of time proportionate to the strength and tolerance of the patient, and is then gradually relieved by a return to more ordinary habits of life. In order to produce these effects, all the patients are obliged to thirst—that is, to go entirely without water or any liquid for successive periods of different lengths, during which they take nothing but stale bread, of which they may eat as much as they can. These periods of thirsting last thirty-six to ninety-six hours. Each day a cold water pack is used. At the conclusion of the "thirst period" they have "drink days," when, after being urged to take as much violent exercise

as possible, they are allowed to drink strong white or red wine freely, taking it in sips so as not to induce intoxication. I am told that the amount thus taken is often as much as a gallon. It is needless to say that this dry diet, alternating with free stimulation, soon induces a decided febrile action, the thirst becomes intense, the tongue dry and brown, appetite is lost, and there is great constipation and loss of flesh. Even during the continuance of this violent method the tongue in some cases clears off, secretion returns and a tolerance is established. In other cases, when the treatment has been carried sufficiently far, it is gradually moderated, and the patient is allowed to return to ordinary habits. Great care is given to the period of convalescence, and I have credible evidence of the remarkable cures which are effected in some cases of constitutional syphilis, dyspepsia, gout and rheumatism. Were it not for the morbid craving for self-inflicted torture which one sees so often, it would be difficult to believe that large numbers from different countries should, as they unquestionably do, resort to a place where they are compelled to undergo a course of treatment so severe and painful, if satisfactory evidence did not exist to assure them that, in some cases, remarkable cures have been effected. Making all allowances for the effect of imagination, for the happy influence of change of climate and of rest from work, there remains the fact that, by this heroic method, profound alterative effects may be produced upon the system, which will break up inveterate morbid conditions.

There are in this country a few kindred establishments on a similar scale, where systems often grotesque in their absurdity are practiced on little knots of credulous pilgrims who worship at these pretended shrines of Hygeia.

The latest revival of the hot water mania occurs opportunely to illustrate this question. To judge by the extravagant claims advanced by the latter day prophets of this system, by its enthusiastic converts and by a facile press, one might almost be led to suppose that the legend of Medea's Cauldron had been proved true in a new form and that all the scientific work of centuries on the action of drugs had been labor lost. The simple truth is

that there are not a few cases of dyspepsia and lithæmia, of certain types of rheumatism and gastro-intestinal catarrh, in which the use of considerable quantities of hot water, combined with simple restricted diet and healthful regimen, constitutes the very best treatment. This is the foundation of the use of many of the most valuable mineral waters which are very dilute solutions of comparatively inert salts, and for many who resort to such spas for treatment there is no question that it would be better if the medicated water were to be substituted by a chemically inert water of equal temperature. I cannot of course discuss here the question of the limitations of this system. Carried to the extent recommended by its advocates, it is by no means an indifferent practice, but one capable of doing quite as much harm in unsuitable as it is of doing good in suitable cases. In its present form it does not possess even the merit of originality. Sangrado bled his patients furiously and then filled their depleted veins by copious draughts of warm water. In Pryor's life of Burke we read, "at a late period of life when excited by mental exercise or an attack of indigestion arising from close application he was accustomed to take large quantities of hot water as hot as could be drunk. " 'Warm water,' said he 'sickens, but hot water stimulates.' "

While however the hot water method can be used with advantage in a limited number of selected cases, but is liable to be abused and to cause serious harm in many others, I have no doubt that the recent craze has done good by calling attention to the fact that our customary beverages, tea and coffee, are taken far too strong. I am almost tempted to say that, taking men and women together into consideration, as much harm is done to health by the excessive use of strong tea and coffee as by alcoholic excess. My case books show so many and such extreme degrees of insomnia, of vertigo, and of various forms of digestive trouble due to this cause, that I have felt that it must be unnecessary to quote any in illustration. But to many a hard worker who feels himself on the brink of nervous strain, the abandonment of strong tea and coffee, and the habitual use with each meal of a cup of very hot water barely tinged with congo, the fa-

miliar English breakfast tea, with a small piece of sugar but without milk or cream, will serve an excellent purpose and enable him to enjoy a cup which cheers but neither inebriates nor makes nervous. I have glanced at these various extreme methods of diet and regimen, partly to show the self-evident fact that none of them is of general value or applicable to all patients, but also because they exhibit the enormous power of systematic dietetics and suggest the largest possibilities for the future. We are rapidly advancing towards the time when for each carefully diagnosed group of cases there will be a series of scientifically adapted diets, based upon familiar knowledge of the composition of food and critical analysis of the excretions of the patients, conjoined with close study of their variations in weight and in functional activity. It will then be found that very many cases of disease are curable by regimen alone, and that in all cases of disease our remedies can act with full effect only when they are applied to a system under the influence of such scientific regimen. More than this, it is not Utopian to hope that a wider diffusion of hygienic knowledge will then have prepared the intelligent classes for the appreciation and practice of preventive medicine, the reign of which will be the glory of the scientific physician and the golden age of the world.

If time allowed, I would gladly enter more fully into other illustrations of the relative deficiency of functions or of organs, but I must limit myself to a few desultory remarks. It must be a very familiar thing to most of you to meet with patients suffering with some pronounced functional disorder, which obstinately resists ordinary treatment, and yields only when we have recognized that the patient is living on a wholly wrong scale and that we are striving to force a defective part to work up to the standard of more vigorous ones. A good many years ago the late Samuel Jackson, Professor of Physiology in the University of Pennsylvania, and the most philosophic and suggestive of physicians, and then over 80 years old, in speaking to me of his past life and habits of work, said, "I got on very well up to a certain age, about 40 years, when I began to find everything tired me, and it seemed as if I could no longer get through with anything

and I was in despair at my apparent failure. Turning my thoughts in on myself, it was not long before I found the trouble. I was a five minute horse trying to travel in 3.20. I changed my pace, and have since rarely failed to cover a good day's journey." We see this want of correspondence in many ways. I have met with instructive instances of obstinate dyspnoea without discernable organic disease, and after many theories had been erected, and many modes of treatment based thereon tried without avail, it was recognized that disuse and weakness of the diaphragm or of some other part of the respiratory muscles lay at the root of the trouble and that pulmonary gymnastics, which enabled the patient to secure his full allowance of oxygen, the most essential of all articles of diet, soon brought up his respiratory powers to the level of his system's needs, and removed the distressing symptom. In the same direction, who is not familiar with such cases as this: Mrs. C., aged 65, of active habits, within the past few years had begun to suffer with dyspnoea, greatly increased by exertion and also increased almost to the extent of asthmatic distress by slight bronchitic spells to which she became increasingly liable. The heart's action grew frequent and weak, and in the absence of any other demonstrable organic disease, a diagnosis of fatty degeneration of the heart was naturally made. She came of a gouty family, and had the arcus senilis and some rigidity of radials. When I saw her in October, 1882, she was confined to her room, and for three months had been unable to go up stairs. Her nights were terrible and were spent sitting up and gasping for breath, and obtaining only partial relief from repeated doses of Hoffman's anodyne. The fact that she had been gradually but steadily gaining weight had not attracted attention. Her height was not over five feet, and at the age of 40 she had weighed 140 lbs., but her weight in October, 1882, was 165. She did not properly assimilate her food, as there were daily two or three movements of the bowels, often loose in character. She was placed on a rigid diet, calculated to reduce her weight. She took for breakfast a cup of weak cocoa, one egg and very little bread. For dinner, a small piece of lean meat and one green vegetable. For supper, a glass of buttermilk or lemonade, with a piece of dry bread. Nitrate of

silver and opium in small doses helped to keep the bowels in check, and later she used with advantage small doses of jaborandi in combination with digitalis or nux vomica. As her weight was reduced under this diet she gradually improved until in nine months she weighed 140 lbs., was able to walk a mile, to sleep quietly all night, and was indeed perfectly well, and had no occasion for any drugs.

I could match this interesting case with a large number of similar ones illustrative of pulmonary or cardiac deficiency in which grave and threatening symptoms, dyspnoea, asthma, obstinate bronchial cough, bronchorrœa and bronchial hemorrhage, œdema and intermittent albuminuria, could be recognized as dependent upon some disproportion between the pulmonary or cardiac power, and the mass of the body, the amount of ingesta or the degree of muscular exertion maintained; and which were more or less speedily relieved by an appreciation of this and by an adjustment of the physiological balance.

I have alluded to transient albuminuria noticed in some of these cases of pulmonary or cardiac deficiency, but there is another class of cases which I fancy must be comparatively rare, in which albuminuria may appear apparently as the result of renal deficiency. One of the most interesting of these cases is now under my observation: *C. H. C.*, age 24, was seen in consultation with Dr. W. W. Keen. For about two years he has had a weary painful feeling in the legs from the knees down, especially in the calves; this is increased by muscular exertion, and came on first after excessive exercise in Switzerland. As a boy he had scarlatina quite severely, but it was not followed by dropsy, nor in the interval has there been any reason to suspect any renal trouble. For more than a year albumen has been occasionally detected in his urine. It has never been found in his morning urine, nor if he remains in bed will it be detected at any time. On one occasion he was kept in bed for several weeks, and almost every passage of urine was examined without a trace of albumen being detected at any time. If, however, a small amount of exercise is used, a distinct trace of albumen will speedily appear and gradually disappear after resting. The specific gravity and

amount of urine have been normal throughout and tube casts have never been detected, though scores of critical examinations have been made. The daily amount of urea averaged 45 grammes. Incidentally I may add that massage did not produce albuminuria. Under prolonged tonic treatment with cod liver oil, carefully regulated diet and habits of life, there has been a gradual increase in the power of exercising without the appearance of albumen.

During the last two years I have had two other similar cases under observation. The explanation does not seem very apparent, but these cases seem to illustrate the condition of an organ which without being actually diseased, either had originally or has acquired such weakness, as will under the pressure of slightly increased functional activity, induce symptoms of disease. Much more frequent than these cases of transient albuminuria from renal deficiency, are the familiar ones to which I have already alluded in connection with lithæmia, where the urine is scanty and loaded with excess of urates or uric acid. In the production of this very common condition the kidneys frequently unite with the liver in forming the weak links in the assimilative chain.

Among equally unusual symptoms of this kind must be ranked the intermittent glycosuria, which patients may present without ever becoming true diabetes, and which I have met with in patients who also presented in marked degree the more familiar symptoms of lithæmia.

In yet other cases of this type we meet with unusual nervous symptoms, such as were present in the case of M. S., aged 19. Never very robust, she had quite a severe fall when 12 years old. Menstruation was irregular from its first appearance, and for several years. She has been very nervous, presenting alternately spells of melancholy and of hysterical excitement, the latter occurring of late several times a day. She was a stout, plethoric girl, with rosy cheeks, of moderate height, and weighing 154 pounds. Her appetite was somewhat variable, but her diet was liberal and unrestricted. She had undergone much treatment, uterine and internal. January 26th, 1884, she was placed upon a rigidly

restricted diet. A three-grain blue pill was ordered once a week, with pepsin after meals. By the 14th of this month (April) she has lost seventeen pounds, and has also entirely lost her disposition to depression and hysteria, being now cheerful, bright and active.

I am tempted to add one more case, both from its unusual clinical interest and because it illustrates one or two points that deserve especial mention.

Mrs. R. J. S., Meyerstown, Lebanon county, Pa., age 41, was married at the age of 15. Has had two children, the youngest of whom is 22 years. No pregnancies since, though she and her husband were healthy and their relations natural. She was always an active, hard-working woman, of an anxious temperament, although in very comfortable circumstances in life. Was a very hearty, rapid eater. She began to grow very stout in 1876. Her previous weight had been 140 pounds, height five feet three inches, but she gained in a couple of years to 165 pounds, without any special change in habits or diet. Her menstruation has continued regular until the present time. It 1876 she began to feel gastric distress after eating. A very painful eruption then appeared, first on the limbs, afterwards on the lower part of the trunk and the arms. This subsided but returned again, and continued to give her great suffering until after she had been under my care for some time. It appeared as a moist eczema, with intense itching, at times spreading over the entire surface except the face. Very often it entirely prevented sleep. She grew nervous, depressed and weak, and unable to do much or to go about. About 1877 gastralgia appeared, occurring chiefly at night, lasting several hours, causing her to sit up and groan, and to press the epigastrium firmly for relief. Soon after, late in 1877, she began to vomit occasionally, and by 1879 this occurred almost daily, and continued down to October, 1882, when I first saw her. Despite this she retained her flesh, and weighed 165 pounds in 1882.

She was placed on the following diet: A glass of milk and hot water, equal parts (cambric tea); fish, eggs or broiled steak, and a small quantity of stale, dry bread for breakfast; at 10 A. M.

cambric tea; at 12.30 P. M., broiled meat, one green vegetable, a small piece of stale, dry bread and a cup of hot water. At 6 P. M. cambric tea, a small piece of bread and an egg or chop. Owing to the distance at which she lived from my office, I saw her but rarely. At first she lost weight at the rate of  $2\frac{1}{2}$  to 3 pounds weekly until she reached 122 pounds. An ointment of oil of cade and zinc was ordered, but it was evident that the change of diet was the chief agent in causing a very rapid, complete and permanent cure of the eczema, which disappeared in three weeks and has never returned. She took Carlsbad water when there was constipation, and small doses of iodide of potassium; afterwards small doses of nitrate of silver and belladonna, and later creasote and soda, which proved the most acceptable to her stomach. Her distressing nervous symptoms left her very rapidly, and she became bright, happy and cheerful. Despite these symptoms of improvement, the gastric catarrh which had been excited proved rebellious, and after she started to lose flesh it was difficult to stop the process. If a more generous diet was attempted, gastric distress and gastralgia increased and vomiting returned. For three months past, however, she has been slowly gaining flesh, with almost complete absence of gastric symptoms, and now feels quite well. She was formerly very fond of good living, especially of butter, but now she has an aversion to this article, and cannot bring herself to taste it. This case not only illustrates many of the symptoms of lithæmia, including some of those less usually met with, but also the fact that when this condition is developed by improper habits of life at or about the menopause, the symptoms are apt to become unusually severe and obstinate. The influence of the menopause in favoring the development of lithæmia in all of its types deserves clear recognition. It is, of course, easy to say why it should be so, and it is only necessary to have our attention attracted to the essential nature of most of the distressing conditions that attend this period of life for the principles of their successful treatment by diet and regimen to become apparent.

One further point is also illustrated in connection with the line of treatment we are considering—as to the danger of inducing

too rapid or too great loss of weight. The rate at which patients who have been carrying too much weight lose when placed upon a restricted but still adequate diet varies greatly. Individuals hold on to their flesh tenaciously in some cases, while in others it melts away with a rapidity which shows that it must have been poor, soft, ill-organized material. It is impossible to fix a standard weight for every inch of height. At best this can only be approximated. Great allowance must be made for the form, the family tendency, and the past record of the individual. Needless tampering with the body weight is always to be avoided. A systematic reduction should be instituted only when the symptoms clearly indicate it. When a reasonable reduction of diet fails to produce a marked effect upon the weight, it is unlikely that the patient is carrying too much, and we should be careful not to push our dietetic restrictions too rigidly. When, on the other hand, the body weight falls rapidly, even if symptoms subside commensurately, we should early check it, lest we induce troublesome anæmia and debility.

Finally, in one or two instances I have been obliged to consider carefully whether a marked reduction in weight is liable to favor the development of some latent morbid tendency, as to cancer, scrofula or tuberculosis. Unless recklessly pushed, however, I have seen no evidence supporting such a fear.

Before concluding I would gladly allude to the very interesting question as to the propriety of allowing the natural tendency to gain weight in advancing years to go unchecked. Needless meddling should certainly be avoided. But it is only reasonable to conclude that, as years advance and the wear and tear of life lessens the efficiency of the organs, and most notably of the heart and lungs, it must be difficult to accomplish anything like the habitual amount of work while carrying even heavier weight. The recent case of Prince Bismarck, which is likely to become classical, is an apt illustration. A heavy load of responsibilities with advancing years, combined with dietetic excesses or imprudences, brought on aggravated lithæmia, and relief has been found

only by a restriction of diet, which, by reducing weight, has restored activity and brought relief to suffering.

I have dwelt upon this trite theme with tedious iteration and prolixity, because I have been taught by my own experience that the principle involved might find such frequent application in our communities.

The past twenty-five years witnessed the rise of so-called restorative medicine to the dangerous and absurd height of indiscriminate stimulation and gorging in all forms of disease. The inevitable reaction against this extreme has now set in, but while it behooves us to retain the essential truths embodied in the teachings of Todd and his followers, though discarding the excesses to which they led, it seems clear that the reaction is yet far from having reached its full proportions. We must grasp the elementary fact that in acute disease we do not necessarily strengthen nor stimulate the patient by forcing on him more and more of concentrated food and of stimulus; that it is only in proportion as he is able to appropriate these that he gains from them, and that every grain and every drop not appropriated is a burden upon his already heavily taxed system. We must grasp the equally elementary fact that in chronic disease, the relief of symptoms, the removal of morbid products, and the restoration of power can be accomplished only by cautiously but thoroughly adjusting the diet and hygiene to the altered state of nutrition, and, having thus re-established the physiological balance as far as possible, by directing our remedies to the actual indications.

It will be found that in many forms of disease there are prominent symptoms which are secondary and non-essential, being dependent not upon the main morbid process, but upon the maintenance of habits or the continued use of articles of food in themselves probably harmless, but which have become highly injurious in the altered state of the system. And while it is true that in one great group of cases a condition of anæmia or of real exhaustion calls for purely restorative methods, it is equally true that in another group—even larger and more varied in its types—conditions of obstructed or defective assimilation exist, with consequent derangements of the physiological balance between the

effective power of the system and the mass to be moved or the work to be done, giving rise to most varied symptoms simulating disorders of every part of the system; and that a complete and permanent cure is possible for such only when rigidly restricted diet and critically adjusted regimen are made the basis of our treatment.



