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THERAPEUTIC REFLECTIONS

A PLEA FOR

PHYSIOLOGICAL REMEDIES

BY

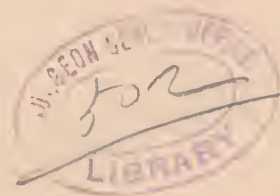
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READ AT STATED MEETING OF THE NEW YORK ACADEMY OF
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presented by the author

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THERAPEUTIC REFLECTIONS:

A PLEA FOR PHYSIOLOGICAL REMEDIES.

DR. SIMON BARUCH read a paper entitled

THERAPEUTIC REFLECTIONS.

He said: The prudent merchant resorts from time to time to an inventory of his obligations and assets, in order that he may diminish the former and increase or enhance the value of the latter. It would surely inure to the satisfaction of the physician and to the advantage of his suffering clients if he would follow this example. This I propose to do, asking your indulgence if I bring before you trite observations and experiences which are not novel to you. Indeed, if my remarks call forth a responsive echo in your minds, this will demonstrate that I have truly given voice, as is my intent, to actual observations at the bedside. From such I propose to draw lessons and to elicit discussion, which may enable some of us to leave this hall better armed for the battle with disease and death which we are daily waging.

ENTHUSIASM IN THERAPEUTICS

is indeed unwarranted, for the history of medicine abounds in the rise and fall of the most brilliant structures, in the explosion of the most plausible theories, and, what is more painful than all else, the overthrow of remedies which have seemed to be so firmly entrenched in the minds of the foremost physicians for so long a

period that they seemed impregnable against all attacks. I need but call from the shadows of the past the spectre of venesection. Though hoary with age, and lauded by men whose works are to-day revered, this therapeutic flower withered under the light of modern physiology and pathology.

Another remedy, once the sheet-anchor in many serious diseases, has been dethroned and has taken the subordinate though most useful position of a simple anodyne.

Time was when in certain forms of peritonitis opium was the chief remedy, because it "acted as a splint to the inflamed surfaces"; to-day Lawson Tait's teaching, that it is dangerous and that the opposite treatment by saline purgatives is more useful, is more successfully followed. Let him who grows fulsome in his laudations of a remedy bear in mind how these mighty giants have fallen, and endeavor to rescue the remedy he espouses from a similar fate by judicious tests and unprejudiced comparisons. What is the status of therapeutics to-day? What are the assets with which the physician may meet his daily obligations to cure the sick?

UNRELIABILITY OF MOST MEDICINAL AGENTS.

Let us confess that the *materia medica* consists chiefly of medicinal agents whose action on the human

body, with the exception of very few, is uncertain, and whose effect upon disease is either neutral or unreliable. How often can we conscientiously say that we have accomplished, by means of any medicinal agent or combination of such agents, the cure or removal of any disease? With the exception of quinine, and perhaps of mercury and the iodides, there is not a single medicinal agent which may be regarded as actually curative.

NEGLECT OF HYGIENIC REMEDIES.

And yet we constantly meet intelligent physicians who insist upon the contrary, and in so doing neglect remedies that are more valuable because their action is clearly explicable upon rational principles. Faith in drugs is almost as frequent among physicians as faith in being drugged among patients. As an illustration I would refer to a case of acute enterocolitis in a child which I saw recently in consultation with a gentleman who is justly esteemed by colleagues and patients. The usual symptoms, fever, a large number of evacuations, loss of sleep and appetite, etc., were present. Upon the antiseptic theory salol had been frequently administered; to meet other symptoms, bismuth, Dover's powders, and other remedies. The simple substitution of intestinal irrigation for the salol, together with abolition of milk diet, produced a complete change in this case. It may be held that the latter course is that recognized as proper at the present time. But I cite this case to show that it is not so universally recognized as it should be, and to illustrate the difference between medicinal and non-medicinal remedies for the purpose of emphasizing the chief point of this paper—viz., the too frequent neglect of those non-medicinal agents whose action in disease is so simple, rational, and clinically effective, and the unhappy reliance on pharmaceutical prepara-

tions whose effect, like that of salol, as an intestinal antiseptic, has never been definitely proven. The vast majority of remedies in our Pharmacopœia have no better foundation than salol, and yet they are constantly used upon the strength of so-called clinical observation.

SYMPTOMATIC TREATMENT.

The rock upon which therapeutics has always split, and which continues to menace us because we seem not to profit by the teachings of history, is the treatment of symptoms. In my student days, when venesection was in its last gasp, *veratrum viride* had in the South gained many adherents. A rapid pulse was the chief manifestation of all fevers; here was a remedy which in small doses perfectly controlled the pulse. A reduction to one-half of its rate could readily be produced. I shall never forget one of the first cases of pneumonia which I treated as house physician of a hospital. *Veratrum* was given until the pulse was reduced from 140 to 80, and yet the consolidation continued to the bitter end, and the patient succumbed with a normal pulse.

History repeats itself in the application of the coal-tar antipyretics recently so much in vogue. The temperature may be readily reduced from 105° to 100°, and, as in the case of *veratrum*, we may even have the questionable satisfaction of seeing the patient die with a normal temperature. This striving after symptomatic remedies is the unhappy legacy which our forefathers have bequeathed to us. It is an echo of the mysticism which veiled their idea of disease, and which led them to regard the latter as an essence rather than as a manifestation of certain disturbances in the economy which rendered the latter incapable of regulating its functions. Therapeutics would be a simple art in this day of potent medicinal agents, could its aims be

merely filled by meeting certain symptoms or certain definite alterations in the functions of the body.

EARLY DIAGNOSIS IMPORTANT.

As pathologists it is our function to discover changes in the organs; but as physicians who stand at the bedside of those who implore us to heal them, we can accomplish but little if we are called to act after these changes in the tissues have taken place. As has been well said by another, the physician who is called to combat a case of well-established organic disease with remedies may be likened to the sanitarian who is called upon to prevent an infectious disease by disinfecting the emanations of the patient. The physician who would cure, must assume the task early; in the beginning of that anomalous relation between capacity of the system for work and the demand upon it for work which is really the inception of all tissue changes and which may be prevented by limiting the labor imposed upon the organs. To discover this anomalous relation in its incipiency, and to guard against its development into organic disease, is the function of the true physician. The latter must soon discover that in this contest medicinal agents play an unimportant rôle when compared with those methods which we learn by observation of Nature's course in health. As an illustration may be mentioned dilatation of the stomach, an organic alteration which is most commonly the result of long-continued insufficiency of its functions. The early recognition of the causes, the adaptation of diet, mode of life, manner of eating, gastric lavage, etc., to each individual case, will conduce far more to the prevention and cure of the organic disturbance than all the medicinal agents, from ancient gentian to modern strychnine, from muriatic acid to pepsin. No physician of

experience can gainsay this proposition. It must be patent to the most enthusiastic polypharmacist that he accomplishes only an amelioration or removal of certain manifestations of disease—a result which may and probably does facilitate a restoration to health, but is rarely if ever the direct means of such restoration.

MASKING THE DISEASE.

In the large preponderance of acute diseases, among which may be numbered all infectious diseases, the administration of these medicinal agents is not only entirely symptomatic, but in many instances absolutely harmful. Take as an example a case of appendicitis. The tendency to treat such a case as localized peritonitis, and to meet the symptoms, tempts the average practitioner to prescribe morphia to subdue pain, ice or poultices to the right iliac region, food to satisfy the bugaboo of coming failure of the vital powers, and an antipyretic to reduce the temperature. This is not a fancy picture, but a chapter from personal experience. Coming into contact with such a case as a consultant, how can the latter take his bearings? Like a mariner in a fog, he is handicapped, pain is absent, temperature perhaps normal, all is serene, except the anxious countenance, perhaps vomiting, and the attendant's fear that something may be brewing.

Here the remedies employed have hidden the enemy's movements; the physician has become the ally of the disease; diagnosis and prognosis become difficult, and valuable time may be lost. I am sure many of my hearers have passed through this experience.

NIL NOCERE.

Am I presuming too much then if I counsel that in the early stages of disease the warning of Italy's lamented clinician, Cantani, be con-

stantly before our eyes, "Nil nocere"? To make a clear diagnosis is important for a favorable issue. It is better for the patient to suffer some discomfort than to have his life jeopardized by remedies which obscure the real issues of the case. Later in the case, too, it should be our constant endeavor to avoid damaging the system which is staggering under disease and cries out for every possible aid on the part of the physician. In this day of powerful symptomatic remedies, veratrum for the pulse, antipyretics for the temperature, pilocarpin for the secretions, morphia for the pain, chloral for sleeplessness, all agents which strike mighty blows at the manifestations of disease often lead to disaster by lulling the physician into a false sense of security. And yet how eagerly they are resorted to, daily observation teaches but too sadly. It may be urged in defence of such a course that the patient and his friends are importunate to have the pain, the fever, etc., combated. Medicine is a business, said a gentleman in a recent discussion on antipyretics, and we must yield to the demands of our patient to be relieved of his fever. It has doubtless been your experience, as it has been mine, that much can be accomplished by placebos, by mild remedies, by gentle reassurance, and by taking the friends into our confidence.

When there is severe pain, as in some cases of appendicitis, I prefer to keep the patient gently under the influence of chloroform until a decision for or against operative measures can be reached. In a case of perforating appendicitis at Long Branch, two years ago, morphia administered by an able colleague was discontinued, chloroform substituted for twelve hours with intervals, until Dr. Wyeth arrived. The patient was not aware of his arrival, nor of the laparotomy performed on her, until an hour afterward. She made a good recovery.

VIS MEDICATRIX.

Ten years ago the belief had become all but unanimous that the only direction in which therapeutic effort was most conducive to the patient's benefit, lay in following the tendency of Nature in each disease. *Vis medicatrix naturæ* is an old rallying cry of the profession, but one which did not gather many steadfast defenders. At one time a complete therapeutic nihilism, emanating from the Vienna school, threatened to become its expression. But when the chemist evolved those potent therapeutic sledge-hammers which could beat down symptoms, the gentle handmaiden Nature was thrust aside, and the patient was beaten down with the symptoms. To-day a reaction is happily setting in. . . Once more are heard warning voices that bid us follow Nature's prompting. To join these and to re-echo them in these halls, is the purport of my paper to-night.

REST A PHYSIOLOGICAL REMEDY.

For instance, rest is the first prompting of Nature in diseased conditions. What can be more simple and obvious than rest in inflammatory conditions? The surgeon puts an inflamed joint into a splint and trusts to Nature—*i.e.*, the restorative powers of the system—to heal the disease. May not an acutely inflamed kidney be treated in a similar way? Its functions must go on. In this respect it differs from the inflamed joint. But the intelligent physician, knowing that the chief function of the kidney is to eliminate urea, so arranges the patient's diet that this work is reduced to a minimum; knowing that other functions of the kidney may be vicariously taken up by the skin and bowels, he endeavors to utilize these vicarious eliminants for the purpose of relieving the inflamed organ from labor. And yet we find the contrary so often

that I may be pardoned for emphasizing here the necessity, nay, the duty, of doing in internal diseases what is so obvious and so successfully done in external diseases. Only recently I saw a case of acute nephritis with a well-informed physician of ten years' graduation from a most exacting school, a hospital physician too, who treated the case with digitalis and acetate of potassium as diuretics, because the secretion was reduced to nineteen and a half ounces, paying no attention to the physiological aids which Nature points out.

In acute conditions rest must be provided; in chronic conditions rest, judiciously alternated with gentle exercise of the functions of the diseased organs, is indicated, and will prove far more useful than medication. Let me not be understood, however, as despising the latter. There are few to whom I should be willing to yield in dependence upon our well-tried medicinal agents. But I spurn them if their action is based on empirical observation alone, the *ipse dixit* of one or more men.

MEDICATION MUST BE POSITIVE.

Those medicines alone which evince their presence in the system by certain definite signs have my confidence. When quinine is administered in sufficient doses to cinchonize the patient, I know, without fear of contradiction, that whatsoever effect is produced on the paroxysm may be attributed to it; when it is used in small doses three times a day, for so-called malaria, I spurn the remedy as I do the disease. True malaria will as surely yield to cinchonization before the paroxysm as spurious malaria (the so-called civic or international malaria) will fail to yield to it. This much I may say positively, from a long experience on the banks of Southern rivers.

To refer to the value of salicylic

acid in acute articular rheumatism would seem supererogation in this assemblage. But bear with me if I apply it as an illustration of my views on positive medication, for which I plead. I have seen capable men in hospitals and private practice order five grains of salicylate of soda every two hours in rheumatism. Is it surprising that these gentlemen are unwilling to testify to the value of this remedy? Twenty grains every two hours of pure salicylic acid, until tinnitus aurium is produced and affords evidence of its having been absorbed, is the method I adopt. I can therefore not be charged with antagonism to reliable medicinal agents. I would only inveigh against the thousand and one impotent drugs with which the sick are deluged; drugs without ascertainable effects upon the economy, though many frogs and dogs may have died and lived under their experimental use, have no charms for me.

SUPERIORITY OF PHYSIOLOGICAL REMEDIES.

If careful observation among various classes of patients in country and city, private and hospital practice, in peace and war, may crystallize one's experience into some definite shape, permit me to say here to-night that far more actual curative results may be obtained from watching and cautiously following the tendencies of a disease and applying those agents which are potent in maintaining the system in health—viz., rest, exercise, diet, baths, change of environment—than from the most intelligent application of medicinal agents, highly though I esteem some of these. To demonstrate this proposition in a representative acute disease, let us choose

TYPHOID FEVER.

Here we have a malady which runs a more or less definite course, whose

etiological factors are beyond our control. We are called upon here to contend against a foe of great power. The system is overwhelmed by the toxins due to the biochemic activity resulting from the life and death of the micro-organisms to which the disease is traceable. Be that as it may, we do know clinically that we stand in the presence of an intense toxæmia which exercises a depressing, a devitalizing influence upon the nervous system. Every function which draws its force from the latter suffers visibly. The brain itself is more or less overwhelmed. The patient lies in a semi-stupor, his face is expressionless, the eyes dull and glassy, lids are closed (typhoid countenance). His perceptions are blunted, he mutters incoherently, he has no control over his sphincters. In brief, there exists great cerebral depression. The pulse is rapid, feeble, dicrotic—all manifestations of cardiac enfeeblement. The blood is deteriorated, its leucocytes decreased. The respiration is shallow and ineffective; hypostatic conditions, bronchial congestions, and pneumonia result. The temperature is elevated, either because of the loss of regulatory influence of the heat centres, or by diminution of heat radiation from the skin, or both. The secretions are impaired: the urine, for example, is concentrated, highly acid, and loaded with products of active tissue change. These, together with the shallow respiration, are evidences of the crippled condition of the emunctories, whose integrity is vitally important for the maintenance of health. In brief, the patient's vitality is sapped because the organs upon which it depends receive imperfect sustenance from the nervous system. Modern physicians are agreed that every effort should be made to maintain the patient's vitality, to counteract the palpable toxæmia, be it due to micro-organisms or not; in short, to sustain

life until the disease has run its course. The expectant treatment, so-called, was the outcome of the fatality of the former spoliative treatment. Liebermeister's great success in the Bâsle Hospital made high temperature the chief point of attack. So long as we had no real medicinal antipyretic it was not clear whether to the (medicinal) quinine or to the (physiological) baths administered by him were due the superior results which he attained. The high-temperature idea was plausible, and gained many adherents rapidly, until the discovery of the coal-tar series brought to the physician the first real antithermic remedies. A few years' use of these positive remedies has awakened the profession to the fallacy of regarding high temperature as the chief lethal agent. To-day a reaction is impending. While in the medical centres the coal-tar antipyretics are being reluctantly abandoned, it will be long ere the less enlightened rural practitioner will let this comforting drug slip from his fond grasp. The same fate has befallen other medicinal agents, which, however, were not so readily abandoned, because their specific effects are not so patent; for example, veratrum, to which reference has been already made.

INTERNAL ANTISEPSIS.

To-day internal antiseptics has become a fad. Though claiming to be based upon the attractive germ theory, which threatens to upset all past pathology, the advocates of this method have thus far failed to demonstrate its tenability by actual experiment. Until such demonstration shall be made, it is difficult to accept the idea that the mild antiseptics (naphthalin, naphthol, sulphocarbolate of zinc, etc.), which are applied in typhoid fever, are capable of disinfecting a long intestinal canal containing more or less fluid

which dilutes or otherwise neutralizes them. Moreover, long before the disease has been diagnosed, during its incubation, these pathogenic germs have been circulating in the blood. Having already passed into the lymphatic glands and spleen, it borders on the absurd to assume that these antiseptics are capable of searching out and destroying them. When the patient comes under observation he is really suffering more (if deductions from recent investigations may be accepted) from the toxins generated by these pathogenic bacilli than from the presence of the latter. Disinfecting the intestinal canal may prevent some auto-intoxication, but it surely cannot reach the pathogenic germ nor its toxins. That there are fewer bacteria in the fæces after some of these antiseptics are administered, even if it had ever been positively demonstrated, does not by any means justify the deduction that the intestinal mucous membrane has been rendered aseptic, much less that pathogenic germs have been destroyed. The surgeon would not be content with such a demonstration. Why should the physician be? Hence this pseudo-scientific claimant to our faith in numerous drugs is feeble indeed, and must go the way of its predecessors.

MEDICATION SUPPRESSES SYMPTOMS.

It follows, from these brief considerations, into which the lack of time does not permit me to enter more fully, that the only active medicinal agents, those agents whose effect has been positively demonstrated, have simply afforded the physician means for suppressing certain pronounced symptoms. Pulse and temperature are still important indices to the condition of the patient. Nevertheless, despite the fact that we have positive medicinal agents to bring them to an almost normal standard, they are proven absolutely harmful by good

observers. The physician, therefore, is forced to acknowledge his entire dependence on the *vis medicatrix*, which he attempts to aid by withholding all injurious elements and utilizing physiological remedies.

Rest, seclusion, proper adaptation of food and drink, and cleanliness are the chief agents in the so-called expectant plan of treatment, whose superiority over the former spoliative and the present antipyretic treatment clinical observation has demonstrated.

HYDROTHERAPY MUST BE JUDICIOUS.

There is, however, one physiological remedy which, judiciously adapted to the case as are diet, rest, etc., has produced a vast improvement in the condition of the patient and in the final issue of the case. The bath treatment of typhoid fever no longer requires defence before an enlightened medical audience. It has demonstrated its value in so many clinical tests on large numbers that I need refer here only to its salient advantages. Being a physiological agent—*i.e.*, an agent which, if used in health, promotes the latter—its judicious application is as potent as that of air, food, and rest. Its injudicious application is as injurious as that of the latter agents. For example, the wrapping of a typhoid patient in a cold wet sheet, and sprinkling it with ice water until the temperature is reduced—a method actually used by eminent practitioners—is as injurious to the patient as the exposure to draughts of cold air or the administration of a mixed diet would be. In the one case it would still be bathing, in the other it would still be ventilating and feeding. In all it would be an injudicious, senseless application of useful remedial agents.

HYDROTHERAPY NOT APPRECIATED.

The judicious application of ventilation and diet are pretty well under-

stood by the profession ; the judicious application of water is unfortunately still a *terra incognita* to the large majority. It is true, nearly all utilize water in some form. Cold sponging is quite commonly adopted in fever, and yet the feeble refreshment obtained from it may be compared to the ventilation obtained by the opening of a window one inch ! Injudicious application may assume both extremes of directions, doing too much or too little.

The Brand bath has proved the most successful method of treating typhoid fever. The more nearly we approximate it the more surely we depend upon obtaining its grand therapeutic results. This has been acknowledged by Jürgensen and others, and it is the personal experience of many, myself included.

BRAND BATH NOT APPRECIATED.

In a letter received a few days ago from the venerable author of the Brand method, he writes: "Who reads what we write? Who acts upon it? No one. My typhoid treatment has proved this sufficiently; now, after thirty years' labor, debate, discussion, and polemics, only a few know, the multitude knows not, what the aim of the Brand method is; they still confound it with the symptomatic method." These words from the man who has revolutionized typhoid treatment are indeed a sad commentary. They truthfully depict the present state of knowledge of this subject. In this city there are only three hospitals in which the Brand method is correctly applied; in others it is modified to suit personal predilections, irrespective of the fact that its results cannot be any more fairly judged by such modification than the rules of antisepsis in surgery can be judged if some essential of cleanliness be omitted.

RATIONALE OF BRAND BATH.

The rationale of the bath is so simple

that it appeals to our best judgment at once. We have an overwhelming of the nerve centres by the products of infection. The shock and subsequent stimulus to the cutaneous surfaces are conveyed to the nerve centres, and thence reflected to the heart, lungs, and other organs. Observation at the bedside at once renders these effects patent. The first effect is a refreshment, an enlivenment of the cerebrum. The eyes are opened; the face loses its apathetic stare; consciousness returns after one or more baths; the inspiration is deepened; expectoration is facilitated; the widening of the peripheral vessels and the stimulation of their coats relieve the heart; blood pressure is increased; and the laboring organ becomes as quiet as does a sea-tossed ship in the hands of a skilled mariner. The secreting glands are aroused to activity. Moreover, the temperature is reduced, not so violently as by medicinal agents, but more definitely, more in accord with normal tendencies. In brief, all the manifestations of the disease are favorably influenced because the normal standard is slowly but steadily and lastingly approximated under the influence of repeated judicious bathing. Even the exacting demands of the most recent ideas are met by this treatment. Metchnikoff has shown, by his interesting studies, that inflammation is the phagocytic reaction of the organism to an irritant. Cells are phagocytes, hungry to devour any toxine or microbe that may find entrance into the blood. We may successfully aid the system in this "reaction against toxins" by endowing its main vitalizing agent, the nerve centres, with vigor, by furthering elimination from the skin and kidneys, by removing hyperæmia of the organs, and facilitating the passage of phagocytes into the tissues; but more especially by rendering the blood more alkaline,

and thus more favorable to the phagocytes.

All these are accomplished, according to well-established experiments, by the cold-bath treatment. It has been recently shown by Thayer, in the Johns Hopkins laboratory, that the leucocytes are more than doubled after a Brand bath. On the other hand, the destructive effect of medicinal antipyretics on the leucocytes, their inhibition of excretion of products of tissue change, and their effect on the heart have been again and again demonstrated.

A COMPARISON.

Here we have an obvious illustration of the action of medicinal remedies and physiological remedies in a very common acute disease. The same observation may be made in all acute diseases. While in those of short duration and characterized by absence of serious depreciating tendencies medicinal agents are more useful, chiefly because more agreeable and practicable than baths, the latter are far superior in all those acute maladies which endanger life. Baths, though unpleasant to the patient and friends, absolutely give sustenance to the crippled organs which are struggling to maintain life, while medicinal agents, though agreeable to patient and friends, serve only to enfeeble the heart, cripple the kidneys, and thus aid the disease rather than the patient.

CHRONIC DISEASES.

In chronic diseases the difference in effect of medicinal and physiological remedies is no less striking. If such diseases are attacked ere serious organic degeneration has ensued, the most threatening and subsequently incurable diseases become amenable to treatment. Even when these are advanced, good results may be expected. I can affirm, from personal observation, the statement of the

great Neapolitan clinician, Semmola, who says : "The methodical internal and external application of water, modified in temperature as required, together with climate, an appropriate diet, muscular exercise, etc., are aids by which hydrotherapy excites cutaneous activity and, with it, all functions of tissue changes and organic purification, so that by these means often real marvels of restoration in severe and desperate cases may be accomplished." The reports of the Montefiore Home for Incurables, and my papers read before the State and County Medical Societies, contain clinical proofs of the correctness of this apparently enthusiastic view. Cases of intractable anæmia, dyspepsia, angina pectoris, Bright's disease, diabetes, phthisis, and epilepsy are recorded, which have been under observation by Drs. T. Gaillard Thomas, Janeway, A. H. Smith, Jacobi, and others, the results of which justify Prof. Semmola's claim.

It is not my purpose, however, so much to dwell upon these results as to afford illustration of the superiority of these hygienic or physiological measures over the medicinal agents. Let us take as an example, for this purpose, chlorosis. I have chosen this chronic affection because it is as well, or perhaps as poorly, understood as any other, but more especially because in its treatment one medicinal agent, iron, has long been regarded as almost a specific. Chronic diseases do not, like the acute forms, tend to spontaneous recovery ; chiefly because patients affected by them are not, as they are in acute diseases, forced to be removed from their etiological agencies, and they are not, as in acute disease, usually subjected to physiological remedies. A patient suffering from typhoid fever or scarlatina is withdrawn from the source of his infection ; he is placed at rest and secluded ; good air, proper diet, etc., are usually afforded him as

a matter of course. A young woman suffering from anæmia usually remains within the sphere of the etiological factors of her disease, while the doctor attempts, by iron, food, etc., to reconstruct the blood, which is unhappily regarded as the chief point of attack.

There can be no doubt in the mind of any practical observer that the same care that is given (perforce) in typhoid fever to the removal of the patient from his unfavorable environment would, if afforded the chlorotic girl, conduce far more to her recovery than the faithful dosing with iron in any of its more or less vaunted forms. Who has not seen a pallid school-girl, who had been for months dosed in vain with Blaud pills, regain her ruddy color, spirits, and appetite so soon as she was removed to the country, where she had access to unpolluted air, water, and food; where she was allowed untrammelled movement of muscle and lung and heart? Hygienic remedies are as potent for good here as they are in typhoid fever. Many of the latter recover under the expectant or medicinal treatment, more recover under a rational application of physiological remedies; many cases of chlorosis recover at home, even under unfavorable conditions and unphysiological treatment, more recover under the judicious use of exercise (rest, which is just as important), proper (not necessarily so-called strengthening) food, etc. Despite these patent facts, physicians continue to ply these unhappy patients with drugs whose reputation rests upon a purely empirical basis. The abuse of iron in anæmia is a crying shame, when it is considered that the quantity in the entire human body amounts to about fifteen to forty-five grains, and that the greatest loss ever found in an anæmic patient was three to four grains, which one quarter pound of good beef would readily

furnish. How much more rational is the removal of the patient into pure air, where the hunger of the oxygen-carrying hæmoglobin may be appeased! How much more rational than iron administration is the placing of an anæmic seamstress into a well-aired hospital ward, where good food, rest for her treadle-wearied limbs, baths, etc., could be methodically applied!

PRECISION NEEDED.

Allow me to urge a more methodical application of non-medicinal remedies. If there is any point upon which we are derelict as a class, it is the lack of precision in our prescription of remedial measures, especially those valuable non-medicinal agencies which, as Nothnagel and more recently Osler have shown, are coming to the front as chief remedies. While there is no lack of insistence upon the systematic administration of medicines, while the regulation teaspoonful doses three times daily, or powder every three hours, are swallowed with the utmost punctuality, the patient suffering from a chronic malady is allowed to drift along as best he may, taking his exercise, his diet, his rest, his bath as pleases his sweet will or suits his personal convenience.

In this connection I cannot refrain from again referring to the neglect of the chief hygienic remedy in chronic disease—water. Its value in acute diseases is so well recognized by some of the best teachers in this city and country that I may well leave its fate to the good seed annually sown by these earnest men. In chronic diseases, however, which are the bane of our lives and the opprobria of medicine, much missionary work is required to arouse a just appreciation of the great value of water as an auxiliary to other physiological remedies. Abroad this is no longer the case. The most prominent

teachers and consultants constantly dwell upon and prescribe it. In this country a few men like Draper and Peterson have written upon it. The clinical results obtained by it abroad and at home surely entitle it to a more careful investigation. While electricity, whose clinical results are far inferior, is taught in our schools, there is not a single chair from which the principles of hydrotherapy are explained or its technique demonstrated. If one tithe of the interest manifested in new drugs, which in most instances benefit only the manufacturer and leave physician and patient deluded and disappointed, were devoted to the study and practice of hydrotherapy, our knowledge of this subject would be enriched and suffering humanity would rise up and call us blessed.

If I have referred more freely to the application of water in this connection, my reason lies in the fact that it is the most powerful agent among physiological remedies, both for evil and for good, and the least understood and appreciated by the profession. The extract from Dr. Brand's letter given above, and the rare application of hydrotherapy in chronic diseases, testify to the truth of this proposition.

Though the modern physician claims to have emancipated himself

from dogma and the schools, he is enslaved by the drug-prescribing habit. Drugs are to-day presented in alluring forms and rapid succession; they come to us, not with the sounding of trumpets, but with the insidious claims of a few clinical tests of Prof. So-and-So and Privat-Dozent So-and-So. Often we are not even vouchsafed information as to their method of manufacture. If their composition is given it is in the new chemical nomenclature, which to most of us is absurdly incomprehensible. For instance, agathin, a new remedy extolled for neuralgia, is said to be the "salicyl-alpha-methyl-phenyl-hydrazone. It is obtained by the interaction of salicylic aldehyde and alpha-methyl-phenyl-hydrazone."

ABOLITION OF DRUGS.

I plead to-night, not for the abolition of drugs, some of which I value as highly as any one, but for a more methodical application of remedies like rest, exercise, diet, water, and proper environments, remedies which boast of greater antiquity than any medicinal agent, remedies which have demonstrated their value in all epochs of medical history and which to-day challenge the most searching investigation.

