duced in the collodion, and has the advantage over other methods in not being rubbed off or soiling the linen, yet loses none of its therapeutic effects. The irritation that tar sometimes produces is overcome by the local anesthetic effect of the collodion. Chrysarobin should be applied with caution and not allowed to extend beyond the area of the infected patch. It stains both skin and linen a yellowish color; frequently, even with caution, it will produce considerable irritation, or may have to be suspended. Applied once daily with care, the patches desquamate, the skin becomes of normal thickness and color, contrasting with the brownish color at the limit of the former patch. The method of Fox, to use chrysarobin combined with collodion, is the safest and least objectionable of the present modes of application. Infected patches should be painted once daily, or every two days, care being taken to limit its application only to the patch, as even when used most carefully troublesome irritation occurs in not a few cases. These applications, made for a week, should always be followed by a prolonged hot soap bath, while the general baths of non-infected parts should not be neglected. Pyrogallic acid, less active than chrysarobin, does not produce as much irritation of the skin as the latter remedy. In psoriasis of the head and face, pyrogallic acid is much better adapted for local treatment than chrysarobin, but if allowed to come in contact with the hair will stain. Too extensive or careless application of this agent has caused it to be absorbed, resulting in strangury, vertigo and vomiting. The safest and least objectionable of local applications to the head and face are salicylic acid in plaster or collodion, resorcin or aristol in ointment of roses.

DISCUSSION.

DR. OHMANN-DUMESNIL remarked that treatment of psoriasis of the scalp, especially in women, can not be effectuated by the means recommended by the speaker, and therefore he uses oil of cajeput, which he finds very useful and of easy application.

DR. BULKLEY recommended the use of white precipitate and bismuth in form of an ointment. He does not advise to wash the scalp too often, but he anoints it twice a day with this ointment, in the following formula:

R. White precipit., { aa 5ss.
Bismuth sub. carb., {
Acid carbolic, gtts. x.
Unguent. ammon. roset., 3ij.

M. F. Unguent.

He believes, however, that 25 per cent. of the patients can be better cured by internal and hygienic means than with local treatment.

DR. FRANK is satisfied with the use of chrysarobin and pyrogallic acid, and with a salve consisting of ichthyol and vaselin.

PHYSIOTHERAPY FIRST: NATURE'S MEDICAMENTS BEFORE DRUG REMEDIES; PARTICULARLY RELATING TO HYDROTHERAPY.

Read at the last Semi-annual Meeting, in Ottawa, of the Rideau and Bathurst Medical Association.

BY EDWARD PLAYTER, M.D.

EDITOR CANADA HEALTH JOURNAL,
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All through the records of the history of medicine—in the early Assyrian and Egyptian period, five or six thousand years ago, in the time of Æsculapius and of Hippocrates and down, as we find in modern uncivilized tribes, we have clear evidence that in the first or early steps in the science of medicine the

practice of the art consisted for the most part in the employment of magical incantations, the laying on of hands, etc., and was apparently somewhat of the nature of modern hypnotism, acting through the mind, as if the chief reliance in the healing of disease was upon the natural living forces within the body. We are here reminded of the old saying that "God made man upright, but he hath sought out many inventions." Although Æsculapius in his practice, we are told, enjoined first of all a hygienic regimen, attention to the diet, strict temperance and absolute cleanliness by frequent ablutions, and although the temples that were afterwards erected in his honor were built in the healthiest localities and the patients in them treated upon like hygienic principles, including rest and pleasing impressions, yet so far as we know it was Hippocrates who, practicing in a similar way, first drew special attention to the inherent natural curative force within the body, which he termed *phusis* (*φύσις*) nature, the *vis medicatrix naturæ*, of late Roman writers; while he also recognized subordinate forces which he termed *dynamics* (*δυναμικὴ*), relating more particularly to the various organs of the body. Moreover, in practice this father of medicine allowed these forces to pursue unmolested and uninterrupted their benign course; and he was in practice it appears remarkably successful. Coming down through the obscurity of the Dark Ages, to two or three centuries ago, we find the discerning Van Helmont advancing the theory of a more specific healing force or power within the body, different from that belonging to inanimate matter, and which he personified as the "Archæus," or "Grand Regulator," a sentient principle seemingly distinct from the corporeal frame, whose throne was the stomach; Wepfer designating a like power as the "president of the nervous system;" and the bold Stahl attributing such an influence "directly and entirely to the rational soul, diffused over the whole body." And while we still continue to pour in drug remedies as our sheet anchor in the treatment of disease, the schools especially wave before us, perhaps not now so much as a few years ago, the endless and ever increasing drug formulæ of the Pharmacopœia as the Alpha and Omega of resource in therapeutics, leaving us to find out for ourselves in practice, through years of most bitter, most destructive experience, the futility and danger of most drug remedies.

A Metchnikoff now rises up and displays before our wondering eyes, as it were, the *vis medicatrix naturæ* actually personified—certain living cells in actual combat with disease germs; while other investigators teach us that there is generated in the body and found in the blood serum, itself, a germicide more powerful than corrosive sublimate.

It is not my intention to make a tirade against drug remedies. Some of them are of undoubted value in certain diseases, although as Prof. Erb, of Heidelberg, says, of "chemical or internal remedies:" "Here we enter upon a very obscure field which needs thorough cultivation. We know almost nothing of it; the little which therapeutic experience has taught us is neither securely established nor in any way scientifically or intelligibly founded." But I would like to deliver a vigorous tirade against the practice of the text-book makers and of the schools giving these remedies first place, usually, instead of the last, in the *Materia Medica*.

Many years ago I suggested at more than one meet-

ing of the Canadian Medical Association that the profession in Canada take the initiative and appoint a committee with the view of inducing the profession elsewhere to join and cut out about nine-tenths of the Pharmacopœia—and to separate the few grains of gold in it from the enormous amount of what is practically dross.

I will just mention here a few points relative to some of the dangers which may arise from drug remedies. On the 13th of the present month the *British Medical Journal* gives the report of "An inquiry regarding the importance of ill effects following the use of antipyrin, antifebrin and phenacetin, by the Therapeutic Committee of the British Medical Association." I can only give two or three lines of the ten to eleven close columns of the report, as follows: "The list of ill effects noted with antifebrin is not only a very formidable one in itself, but it loses none of this character when we consider the frequency of their occurrence." True it is that, as regards the freedom from ill effects of the three drugs, antifebrin is third and last; phenacetin being first.

We must admit, furthermore, that ill effects from the administration of almost any drug may be considerable, even serious, and not be manifested even on close observation for a long period of time; just as we know is the case with certain kinds of food consumed. And when we think for a moment of the complex and intricate nature of the physiologic and vital processes going on within the human organism, or of the susceptible nature of the digestive ferments, for example, we can readily understand, theoretically, that the introduction into the body in any way of but a mere trace of some chemical product, even one regarded as mild in its action, may interfere with or disturb, little or much, the processes of nutrition, as well as other functions. The same may be said in respect to disturbing in like manner the natural healing processes,—to interfering with the formation of nature's germicide, for example, or with the vigorous action of the army of phagocytes. For do as we will or may, nature ever reserves for herself the maximum of power in the direction of the processes of healing. In the words of a paper by Dr. Von Dunhoff, in the *New York Medical Journal*, of a few months ago: "I submit that, however efficient as germicides certain chemical agencies may prove to be in the laboratory, the same impracticability attends them in their adaptation to clinical issues, and renders the effect of their use here either *nil* or mischievous, as is the case with respect to the effects of many of the so-called chemical preparations, presumably prepared with the nicest precision as supplemented ingesta, intended for the correction of certain qualitatively defective conditions of the blood and tissues; and unless the inherent residual *vis resistens naturalis* vouchsafes recovery, no man has yet attained the means of compelling such an issue artificially.

Experiments have shown that mice under the influence of chloral contract infections more readily than mice not under such influence; the chloral probably depressing or embarrassing the action of the phagocytes.

The millionth part of a drop of blood from a rabbit affected with anthrax may communicate this malignant disease to a healthy rabbit. Possibly a much smaller quantity than the millionth part of a drop, say the four-millionth part, would not communicate

the disease to the animal when it is in a natural vigorous physical condition. But who can measure the infinitesimal quantity of chloral for example or other drug which, having been first given to the healthy animal, might so depress the phagocytes in its blood as to enable the bacilli of the disease in the four-millionth part of a drop of the infected blood to come off conqueror, establish their colonies and the disease and destroy the life of the rabbit? Or who could weigh the mere trace of some of the depressing or soothing drug remedies commonly given in infectious pneumonia, or in the earlier or sthenic stage of some of the infectious fevers, which might possibly so interfere with the formation or action of the natural germicides in the body of the patient as to lessen the chances of recovery, or possibly to favor auto-infection?

Nor must we, moreover, meddle too far with benign nature even with our more natural remedies. No physician dare interfere with compensating hypertrophy of the heart in valvular disease. So in certain cases of epilepsy. In the works of Dr. Lyman, Professor of the Principles and Practice of Medicine, in the Rush Medical College, Chicago, in a recent address delivered before the Michigan State Medical Society on the "Limitations of Therapeutics:" "Though the paroxysms of the disease may have been suppressed and the patient apparently cured, or if not absolutely cured, greatly relieved for a long period of time, the patient will sometimes tell you that after all he would prefer not to continue treatment any longer. Not because dissatisfied with your methods or measures, but because he felt so much better when the disease was allowed to run its natural course, and because an explosion or convulsion at certain stated intervals seemed to give absolute relief, showing that the wisest and best therapeutic methods (or what appears to us to be the wisest and best) may nevertheless absolutely fail in giving to the patient that degree of comfort and satisfaction which we desire, but which nature knew how to bestow." So that it is sometimes better to bear the ills that we have than fly to others we know not of. True, if the cause or causes of the diseased state which gives rise to these explosive convulsions as a means of relief were first removed instead of the mere symptoms being treated, the result would be quite different.

Permit me, then, to mention in this connection, as a reminder, and we all need frequent reminders, the fact that, in the treatment of disease, there are two most important points to bear in mind: 1, to ascertain, if possible, by the most careful and thorough examination the cause or causes of the diseased condition or symptoms we are called upon to treat; and 2, to remove the cause or causes or prevent the recurrence of the same. Then, in very many cases, if we provide the ordinary essentials of health and life—pure air, water and sunlight, securing the utilization, through the respiratory organs of abundance of oxygen, with suitable food, clothing and rest, or it may be exercise, probably partial passive exercise, as in passive movements by another person or in massage, with the means of absolute cleanliness—abundance of water, dirt being so common a cause of disease,—then, usually, benign nature "will do the rest." Hence a very much larger proportion of the time given to the study of medicine should be devoted to the study of pathologic conditions and especially to the causes of these conditions.

The application of these natural remedies, the essentials of life, as above named, may be termed natural therapeutics. Or, if I may be permitted to coin from the Greek a new term, for I have never observed it in print, a term more in accordance with medical nomenclature than the words hygienic treatment, commonly used, I would suggest the term physiotherapy. Let us notice more in detail, yet briefly, a few of these therapeutic remedies.

PURE AIR AND SUNLIGHT are recognized by everybody as being most valuable remedies and restoratives, but they are not nearly so often prescribed and administered therapeutically to patients as they might and should be, and before drugs. Were they costly remedies and not free to all they would perhaps be more commonly prescribed. Besides, many people do not know how to breathe in, and get the full benefit of pure fresh air with its life-giving oxygen. They make only partial use of their respiratory organs. I have tried the experiment of inducing patients who suffered from weak, inactive lungs and consequent general debility, to draw in more fresh cool air at each inspiration, to "eat the air," as the Hindoos have it, and from this prescription alone great improvement has followed.

THE DIET being a common cause of bodily derangement and disease, we have in modifications of it and in feeding or fasting, a potent remedy. While many patients need feeding with a more nutritious or suitable, if not more abundant diet, many on the other hand require to let the digestive, nutrient and excretory organs rest by remaining in bed for a time and eating almost nothing—fasting. Regulation of the diet in these various ways has alone in my hands proved to be a very efficacious remedy.

A COMPLETE REST for the whole organism, in this rushing age, with feeding or fasting as indicated, probably a few days of fasting and many more of feeding, is not infrequently a prescription strongly indicated and much needed, and alone is often sufficient to restore health. And the "rest cure," as it is called, is becoming, as we know, a somewhat common practice. It is to be hoped it will not become too fashionable.

MENTAL INFLUENCE: Before noticing passive exercises and hydrotherapy, I may just refer to mental influence as a remedy. To this may be attributed the "miraculous cures," "we read about" occasionally; "faith cures" and the like. What physician has not witnessed the effects of mental influence exercised through the power of hope, in many cases of disease? Or of the power of a strong will in overcoming disease? I will allude to but one practical and direct example of the power of the mind over the body; that of defecation in constipation from a sluggish state of the lower bowel. Persistent concentration of the will upon the parts accompanied, not by straining but simply by the desire of action, will alone overcome many cases of habitual constipation. Massage will usually aid in producing and hastening the desired action.

Mention may be made, too, as associated with mental influence, of hypnotism with suggestion; not yet well understood nor generally recognized as a remedy.

ELECTRICITY is apparently destined to become an important remedy, and may also be regarded as a natural one, in the treatment of disease; especially as produced by friction or induction, usually termed

static electricity. With its small volume and high degree of force in this form it has already produced highly satisfactory results. The nature of its action not being yet well understood, its use is necessarily empirical and it is a very bonanza for quacks. True it is that many of our most valuable remedies have been brought into use in this way. It has not fallen to my lot to have had much experience with electricity. Indeed with the other remedies at command I have never yet experienced the need of it; the electrical effects of massage usually sufficing.

IN KINESITHERAPY, passive local movements or exercises, as in massage and the manual or mechanical movements commonly termed Swedish, we have a most potent remedy in a large number of diseases. It is a remedy the action of which we can readily understand, regulate and control. While the practice of massage—kneading, rubbing, percussing or tapping, is rapidly coming into general use, the so-called Swedish movements, which are of equal if not greater value, seem not to be so generally practiced.

The effect of these passive exercises of the muscular tissue, by either massage or the more natural movements, while readily comprehended, are sometimes almost phenomenal. Diseased conditions are removed by substituting natural healthy action. They aid the natural forces in eliminating morbid or poisonous accumulations from the system. In all forms of dyspepsia, in dilatation of the stomach, when the muscular tissue is weak and inactive, in helpless cases of rheumatoid arthritis, even of several years standing, in curvatures of the spine and other deformities, and in paralysis of motion, no other treatment is so applicable and successful; when combined, I need hardly add, with other hygienic remedies, especially with abundance of atmospheric oxygen and proper food, and in rheumatism with the warm bath.

In relation to kinesitherapy, I will only add that, in all cases of muscular asymmetry, with the accompanying want of uniformity in action and vigor, a condition which is the forerunner or cause of many diseased conditions, especially as found in gynecologic practice, and in which ordinary exercise is not admissible, no other treatment meets the requirements so completely. As Dr. Kellogg, of the Battle Creek, Mich., Sanitarium, says in "Modern Medicine and Bacteriological World," in his "experience with several thousand cases, lack of muscular development is the cause of a great share of uterine and ovarian displacements," and a "substantial cure can not be effected by any other means." In the majority of cases the patients can not take general "exercise" themselves, and these partial exercises supply the want.

We now come to the last therapeutic agent to which I shall draw attention, and which, indeed, I regard as the most important and valuable of all—the common element, water, in its various forms of application.

When we consider the broad fact that many diseases, functional and organic, if indeed there be any distinction, are caused more or less directly by dirt, dirt outside the body or within it, we can at once comprehend the value of water as a therapeutic remedy, and in its simplest form of application—water in which to wash and be clean. I need hardly refer to its value, as confirmed by the highest authorities, in washing out, with copious water or salt and water

injections, the intestines in cases of cholera. I believe it would have an equally good effect in typhoid fever. Nor need I refer to its value when copiously swallowed in washing out the entire internal structure of the human body, to the minutest recesses among the tissues, as when the organism has become loaded with the *débris*—the dirt, practically—of the ordinary functions of life, which has accumulated in the fluids and tissues from want of proper hygienic care or habits. We know that it is now the opinion of many physicians that it is to the copious water drinking in most cases, much more than to any mineral ingredients in the water, that many of the popular “springs” owe their popularity. Persons suffering from excess of waste matters, and the poisonous substances arising from the decomposition of these, in the tissues and fluids of the body, impure blood, receive at the springs a complete wash-out—a flushing—a succession of internal baths; they are simply washed and made clean.

But water, it need hardly be said, has as a medicament a much broader application than is indicated in any of these pathologic conditions. Remarkable physiologic and therapeutic effects can be produced by the application of water in various ways and, on the whole, more safely and naturally than with drugs.

The only work in the English language which is not tainted with quackery, so far as I know, if we except the valuable treatise of Winternitz in Ziemssen's “Hand-book of Therapeutics,” now practically out of print, is that on the “Uses of Water in Modern Medicine,” by Simon Baruch, a physician holding many high positions in New York, which was published a year or so ago by Geo. S. Davis, of Detroit. If any of you are not in possession of this practical little work, I take the liberty of saying you should get it. It consists of two volumes of the “Physician's Leisure Library” series, and is very inexpensive.

Dr. Baruch makes this happy distinction between hydrotherapy and hydropathy: “The former accepting water as one important remedial agent; the latter regarding it as a universal remedy.” To my mind, it is just about as Dr. Baruch further says: “While I emphasize my belief in all those drugs whose effects have been positively demonstrated in the laboratory and at the bedside, I espouse water as perhaps the most potent of all remedial measures; and upon the historical, physiological and clinical grounds succinctly set forth in the following pages,”—*i. e.*, of his book. Again, he continues: “The history of water as a therapeutic agent is not only a most interesting chapter, but it affords the clearest demonstration of the instability of therapeutic propositions, and the manner in which prevailing ideas influence them. Although the literature of the subject is the most extensive published with regard to any remedy, recent works on therapeutics treat it with a decidedly stepmotherly regard; they dismiss it in a few beggarly lines, preferring to devote their columns to essays upon the action of remedies whose actual clinical value is, in most instances at least, problematical. The history of water teaches clearly that no other remedy has so creditably passed through vicissitudes of depression; and that despite professional and lay prejudice, it stands to-day unscathed and rendered secure against assault by the panoply obtained from physiologic and bedside results.”

A few words here on the history of hydrotherapy

will be both interesting and profitable. Hippocrates laid down rules for the treatment of disease by water, which even at this day are practiced by both physicians and quacks. Two and a half centuries later, Asclepiades, though it appears not possessed of much real medical knowledge, by his great natural ability and discretion attained eminence in Rome as a practitioner, depending almost entirely for his success on a judicious diet, massage and baths; by means of which he performed “miraculous cures.” So warm an advocate was he of the water treatment that he was dubbed “Psychrolutus.” Through Asclepiades hydrotherapy was popularized in Rome. He formed the school whence sprang Themison, Celsus and other eminent physicians. A pupil of his, Antonius Musa, restored the Emperor Augustus to health by the vigorous use of cold water; and he had Horace too for a patient. So grateful was the Emperor that he bestowed upon him and the whole medical profession the privilege of citizenship, and had a statue erected to Musa next to that of Æsculapius. Celsus, the “Latinorum Hippocrates,” prescribed water freely; so did also Aurelianus, who originated the wet sponge abdominal compress for hypochondriacs. Galen was an advocate of cold water baths and was the first, it appears, to advise cold applications to the head while the body was immersed in warm water. We know but little relating to the history or practice of medicine in the many dark centuries which followed the time of Galen. Oribasius of the fourth century, Ætius of the fifth, Trallianus of the sixth, and Paulus Ægineta of the seventh, the most noted of their time, were all zealous Galenists and followers of his practice. Ægineta was an enthusiastic advocate of the use of water, and was the first to advise the cold douche in sunstroke. All the more eminent physicians of the next few centuries, during the more dense barbarism of Europe—Serapion of Damascus, Rhazes of Irak, Avicenna of Bochara, and Avenzoar of Seville, who, it is said, lived to the age of 135, appear also to have been disciples of Galen, following in his line of practice. Chemistry made considerable progress during that period, and there were many additions to pharmacy, and possibly but little water was used in any way until the dawn of the seventeenth century. The Hippocrates of England, Sydenham, holding the more enlightened view that diseased action consists essentially in a natural effort of the system to remove morbid or noxious products, his practice was, like that of Hippocrates, to assist nature. I can not learn that he relied much upon hydrotherapy, but a few years after his death, about the close of the seventeenth century, Sir John Floyer, physician, of Litchfield, England, published a “History of Cool Bathing, Ancient and Modern,” a book which created an epoch in hydrotherapy, passed through six editions within a few years, and many years later was translated into German. Blair and Cheyne, English physicians of the highest standing, recognized hydrotherapy in their practice. The illustrious German physician, pathologist and clinical teacher, Hoffmann, was the first to distinctly recognize the influence of water upon the “tone” of the bodily tissues. After his time, during the eighteenth century, the use of water in medical practice became much more popular in Germany. The surgeon of Frederick the Great, Theden, was the first to use it in fevers, smallpox and rheumatism. He improved the shower bath and warmly advocated its use.

About this time, Hahn and his son and Oertel helped much to establish the principles of modern hydrotherapy in Germany, in both acute and chronic diseases. The work of the illustrious Currie, published in 1797, first placed hydrotherapy on a scientific basis, it appears. It advocated the use of water in gout and paralysis as well as fevers, and was translated into German and other languages. Although the practice of hydrotherapy was more popular in Germany than in England at this time, it is contended that it was by reason of translations of English writers, as Floyer and Currie. The practice of the latter was adopted in the Vienna hospitals. To mention the wise philosophic Hufeland as an enthusiastic and yet judicious advocate of hydrotherapy, as Baruch says, is to "give the imprint of true medical wisdom to it, and to indicate its wide adoption among the profession. He offered a prize for the best treatise on the action of cold water in fevers, determined by scientific thermometrical study." A Vienna professor was the successful competitor, whose treatise was published in 1823.

Notwithstanding all this, and more, hydrotherapy did not become generally popular until the time of the German farmer, Vincentz Priessnitz, who at his home in Grafenberg, Silesia, first received patients, enlarging his house as occasion required. In 1840 he had treated over 1,500 persons from various parts of the world, and twelve years later had amassed an immense fortune. "His success was brilliant because he was a careful observer, a good judge of human nature, and his mechanical skill enabled him to invent various technical modifications of the water treatment, many of which have been adopted by the profession and are still in use. A copious literature sprang up in all parts of the world, and many institutions were modeled after his. The government built roads to facilitate access to his establishment; monuments and fountains were erected to his memory. Physicians from all countries, who had been attracted to the mountain home, became converts to and missionaries of his practice." A few years later, Scutliff, a French physician, after studying hydrotherapy in Germany, reported that, "the numerous permanent cures it has wrought recommend it," and it "lies in the interest of humanity and medical science that its practice in Paris take place under the eyes of able physicians." Magendie aided in the propagation of hydrotherapy by physiologic demonstrations. Fleury introduced douches, and explained his clinical successes on physiologic principles. Fever treatment as now practiced was initiated by Brand, who in 1861 published his startling results from immersions and compresses with water at 54 degrees to 68 degrees F. The practice was soon introduced into England by Wilson Fox.

Respecting the practice of hydrotherapy, as Niemeyer in his work on practice says: "A series of cases are on record in which complete and perfect cures have been obtained" by it, "after all other methods of treatment had been applied in vain." Dujardin-Beaumetz (lectures at l'Hôpital Cochin, 1887) said: "The benefits we obtain from cold water in the cure of disease arise from its physiologic effect upon the circulation, the nervous system, the nutrition, and from its revulsive and heat lowering influence." Prof. Peter, of Paris, in his preface to the great clinical work on hydrotherapy of Duval, writes: "Hydrotherapy suffices in most cases of disease; added to other treat-

ment, it is a most powerful auxiliary." Prof. Erb, in his classical contribution to Ziemssen's Cyclopædia, writes: "To the most important and most active agents in the therapeutics of our field (nervous diseases) belong cool and cold baths, viz., the application of cold water in the most varied forms; that which is usually termed cold water treatment. Having been in recent times practiced more rationally and studied more exactly, it has attained remarkable prominence. Its results in all possible forms of chronic nervous diseases are extraordinarily favorable. If we add to this the heightened skin and muscular action induced by various methods of bathing, the influence of diet, etc., it becomes evident that we possess few remedies which produce an equally powerful effect upon the nervous system." Semmola, Professor of Therapeutics in Naples University (lectures, 1890), says: "Hydrotherapy stimulates cutaneous activity, and with it all functions of tissue change and organic purification, so that often real marvels of restoration in severe and desperate cases are accomplished. Unfortunately, these remarkable results are more rare to-day than they were in the time of Priessnitz, of which I was myself a witness." In all cases of retardation of tissue-metamorphosis, he says: "Hydrotherapy presents a truly rational treatment, and therefore unfailing effects, unless the local processes have reached incurable limits."

I could give many pages of such quotations from our highest authorities as to the value of water in the treatment of disease, but the above will suffice.

About a year ago, Ravighi, at a medical congress in Rome, read a paper respecting the effects upon the blood cells of the application of water, as shown by experiments he had made on men and rabbits. In March last, Prof. W. Winternitz, of Vienna, published (in *Cent. fur Klin. Med.*) a contribution on the same subject. Since that time, investigations by Dr. W. S. Thayer, of the Johns Hopkins Hospital, and more recently still, studies at the physiological laboratory at the Battle Creek Sanitarium, have verified the results of the other investigations. In "Modern Medicine" for December is a translation by Dr. J. H. Kellogg of another article, which had just been published by Winternitz (*Blat. fur Klin. Hydrother.*) on the same subject. All these show clearly that the application of water, apparently hot or cold, to the surface of the body produces an increase, sometimes large, in the red corpuscles, leucocytes and hemoglobin in the circulating blood. Winternitz reports: "The maximum increase of red blood corpuscles observed in fifty-six persons examined, was 1,860,000 per cubic mm. The maximum increase of leucocytes was to the extent of three times the ordinary number. The maximum amount of hemoglobin observed was 14 per cent."

At the late Pan-American Medical Congress in Washington, Dr. Baruch, opening the discussion relating to the value of cold water in asthenia, mentioned the astonishing effects of the cold douche. It rouses the circulation and "sets the wheels of life again in motion" in the very climax of this condition—with "thready pulse, shallow breathing, dull eye, picking at bed-clothes, subsultus, involuntary defecation,"—(*Therap. Gaz.*, January, 1894) in any febrile condition, scarlet fever, etc., which no known drug remedy, not even alcohol, will produce.

I will but mention, what some of you may not have read of (in JOURNAL OF AMERICAN MEDICAL ASSOCIA-

tion and *New York Medical Journal*); the Schott method of treating chronic heart disease by warm baths aided by muscular exercises. During the baths there is a reduced frequency of the pulse, with increased volume and strength and less irregularity. This effect is lasting, and a gradual amelioration of symptoms follows persistent treatment. It is said this treatment is applicable to a greater variety of cases than is Oertel's method. Schott medicates the baths by salines or carbonic acid; but their value is probably almost solely from the regulation of the circulation by the temperature of the baths. This I believe from personal experience.

Permit me in conclusion to say a very few words in respect to my own limited experience in the practice of hydrotherapy. In the latter part of my teens, having been a pretty hard working student, I was troubled a good deal with indigestion and a consequent want of good general health and vigor. In opposition to the wishes of my father, who was bitterly opposed to any semblance of quackery, and after having taken a good deal of medicine from the best physicians in the country, under pretence of visiting friends during holidays I placed myself under the care of a Mr. Brown, who had during the time of Priessnitz a popularity which it appears extended to the uttermost parts of the earth; and started a hydropathic establishment, or "Water Cure," in Newmarket, Ontario, near my home. Brown had but little medical knowledge and his failures probably outweighed his successes; but the "cold wet pack" or "sheet bath" and other forms of water application which he prescribed benefited me, and were the starting point of my faith in the value of water in literally washing away disease. During after years of laborious country practice, and many of them, although the want of available correct literature on the subject was a great drawback to me, I frequently availed myself of water as a remedy. Especially in copious draughts of it as a most certain and efficient diuretic and diaphoretic, directly unloading the cutaneous tissues and urinary organs, and through them in a large measure the entire body, of accumulated obstructing matters; as hot and cold compresses in local pathologic disturbances; as a tonic in the form of a cold sponge or shower bath; as a most soothing regulator of the entire organism in the form of a warm bath; and in other ways. Of one thing I feel certain; I never in my practice knew the free use of water to do any harm. This, neither you, I think, nor I can say of drug remedies. When weary and exhausted from riding all day and perhaps all night in the saddle or a two-wheeled chaise nothing, be assured, will rest and recuperate, soothe the irritated nerves and equalize the disturbed circulation like a warm bath, at a temperature of 93 or 94 degrees to 97 degrees F. Having spent many an hour reading in such a bath, I speak from personal experience. And now, largely as a consequence, when not very far from being 60 years "young," I feel better, more vigorous, youthful and clear headed than when at half the age. The warm bath has a high reputation, too, for warding off the effects of age. There is no other remedy so refreshing and invigorating. Thus Minerva is said to have imparted renewed vigor to the wearied limbs of Hercules. And over two thousand years ago, Hector's wife prepared warm baths that "returning from the fight," at Troy, "Hector might be refreshed."

... "Not yet the fatal news had spread
To fair Andromache of Hector dead;

"Her fair-haired handmaids heat the brazen urn
The bath preparing for her lord's return."

SOME THINGS THAT SHOULD NOT BE FORGOTTEN BY THE GENERAL PRACTITIONER.

BY B. C. KEISTER, M.D.
SOUTH BOSTON, VA.

In a previous communication under this heading, I endeavored to bring out a few salient points of interest to the general practitioner. It is my present purpose to emphasize a few minor points that often escape the notice, but which should have the due consideration of the entire medical profession.

The first item of general interest that presents itself to my mind, is the patent medicine fake. It is passing strange that this great evil should be allowed to assume such wonderful proportions in this advanced age of civilization and superior education. It is no less strange that laws have not been enacted to abolish an evil whose deleterious effects upon the constitutions of its victims are so apparent to every observing mind. How preposterous the idea seems for an intelligent being to take into his stomach a mass of things that he knows nothing *under heaven* about, except through the flattering, false description that he reads in a newspaper, whose editor knows no more about it than he does about the function of the vermiform appendix. This evil is gradually assuming greater proportions every year, and I must frankly say it is a *burning disgrace* to our boasted civilization, as well as to the medical profession, that such is the case. It is *high* time for us to act in the matter. As conservators of the public health, and well-wishers of our fellow-mortals it is our duty to take the initiatory steps toward stamping out this great destroyer of human health and impoverisher of the sick poor. It is no strange sight in these times of financial depression, to go into a well-to-do household and see in some secluded corner or on the pantry shelf, a dozen or more empty bottles that bear the obnoxious titles or trade-marks of as many varieties of nostrums, such as "Dr. King's New Discovery for Consumption," "Chamberlain's Cough Remedy," "New Great South American Kidney Cure"—that cures all forms of kidney disease in six hours. These are but historic guideposts to the physician as he enters an adjoining room and there beholds the victim of these empty nostrum bottles, lying on his sick bed nigh unto death's door. During the brief intervals of coughing and attacks of short breathing, the dying man begins his tale of woe, by telling of his neglected bad cold, and then of the newspaper accounts of "Chamberlain's Cough Remedy" that his neighbor Brown told him to get for his cough; not getting any better, he tries several bottles of "Dr. King's New Discovery for Coughs and Consumption." He next tells about his first night sweats, which occurred some weeks previous, and of their weakening effects. After trying the last named medicine some time and finding no relief, he decides that his kidneys are diseased, as his urine has become more scant and his night sweats more profuse; hence he tries several bottles of the "New South American Kidney Cure" which his druggist recommended to him through his oldest son, John,