

Bulwer and Forbes on the water-treatment : a compilation of papers on the subject of hygiene and rational hydropathy; edited with additional matters.

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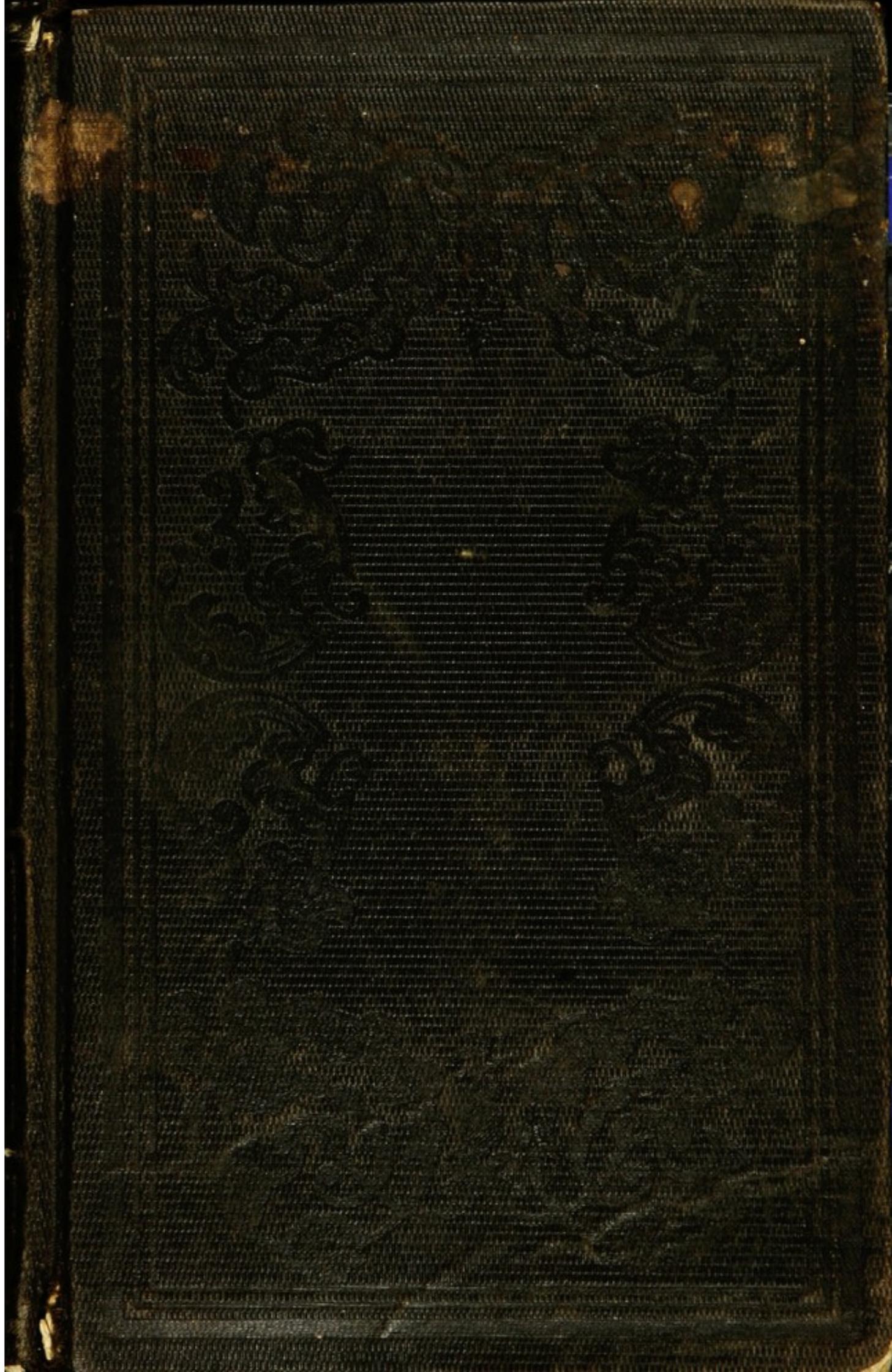
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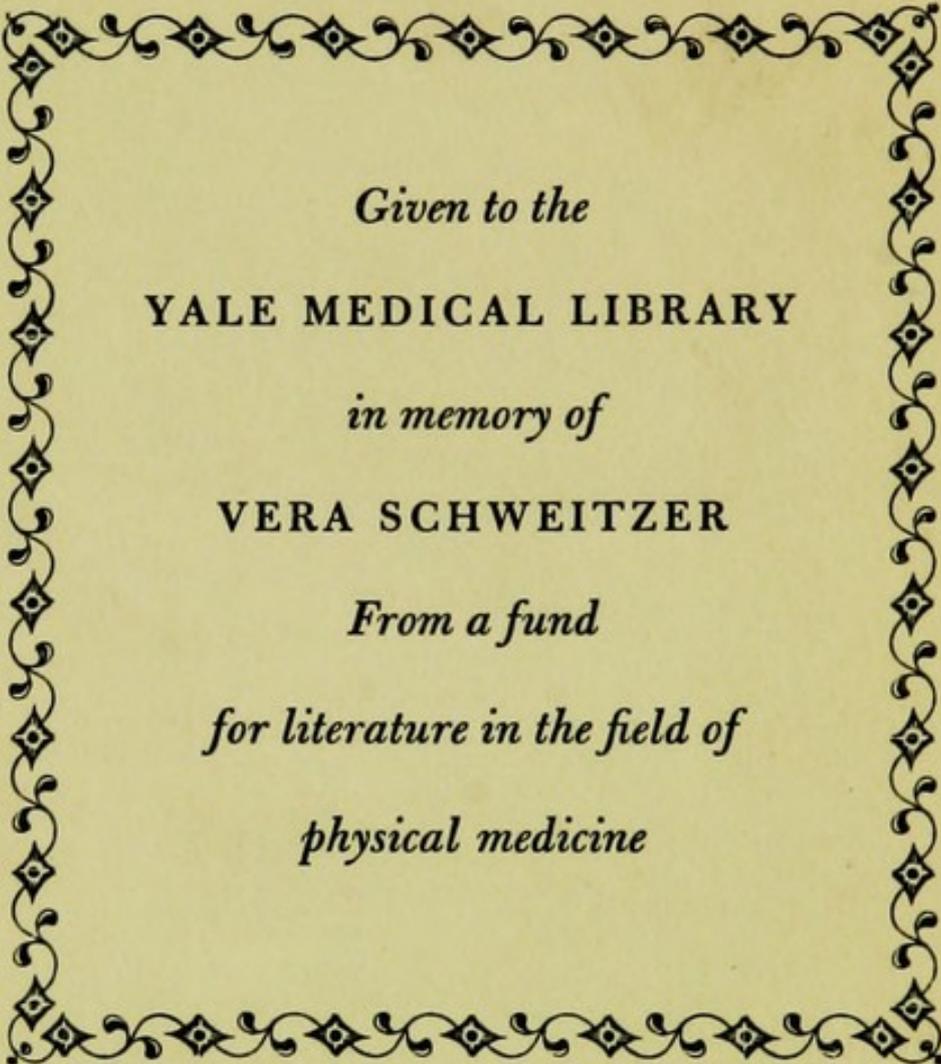
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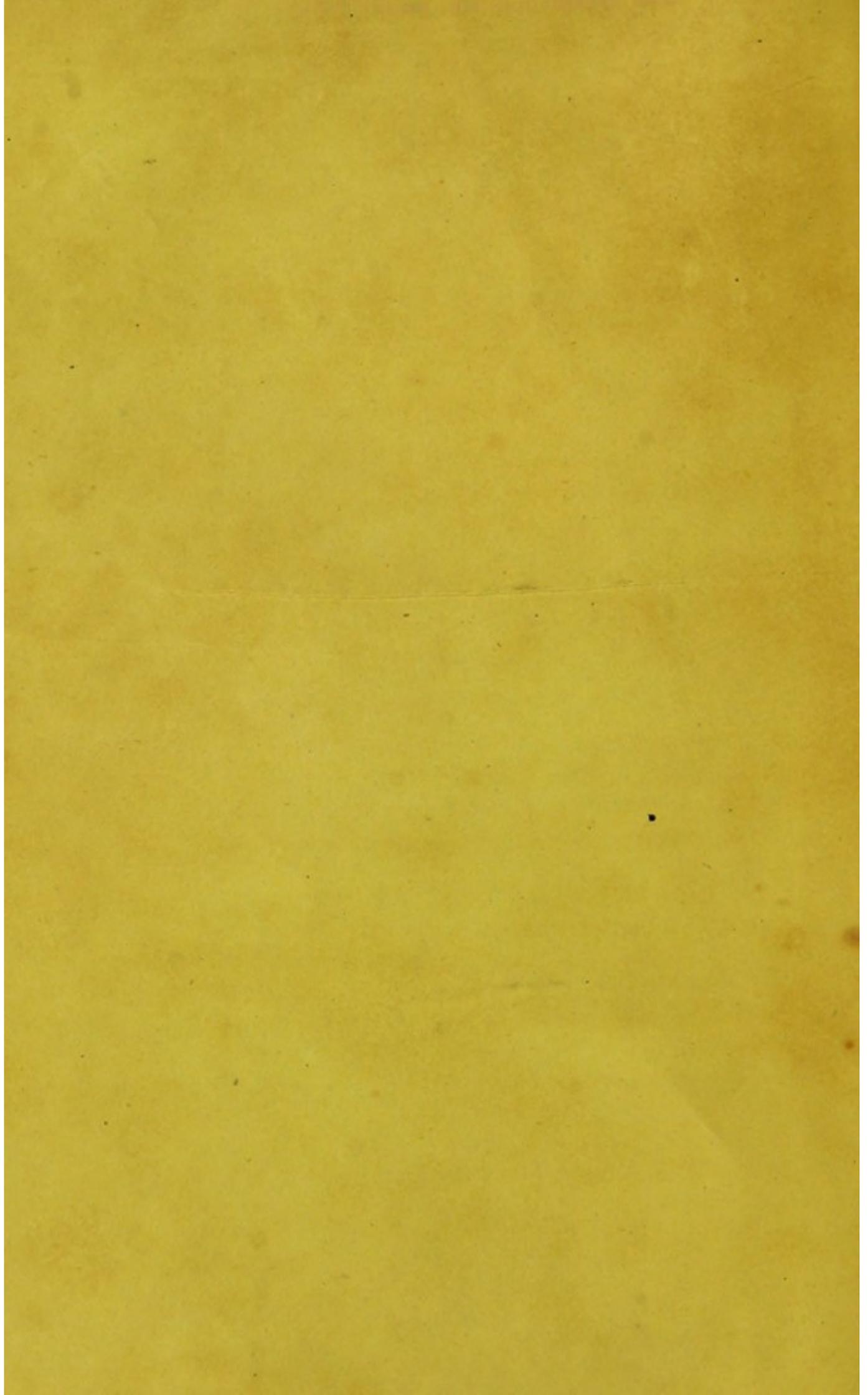


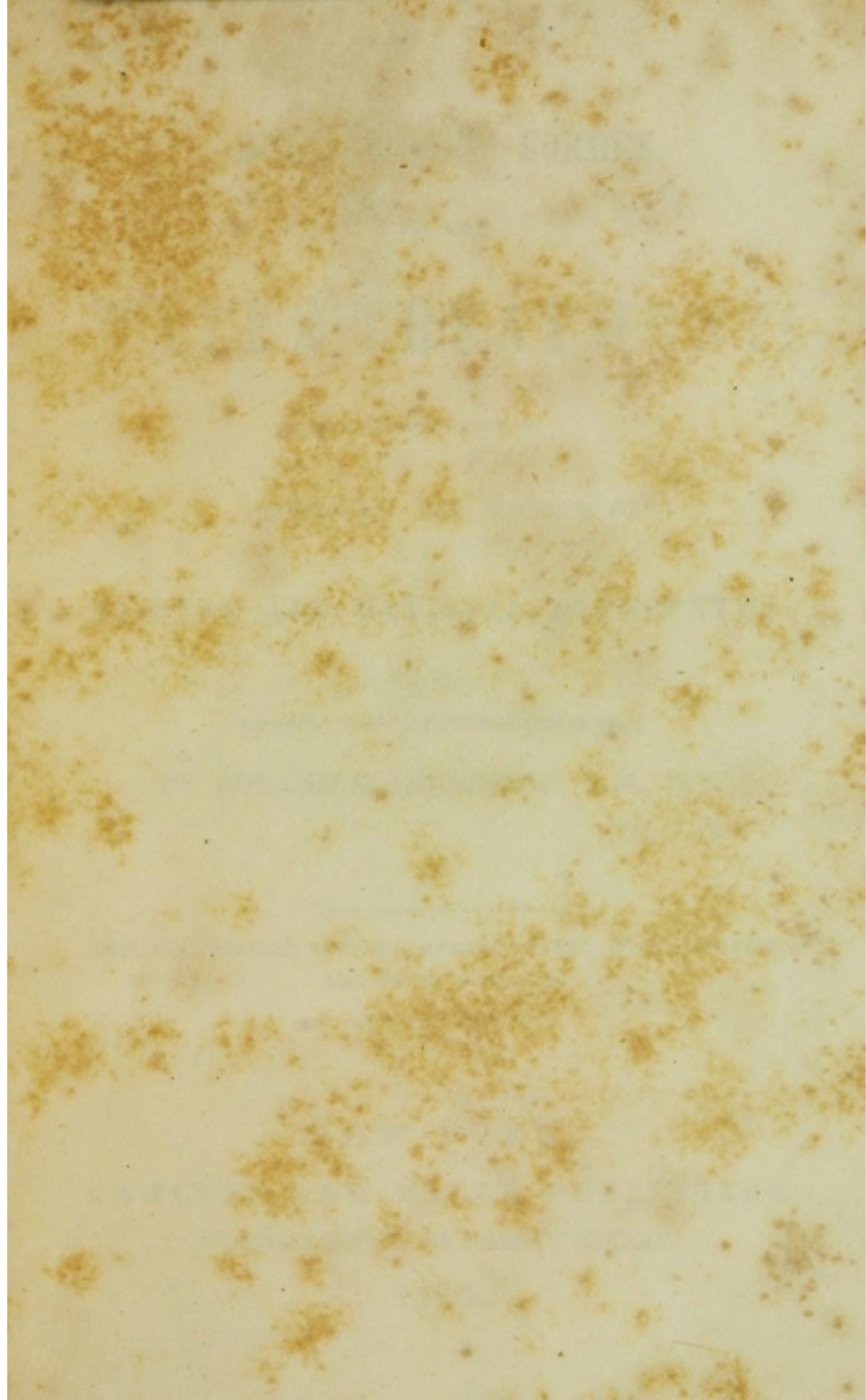
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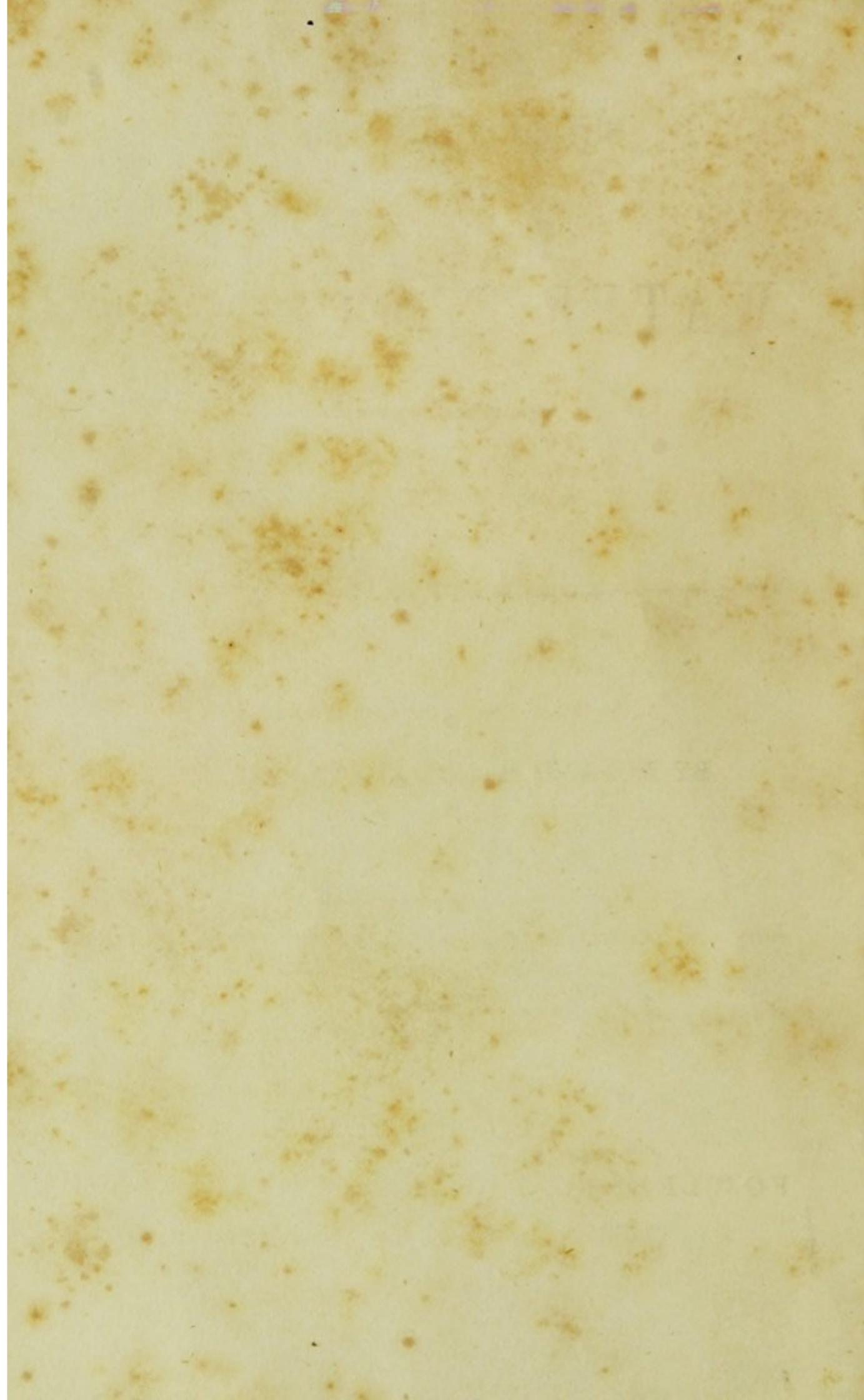
in memory of
VERA SCHWEITZER

From a fund
for literature in the field of
physical medicine

Joseph Pearson
no 70







BULWER AND FORBES
ON THE
WATER-TREATMENT:

A COMPILATION OF
PAPERS ON THE SUBJECT OF
HYGIENE AND RATIONAL HYDROPATHY:

EDITED, WITH ADDITIONAL MATTER,
BY ROLAND S. HOUGHTON, A.M., M.D.

NEW AND REVISED EDITION, STEREOTYPED: WITH ADDITIONS
AND IMPROVEMENTS.

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in the Clerk's Office of the District Court of the United States for the
Southern District of New York.

STEREOTYPED BY WILLIAM J. BANER,
201 William Street.

TO
LITERARY AND PROFESSIONAL MEN,

AND

TO ALL WHO THINK,

This little Compilation,

DESIGNED TO ADVANCE THE CAUSE OF PHYSICAL EDUCATION,

AND TO SET FORTH THE MERITS OF A

STRICTLY NATURAL, HYGIENIC, AND PHILOSOPHICAL

MODE OF TREATING DISEASE,

IS RESPECTFULLY INSCRIBED

BY THE EDITOR.

TO

THE PRESIDENT AND MEMBERS OF THE

COMMISSIONERS OF THE

THE NATIONAL BUREAU OF EDUCATION
WASHINGTON, D. C.

Dear Sirs:

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed amendments to the regulations governing the admission of students to the National Bureau of Education.

The proposed amendments are being considered by the Board of Education and it is expected that a decision will be reached in the near future.

I am, Sir, very respectfully,
Your obedient servant,
[Signature]

P R E F A C E

T O T H E S T E R E O T Y P E E D I T I O N .

THE compilation herewith presented to the public owes its origin to a strong desire, on the part of the editor, that the various materials of which it is mainly composed should be embraced in a suitable form for permanent preservation. Although some of the papers seem to have been originally designed for merely temporary purposes, yet he is so perfectly convinced of their lasting value, that he has deemed it well worth while to render them easily accessible to the public—and especially to all who may chance to be interested in the deeply-absorbing subject of which they treat. So great is their literary merit, so able and conclusive the arguments they embody, and so high and unimpeachable the social and professional reputation of their respective authors, that he cannot help feeling confident that there are a great many readers on this side of the Atlantic who will eagerly greet their present reappearance.

The leading paper, or Sir EDWARD BULWER LYTTON'S "Confessions of a Water Patient," which originally appeared in *Colburn's New Monthly Magazine* for September, 1845, is the only one of the number from a non-medical source. Its style is singularly quaint and pleasing, its manner warm and earnest, and its reasonings generally correct; insomuch that it can hardly fail to become a favorite treatise on the modern Water-Cure among those who possess refinement of mind and a cultivated taste. Addressed as it is to literary men as a body, and written with a genuine friendliness

and cordiality of tone, the editor ventures to add the hope that the brotherhood in America may profit by its admonitions and pay heed to its prophetic warnings.

Dr. FORBES's article on Hydropathy has already "made its mark," and provoked a deal of controversial criticism. It is included in this volume for the reason that it is perhaps the most thorough and satisfactory demonstration of the real merits and true province of the Water-Treatment yet offered to the public by any one member of the medical profession. Indeed, no compilation of the kind contemplated by the editor would be complete without this calm, able, and searching paper.

The succeeding article embraces a couple of chapters from a most excellent *Treatise on Healthy Skin*, by ERASMUS WILSON, M.D., F.R.S., Consulting Surgeon to the St. Pancras Infirmary, Lecturer on Anatomy and Physiology in Middlesex Hospital, author of a favorite text-book on Anatomy, etc. Of these two chapters the one first given is the ninth in the order of the *Treatise* (the tenth, which is appended, being especially devoted to the consideration of the Water-Treatment), and follows a series of admirable expositions of the distribution of the skin; its division into two layers, the external and internal; the nature of the perspiratory apparatus, the oil-glands, and the hairs; and the influence of diet, clothing, and exercise upon the health of the skin generally. [This explanation will render perfectly clear to the mind of the reader Dr. WILSON's allusion at the outset to several "preceding chapters."]

The fourth article consists of a careful abridgment of SIR CHARLES SCUDAMORE's elegantly-written account of his *Medical Visit to Graefenberg, in April and May, 1843*. The results of his inquiries are here transcribed, in preference to the narrative part and the details of cases; the latter having already been circulated to a wide extent in this country, in some of the American reprints on the subject of Hydropathy. The editor takes leave to invite the particular attention of his readers to the remarks of SIR CHARLES SCUDAMORE—a writer and practitioner so generally and deservedly honored both in England and America as to need no formal introduction or eulogy.

The fifth paper in the compilation is an abridgment of a very able work entitled, *The Cold-Water Cure: its Use and Misuse Examined*, by HERBERT MAYO, M.D., F.R.S., formerly Surgeon of Middlesex Hospital, London, and latterly Physician to the Hydropathic establishment at Mühlbad, Boppard-on-the-Rhine. Dr. Mayo had, previously to his taking up his residence upon the Continent, suffered severely from chronic rheumatism, insomuch that he was persuaded to "try the Water-Cure" as a last resort, though at the expense of "relinquishing a professional career in London, which was full of interest and promise of success." Dr. MAYO's amendment was so striking, that gratitude for his improvement immediately prompted him to impart to others his sense of the merits of Rational Hydropathy.

The editor has preferred to reprint these papers without notes or material abridgment, rather than run the risk of doing injustice to their authors, and at the same time interrupting the attention of the careful reader. There may be some few points of a minor nature on which his opinions are at variance, to a greater or less extent, with those set forth in these papers with such brilliancy and force; but the occasion does not call for any detailed notice of them here. His own "position" the editor has felt it to be most proper to "define" in a separate paper at the close of the volume. To this he respectfully refers the reader.

NO. 8, WEST ELEVENTH STREET,
NEW YORK CITY.

C O N T E N T S .

I. CONFESSIONS OF A WATER PATIENT: by SIR EDWARD BULWER LYTTON, author of "Harold," "The Last Days of Pompeii," "Rienzi," etc., etc., 13-49

Introductory observations—The melancholy fate of Campbell, Hook, and Hood—The cant of the times about the education of the mind, to the neglect of physical education—The author's own experience—Hygienic treatment insufficient for his case—Contemplates placing himself under the care of Dr. James Wilson, at Malvern, to undergo the water treatment—Sifts some of the cases of Water-Cure cited by Dr. Wilson with satisfactory results—Resolves upon going to Malvern, in spite of the vehement denunciations of "the faculty," who recommend in preference "a course of prussic acid!"—Innocence of the Water-Cure in skilful hands—Good habits easily acquired under the new system—Water in itself a powerful anodyne, as well as stimulant and excitant—The water-processes agreeable rather than repulsive—Chronic cases require a long cure, as a general rule—The author continues the treatment under Dr. Weiss, at Petersham, in order to be near London—Experiences a constitutional disturbance of his system—Emerges blanched and emaciated, but with muscles as hard as iron—Visits Germany—Seized with a severe cold while travelling, which turned into high fever—Proceeds to Dr. Schmitz's establishment, at Boppard—Cured of the fever in twenty-four hours, and resumes his journey on the third day—Continues to improve steadily—Passes the winter agreeably at Malvern—Sums up his own case—Had gained an immense accumulation of *the capital of health*—Ultra and exclusive Water-Cure notions absurd and chimerical—The Water-Cure *least* effectual in neuralgic pains, paralysis in the case of aged persons, and tubercular consumption; *most* effectual in rheumatism, gout, dyspepsia, drug diseases, intemperance, scrofula, etc., etc.—Wonderful benefits of the Water-Cure in acute complaints—Theory of the wet sheet—The Water-Cure *not* a desperate remedy—Infinitely more agreeable than any *course* of medicine—Three weeks at Malvern more beneficial than three months at Brighton or Boulogne—Author's advice to his literary brethren—Farewell address.

II. A REVIEW OF HYDROPATHY: by JOHN FORBES, M.D., F.R.S., F.G.S., Fellow of the Royal College of Physicians in London, Physician in Ordinary to her Majesty's Household, and Consulting Physician to the Hospital for Consumption and Diseases of the Chest, 51-119

Unjust prejudices of the medical profession against the Water-Cure owing to its non-medical origin—Intention of the writer, however, to speak his opinions openly and boldly when he believes them just—Not a little quackery mixed up with really effective water-practice—Many hydropathic physicians ill-

qualified for their posts—The duty of the medical profession *to adopt the improvements* recommended by Hydropathy, on being satisfied of their value—Many parts of the hydropathic system can be safely carried on at the patients' own homes—The water establishments should be under the control of regularly-educated medical men—Drugs should not be entirely banished from the water treatment—Historical sketch of the remedial uses of water—Lanzani's method of treating fevers—Sir John Floyer and Dr. Baynard—Practice of Dr. James Currie—Medical doctrine in regard to bathing before the times of Priessnitz—Artificial perspiration, how produced among the ancient Romans, the Russians, and North American Indians—Sketch of Vincent Priessnitz's career—His mode of treatment described—Effects of a course of water treatment: (1.) The careful withdrawal of all stimulants from internal parts—(2.) Generosity of the Water-Cure system of diet—(3.) Almost all the treatment is applied to the surface—(4.) A system of most energetic, local, and general counter-irritation employed—(5.) Frequency of the number of *coolings* of the body—(6.) A large amount of stimulation created in the system—(7.) Sedative effect of the treatment without causing debility—(8.) Valuable tonic properties of cold water—(9.) The sweating process—(10.) The purgative action of Hydropathy—(11.) Tranquillizing influence of the Water-Cure—(12.) Other important powers possessed by Hydropathy—(13.) Remarks on medical habits in reference to chronic disease—The allopathic and hydropathic treatment of chronic dyspepsia contrasted—Propriety of reviving Dr. Currie's treatment of fevers by cold affusion—The Water-Cure extremely efficacious in gout and rheumatism—Deserves a trial in chronic dyspepsia, chronic nervous affections, and general debility—The sitz-bath frequently an effectual remedy in chronic diarrhœa, dysentery, and hæmorrhoids—There is nothing to forbid a cautious use of drugs in combination with hydropathic measures—A judicious combination of the two the best means of obtaining the full benefit of each—The Water-Cure, in the proper hands, rarely attended with danger—The Water-Cure can easily be employed in private practice, but in many cases cures progress more rapidly at an establishment, owing to relief from domestic anxieties, change of air, scene, society, etc.—The water treatment cannot be safely conducted by non-professional persons—The medical profession should adopt the improvements effected by the Water-Cure for the purpose of putting down quackery.

III. TWO CHAPTERS ON BATHING AND THE WATER TREATMENT: by ERASMUS WILSON, M.D., F.R.S., author of "Wilson's Anatomy," Consulting Surgeon to the St. Pancras Infirmary, etc.. - 121-165

- (1.) *On Bathing*.—Causes giving rise to the necessity for ablution—Effects of obstruction of the pores of the skin—Utility of water to man—Action of water in removing impurities from the skin—Soaps and wash-powders—Does soap irritate the skin?—Mode of preventing the unpleasant effects sometimes caused to the skin by soap—Temperature of the water used in ablution—Frequency of ablutions—Tonic or "bracing" effects of washing—Modes of using water—Sponging—Test of the benefit of ablution—The sponging bath a combination of exercise and bathing—The shower bath a combination of bathing with concussion of the skin—Shock of the shower bath—Does the shower bath cause a determination of blood to the head?—Necessity of training—The douche—The cold bath, fresh, saline, and mineral—Tepid and warm baths—The vapor bath—The medicated vapor bath—Precautions to be used in bathing—Physiological effects of bathing—Importance of "reaction"—Artificial means of procuring reaction—The kheesah, or Indian flesh glove—The horse-hair glove—Sedative and stimulant effects of the bath—Absorption by the skin during immersion in the bath—Transpiration during immersion—Serious symptoms produced by too long immersion in the warm bath. (2.) *On the Merits of Hydropathy*, page 143.—The "Water-Cure"—Amount

of merit due to Priessnitz—Appreciation of Priessnitz by his patients—Effects of attaching a commercial value to medicines—Priessnitz's mode of examining his patients—The dietetics of Priessnitz—Example of his treatment—Priessnitz objects to warm clothing—Graefenberg the essential of the "Water-Cure"—Indiscreet adulators of Priessnitz—Universality of water a monomania—Method of treating a patient—Kernel of the Graefenberg nut—Hygienic sanatoriums in Britain—A course of water at Graefenberg—Mode of producing perspiration practised by Priessnitz—Explanation of the principle of cold affusion after perspiration or the warm bath—The Russian bath—Cold bath, shallow bath, hip bath—The damp sheet—The wet sheet—The wet bandage or compress—The douche—Partial baths—The Harrow establishment.

IV. A MEDICAL INVESTIGATION OF THE WATER-CURE TREATMENT: by SIR CHARLES SCUDAMORE, M.D., F.R.S., etc., 167-184

The water treatment powerful for good and evil—The public cannot be too well informed with regard to it—The medical profession recommended to discard all prejudices against the Water-Cure and against Priessnitz, its originator—The question that we have to consider is the measures, and not the man—A physician should be a student to the latest period of his life—The subject of Hydropathy one of the highest importance to the civilized world—Some of the writers on the Water-Cure do not give sufficient credit to Priessnitz—Eulogy on the founder of the Water-Cure—Hydropathy possesses an eminently *alterative* effect—Hydropathy a valuable addition to the resources of medical art, rather than an offensive rival or foe—Practice of Hydropathy in a town—A radical cure the object to be aimed at in chronic disease—Medicine cannot often be required in water treatment; should be administered as an exception, and not as the rule—Hydropathy interferes with settled interests; hence it is opposed in a few quarters for that reason—Partial explanations of the *modus operandi* of the water treatment objected to—Paramount importance of vital force—Doctrines of LIEBIG considered—Theory of the change of matter—Physical effects of the Water-Cure treatment—Cautions respecting the Water-Cure treatment—The principles of the Water-Cure well founded—Hydropathic hospital for the poor desirable—Concluding general reflections. APPENDIX.—Visit to Liebig, 182—Visit to Boppart, 183.

V. THE COLD WATER CURE; ITS USE AND MISUSE: by HERBERT MAYO, M.D., F.R.S., formerly Surgeon of Middlesex Hospital, London, etc., etc., 185-201

The Water-Cure a highly-artificial course of treatment—Cannot do what medicine can, nor can medicine do what the Water-Cure can—Nothing to prevent a cautious combination of allopathic and hydropathic treatment—Hydropathy more safe and efficient than allopathy as a tonic, reductive, or alterative—The Water-Cure subserves four principal intentions: (1.) The *tonic* course; useful in general debility not the result of co-existing disease, in debility depending upon constitutional weakness of the circulation, in cases of deficient innervation (for instance, hysteria), in mental depression, delirium tremens, scrofula, etc.—(2.) The *reductive* course—This mode of treatment often misapplied, as in severe colds and bronchitis—Most useful in the asthenic forms of gout and rheumatism—(3.) The *alterative* course—Applicable in head disorder, confirmed dyspepsia, irregular gout, cases of pure scrofula, indigestion, congestion, and disordered action of the liver, etc.—(4.) The *sedative* course—Applicable in fevers, inflammations, delirium, insanity, etc. Concluding remarks.

VI. OBSERVATIONS ON HYGIENE AND THE WATER TREATMENT: by ROLAND S. HOUGHTON, A.M., M.D., - - - 203-258

Prevalent neglect of physical education—Correctness of Bulwer's description of the physical life of the literary brotherhood—Health too often considered a mere matter of chance and good luck—Quack medicines frequently countenanced and endorsed by "educated" men—Melancholy fate of Mr. Legare and Judge Story, owing to their violation of physical laws—Impropriety of ascribing death under such circumstances to a "Divine visitation"—Nothing lawless in human life—Abernethy's remark about the unhealthiness of the people of London—Meaning of the term "healthy organization"—Results of an intelligent study of anatomy—Consideration of the principles of HYGIENE—This subject formerly treated of under the following heads, with the general designation of "Non-naturals!" "Air"—"Meat and drink"—"Sleep and watching"—"Motion and rest"—"The retentions and excretions"—"The affections of the mind"—The noblest department of the science of medicine the *prevention* of disease—Consideration of the efficacy of the *vis medicatrix naturæ*, or the healing power of nature—Career of Howard the Philanthropist—Relation of the curative processes of nature to surgical treatment—Case of Cornaro—Consideration of the HYGIENIC AND HYDROPATHIC TREATMENT OF DISEASE—Injustice of denouncing *all* "regular practitioners"—Hydropathy *not* "empirical"—The hydropathist does not "vend nostrums," or "sound his own praise in the public papers"—Contrast between allopathic and hydropathic practice—Allopathy itself "empirical"—Dr. Kneeland's admission—Antiquity of the Water-Cure—The Mosaic laws of cleanliness—Homer's description of the baths employed by Ulysses and Hector—Bathing among the Assyrians, Medes, and Persians—Magnificence of Darius's baths—Also of the Roman baths in the times of the emperors—Quotation from Hippocrates—The Emperor Augustus cured by water—Antonius Musa prescribes a course of bathing for the poet Horace—Other publications on the subject of water—Concluding remarks.

THE WATER-TREATMENT.

I.

BULWER'S LETTER.

CONFESSIONS AND OBSERVATIONS OF A WATER PATIENT,

IN A LETTER TO THE EDITOR OF THE NEW MONTHLY MAGAZINE.

DEAR MR. EDITOR :

I AM truly glad to see so worthily filled the presidency in one of the many chairs which our republic permits to criticism and letters—a dignity in which I had the honor to precede you, *sub consule Planco*, in the good days of William IV. I feel as if there were something ghostlike in my momentary return to my ancient haunts, no longer in the editorial robe and purple, but addressing a new chief, and in great part a new assembly: for the reading public is a creature of rapid growth—every five years a fresh generation pours forth from our institutes, our colleges, our schools, demanding and filled with fresh ideas, fresh principles, and hopes. And the seas wash the place where Canute parleyed with the waves. All that interested the world, when to me (then Mr. Editor, now your humble servant,) contributors addressed their articles, hot and

seasoned for the month, and like all good articles to a periodical, "warranted *not* to keep," have passed away into the lumber room, where those old maids, History and Criticism, hoard their scraps and relics, and where, amidst dust and silence, things old-fashioned ripen into things antique. The roar of the Reform Bill is still, Fanny Kemble acts no more, the "Hunchback" awaits upon our shelves the resuscitation of a new *Julia*, poets of promise have become mute, Rubini sings no more, Macready is in the provinces, "Punch" frisks it on the jocund throne of Sidney Smith, and over a domain once parcelled amongst many, reigns "Boz." Scattered and voiceless the old contributors—a new hum betrays the changing Babel of a new multitude. Gliding thus, I say ghostlike, amidst the present race, busy and sanguine as the past, I feel that it best suits with a ghost's dignity to appear but for an admonitory purpose; not with the light and careless step of an ordinary visitor, but with meaning stride, and finger upon lip. Ghosts, we know, have appeared to predict death—more gentle I, my apparition would only promise healing, and beckon not to graves and charnels, but to the Hygeian spring.

And now that I am fairly on the ground, let us call to mind, Mr. Editor, the illustrious names which still overshadow it at once with melancholy and fame. Your post has been filled with men whose fate precludes the envy which their genius might excite: by Campbell, the high-souled and silver-toned, and by Hook, from whom jest, and whim, and humor flowed

in so free and so riotous a wave, that books confined and narrowed away the stream; to read Hook is to wrong him. Nor can we think of your predecessors without thinking of your rival, Hood, who, as the tree puts forth its most exuberant blossoms the year before its decay, showed the bloom and promise of his genius most when the worm was at the trunk. To us behind the scenes, to us who knew the men, how melancholy the contrast between the fresh and youthful intellect and the worn-out and broken frame; for, despite what I have seen written, Campbell, when taken at the right moment, was Campbell ever. Not capable indeed, towards the last, of the same exertion, if manifested by those poor evidences of what is in us, that books parade, but still as powerful in his great and noble thoughts, in the oral poetry revealed by flashes and winged words, though unrounded into form. And Hook jested on the bed of death as none but he could jest. And Hood! who remembers not the tender pathos, the exquisite humanity, which spoke forth from his darkened room? Alas! what prolonged pangs, what heavy lassitude, what death in life, did these men endure!

Here we are, Mr. Editor, in these days of cant and jargon, preaching up the education of the mind, forcing our children under melon-frames, and babbling to the laborer and mechanic, "Read, and read, and read," as if God had not given us muscles, and nerves, and bodies subjected to exquisite pains as pleasures—as if the body were not be cared for and cultivated as well

as the mind ; as if health were no blessing, instead of that capital good, without which all other blessings—save the hope of health eternal—grow flat and joyless ; as if the enjoyment of the world in which we are was not far more closely linked with our physical than our mental selves ; as if we were better than maimed and imperfect men so long as our nerves are jaded and prostrate, our senses dim and heavy, our relationship with nature abridged and thwarted by the jaundiced eye, and failing limb, and trembling hand—the apothecary’s shop between us and the sun ! For the mind, we admit that to render it strong and clear, habit and discipline are required ; how deal we (especially we, Mr. Editor, of the London world—we of the literary craft—we of the restless, striving brotherhood)—how deal we with the body ? We carry it on with us, as a post-horse, from stage to stage—does it flag ? no rest ! give it ale or the spur. We begin to feel the frame break under us ; we administer a drug, gain a temporary relief, shift the disorder from one part to another—forget our ailments in our excitements, and when we pause at last, thoroughly shattered, with complaints grown chronic, diseases fastening to the organs, send for the doctors in good earnest, and die as your predecessors and your rival died, under combinations of long-neglected maladies, which could never have been known had we done for the body what we do for the mind—made it strong by discipline, and maintained it firm by habit.

Not alone calling to recollection our departed friends,

but looking over the vast field of suffering which those acquainted with the lives of men who think and labor cannot fail to behold around them, I confess, though I have something of Canning's disdain of professed philanthropists, and do not love every knife-grinder as much as if he were my brother—I confess, nevertheless, that I am filled with an earnest pity; and an anxious desire seizes me to communicate to others that simple process of healing and well-being which has passed under my own experience, and to which I gratefully owe days no longer weary of the sun, and nights which no longer yearn for and yet dread the morrow.

And now, Mr. Editor, I may be pardoned, I trust, if I illustrate by my own case the system I commend to others.

I have been a workman in my day. I began to write, and to toil, and to win some kind of a name, which I had the ambition to improve while yet little more than a boy. With strong love for study in books—with yet greater desire to accomplish myself in the knowledge of men, for sixteen years I can conceive no life to have been more filled by occupation than mine. What time was not given to action was given to study; what time not given to study, to action—labor in both! To a constitution naturally far from strong, I allowed no pause or respite. The wear and tear went on without intermission—the whirl of the wheel never ceased. Sometimes, indeed, thoroughly overpowered and exhausted, I sought for escape. The physicians said, “Travel,” and I travelled; “Go into the country,”

and I went. But in such attempts at repose all my ailments gathered round me—made themselves far more palpable and felt. I had no resource but to fly from myself—to fly into the other world of books, or thought, or reverie—to live in some state of being less painful than my own. As long as I was always at work it seemed that I had no leisure to be ill. Quiet was my hell.

At length the frame thus long neglected—patched up for a while by drugs and doctors—put off and trifled with as an intrusive dun—like a dun who is in his rights—brought in its arrears—crushing and terrible, accumulated through long years. Worn out and wasted, the constitution seemed wholly inadequate to meet the demand. The exhaustion of toil and study had been completed by great anxiety and grief. I had watched with alternate hope and fear the lingering and mournful death-bed of my nearest relation and dearest friend—of the person around whom was entwined the strongest affection my life had known—and when all was over I seemed scarcely to live myself.

At this time, about the January of 1844, I was thoroughly shattered. The least attempt at exercise exhausted me. The nerves gave way at the most ordinary excitement—a chronic irritation of that vast surface we call the mucous membrane, which had defied for years all medical skill, rendered me continually liable to acute attacks, which from their repetition, and the increased feebleness of my frame, might at any

time be fatal. Though free from any organic disease of the heart, its action was morbidly restless and painful. My sleep was without refreshment. At morning I rose more weary than I lay down to rest.

Without fatiguing you and your readers further with the *longa cohors* of my complaints, I pass on to record my struggle to resist them. I have always had a great belief in the power of WILL. What a man determines to do—that in ninety-nine cases out of the hundred I hold that he succeeds in doing. I determined to have some insight into a knowledge I had never attained since manhood—the knowledge of health.

I resolutely put away books and study, sought the airs which the physicians esteemed the most healthful, and adopted the strict regimen on which all the children of Æsculapius so wisely insist. In short, I maintained the same general habits as to hours, diet (with the exception of wine, which in moderate quantities seemed to me indispensable), and, so far as my strength would allow, of exercise, as I found afterwards instituted at hydropathic establishments. I dwell on this to forestall in some manner the common remark of persons not well acquainted with the medical agencies of water—that it is to the regular life which water-patients lead, and not to the element itself, that they owe their recovery. Nevertheless I found that these changes, however salutary in theory, produced little, if any, practical amelioration in my health. All invalids know, perhaps, how difficult, under ordinary circumstances, is the alteration of habits from bad to good. The early

rising, the walk before breakfast, so delicious in the feelings of freshness and vigor which they bestow upon the strong, often become punishments to the valetudinarian. Headache, languor, a sense of weariness over the eyes, a sinking of the whole system toward noon, which seemed imperiously to demand the dangerous aid of stimulants, was all that I obtained by the morning breeze and the languid stroll by the sea-shore. The suspension from study only afflicted with intolerable *ennui*, and added to the profound dejection of the spirits. The brain, so long accustomed to morbid activity, was but withdrawn from its usual occupations to invent horrors and chimeras. Over the pillow, vainly sought two hours before midnight, hovered no golden sleep. The absence of excitement, however unhealthy, only aggravated the symptoms of ill health.

It was at this time that I met by chance, in the library at St. Leonard's, with Captain Claridge's work on the "Water-Cure," as practised by Priessnitz at Graefenberg. Making allowance for certain exaggerations therein, which appeared evident to my common sense, enough still remained not only to captivate the imagination and flatter the hopes of an invalid, but to appeal with favor to his sober judgment. Till then, perfectly ignorant of the subject and the system, except by some such vague stories and good jests as had reached my ears in Germany, I resolved at least to read what more could be said in favor of the ἀριστον ὕδωρ, and examine dispassionately into its merits as a medicament. I was then under the advice of one of the first physi-

cians of our age. I had consulted half the faculty. I had every reason to be grateful for the attention, and to be confident in the skill, of those whose prescriptions had, from time to time, flattered my hopes and enriched the chemist. But the truth must be spoken—far from being better, I was sinking fast. Little remained to me to try in the great volume of the herbal. Seek what I would next, even if a quackery, it certainly might expedite my grave, but it could scarcely render life—at least the external life—more unjoyous. Accordingly I examined, with such grave thought as a sick man brings to bear upon his case, all the grounds upon which to justify to myself—an excursion to the snows of Silesia. But I own that in proportion as I found my faith in the system strengthen, I shrunk from the terrors of this long journey to the rugged region in which the probable lodging would be a laborer's cottage,* and in which the Babel of a hundred languages (so agreeable to the healthful delight in novelty—so appalling to the sickly despondency of a hypochondriac) would murmur and growl over a public table spread with no tempting condiments. Could I hope to find healing in my own land, and not too far from my own doctors in case of failure, I might indeed solicit the

* Let me not disparage the fountain-head of the Water-Cure, the parent institution of the great Priessnitz. I believe many of the earlier hardships complained of at Graefenberg have been removed or amended; and such as remain are no doubt well compensated by the vast experience and extraordinary tact of a man who will rank hereafter among the most illustrious discoverers who have ever benefited the human race.

watery gods—but the journey! I who scarcely lived through a day without leech or potion—the long—gelid journey to Graefenberg—I should be sure to fall ill by the way—to be clutched and mismanaged by some German doctor—to deposit my bones in some dismal churchyard on the banks of the Father Rhine.

While thus perplexed, I fell in with one of the pamphlets written by Dr. Wilson, of Malvern, and my doubts were solved. Here was an English doctor, who had himself known more than my own sufferings, who, like myself, had found the pharmacopœia in vain—who had spent ten months at Graefenberg, and left all his complaints behind him—who, fraught with the experience he had acquired, not only in his own person, but from scientific examination of cases under his eye, had transported the system to our native shores, and who proffered the proverbial salubrity of Malvern air and its holy springs to those who, like me, had ranged in vain, from simple to mineral, and who had become bold by despair—bold enough to try if health, like truth, lay at the bottom of a well.

I was not then aware that other institutions had been established in England of more or less fame. I saw in Dr. Wilson the first transporter—at least as a physician—of the Silesian system, and did not pause to look out for other and later pupils of this innovating German school.

I resolved then to betake myself to Malvern. On my way through town I paused, in the innocence of my heart, to inquire of the faculty if they thought the Wa-

ter-Cure would suit my case. With one exception, they were unanimous in the vehemence of their denunciations. Granting even that in some cases, especially of rheumatism, hydropathy had produced a cure—to my complaints it was worse than inapplicable—it was highly dangerous—it would probably be fatal. I had not stamina for the treatment—it would fix chronic ailments into organic disease—surely it would be much better to try what I had not yet tried. What had I not yet tried? A course of prussic acid! Nothing was better for gastric irritation, which was no doubt the main cause of my suffering! If, however, I were obstinately bent upon so mad an experiment, Dr. Wilson was the last person I should go to. I was not deterred by all these intimidations, nor seduced by the salubrious allurements of the prussic acid under its scientific appellation of hydrocyanic. A little reflection taught me that the members of a learned profession are naturally the very persons least disposed to favor innovation upon the practices which custom and prescription have rendered sacred in their eyes. A lawyer is not the person to consult upon bold reforms in jurisprudence. A physician can scarcely be expected to own that a Silesian peasant will cure with water the diseases which resist an armament of phials. And with regard to the peculiar objections to Dr. Wilson, I had read in his own pamphlet attacks upon the orthodox practice sufficient to account for—perhaps to justify—the disposition to depreciate him in return.

Still my friends were anxious and fearful; to please

them I continued to inquire, though not of physicians, but of patients. I sought out some of those who had gone through the process. I sifted some of the cases of cure cited by Dr. Wilson. I found the account of the patients so encouraging, the cases quoted so authentic, that I grew impatient of delay. I threw physic to the dogs, and went to Malvern.

It is not my intention, Mr. Editor, to detail the course I underwent. The different resources of water as a medicament are to be found in many works easily to be obtained, and well worth the study. In this letter I suppose myself to be addressing those as thoroughly unacquainted with the system as myself was at the first, and I deal therefore only in generals.

The first point which impressed and struck me was the extreme and utter innocence of the Water-Cure in skilful hands—in any hands, indeed, not thoroughly new to the system. Certainly when I went, I believed it to be a kill-or-cure system. I fancied it must be a very violent remedy—that it doubtless might effect great and magical cures—but that if it failed it might be fatal. Now, I speak not alone of my own case, but of the immense number of cases I have seen—patients of all ages—all species and genera of disease—all kinds and conditions of constitution, when I declare, upon my honor, that I never witnessed one dangerous symptom produced by the Water-Cure, whether at Dr. Wilson's or the other hydropathic institutions which I afterwards visited. And though unquestionably fatal consequences might occur from gross mismanagement, and as unques-

tionably have so occurred at various establishments, I am yet convinced that water in itself is so friendly to the human body, that it requires a very extraordinary degree of bungling, of ignorance, and presumption to produce results really dangerous, that a regular practitioner does more frequent mischief from the misapplication of even the simplest drugs than a water-doctor of very moderate experience does, or can do, by the misapplication of his baths and friction. And here I must observe, that those portions of the treatment which appear to the uninitiated as the most perilous, are really the safest, such as the wet-sheet packing, and can be applied with the most impunity to the weakest constitutions; whereas those which appear, from our greater familiarity with them, the least startling and most innocuous—the plunge-bath, the douche—are those which require the greatest knowledge of general pathology and the individual constitution. I shall revert to this part of my subject before I conclude.

The next thing that struck me was the extraordinary ease with which, under this system, good habits are acquired and bad habits relinquished. The difficulty with which, under orthodox medical treatment, stimulants are abandoned, is here not witnessed. Patients accustomed for half a century to live hard and high, wine-drinkers, spirit-bibbers, whom the regular physician has sought in vain to reduce to a daily pint of sherry, here voluntarily resign all strong potations, after a day or two cease to feel the want of them, and reconcile themselves to water as if they had drunk nothing else

all their lives. Others who have had recourse for years and years to medicine—their potion in the morning, their cordial at noon, their pill before dinner, their narcotic at bed-time—cease to require these aids to life, as if by a charm. Nor is this alone. Men to whom mental labor has been a necessity—who have existed on the excitement of the passions and the stir of the intellect—who have felt, these withdrawn, the prostration of the whole system—the lock to the wheel of the entire machine—return at once to the careless spirits of the boy in his first holiday.

Here lies a great secret; water thus skilfully administered is in itself a wonderful excitement; it supplies the place of all others—it operates powerfully and rapidly upon the nerves, sometimes to calm them, sometimes to irritate, but always to occupy. Hence follows a consequence which all patients have remarked—the complete repose of the passions during the early stages of the cure; they seem laid asleep as if by enchantment. The intellect shares the same rest; after a short time, mental exertion becomes impossible; even the memory grows far less tenacious of its painful impressions; cares and griefs are forgotten; the sense of the present absorbs the past and future; there is a certain freshness and youth which pervade the spirits, and live upon the enjoyment of the actual hour. Thus the great agents of our mortal wear and tear—the passions and the mind—calmed into strange rest—nature seems to leave the body to its instinctive tendency, which is always towards recovery. All that interests and amuses is of a health-

ful character; exercise, instead of being an unwilling drudgery, becomes the inevitable impulse of the frame braced and invigorated by the element. A series of reactions is always going on—the willing exercise produces refreshing rest, and refreshing rest willing exercise. The extraordinary effect which water taken early in the morning produces on the appetite is well known among those who have tried it, even before the Water-Cure was thought of—an appetite it should be the care of the skilful doctor to check into moderate gratification; the powers of nutrition become singularly strengthened, the blood grows rich and pure—the constitution is not only amended—it undergoes a change.*

The safety of the system, then, struck me first; its power of replacing by healthful stimulants the morbid ones it withdrew, whether physical or moral, surprised me next; that which thirdly impressed me was no less contrary to all my preconceived notions. I had fancied that, whether good or bad, the system must be one of great hardship, extremely repugnant and disagreeable. I wondered at myself to find how soon it became so associated with pleasurable and grateful feelings as to dwell upon the mind amongst the happiest passages of existence. For my own part, despite all my ailments, or whatever may have been my cares, I have ever found exquisite pleasure in that sense of *being*

* Dr. Wilson observed to me once, very truly I think, that many regular physicians are beginning to own the effect of water as a stimulant, who yet do not perceive its far more complicated and beneficial effects as an alterative.

which is, as it were, the conscience, the mirror of the soul. I have known hours of as much and as vivid happiness as perhaps can fall to the lot of man; but among all my most brilliant recollections I can recall no periods of enjoyment at once more hilarious and serene than the hours spent on the lonely hills of Malvern—none in which nature was so thoroughly possessed and appreciated. The rise from a sleep sound as childhood's—the impatient rush into the open air, while the sun was fresh, and the birds first sang—the sense of an unwonted strength in every limb and nerve, which made so light of the steep ascent to the holy spring—the delicious sparkle of that morning draught—the green terrace on the brow of the mountain, with the rich landscape wide and far below—the breeze that once would have been so keen and biting, but now exhilarating the blood, and lifting the spirits into religious joy; and this keen sentiment of present pleasure rounded by a hope sanctioned by all I felt in myself, and nearly all that I witnessed in others—that that very present was but the step, the threshold, into an unknown and delightful region of health and vigor—a disease and a care dropping from the frame and the heart at every stride.

But here I must pause to own that if on the one hand the danger and discomforts of the cure are greatly exaggerated (exaggerated is too weak a word)—so on the other hand, as far as my own experience, which is perhaps not inconsiderable, extends, the enthusiastic advocates of the system have greatly misrepresented the duration of the curative process. I have read and

heard of chronic diseases of long standing cured permanently in a very few weeks. I candidly confess that I have seen none such. I have, it is true, witnessed many chronic diseases perfectly cured—diseases which had been pronounced incurable by the first physicians, but the cure has been long and fluctuating. Persons so afflicted, who try this system, must arm themselves with patience. The first effects of the system are indeed usually bracing, and inspire such feelings of general well-being, that some think they have only to return home, and carry out the cure partially, to recover. A great mistake—the alterative effects begin long after the bracing—a disturbance in the constitution takes place, prolonged more or less, and not till that ceases does the cure really begin. Not that the peculiar “crisis” sought for so vehemently by the German water-doctors, and usually under their hands manifested by boils and eruptions, is at all a necessary part of the cure—it is, indeed, as far as I have seen, a rare occurrence, but a critical action, not single, not confined to one period, or one series of phenomena, is at work, often undetected by the patient himself, during a considerable (and that the later) portion of the cure in most patients where the malady has been grave, and where the recovery becomes permanent. During this time the patient should be under the eye of his water-doctor.

To conclude my own case: I stayed some nine or ten weeks at Malvern, and business, from which I could not escape, obliging me then to be in the neighborhood of town, I continued the system seven weeks

longer under Dr. Weiss, at Petersham ; during this latter period the agreeable phenomena which had characterized the former, the cheerfulness, the *bien aise*, the consciousness of returning health vanished, and were succeeded by great irritation of the nerves, extreme fretfulness, and the usual characteristics of the constitutional disturbance to which I have referred. I had every reason, however, to be satisfied with the care and skill of Dr. Weiss, who fully deserves the reputation he has acquired, and the attachment entertained for him by his patients ; nor did my judgment ever despond or doubt of the ultimate benefits of the process. I emerged at last from these operations in no very portly condition. I was blanched and emaciated—washed out like a thrifty housewife's gown—but neither the bleaching nor the loss of weight had in the least impaired my strength ; on the contrary, all the muscles had grown as hard as iron, and I was become capable of great exercise without fatigue ; my cure was not effected, but I was compelled to go into Germany. On my return homewards I was seized with a severe cold, which rapidly passed into high fever. Fortunately I was within reach of Dr. Schmidt's magnificent hydro-pathic establishment at Boppard ; thither I caused myself to be conveyed ; and now I had occasion to experience the wonderful effect of the Water-Cure in acute cases ; slow in chronic disease, its beneficial operation in acute is immediate. In twenty-four hours all fever had subsided, and on the third day I resumed my journey, relieved from every symptom that had before

prognosticated a tedious and perhaps alarming illness. And now came gradually, yet perceptibly, the good effects of the system I had undergone; flesh and weight returned; the sense of health became conscious and steady; I had every reason to bless the hour when I first sought the springs of Malvern. And here I must observe that it often happens that the patient makes but slight apparent improvement, when under the cure, compared with that which occurs subsequently. A water-doctor of repute at Brussels, indeed, said frankly to a grumbling patient, "I do not expect you to be well while here—it is only on leaving me that you will know if I have cured you."

It is as the frame recovers from the agitation it undergoes that it gathers round it power utterly unknown to it before—as the plant watered by the rains of one season betrays in the next the effect of the grateful dews.

I had always suffered so severely in winter, that the severity of our last one gave me apprehensions, and I resolved to seek shelter from my fears at my beloved Malvern. I here passed the most inclement period of the winter, not only perfectly free from the colds, rheums, and catarrhs which had hitherto visited me with the snows, but in the enjoyment of excellent health; and I am persuaded that for those who are delicate, and who suffer much during the winter, there is no place where the cold is so little felt as at a Water-Cure establishment. I am persuaded also, and in this I am borne out by the experience of most water-doctors, that the cure is most rapid and effectual during the cold

season—from autumn through the winter. I am thoroughly convinced that consumption in its earlier stages can be more easily cured, and the predisposition more permanently eradicated, by a winter spent at Malvern, under the care of Dr. Wilson, than by the timorous flight to Pisa or Madeira. It is by hardening rather than defending the tissues that we best secure them from disease.

And now, to sum up, and to dismiss my egotistical revelations, I desire in no way to overcolor my own case; I do not say that when I first went to the Water-Cure I was affected with any disease immediately menacing to life—I say only that I was in that prolonged and chronic state of ill health, which made life at the best extremely precarious. I do not say that I had any malady which the faculty could pronounce incurable—I say only that the most eminent men of the faculty had failed to cure me. I do not even now affect to boast of a perfect and complete deliverance from all my ailments. I cannot declare that a constitution naturally delicate has been rendered herculean, or that the wear and tear of a whole manhood have been thoroughly repaired. What might have been the case had I not taken the cure at intervals, had I remained at it steadily for six or eight months without interruption, I cannot do more than conjecture; but so strong is my belief that the result would have been completely successful, that I promise myself, whenever I can spare the leisure, a long renewal of the system. These admissions made, what have I gained meanwhile to justify

my eulogies and my gratitude?—an immense accumulation of the *capital of health*. Formerly it was my favorite and querulous question to those who saw much of me, “Did you ever know me twelve hours without pain or illness?” Now, instead of these being my constant companions, they are but my occasional visitors. I compare my old state and my present to the poverty of a man who has a shilling in his pocket, and whose poverty is, therefore, a struggle for life, with the occasional distress of a man of £5000 a year, who sees but an appendage endangered or a luxury abridged. All the good that I have gained is wholly unlike what I ever derived either from medicine or the German mineral baths; in the first place, it does not relieve a single malady alone, it pervades the whole frame; in the second place, far from subsiding, it seems to increase by time, so that I may reasonably hope that the latter part of my life, instead of being more infirm than the former, will become—so far as freedom from suffering, and the calm enjoyment of external life are concerned—my real, my younger, youth. And it is this profound conviction which has induced me to volunteer these details, in the hope (I trust a pure and kindly one) to induce those, who more or less have suffered as I have done, to fly to the same rich and bountiful resources. We ransack the ends of the earth for drugs and minerals—we extract our potions from the deadliest poisons—but around us and about us, nature, the great mother, proffers the Hygeian fount, unsealed and accessible to all. Wherever the stream glides pure, wherever the

spring sparkles fresh, there, for the vast proportion of the maladies which art produces, nature yields the benignant healing.

It remains for me to say, merely as an observer, and solely with such authority as an observer altogether disinterested, but without the least pretence to professional science, may fairly claim, what class of diseases I have seen the least and most tractable to the operations of the Water-Cure, and how far enthusiasts appear to me to have over-estimated, how far skeptics have under-valued, the effects of water as a medication. There are those (most of the water-doctors especially) who contend that all medicine by drugs is unnecessary—that water, internally and outwardly applied, suffices in skilful management for all complaints—that the time will come when the drug-doctor will cease to receive a fee, when the apothecary will close his shop, and the Water-Cure be adopted in every hospital and by every family. Dreams and absurdities! Even granting that the Water-Cure were capable of all the wonders ascribed to it, its process is so slow in most chronic cases—it requires such complete abstraction from care and business—it takes the active man so thoroughly out of his course of life, that a vast proportion of those engaged in worldly pursuits cannot hope to find the requisite leisure. There is also a large number of complaints (perhaps the majority) which yield so easily to a sparing use of drugs, under a moderately competent practitioner, that the convenient plan of sending to the next chemist for your pill or po-

tion can never be superseded, nor is it perhaps desirable that it should be. Moreover, as far as I have seen, there are complaints curable by medicine which the Water-Cure utterly fails to reach.

The disorders wherein hydropathy appears to be least effectual are—first, neuralgic pains, especially the monster pain of the *tic douloureux*. Not one instance of cure in the latter by hydropathy has come under my observation, and I have only heard of one authentic case of recovery from it by that process. Secondly, paralysis of a grave character in persons of an advanced age. Thirdly, in tubercular consumption. As may be expected, in this stage of that melancholy disease, the Water-Cure utterly fails to restore; but I have known it even here prolong life beyond all reasonable calculation, and astonishingly relieve the more oppressive symptoms. In all cases where the nervous exhaustion is great and of long standing, and is accompanied with obstinate hypochondria, hydropathy, if successful at all, is very slow in its benefits, and the patience of the sufferer is too often worn out before the favorable turn takes place. I have also noticed that obstinate and deep-rooted maladies in persons otherwise of very athletic frames, seem to yield much more tardily to the Water-Cure than similar complaints in more delicate constitutions; so that you will often see of two persons afflicted by the same genera of complaints, the feeble and fragile one recovers before the stout man with Atlantean shoulders evinces one symptom of amelioration.

Those cases, on the other hand, in which the Water-Cure seems an absolute panacea, and in which the patient may commence with the most sanguine hopes, are—first, rheumatism, however prolonged, however complicated. In this the cure is usually rapid—nearly always permanent. Secondly, gout. Here its efficacy is little less startling to appearance than in the former case; it seems to take up the disease by the roots; it extracts the peculiar acid, which often appears in discolorations upon the sheets used in the application, or is ejected in other modes. But here, judging always from cases subjected to my personal knowledge, I have not seen instances to justify the assertion of some water-doctors that returns of the disease do not occur. The predisposition—the tendency has appeared to me to remain. The patient is liable to relapses—but I have invariably found them *far* less frequent, less lengthened, and readily susceptible of simple and speedy cure, especially if the habits remain temperate.

Thirdly, that wide and grisly family of affliction classed under the common name of *dyspepsia*. All derangements of the digestive organs, imperfect powers of nutrition—the *malaise* of an injured stomach—appear precisely the complaints on which the system takes firmest hold, and in which it effects those cures that convert existence from a burden into a blessing. Hence it follows that many nameless and countless complaints proceeding from derangement of the stomach, cease as that great machine is restored to order.

I have seen disorders of the heart, which have been pronounced organic by the learned authorities of the profession, disappear in an incredibly short time—cases of incipient consumption, in which the seat is in the nutritious powers, hæmorrhages, and various congestions, shortness of breath, habitual fainting fits, many of what are called, improperly, nervous complaints, but which, in reality, are indications from the main ganglionic spring; the disorders produced by the abuse of powerful medicines, *especially mercury* and iodine, the loss of appetite, the dulled sense, and the shaking hand of intemperance, skin complaints, and the dire scourge of scrofula—all these seem to obtain from hydropathy relief—nay, absolute and unqualified cure, beyond not only the means of the most skilful drug-doctor, but the hopes of the most sanguine patient.*

The cure may be divided into two branches—the process for acute complaints and that for chronic; I have just referred to the last. And great as are there its benefits, they seem commonplace beside the effect the system produces in acute complaints. Fever, including the scarlet and the typhus, influenza, measles, small-pox, the sudden and rapid disorders of children, are cured with a simplicity and precision which must, I am persuaded, sooner or later, render the resources of the hydropatrist the ordinary treatment for such

* Amongst other complaints, I may add dropsy, which in its simple state, and not as the crowning system of a worn-out constitution, I have known most successfully treated; cases of slight paralysis; and I have witnessed two instances of partial blindness, in which the sight was restored.

acute complaints in the hospitals. The principal remedy here employed by the water-doctor is the wet-sheet packing, which excites such terror among the uninitiated, and which, of all the curatives adopted by hydropathy, is unquestionably the safest—the one that can be applied without danger to the greatest variety of cases, and which, I do not hesitate to aver, can rarely, if ever, be misapplied in any cases where the pulse is hard and high and the skin dry and burning. I have found in conversation so much misapprehension of this very easy and very luxurious remedy, that I may be pardoned for re-explaining what has been explained so often. It is not, as people persist in supposing, that patients are put into wet sheets and there left to shiver. The sheets, after being saturated, are well wrung out—the patient quickly wrapped in them—several blankets tightly bandaged round, and a feather-bed placed at top; thus, especially where there is the least fever, the first momentary chill is promptly succeeded by a gradual and vivifying warmth, perfectly free from the irritation of *dry* heat—a delicious sense of ease is usually followed by a sleep more agreeable than anodynes ever produced. It seems a positive cruelty to be relieved from this magic girdle in which pain is lulled, and fever cooled, and watchfulness lapped in slumber. The bath which succeeds refreshes and braces the skin, which the operation relaxed and softened; they only who have tried this, after fatigue or in fever, can form the least notion of its pleasurable sensations, or of its extraordinary efficacy; nor is

there any thing startling or novel in its theory. In hospitals now, water-dressings are found the best poultice to an inflamed member; this expansion of the wet dressing is a poultice to the whole inflamed surface of the body. It does not differ greatly, except in its cleanliness and simplicity, from the old remedy of the ancients—the wrapping the body in the skins of animals newly slain, or placing it on dunghills, or immersing it, as now in Germany, in the soft slough of mud baths.* Its theory is that of warmth and moisture, those friendliest agents to inflammatory disorders. In fact, I think it the duty of every man, on whom the lives of others depend, to make himself acquainted with at least this part of the Water-Cure. The wet sheet is the true life-preserver. In the large majority of sudden inflammatory complaints, the doctor at a distance, prompt measures indispensable, it will at least arrest the disease, check the fever, till, if you prefer the drugs, the drugs can come—the remedy is at hand, wherever you can find a bed and a jug of water; and whatever else you may apprehend after a short visit to a hydropathic establishment, your fear of that bugbear—the wet sheet—is the first you banish. The only cases, I believe, where it can be positively mischievous, are where the pulse scarcely beats—where the vital

* A very eminent London physician, opposed generally to the Water-Cure, told me that he had effected a perfect cure in a case of inveterate leprosy, by swathing the patient in wet lint covered with oil skin. This is the wet-sheet packing, but there are patients who would take kindly to wet lint, and shudder at the idea of a wet sheet!

sense is extremely low—where the inanition of the frame forbids the necessary reaction in cholera, and certain disorders of the chest and bronchia; otherwise at all ages, from the infant to the octogenarian, it is equally applicable, and in most acute cases equally innocent.

Hydropathy being thus rapidly beneficial in acute disorders, it follows naturally that it will be quick as a cure in chronic complaints in proportion as acute symptoms are mixed with them, and slowest where such complaints are dull and lethargic—it will be slowest also where the nervous exhaustion is the greatest. With children, its effects, really and genuinely, can scarcely be exaggerated; in them, the nervous system, not weakened by toil, grief, anxiety, and intemperance, lends itself to the gracious element as a young plant to the rains. When I now see some tender mother coddling, and physicking, and preserving from every breath of air, and swaddling in flannels, her pallid little ones, I long to pounce upon the callow brood, and bear them to the hills of Malvern, and the diamond fountain of St. Anne's—with what rosy faces and robust limbs I will promise they shall return—alas! I promise and preach in vain—the family apothecary is against me, and the progeny are doomed to rhubarb and the rickets.

The Water-Cure as yet has had this evident injustice—the patients resorting to it have mostly been desperate cases. So strong a notion prevails that it is a desperate remedy, that they only who have found all

else fail have dragged themselves to the Bethesda pools. That all thus not only abandoned by hope and the college, but weakened and poisoned by the violent medicines absorbed into their system for a score or so of years—that all should not recover is not surprising ! The wonder is that the number of recoveries should be so great ; that every now and then we should be surprised by the man whose untimely grave we predicted when we last saw him, meeting us in the streets ruddy and stalwart, fresh from the springs of Graefenberg, Boppart, Petersham, or Malvern.

The remedy is *not* desperate ; it is simpler, I do not say than any *dose*, but than any *course* of medicine—it is infinitely more agreeable—it admits no remedies for the complaint which are inimical to the constitution. It bequeathes none of the maladies consequent on blue pill and mercury—on purgatives and drastics—on iodine and aconite—on leeches and the lancet. If it cures your complaint, it will assuredly strengthen your whole frame ; if it fails to cure your complaint, it can scarcely fail to improve your general system. As it acts, or ought, scientifically treated, to act, first on the system, lastly on the complaint, placing nature herself in the way to throw off the disease, so it constantly happens that the patients at a hydropathic establishment will tell you that the disorder for which they came is not removed, but that in all other respects their health is better than they ever remember it to have been. Thus, I would not only recommend it to those who are sufferers from some grave disease, but

to those who require merely the fillip, the alterative, or the bracing which they now often seek in vain in country air or a watering-place. For such, three weeks at Malvern will do more than three months at Brighton or Boulogne; for at the Water-Cure the whole life is one remedy; the hours, the habits, the discipline, not incompatible with gayety and cheerfulness (the spirits of hydropathists are astounding, and in high spirits all things are amusement), tend perforce to train the body to the highest state of health of which it is capable. Compare this life, O merchant, O trader, O man of business, escaping to the sea-shore, with that which you there lead—with your shrimps and your shellfish, and your wine and your brown stout—with all which counteracts in the evening the good of your morning dip and your noonday stroll. What, I own, I should envy most is the robust, healthy man, only a little knocked down by his city cares or his town pleasures, after his second week at Dr. Wilson's establishment—yea, how I should envy the exquisite pleasure which he would derive from the robustness made clear and sensible to him—the pure taste, the iron muscles, the exuberant spirits, the overflowing sense of life! If even to the weak and languid the Water-Cure gives hours of physical happiness which the pleasures of the grosser senses can never bestow, what would it give to the strong man, from whose eye it has but to lift the light film—in whose mechanism, attuned to joy, it but brushes away the grain of dust, or oils the solid wheels!

I must bring my letter to a close. I meant to address it through you, Mr. Editor, chiefly to our brethren—the over-jaded sons of toil and letters—behind whom I see the warning shades of departed martyrs. But it is applicable to all who ail—to all who would not only cure a complaint, but strengthen a system and prolong a life. To such, who will so far attach value to my authority that they will acknowledge, at least, I am no interested witness—for I have no institution to establish—no profession to build up—I have no eye to fees, my calling is but that of an observer—as an observer only do I speak, it may be with enthusiasm—but enthusiasm built on experience and prompted by sympathy; to such, then, as may listen to me, I give this recommendation: pause if you please—inquire if you will—but do not consult your doctor. I have no doubt he is a most honest, excellent man—but you cannot expect a doctor of drugs to say other than that doctors of water are but quacks. Do not consult your doctor whether you shall try hydropathy, but find out some intelligent persons in whose shrewdness you can confide—who have been patients themselves at a hydropathic establishment. Better still, go for a few days—the cost is not much—into some such institution yourself, look round, talk to the patients, examine with your own eyes, hear with your own ears, before you adventure the experiment. Become a witness before you are a patient; if the evidence does not satisfy you, turn and flee. But if you venture, venture with a good heart and a stout faith. Hope, but not with pre-

sumption. Do not fancy that the disorder which has afflicted you for ten years ought to be cured in ten days. Beware, above all, lest, alarmed by some phenomena which the searching element produces, you have recourse immediately to drugs to disperse them. The water-boils, for instance, which are sometimes, as I have before said, but by no means frequently, a critical symptom of the cure, are, in all cases I have seen, cured easily by water, but may become extremely dangerous in the hands of your apothecary. Most of the few solitary instances that have terminated fatally, to the prejudice of the Water-Cure, have been those in which the patient has gone from water to drugs. It is the axiom of the system that water only cures what water produces. Do not leave a hydropathic establishment in the time of any "crisis," however much you may be panic-stricken. Hold the doctor responsible for getting you out of what he gets you into; and if your doctor be discreetly chosen, take my word, he will do it.

Do not *begin* to carry on the system at home, and under any eye but that of an experienced hydropathist. After you know the system, and the doctor knows you, the curative process may *probably* be continued at your own house with ease—but the commencement must be watched, and if a critical action ensues when you are at home, return to the only care that can conduct it safely to a happy issue. When at the institution, do not let the example of other patients tempt you to overdo—to drink more water, or take more baths

than are prescribed to you. Above all, never let the eulogies which many will pass upon the *douche* (the popular bath), tempt you to take it on the sly, unknown to your adviser. The *douche* is dangerous when the body is unprepared—when the heart is affected—when apoplexy may be feared.

For your choice of an establishment you have a wide range. Institutions in England are now plentiful, and planted in some of the loveliest spots of our island. But as I only speak from personal knowledge, I can but here depose as to such as I have visited. I hear, indeed, a high character of Dr. Johnson, of Stansted-Bury, and his books show great ability. Much is said in praise of Dr. Freeman, of Cheltenham, though his system, in some measure, is at variance with the received notions of hydropathists. But of these and many others, perhaps no less worthy of confidence, I have no experience of my own. I have sojourned with advantage at Dr. Weiss's, at Petersham; and for those whose business and avocations oblige them to be near London, his very agreeable house proffers many advantages, besides his own long practice and great skill.

To those who wish to try the system abroad, and shrink from the long journey to Graefenberg, Dr. Schmidt, at Boppard, proffers a princely house, comprising every English comfort, amidst the noble scenery of the Rhine, and I can bear ready witness to his skill; but it is natural that the place which has for me the most grateful recollections, should be that where I received the earliest and the greatest benefit, viz., Dr.

Wilson's, at Malvern; there even the distance from the capital has its advantages.* The cure imperatively demands, at least in a large proportion of cases, abstraction from all the habitual cares of life, and in some the very neighborhood of London suffices to produce restlessness and anxiety. For certain complaints, especially those of children, and such as are attended with debility, the air of Malvern is in itself Hygeian. The water is immemorially celebrated for its purity, the landscape is a perpetual pleasure to the eye—the mountains furnish the exercise most suited to the cure—“*Man muss Geberge haben,*” “One must have mountains,” is the saying of Priessnitz. All these are powerful auxiliaries, and yet all these are subordinate to the diligent, patient care—the minute, unwearied attention—the anxious, unaffected interest which Dr. Wilson manifests in every patient, from the humblest to the highest, who may be submitted to his care. The vast majority of difficult cures which I have witnessed have emanated from his skill. A pupil of the celebrated Broussais, his anatomical knowledge is considerable, and his tact in diseases seems intuitive; he has that pure pleasure in his profession, that the profits of it seem to be almost lost sight of, and having an independence

* Dr. Gully, whose writings on medicinal subjects are well known, is also established at Malvern, and I believe rather as a partner or associate than a rival to Dr. Wilson. As I was not under his treatment, I cannot speak further of his skill than that he seemed to have the entire confidence of such of his patients as I became acquainted with.

of his own, his enthusiasm for the system he pursues is at least not based upon any mercenary speculation. I have seen him devote the same time and care to those whom his liberal heart has led him to treat gratuitously, as to the wealthiest of his patients; and I mention this less to praise him for generosity, than to show that he has that earnest faith in his own system which begets an earnest faith in those to whom he administers. In all new experiments, it is a great thing to have confidence, not only in the skill, but the sincerity, of your adviser—his treatment is less violent and energetic than that in fashion on the Continent. If he errs, it is on the side of caution, and this theory leads him so much towards the restoration of the whole system, that the relief of the particular malady will sometimes seem tedious in order to prove complete. Hence he inspires in those who have had a prolonged experience of his treatment a great sense of safety and security. For your impatient self, you might sometimes prefer the venture of a brisker process; for those in whom you are interested, and for whom you are fearful, you would not risk a step more hurried. And since there is no small responsibility in recommending any practitioner of a novel school, so it is a comfort to know that whosoever resorts to Dr. Wilson, will at least be in hands not only practised and skilful, but wary and safe. He may fail in doing good, but I never met with a single patient who accused him of doing harm. And I may add, that as in all establishments much of comfort must depend on the lady at the head, so, for female patients

especially, it is no small addition to the *agremens* of Malvern, to find in Mrs. Wilson the manners of a perfect gentlewoman, and the noiseless solicitude of a heart genuinely kind and good!

Here, then, O brothers, O afflicted ones, I bid you farewell. I wish you one of the most blessed friendships man ever made—the familiar intimacy with water. Not Undine in her virgin existence more sportive and bewitching, not Undine in her wedded state more tender and faithful, than the element of which she is the type. In health, may you find it the joyous playmate, in sickness the genial restorer and soft assuager. Round the healing spring still literally dwell the jocund nymphs in whom the Greek poetry personified Mirth and Ease. No drink, whether compounded of the gums and rosin of the old Falernian, or the alcohol and acid of modern wine, gives the animal spirits which rejoice the water-drinker. Let him who has to go through severe bodily fatigue try first whatever—wine, spirits, porter, beer—he may conceive most generous and supporting; let him then go through the same toil with no draughts but from the crystal lymph, and if he does not acknowledge that there is no beverage which man concocts so strengthening and animating as that which God pours forth to all the children of nature, I throw up my brief. Finally, as health depends upon healthful habits, let those who desire easily and luxuriously to glide into the courses most agreeable to the human frame, to enjoy the morning breeze, to grow epicures in the simple regimen, to become cased in armor against the vicissitudes

of our changeful skies—to feel and to shake off light sleep as a blessed dew, let them, while the organs are yet sound, and the nerves yet unshattered, devote an autumn to the Water-Cure.

And you, O parents! who, too indolent, too much slaves to custom, to endure change for yourselves, to renounce for a while your artificial natures, but who still covet for your children hardy constitutions, pure tastes, and abstemious habits—who wish to see them grow up with a manly disdain to luxury—with a vigorous indifference to climate—with a full sense of the value of health, not alone for itself, but for the powers it elicits, and the virtues with which it is intimately connected—the serene, unfretful temper—the pleasures in innocent delight—the well-being that, content with self, expands in benevolence to others—you I adjure not to scorn the facile process of which I solicit the experiment. Dip your young heroes in the spring, and hold them not back by the heel. May my exhortations find believing listeners, and may some, now unknown to me, write me word from the green hills of Malvern or the groves of Petersham, “We have hearkened to you—not in vain.”

Adieu, Mr. Editor! The ghost returns to silence.

E. BULWER LYTTON.

17

The first part of the paper is devoted to a general
discussion of the principles of the theory of
the differential equations of the second order.
In the second part the author considers the
particular case of the linear equations with
constant coefficients. In the third part the
author discusses the non-linear equations of
the second order. In the fourth part the
author discusses the equations of the second
order with separable variables. In the fifth
part the author discusses the equations of the
second order with homogeneous variables. In
the sixth part the author discusses the
equations of the second order with exact
differentials. In the seventh part the
author discusses the equations of the second
order with integrating factors. In the eighth
part the author discusses the equations of the
second order with Bernoulli's substitution.
In the ninth part the author discusses the
equations of the second order with Riccati's
substitution. In the tenth part the author
discusses the equations of the second order
with Clairaut's substitution. In the eleventh
part the author discusses the equations of the
second order with Legendre's substitution.
In the twelfth part the author discusses the
equations of the second order with the
substitution of the independent variable.
In the thirteenth part the author discusses
the equations of the second order with the
substitution of the dependent variable.
In the fourteenth part the author discusses
the equations of the second order with the
substitution of the independent and dependent
variables. In the fifteenth part the author
discusses the equations of the second order
with the substitution of the independent and
dependent variables and the substitution of
the independent variable.

II.

THE WATER-CURE, OR HYDROPATHY.

FROM THE BRITISH AND FOREIGN MEDICAL REVIEW.

BY JOHN FORBES, M.D., F.R.S.,

*One of the Editors of the "Cyclopædia of Practical Medicine," Editor of the
"British and Foreign Medical Review," etc, etc.*

1. Examen Clinique de l'Hydrotherapie. Par H. E. SCHEDEL, Docteur en Médecine.—Paris, 1845.
2. The Dangers of the Water-Cure, and its Efficacy examined. By JAMES WILSON, M.D., and JAMES M. GULLY, M.D.—London, 1843.
3. The Cold Water-Cure: its Use and Misuse examined. By HERBERT MAYO, M.D., F.R.S., formerly Surgeon of Middlesex Hospital.—London, 1845.
4. A Medical Visit to Graefenberg. By Sir CHARLES SCUDAMORE, M.D., F.R.S.—London, 1843.
5. Hydropathy. By EDWARD JOHNSON, M.D.—London, 1843.
6. Graefenberg; or, a True Report of the Water-Cure, with an Account of its Antiquity. By ROBERT HAY GRAHAM, M.D.—London, 1845.
7. Life at the Water-Cure, or a Month at Malvern. By R. J. LANE.—London, 1846.
8. Confessions of a Water Patient. By Sir E. B. LYTTON, Bart.—London, 1845.

IN consequence of the modern Water-Cure having been originated by a non-medical and uneducated man, and having been subsequently, for the most part, adopted and professed by lay practitioners, or by medical men of somewhat equivocal reputation—and yet more, from the system being held out as a *panacea* or cure for all diseases, with an exclusive scorn of medicinal aid—the medical profession, as a body, have naturally enough, and not inexcusably, treated it with much contempt, not to say aversion, and have shown a pretty general

determination not to admit it into the catalogue of therapeutic means. Exercising a natural influence on the public, medical men have succeeded in communicating to a large portion of the intelligent classes the feelings entertained by themselves. Thus hydropathy has become a tabooed subject, being either entirely excluded from medical journals and books, or only admitted into them for the purpose of being ridiculed or utterly denounced. Indeed, it is regarded almost as a violation of professional etiquette to mention this subject in the language of toleration, much more to speak of it with approbation. Accordingly, we think it not unlikely that some of our brethren, and those even of the most estimable, may regard our present article as a departure from what is medically proper, and will pronounce us almost worthy to have the severe sentence of "water-doctor" passed against us. We have, however, been too long accustomed to speak our opinions openly and boldly, when we believed them to be just, whether they were in accordance with the current notions or not, to be deterred, on the present occasion, by any apprehended risk of offending mere professional conventionalism. Whatever we conscientiously believe to be true in medical science, especially if, at the same time, calculated to promote the great end and aim of all professors of the healing art—the increase of the means of lessening the sufferings of mankind—that we shall freely and fearlessly promulgate, careless of personal consequences.

Our purpose, in this article, being carefully and

calmly to investigate the real merits of the system now so widely established under the name of hydropathy, we hold ourselves absolved from mixing up this investigation with any considerations whatever respecting the merits or demerits, the objects or motives, of those who practise it. We regret to think that there is, and has been from the beginning, not a little quackery and mystification mixed up with really effective practice, in hydropathic establishments, and that not a few of the conductors of the water-establishments have been, and are, very ill-qualified to indicate, much less to direct and conduct, any therapeutic processes capable of modifying, in an important degree, the vital conditions and functions of the human body. If it shall appear, however, as we believe it will, on further examination, that the external application of cold water is capable of being beneficially applied, in the cure of diseases, in modes of greater efficacy, and to a much greater extent, than has been hitherto practised by medical men, there remains only one course for the members of the profession to pursue, viz., *to adopt the improvements*—if such they be, regardless of their origin, or their past or present relations. When the religious reformer proposed to adapt profane airs to church psalmody, saying that he saw no good reason why the devil should have all the good tunes to himself, he is generally supposed to have acted as wisely as he thought shrewdly and spoke quaintly. In like manner, we see no good reason why the doctors of the orthodox or legitimate school should refuse to accept good things, even at the hands of the

hydropathists. They have done like things before now, as the pharmacopœia, in more pages than one, can testify; and we have not heard that there has been any great reason for regretting that they did so. For our own parts, we avow ourselves of such a catholic spirit, and so lowly-minded withal, as to be ready to grasp any proffered good in the way of HEALING, whosoever may be the offerers, and wheresoever they may have found it. Not merely hydropathy, but even mesmerism, yea, stark-naked and rampant quackery itself, may, in this sense, be a welcome knocker at the gate of physic. It is not the demerits of the donor or the birthplace of the gift, that, in such a case, we are bound to look to—but simply whether it is qualified to aid us in our glorious and divine mission of soothing the pains of our fellow-men. If it is so qualified, the baseness of its source will be lost in the glory of its use; and, if aught of its original impurity still attaches to its application in our hands, the fault will be in us, not in it. A saint may sing the devil's tunes without contamination; a hero may wield the weapon he has wrested from a robber or a murderer; the medicament or the formula of the most arrant quack may be hallowed in the prescription of the true physician.

It is in this spirit we enter upon an investigation of the claims of hydropathy, as propounded and practised by Priessnitz and his disciples. And we invite our readers to follow us in a like temper, convinced that they will be benefited by an examination of the subject, whether they adopt our views or not. Some of our

views we are sure they must adopt—particularly this : that cold water, applied in the manner of the hydro-pathists, is a powerful modifier of the condition of the human body, both in health and disease, and, when weighed in the therapeutic balance with other remedies, merits, at least, a fair trial in legitimate practice.

It will be an after-consideration in what manner, or under what circumstances, this trial can best be made ; and, supposing the result of the trial to be satisfactory, it will be a yet further consideration, and one of great importance, how the remedy shall best be applied in the ordinary practice of medicine. We ourselves believe that distinct bathing establishments will still be found best for giving full effect to the hydro-pathic system, although we believe, also, that many parts of it may be adopted in ordinary practice at the patients' own homes ; and the whole of it certainly be conducted at the water-establishments under the authority and general direction of the ordinary medical attendants. If hydropathy is, as we believe, a therapeutic agent of great power and value, it would be worse than absurd to exclude it from legitimate medicine ; but, if it is to be adopted by the profession, it can only be adopted in a strictly professional manner. If distinct establishments are found to be requisite for its complete and successful exhibition, the members of the medical profession can, of course, sanction and patronize those only which are conducted by legally qualified and competent practitioners. And they can-

not be expected to show any countenance, even to those which, although under the superintendence of legally qualified persons, are conducted on empirical or absurdly exclusive principles. A hydropathic establishment should be simply a great bathing establishment, or water hospital, and should contain the means for using water in all its medicinal forms, hot as well as cold, in the form of vapor as well as liquid, medicated as well as pure. In such a hospital, although drugs would, doubtless, be but in slight requisition, it would be contrary to all rational proceedings to exclude their use entirely. The very fact of a case being sent to such a hospital presupposes the previous failure of drugs, or, at least, presumes their unsuitableness in that particular instance; and they would, for the most part, be dispensed with at the *commencement* of the treatment, at least; but no unprejudiced or competent observer can assert that drugs should be entirely banished from the treatment of any case at all times. The same scientific judgment and the same practical skill that prescribed the water-treatment as best calculated to fulfil the indications present at any one time, could alone determine whether, at any other time, medicaments might be proper, either as auxiliaries or substitutes. Nothing but the blindest dogmatism or the wildest empiricism could maintain that, because the water-treatment is found useful, all other means must be useless; or, reversely, that, because drugs are often found beneficial, therefore all other kind of treatment, hydropathy included, must be injurious. The absolute

exclusionist, be he water-doctor or drug-doctor, is equally unreasonable and equally unjustifiable.

In the composition of the following article, we have derived our materials mainly from the published writings of hydropathists, but, also, partly from personal observation of the practice of hydropathy itself, and from the reports of patients who had been the subjects of it. We have been careful to select as our authorities the best informed and most impartial of the writers on the subject of the Water-Cure, and we have used our best endeavors to appropriate what alone seemed trustworthy. It is so extremely difficult for a writer, on any one side of a question that has become the subject of active controversy, to avoid partiality in relating events and drawing inferences, that we make no apology to our authors for having on many occasions refused their evidence and rejected their conclusions. Many things, however, we have admitted on the authority of the writers alone, when they did not seem to be contradicted by other facts, and were in accordance with the general principles of physiology and therapeutics. We have so far admitted the validity of the maxim—*cuiuslibet in sua arte credendum*; and, so qualified, we think the propriety of the admission will not be gainsaid. But we have gone farther than this. We have accepted at the hands of our hydropathic authors more than one alleged fact and explanation, even although their validity seems to us questionable. And we have done this because the statements are of a kind justly to

challenge attention, and to demand thorough investigation.

On the whole, then, we wish the reader to be prepared to find in the following article, not simply an exposition of the doctrines of hydropathy, as they appear to us well established, but such also as they are laid down by the best authorities of the Water-School; one of our objects in writing it being, not merely to endeavor to ascertain what we consider as truth, for the benefit of our readers, but likewise to incite them to make inquiry and examination for themselves, in order that agencies, of such obvious potency on the human frame, may no longer be permitted free scope if evil, or no longer be debarred from ordinary medical practice, if good.

The internal and external use of water, in the treatment of disease, has been frequently discussed by physicians in all ages, from Hippocrates downwards. Their opinions will be found cited in detail by the systematic writers on the subject of baths, and, among others, by Sir John Floyer and Lanzani. To them we refer such as are sufficiently curious to wish for an exact acquaintance with the subject, in its historical relations. For our present purpose, and to render the history of the medical use of water clear to the less minute student, we will group it under a few convenient heads.

1. According to Lanzani,* the true method of using

* Vero Metodo di servirse dell' Acqua Fredda nelle Febri ed in altri Mali, si interni come esterni. Di Nicolo Lanzani, Medico Napoletano. 2nda edizione. In Napoli, 1723

cold water consists almost entirely in its internal administration, in very large doses, in certain stages of certain fevers. His work is most elaborate in every sense ; learned, methodical, and comprehensive. It is divided into two books : the first devoted to an explanation of the causes, symptoms, complications, and nature of fever ; the second, showing that copious imbibition of cold water is the best means of combating the symptoms, on scientific grounds, and consequently the best remedy for fever. This is obviously an argument somewhat theoretical, but it is supported by a chapter of cases, and backed by the opinions of a host of learned doctors, the author's predecessors. The actual value of the work is considerably diminished by its scientific character, because many of the doctrines held in its day have now become obsolete, and tend to encumber and obscure, rather than strengthen and enlighten, the practical facts by which they are accompanied. But the same remark applies to the early advocates of other remedies. Lanzani appears to have had no knowledge of the external use of water, nor of its application to the treatment of chronic diseases. He used it in combination with drugs.

Lanzani may be regarded as the representative of a considerable number of writers and practitioners, both in Italy and elsewhere, among whom water has been employed (internally) as the most effectual febrifuge.

2. About the year 1700, Sir John Floyer and Dr. Baynard employed water very freely as an external application, in the ordinary manner of cold bathing,

preceding it by a course of physic, and accompanying it generally by copious water-drinking.* Their practice appears to have been chiefly in chronic diseases, such as rheumatism, gout, paralysis, indigestion, general debility, and various nervous affections, in the whole of which a large amount of success is said to have been attained. The baths, at which their cases were treated, were frequently designated by some saint's name. Probably a remnant of superstitious reverence for the saint not only assisted to attract patients to the well, but infused into them a faith in the remedy, which materially promoted their recovery. The practice pursued was simply cold plunging, guarded by certain rules and cautions to prevent accidents.

Sir John Floyer supports his views by the citation of numberless learned authorities, from the Bible to Dr. Mead. He seems to have attached rather an excessive importance to grave precedents, causing his portion of the conjoint work to savor more of the library than the bedside. At any rate, he mingles together practical facts and opinions of writers, in such intricate relations, that it is not always easy to discover on which he relies most confidently for the maintenance of his tenets. Dr. Baynard, on the other hand, deals more in cases, of which he presents an abundant collection. His mode of reasoning is particularly pointed

* *Ψυχρολουσία*; or the History of Cold Bathing, both ancient and modern. By Sir John Floyer, of Lichfield, Knt., and Dr. Edward Baynard, Fellow of the College of Physicians, London. 2d edition. London, 1706.

and sagacious. No one can leave the perusal of his works without a strong conviction of his being an honest, shrewd, enterprising, and diligent contributor to medical literature.

These writers mention the occasional practice of persons bathing in their shirts, and wearing them throughout the remainder of the day without drying; they also give an instance or two of cases cured or relieved by the application of a wet towel. The former practice is alluded to as an instance of rashness on the part of patients, and the latter is so rarely mentioned, that in neither can they fairly be said to have anticipated Priessnitz in the systematic employment of the wet sheet or wet compress—although both were actually employed by them. They also speak in very favorable terms of a course of cold preceded by a month's warm bathing, but not in the modern hydropathic method of the cold following immediately upon the warm, or upon sweating, which is a practice they carefully deprecate. They seem to have had but a slight acquaintance with the use of cold bathing in fever or acute diseases, though instances of such practice are given.

The following passage from Dr. Baynard, though not strictly a part of our present subject, is a curiosity, and affords a good sample of his peculiar manner. When the period of its publication is considered, it must be regarded, in some of its parts, as a remarkable case of the forestalling of exact experiment by speculative reasoning. Baynard adduces the remarks it contains in support of his hydropathic views; but we need

not stay to examine them in that respect. We transcribe portions of the passage :

“ *I conceive life to be an actual flame ;* as much flame as any culinary flame is, but fed with its peculiar and proper pabulum, made out of the blood and spirits for that purpose ; and my reasons are these, viz.: 1. Life is as extinguishable as any flame is, by excluding the air, etc. For hold your handkerchief close to the mouth and nose of any animal that has lungs, and life is put out ; the creature is dead in a moment ; there is no shin broke, nor bone broke ; no wound, nor bruise ; there is your whole man, but dead he is. 2d. No flame will burn without aerial nitre, or a *quid aerium*, whatever it be ; some will have it a mixed gas of nitre and sulphur, but whatever it be, 'tis a *causa sine qua non*, something without which no flame will burn ; and that the lungs serve to this use, and are air-strainers, is very clear to me, by that experiment of the candle and two puppy dogs put into a great oven, and stopped close up with a glass door to see through ; and in a little time, when they had sucked in some, and the candle wasted the rest of the nitre, the dogs died, and the candle went out with them at the same instant.

“ All ustion as the *quid inflammabile* wastes, leaves by incineration alkalious and caustical salts, either fixed or volatile, which from their figure or imbibed fire, become of a pungent, corrosive nature, and fix upon the membranes, being nervous and most exquisite of sense and perception, which by irritation, cause a slight in-

flammation, which inflammation is called thirst; which salts are melted and washed off by drinking, the grosser by stool with the solid excrements, but those of most solid and subtle particles creep with the chyle into the blood, and have no way out but by the urine. Hence water is the best menstruum to dissolve salts; and that which is most simple and elementary is the best water, as least impregnated; such waters wash off and dissolve their points and angles, by which they prick, sheathe, and envelope them in their own pores, and with themselves run off by urine; but if so forced by heat and motion as to disturb them in their passage, the current of urine is checked, and the salts leave their hold of the water, shoot their vortex, and from the channels get into the habit of the body, which, if not dissolved, melted, and thrown off by sweat, they inflame and cause fevers, etc.; nor will they cease their action and inquietude until totally dissolved, or forced back into their common passages, and the salts precipitated and run down by urine. For I look upon the pores and sweat-vents as so many back-doors and sally-ports, by which nature drives out the enemy crept into her garrison. The truth is demonstrated in all fevers, where the caustical salts are not washed off, but remain behind on the glands and membranes, forsaken of their dissolving menstruum, the water, etc., *which that ingenious chemist, Mr. George Moulton, by chemical analysis, made appear in six quarts of febrile urine, which I sent him, and he found but the thirtieth part of those salts usually found in a sound man's urine, so*

that of necessity they must remain behind and be left (like so many French dragoons) to quarter on the blood and spirits at discretion. The history of which is printed in the 'Philosophical Transactions' for some years since.

"Now that which we call an insensible perspiration is nothing else than the smoke made from the vital flame, and the pores are the spiramenta through which it passes, and when these are stopped, this smoke is returned and the flame becomes reverberatory, which is sometimes necessary to force an obstruction, for the body has its registers and vent-holes as well as other furnaces. But to proceed; these salts sometimes crystallize, so that the common menstrua will not touch them, no more than a file will steel or hardened iron, and then it is a true diabetes (and here the physician is at his wit's end, and that no far journey); then hey! for lime water, quince wine, and other restringents, which, if it were possible, would rather make a coalescence, and tie the knot harder. No; the cure lies in solution by melting down the salts, which must be done by open, raw, and unimpregnated menstrua, such as the Bristol waters are, as most simple, having least contents in them." (pp. 47 et seq.)

3. At about the beginning of the present century, Dr. Currie's practice in fever is well known to have consisted principally of cold affusion, or immersion, in the early stages of the disease, and in certain acute affections of the nervous system. His work is so well known that it is unnecessary to enter into any detail

as to its contents.* He seems to have known but little of the application of cold water to the treatment of chronic diseases, as represented by Floyer and Baynard, or not to have employed the copious libations described by Lanzani. He cannot be said to have forestalled Priessnitz in any other respect than in the prompt and energetic use of cold water in the suppression of acute febrile and nervous affections. He brings a large amount of scientific argument and practical experience to bear out his views. He has also placed in a clear light some points of practice on which important errors previously prevailed, such as the safety of cold applications when the body is heated beyond the natural degree, and the relative value and safety of cold or tepid water, of immersion, affusion, and ablution. On these points his work is of great practical value. We may have occasion to revert to some of them hereafter.

4. The prevalent opinions of medical men in this country, on the general subject of the external use of water, previously to the Priessnitzian era, may be considered to be represented in the article BATHING, in the "Cyclopædia of Practical Medicine," published within the last twenty years. The article in question places bathing in a very subordinate position among means available for the actual cure of disease. In its cold

* *Medical Reports of the Effects of Water, cold and warm, as a Remedy in Fever and other Diseases.* By JAMES CURRIE, M.D., F.R.S., Fellow of the Royal College of Physicians, Edinburgh. 2 vols. 2d edition, London, 1805.

form, it is recommended as a valuable tonic, used with many restrictions, in nervous debility and other analogous states; and, in its warm form, its use is almost limited to the allaying of irritation in certain disorders, the more formidable symptoms of which are to be encountered by other remedies. Other articles in the same work have done justice to Dr. Currie's views. Beyond this, the medical profession have hitherto done little or nothing with bathing as an instrument of cure. We shall hereafter find reason for believing that a vast superfluity of caution has existed in the employment of this remedy, and that some of the supposed cautions have really increased, instead of diminishing, the danger, as well as destroyed the efficiency of its application.

The author of the article in the Cyclopædia describes cold bathing as partially or absolutely contra-indicated in the following conditions: partially, in infancy and old age; pregnancy; indurations, obstructions, or chronic inflammations of internal parts; acute inflammations of the same; chronic inflammations of mucous membrane; absolutely, during menstruation; in great plethora, or tendency to active hæmorrhage, or congestions in important viscera; affections of the heart; loaded state of the bowels; great general debility—though then often advantageous after warm water or vapor bath.

5. The ancient Romans were accustomed to produce perspiration by surrounding the person with heated aqueous vapor, and, while freely perspiring, to plunge

into cold water. Interesting remains of baths for this purpose, evidently of Roman architecture, and containing fine specimens of mosaic pavement, may be seen in several parts of England; as, for example, on the margin of the Cranham woods, in the village of Whitcombe, about six miles from Cheltenham; at Bignor in Sussex, etc. It is also well known to have been a frequent practice of the Roman youth to plunge into the Tiber, when heated by exercise in the Campus Martius.

The modern Russians, also, as is well known, excite perspiration in a similar manner, and then roll themselves in snow. A somewhat similar practice has prevailed among the North American Indians. The following description of their process was given by the celebrated Quaker, William Penn, to Dr. Baynard:

“I once saw an instance of it, with divers more in company. For being upon a discovery of the back part of the country, I called upon an Indian of note, whose name was Tenoughan, the captain-general of the clans of those parts. I found him ill of fever, his head and limbs much affected with pain, and at the same time his wife preparing a bagnio for him. The bagnio resembled a large oven, into which he crept, by a door on the one side, while she put several red-hot stones in at a small door on the other side thereof, and then fastened the doors as closely from the air as she could. Now, while he was sweating in this bagnio, his wife (for they disdain no service) was, with an axe, cutting her husband a passage into the river (being the winter of '83, the great frost, and the ice very thick), in order to the

immersing himself, after he should come out of his bath. In less than half an hour he was in so great a sweat, that, when he came out, he was as wet as if he had come out of the river, and the reek or steam of his body so thick that it was hard to discern any body's face that stood near him. In this condition, stark-naked, he ran into the river, which was about twenty paces, and ducked himself twice or thrice therein, and so returned (passing only through his bagnio to mitigate the immediate stroke of the cold) to his own house, perhaps twenty paces farther, and wrapping himself in his woollen mantle, lay down at length near a long (but gentle) fire, in the middle of his wigwam, or house, turning himself several times, till he was dry, and then he rose, and fell to getting us our dinner, seeming to be as easy, and well in health, as at any other time."—*Baynard*, pp. 103, 4.

The extraordinary revivifying effect of the cold plunge bath, after the system has been excited by artificial heat, is testified by various evidences of the most unquestionable kind. Numerous travellers have spoken of this very enthusiastically; among others, Stephens, the American (in his "Incidents of Travel"), who took a Russian bath, after a most fatiguing journey, and came out of it, he says, quite a new man. We have had similar information from more than one private source. This practice, however, similar as it is to that of Priessnitz, has never, until his time, been extensively, if at all, employed in Europe as a means of curing disease.

6. In the foregoing synopsis are contained the principal forms in which cold bathing and water drinking have been used in the treatment of disease, before these means were so vigorously adopted by Priessnitz. It will be obvious that from none of the writers mentioned could he have learned his bold and comprehensive practice. In his method are combined those of Lanzani, Floyer, and Currie, accompanied by novel and powerful processes, to which those writers were entire strangers. The douche, the wet sheet, the sweating blanket, the cold plunging bath after sweating, the wet compress, the sitting bath (sitz-bath) must be allowed to be, in a great measure, peculiar to the Graefenberg peasant and his disciples. From the same source have proceeded some important precepts on the subject of diet and regimen. Priessnitz, moreover, is distinguished from all the authorities quoted, by his entire abandonment of drugs.

Vincent Priessnitz was originally a small farmer, residing at Graefenberg, near the town of Freiwaldau, in Silesia. He is about fifty years of age. The following is a description of him by Sir Charles Scudamore :

“Of Priessnitz himself I shall say a few words, and describe my impressions on first seeing him. His countenance is full of self-possession; rather agreeable; mild, but firm in expression; with an eye of sense, and a pleasing smile. The small-pox, and the loss of some front teeth from an accident, impair his good looks. His manners are sufficiently well-bred. On closer acquaintance, you discover he is quick in per-

ception; is reflective; prompt, however, in decision; simple and clear. He inspires his patients with the most entire confidence, and he exacts implicit obedience."—*A Medical Visit to Graefenberg*, pp. 2, 3.

Other travellers give a similar description of Priessnitz. They all agree in stating that he is a most arbitrary and tyrannical despot, issuing laws as irrevocable as those of the Medes and Persians, commanding obedience with a haughtiness that might well excite admiration and envy even in an autocrat, and exciting as much fear in his patients as is found in the subjects of the Grand Turk himself. He is also represented as remarkably cool and collected in emergencies, ever ready with his remedy on occasions of danger, and possessed of an imperturbable self-reliance. These traits suffice to prove that he is a man of original and powerful mind, exactly adapted to carry out a novel and startling practice. While his firm and decided manner is calculated to secure the confidence of his patients, his coolness and self-reliance enable him easily to bear the responsibility by which such confidence is attended.

His practice originated in a succession of trifling accidents, by which he was led to employ bathing in a neighboring spring, for the relief of disease. It is not necessary to give them in detail. Success in these first attempts procured him a local renown, and he became the village doctor. From villagers his fame soon spread to patients of a higher rank, and Graefenberg gradually became the resort of the hipped and the halt from all the surrounding district. By these his praises were

sung louder and louder, until all the world began to furnish him patients by the hundred. He now possesses an enormous establishment, capable of containing several hundreds of patients, which is almost constantly crowded with ladies and gentlemen of every degree, and from every nation; while his disciples and followers, as is well known, have spread themselves throughout the world, and maintain, in every country, numerous and flourishing establishments formed on the original model of Graefenberg.

His treatment, although apparently constructed of such simple elements, is capable of being varied almost *ad infinitum*, according to the peculiarities of the case or the fancy of the prescriber, and of being rendered so powerful, as often to excite in the patients and spectators apprehensions of danger, and sometimes, no doubt, to produce it in reality. It is scarcely too much to say that he has modified the application of water, and some very few other means, in a manner so ingenious as to render them no imperfect *nominal* substitute, at least, for most of the drugs in the pharmacopœia. He has his stimulant, his sedative, his tonic, his reducing agent, his purgative, his astringent, his diuretic, his styptic, his febrifuge, his diaphoretic, his alterative, his counter-irritant. Combined with these are peculiar regulations as to diet, dress, and regimen. The following is his general mode of proceeding:

In his first interview with the patient, after hearing sufficient to give him a rude insight into the locality and general features of the malady, Priessnitz proceeds to

investigate its suitability to his method of cure. He does this by sprinkling the surface of the body with cold water, or witnessing the taking of a cold bath, and then watching the development of reaction. If this appears in a certain amount of activity, he pronounces the case appropriate to his treatment; if not, he advises the abandonment of all hydropathic intentions. This is a mode of ascertaining the power of the constitution quite original, and it cannot be said to be unscientific. The power of resisting the external application of cold is a most essential conservative property of the animal system, and the degree to which it exists must be regarded as, in some respects, a criterion of the amount of *vis medicatrix* possessed by the patient. We see no very decisive reason for pronouncing it a more fallacious guide than the orthodox custom of feeling the pulse. The only objection to it that occurs to us is, that it may not be always free from hazard.

This point being satisfactorily determined, the patient is straightway admitted into the mysteries of the cure. In the first place, he finds himself restricted to a peculiar diet. Every stimulant is absolutely prohibited, from brandy and claret to mustard and pepper; so, also, are most of the luxuries imported from foreign ports, such as tea, coffee, and every kind of spice. The meals consist of three—breakfast at eight, dinner at one, and supper at seven or eight o'clock. For breakfast, cold milk is the beverage, and bread and butter its only substantial companions. At dinner, there is no other restriction than those above named.

Supper is a repetition of breakfast, with the occasional addition of preserved fruit or potatoes. Throughout the day, no warm beverages whatever are permitted, and much of the food is brought to table considerably cooled. As some compensation for these manifold deprivations, the patient is allowed to gratify his appetite with every reasonable variety, and a free abundance, of substantial and nutritious food. He finds it a maxim that generous diet will promote his recovery, the treatment being responsible for preventing surfeit. He no longer finds an embargo laid on fruit and vegetables, and is not expected to dine seven days in the week off dry bread and mutton chops. So that, on the whole, there is perhaps about an equal amount of indulgence and restriction, as respects diet, to a patient coming to the Graefenberg rules from those of some fashionable physician in London.

In the next place, the majority of patients are directed to enter upon a course of water-drinking, the quantity of water varying from five or six to thirty or forty tumblers in the twenty-four hours. A large portion of this is taken before breakfast, the rest at suitable periods after meals, so as not to interfere with digestion, with frequently a glass or two the last thing at night. Exercise is generally advised at the time of water-drinking, except when this accompanies some other process of treatment incompatible with it.

A third rule insisted on, is, that every patient shall take a large amount of exercise during the day. This is, to some degree, indispensable after the cold baths,

as a means of procuring the necessary reaction. Walking in the open air is the mode generally selected, when possible. In case of bad weather, or lameness, other plans are contrived, such as gymnastics, sawing or chopping wood, etc. As a general rule, every patient is required to take a long walk before breakfast. It is a *vexata quæstio*, we believe, among hydropathists, as among doctors, whether the patients should rest or walk immediately after a meal; but the water-doctors generally incline to advise very gentle exercise at such times; and, we believe, properly. The well-known experiments on greyhounds, and such other convincing facts, are counterbalanced, to say the least, by the habits of the working-man, who proceeds to his labor as soon as he has swallowed his dinner, and rarely suffers from so doing.

After these preliminaries, and the case being pronounced suitable for the treatment, the next morning witnesses the patient's initiation into more active proceedings. At an early hour of the morning, varying according to the time required for the operation about to be undergone, a bath attendant enters with the formidable machinery for the administration of a rubbing with a wet sheet, a packing in the dry blanket, or a packing in the wet sheet. The first of these processes consists of throwing a wet sheet over the whole person, and applying upon it active friction of a few minutes' duration. A glow is thus excited. The patient then dresses, takes his water, and sets forth upon his morning's walk. The second of the above three operations

requires the patient to be enveloped in several blankets, with perhaps the superincumbence of a large feather pillow, until free perspiration is excited, which generally requires a period of about three hours. When the perspiration has continued the prescribed time (from fifteen minutes to an hour or more), the patient is subjected to some kind of cold bath, either by the wet sheet, as just described, by pouring water over the person from the pails or watering-pots, or by taking a plunge bath. This being followed by friction and water-drinking, the morning's proceedings are concluded by exercise. Packing in the wet sheet is similar to the foregoing, with the addition, next the skin, of a sheet wrung out of cold water. It is generally of short duration, as forty-five minutes or an hour, the object being to excite a glow, instead of perspiration. It is followed by cold bathing, as just described. During the packing, in both instances, some glasses of cold water are imbibed through a tube.

At other parts of the day, other portions of the treatment are applied, such as the sitz-bath, the douche, the shower-bath, head-bath, foot-bath, etc.

The sitz-bath is a tub of cold water, in which the patient sits for a period varying from a few minutes to an hour, or even longer, using constant friction to the abdominal region. The other baths mentioned in this paragraph need no description. These, as well as the former processes, are sometimes repeated during the day. In certain cases the day's proceedings commence with some of them, in place of those previously

mentioned. A rubbing with the wet sheet is frequently employed before getting into bed at night.

In fever, from whatever source, the patient is enveloped in a succession of wet sheets, renewed as often as they become warm, for a period varying with the intensity of the case—say from thirty minutes to five or six hours. In other similar cases, cold immersion or affusion is employed with the same view, viz., to reduce the morbid heat of the system.

The *umschlag*, or compress, is an essential and seldom-omitted part of the treatment. It is a cloth, well wetted with cold water, applied to the surface nearest to the supposed seat of the disease, securely covered with a dry cloth, and changed as often as it becomes dry during the day. It is sometimes covered with a layer of oiled silk, which, by impeding evaporation, prevents the inconvenience of frequent change. This compress speedily becomes warm, and remains so until dry. It is termed a heating or stimulating bandage. In cases of superficial inflammation it is more frequently changed, so as to keep cold, whereby its effect is just the reverse, being then a local antiphlogistic.

In some establishments the sweating has been effected by other means than the simple envelopments of Priessnitz, as by the vapor-bath, or a chamber highly heated by a stove. We have heard of a temperature of 180°, and even that of 198° Fahrenheit, being employed for this purpose. The blankets used by Priessnitz are very bad conductors of caloric; therefore they cause the heat given off by the body to be accumulated

around its surface, by the lengthened influence of which the sudorific action is effected. This process differs in no other manner than in degree and rapidity of effect from exposing the same surface to heat of any other origin. The animal heat, when once evolved, becomes a quality of the surrounding atmosphere. Being kept in contact with the body by blankets, it constitutes an artificial elevation of temperature, and nothing more. Therefore, in cases where active sweating is required, we can suppose no disadvantage to result from using other kinds of artificial heat, and can easily imagine advantages in a higher temperature than that attainable from animal heat alone. But we would limit this remark to dry heat. Aqueous vapor, by a well-known law, impedes evaporation, and would therefore restrict the full completion of the sudorific process. For this reason it is used to prevent plants from parting with their moisture in hot-houses. For the same reason it should *not* be used when the intention is to promote the removal of moisture, or to promote perspiration.

A point uniformly insisted on by Priessnitz is, that his patients should abstain from wearing flannel next the skin. When we consider how generally the use of this article of clothing has been advised by physicians, and adopted by invalids, especially in this country, we can easily conceive that strong prejudices will exist in the minds of patients against relinquishing it. Yet it appears to be almost universally discarded by hydro-pathists, and, as far as we have learnt, without any mischievous consequences.

Another maxim of Priessnitz is, that his patients are never to take any kind of drug. It should be remarked, that, not being licensed to practise medicine, it would be illegal for him to administer drugs. So that it does not follow, from his disuse of them, that he himself would be opposed to their use *in all cases*, much less that their use is in any way *inconsistent* with his practice. His medical disciples, not being similarly restricted, so far as we can learn, usually employ drugs occasionally, though sparingly.

How are we now to proceed, in order to arrive at a just appreciation of the value of the means thus briefly enumerated? The more usual course would be to enter upon an examination of the practical results, as published by hydropathic writers. But, in the present inquiry, this plan would scarcely answer; for the means employed are so strange, so much at variance with those by which disease is commonly treated, and not a few of the reporters are so little entitled to claim credit for even a capacity to report medical results truly, that the greater part of our readers would disbelieve the alleged facts rather than admit the principles they would carry with them. It will be more proper, therefore, to omit matters of evidence for the present, and to see if we can find in hydropathic practice any conformity with the principles on which we should estimate the merits of any other new remedy.

If a new vegetable were imported, or a previously unknown chemical substance discovered, and we were called upon to use it as a medicine, we should first in-

quire whether it possessed any of those qualities which are regarded as constituting medicinal virtues. We might assume that we are sufficiently acquainted with the characters of most diseases, to pronounce what description of influence would have a counteracting effect upon them. It would then remain to inquire, whether the qualities possessed by the article in question were of a kind to lead us to expect any description of such influence from their operation. If they were not, we should be indisposed to try the remedy until well assured, from abundant and unquestionable practical evidence, of its curative powers. If they were, we should be inclined to give it a trial, even if the proofs of its remedial properties were not unexceptionable. For instance, if the article under consideration merely possessed a nauseous taste, a specific color, or a powerful odor, it would offer little inducement for an experiment of its medical powers, because those qualities are not known to possess any intrinsic influence over any diseased condition. But if it were a purgative or a sedative, no one could hesitate to recognize it as *a priori* entitled to a trial by physicians; because experience has taught us that, by the means of purging or tranquillizing, certain diseases or morbid symptoms may be cured or relieved. And since it is the case with many of our present remedies, that with the property we wish to employ is combined another we would gladly avoid (purgatives being debilitating, sedatives narcotic, etc.), and with their amount of usefulness is thus associated a certain tendency to mischief—if the

new remedy presented to us appeared to possess the essential quality, and to want the mischievous power of that otherwise used for the same purpose, we should be still more desirous of availing ourselves of it in practice.

If we apply these remarks to hydropathy, as practised by Priessnitz, the first inquiry ought to be, does it furnish the physician with instruments which he, as a skilful workman, can undertake to employ? Does it contain, among its various machinery, any really therapeutic means, any powers capable of carrying out the indications which we regard as palpable in many diseases? Can it evacuate, can it brace, can it tranquilize? We cannot entertain the idea that the professors of hydropathy have hit upon any grand secret concerning the origin or nature of diseases, or the philosophy of their removal. Such a supposition, were it a necessary article of faith in the hydropathic creed, would render us the most obstinate of skeptics. But, if the practitioners of this new school profess merely to have introduced more efficient, or less dangerous, means of fulfilling the purposes which all physicians have in view in treating disease, we are willing to give them a patient and impartial hearing. Or, if they profess nothing of the kind, and reject such an idea with contempt—if, nevertheless, their system appear *to us* of the nature we are indicating, we can still entertain it with the hope of discovering something of good in it.

Let us now inquire, then, on physiological and pathological grounds, supported by some personal experi-

ence, what appear to be the effects, or among the effects of a course of water treatment according to the Priessnitzian system.

1. In the first place, we remark the careful withdrawal of all stimulants from internal parts. In this hydropathy is at once distinguished from ordinary practice. The refinement of civilized life, and the complicated affairs of society, prevent the human frame from being treated entirely as a machine. The body is compelled to undergo a usage not always suitable to its welfare, in consequence of its having to minister to the mind. The exhaustion of the latter, from exertion and excitement, is restored by artificial stimuli applied to the former. These are generally directed to parts ill adapted for their reception. Thus, the stomach, constructed to digest simple food, and to admit fluid at the impulse of thirst, becomes the vehicle of conveying to the nervous system alcohol in its various forms, and other similar fluids. These are unnatural to the stomach itself, though grateful to the nerves. Consequently, the mucous lining of the alimentary canal may suffer in the attainment of an object required only by the nervous system. This is, possibly, the very origin of a portion of those manifold chronic ailments known under the terms of dyspepsia, hypochondriasis, bilious affections, etc., and is unquestionably an aggravating cause in many. To the treatment of these affections the physician brings his purgatives, his carminatives, his anodynes, his stomachics. But it is to the surface of the same unfortunate membrane that they are all

applied ; and it frequently results, that when they relieve temporary suffering, they often leave the general health worse than they found it. From this predicament hydropathy professes to be entirely exempt, by abstaining from artificial interference with internal mucous membranes.

2. In the next place, the hydropathists adopt a system of diet such as other practitioners seldom venture to prescribe. If a person, suffering from constipation, or any of its long train of attendant ills, applies to an ordinary physician, he is probably told scrupulously to avoid fruit, pastry, and all vegetables, except, perhaps, a favorite one, or, it may be two. He is also cautioned against the use of veal, pork, beef, and new bread. We have known such a patient ordered to live for months—we might say, years—constantly on mutton, and bread never less than five days old. This case is neither singular nor infrequent. What is the consequence of this ? The patient is compelled to take aperient pills and draughts every day, or every other day ; to stimulate the digestive organs (rendered torpid by the use of so monotonous a regimen) by occasional glasses of sherry or porter ; and, to compensate the deficient nutrition obtained from so barren a source, by indulgence in strong tea and coffee. Such a patient goes to a hydropathic establishment, and is straightway ushered into a *salle-à-manger*, in which he finds all the variety of food customary at a foreign *table-d'hôte* dinner, and is told to obey the dictates of his appetite. He does so timidly at first, and apprehensive

of direful consequences ; but he finds, to his astonishment, that he can take the forbidden luxuries of brocoli, turnips, veal, game, puddings, and fruit with as much impunity as the never-varied mutton and dry bread, to which he was previously restricted. This is an occurrence so frequently experienced, and so universally attested by hydropathists and their patients, that we cannot refuse to admit it as a point attained by *their system*—therein being comprehended the water and all its accessories and concomitants.

3. A third important principle of hydropathic treatment is, that almost all its measures are applied to the surface. It is one of the most formidable difficulties with which the ordinary physician has to contend, that nearly all his remedies reach the point to which they are directed through one channel. If the brain requires to be placed under the influence of a sedative or a stimulant, if the muscular system demands invigorating by tonics, if the functions of organic life need correction by alteratives, the physician has no means of attaining his object except by inundating the stomach and bowels with foreign, and frequently to them pernicious, substances. In being thus made the medical doorway to all parts of the system, and so compelled to admit every description of therapeutical applicant, the organ of digestion is contorted to a purpose for which it was never intended. The consequence is, that it has to be consulted before we enter upon the treatment of any case, and it often forbids our availing ourselves of remedies, or plans of action, which are

plainly, perhaps urgently, indicated by the condition of other organs, or of the system at large. Thus, to take the three cases above mentioned: how often do we find that one stomach will neither bear ether nor opium; another is injured by steel; and others are intolerant of mercury. The two latter remedies are peculiarly illustrative of these remarks. Iron is employed to raise the tone of the general system, but it occasions constipation by its action on the alimentary canal; therefore, in order to counteract this portion of its effect, it can only be used in conjunction with aloes, or some other purgative, the tendency of which, as respects the system at large, may be exactly the reverse of that of the steel. With mercury the case is just the opposite. We wish to introduce it into the system, but it is purgative as well as alterative and antiphlogistic, and the former quality often renders very difficult our attaining the benefit of the two latter. The physician, then, is frequently placed in the dilemma, either to injure the stomach in an attempt to relieve other parts, or to leave the latter to their fate, because they can only be rescued at the peril of the former. His only mode of escape from this predicament is, to employ a legion of *adjuvantia*, *dirigentia*, and *corrigentia*, in the multiplicity and confusion of which it is by no means easy to make out so clear a balance of power as shall enable him clearly to foresee which kind of action, in the *mélée*, will get the uppermost; and unless he be well skilled in chemistry, he may unconsciously prescribe a

dose so scrupulously guarded as to be neutralized and altogether impotent.

Of course we do not conclude that hydropathy has discovered a remedy for this difficulty; but its own plan of proceeding is not similarly embarrassed, because it deals with outward instead of inward parts. Whether it can produce an efficient substitute for steel, mercury, opium, and other remedies, to which we are alluding, is altogether another question, and one which its professors must bestir themselves to solve, by the careful record and honest publication of their successful and unsuccessful cases.

4. Fourthly, hydropathy employs a system of most energetic, general, and local counter-irritation. It has been held by some medical philosophers, that two kinds of morbid action cannot co-exist in the same individual. According to this theory, if we can set up an artificial, but harmless, disease by treatment, its development will be attended by the departure of any other disorder that previously existed. Thus is supposed to be explained the operation of mercury in curing various diseases, the disorder arising from its own action being easily disposed of afterwards. We attach no value to this dogma as a dogma, but it serves to embody a large number of well-known facts, and may be as properly appropriated by hydropathists as by other practitioners. By the diligent employment of hydropathic machinery, due regard being had to the constitutional vigor, a condition is often excited, termed by hydropathists *the crisis*. This sometimes consists in the appearance of

various cutaneous eruptions; sometimes it is characterized by a series of boils, more or less severe; in other cases its leading feature is disturbance of the function of some internal organ, creating diarrhœa, abnormal urinary discharges, vomiting, etc. In general this effect is trifling, and seldom proceeds to such a degree as to excite alarm, or to give cause for special interference; so that the measures which have led to its appearance are in most cases continued, and in some even increased, until it has run through its course and subsided. This is not always the case; sometimes it proceeds to a more serious length, and requires careful management to prevent mischief; the boils, in particular, are frequently very troublesome; even death has, in a certain proportion of instances, ensued, either as an immediate or remote consequence of the so-called crisis.

Whatever the crisis may be—or whether what is so called *be* a crisis in reality—there is no disputing that it results from the operation of a powerful system of counter-irritation—or of irritation at least. It is to this that we now wish to direct attention, because we suspect that in it is contained the true explanation of the good effect of the Water-Cure in many chronic cases.

5. A fifth physiological feature of the Water-Cure is the number of *coolings* to which the body is subjected during the day. The generation of caloric in the animal system has been traced to its real source. It results from the *burning up* of waste matter, which, by

accumulation, would become injurious. The oxygen of the atmosphere, admitted into the lungs by inspiration, traverses the various blood-vessels of the body, and, in the minute capillaries, unites with carbonized substances. The union produces the carbonic acid emitted from the lungs in expiration, and is attended with the development of what is called animal heat. It is obvious that lowering the temperature of the body, within certain limits, by awakening an uncomfortable sensation in the nerves, would induce increased activity in this calorific process, in order to maintain or restore the average degree of warmth. This increased activity could only be supported by an additional consumption of carbonized matter. If the carbonized matter were already there, and if its existence constituted the disease, or an important part of it, as is probably sometimes the case, a perfect cure would result from its removal. But supposing there is no such matter present, what then would be the consequence of stimulating this decarbonizing operation? The consequence would certainly be, that the constituents of the tissues themselves would be consumed, in order to supply the pabulum required by the oxygen. This would as certainly excite an effort at restoration, by which the digestive organs would aim to renew to the tissues the amount abstracted by the oxygen. In other words, the appetite would be increased.

Hence it is that more food is required in cold climates than in warm—in winter than in summer. The greater consumption necessary to maintain equal tem-

perature in cold weather, can only be met by increased supply. What, in a vague and general manner, arises from the ordinary progress of the seasons, may be rendered methodical and profitable, by the careful interference of art.

It has been urged that the effect here considered would equally result from exposure to cold air as to cold water. In the words of Mr. Herbert Mayo, "This is not only entertaining, but satisfactory as far as it goes; and admits very well of being popularly and loosely brought forward in favor of cold bathing; but unluckily it is as much or more in favor of our living in Nova Zembla as of our resorting to Graefenberg."

The same intelligent writer proceeds to notice other modes of exposure to cold, which are found to produce evil instead of good, which are, indeed, familiar as the frequent causes of serious disease, and against which we are of old cautioned:

"Nudus ara, sere nudus,—habebis frigora, febrim."

It is singular enough that this very argument, now employed to discountenance the use of cold bathing, is the very strongest theoretical argument in its favor, as was long ago pointed out by that very sarcastic writer, Dr. Baynard, in the following anecdote:

"Here a demi-brained doctor, of more note than nous, asked, in the amazed agony of his half-understanding, how 'twas possible that an external application should affect the bowels and cure the pain within.

‘Why, doctor,’ quoth an old woman standing by, ‘by the same reason that being wet-shod, or catching cold from without, should give you the gripes and pain within.’” (P. 119.)

If a rude exposure of the surface to cold and wet is capable of producing internal disease, there is no doubt that a close relation exists between those agents and the morbid condition of internal parts. Therefore, if they could, by skilful management, be so applied as to excite the opposite effect from that to which their bad consequences are due, they would then become equally powerful means of removing disease. This is the very thing that Priessnitz and his disciples profess to have done—and to do.

Let us consider a little further the consequence of repeated applications of cold, supposing, for the sake of argument, it is used with due reference to the constitutional powers, so as to create an increased activity of the vital functions. It appears to us that this is exactly the thing needed in the treatment of a great many cases of chronic ailments. It is easy enough to construct methodical catalogues of organic lesions and their symptoms, and to assign, on paper, a “local habitation and a name” for every malady that is to require our treatment. But the truth is, that, practically speaking, there are a vast number of cases in which the symptoms may be said to constitute the only disease that can be detected, and in which they point rather to a general torpidity or derangement of all, or almost all, the vital functions, than to special change or disturb-

ance in any particular organ. Many cases known as indigestion, gout, rheumatism, liver complaints, or nervous affections come under this description. In a large portion of such cases, and their like, we could conceive the practice of Priessnitz to be peculiarly beneficial, if it consisted in nothing more than the frequent application, and skilful adaptation, of cold water. It was mainly by this means that the cures described by Floyer and Baynard were effected, simple cold bathing having been almost their only instrument.

6. Another physiological feature of hydropathic treatment consists in its creating a large amount of stimulation in the system. This stimulation is of a peculiar kind, and very different from that produced by alcoholic fluids or pharmaceutical stimulants. The difference is in its not awakening abnormal activity, to be succeeded by abnormal depression, in the nerves and organs of circulation, as is done by the stimulants just mentioned. The fall of a heavy douche, the sudden plunging into a cold bath with speedy exit, active friction in a shallow bath, are means of stimulating the system in the manner here intended. The effect, we are told, is manifested in the altered look of the patient after taking the bath, in his freshened cheek, his brightened eye, his elastic step, his cheerful tone. But it is *not* manifested in a quickened pulse, or a heated imagination, nor followed by exhausted energy or lowered spirits. This is the description given by hydropathists (whose practice we are not teaching but describing)—and which we have ourselves heard given by patients.

It is also said that drinking, in rapid succession, several glasses of perfectly cold water has a decidedly stimulating influence on the system. If these descriptions be correct of hydropathic stimulants, that they are powerful as well as innocuous, exciting and not exhausting, they constitute a valuable instrument in the treatment of disease, and deserve the more careful attention of physicians.

We happen to have been acquainted with a case of a lady who was at a hydropathic institution for the treatment of very aggravated chronic rheumatism. Her general powers were much shaken, and she had been unable to walk at all for a period of about four years, before undergoing this system of treatment. After several weeks of sweating and cold plunging, locomotion began gradually to return. The first indication of this was, that she could walk a few steps *immediately after leaving the cold bath*. For a considerable time this continued to be the only occasion of her being able to walk during the day, though she afterwards made considerably further progress. We mention this case because we can guarantee its truth, and it always appeared to us a striking and instructive instance of the stimulating property of a cold bath.

7. A still more important and less questionable quality of the Water-Cure is its power of lowering the system to any extent, without any of the debilitating means otherwise used for that purpose. In a general inflammatory or febrile condition of the body, a lengthened immersion in cold water, or envelopment in

a succession of wet sheets, would reduce the temperature and force of circulation to the most extreme degree. These means are, to the functions of life, what an extinguisher is to a flame. Their reducing power can be gradually applied up to the point of actual extinction. Any where short of that, withdraw the means, and the flame, whether of oil or of life, gradually resumes its previous brilliancy.

In the treatment of febrile diseases an important indication is to reduce the morbidly increased activity of some of the organic functions, most distinctly manifested in the circulation and the temperature. For this purpose the great instrument heretofore most in use is blood-letting, as being our only certain and expeditious method of reducing the frequency, force, or fulness of the pulse. So that, in order to suppress febrile action, we hazarded occasioning a more or less lingering debility. The *post hoc*, whether *propter hoc* or not, is too frequently a protracted convalescence, during which the patient is in constant danger of relapse. The mortality that occurs during convalescence after fever, from recurrence of the original disease, from some of its numerous sequelæ, or from the accidental inroad of some other disorder, is so considerable as to render this a period of great anxiety to the patient and the physician. It is a question deserving of cautious and dispassionate investigation, whether any portion of the liability to these mishaps is attributable to the bleeding, purging, salivating, and low diet employed in removing the fever.

In some of the cases of fever described by Currie we cannot fail to be struck by the rapidity and completeness of the cures effected by cold affusion or immersion, when used sufficiently early. The disease appears to have been suddenly checked or destroyed. In the course of a few hours, or a day or two, a patient threatened with, or laboring under, a dangerous fever, was restored to perfect health. No period of debility ensued, no organs were found to have been seriously or permanently injured. The result of his well-known treatment, by cold bathing, of the fever which appeared in the 30th regiment is thus described :

“These means were successful in arresting the epidemic; after the 13th of June no person was attacked by it. It extended to fifty-eight persons in all, of which thirty-two went through the regular course of the fever, *and in twenty-six the disease seemed to be cut short by the cold affusion.* Of the thirty-two already mentioned, two died. Both of these were men whose constitutions were weakened by the climate of the West Indies; *both of them had been bled in the early stages of the fever*; and one of them being in the twelfth, the other in the fourteenth day of the disease, when I first visited them, neither of them was subjected to the cold affusion.” (Vol. i. p. 13.)

Again :

“In cases in which the affusion was not employed till the third day of the fever, I have seen several instances of the same complete solution of the disease. I have even seen this take place when the remedy had

been deferred till the fourth day ; but this is not common." (Ibid. p. 23.)

In contemplating these facts, we are driven seriously to ask, not only is not the debility consecutive to fever partly occasioned by the remedies employed in its treatment, but are not its attendant local and organic lesions in a great measure produced by the febrile paroxysm itself? And could they not be avoided by boldly applying a remedy by which this febrile condition would be more speedily subdued? The real nature of fever is, unfortunately, beyond the reach of our present knowledge. We only recognize the disease in its causes, its symptoms, its complications. In them we perceive much to lead us to answer the above questions in the affirmative. It is peculiarly a general disease. Its local characters usually appear subsequently to its general development, and wear much more the aspect of consequences than of causes. Almost any of the local complications of synochus, or typhus, may appear in exanthematous fevers where they cannot be causes.

It appears to us to be a most important subject of inquiry, whether a very serious fallacy does not pervade the medical profession at present as to the best manner of applying cold water in fever. Dr. Currie says :

“ When the affusion of water, cold or tepid, is not employed in fever, benefit may be derived, as has already been mentioned, though in an inferior degree, by sponging or wetting the body with cold or warm vine-

gar or water. This application is, however, to be regulated, like the others, by the actual state of the patient's heat and of his sensations. *According to my experience, it is not only less effectual, but in many cases less safe; for the system will often bear a sudden, a general, and a stimulating application of cold, when it shrinks from its slow and successive application.*" (Vol. i. p. 73.)

"It is evident De Haen was not regulated, in his use of external ablution with cold water, by rules similar to those which I have ventured to lay down from several years' experience. Instead of pouring water over the naked body, *he applied sponges soaked in cold water to every part of the surface in succession for some time together, in my judgment the least efficacious, as well as the most hazardous manner of using the remedy.*" (Ibid. p. 84, note.)

This is a remark which we suspect to be of very great importance, and to contain the real secret of much of the difference, as to the treatment of fever, between hydropathists and the regular faculty. Modern physicians have professed to regard Dr. Currie as a very high authority on this point, and his work is constantly quoted as the most enlightened guide for the use of water in fever; but the above opinion and precept have been, of late years, entirely disregarded, and the converse has been made the rule of practice. In the article on Bathing, in the Cyclopædia, formerly referred to, the author says:

"The only cases in which refrigeration is required

as a remedy are those in which the animal temperature is elevated above the natural standard; and this happens only in *febrile diseases*. To insure refrigeration, the water should be applied *at first only a little below the temperature of the skin*, its heat being insensibly and gradually reduced, *but never below that of tepid, or, at most, cool*. The *gentlest mode of applying it is the best, as with a soft sponge*; and the process should be persevered in, without interruption, until the desired effect is produced." (Art. Bathing, Cyclopædia of Practical Medicine.)

We believe this mode of applying water in the treatment of febrile diseases to be that which has for many years generally prevailed, not from ignorance of the precepts and practice of Dr. Currie, but from a general belief that fever once formed could not be extinguished by the cold affusion as recommended by him. The hydropathists have renewed his system in its full boldness. It is, therefore, a question of the first interest, on which side does reason preponderate?

On carefully examining the cases of fever reported at length by Currie and Lanzani, it will be seen that their cures were effected by what may be termed a process of reaction. The immediate consequences, in most cases, of the copious libation "*ultra satietatem*" of the one, and the effusion or immersion of the other, were perspiration and sleep. These constituted the reaction. When exacerbation of the fever ensued, and required a repetition of the remedy, it occurred several hours after the cold application, when the period of re-

action had long passed over, and evidently proceeded, not from the consequences of the cold treatment, but from the non-removal of the diseased action. The cold appears to have acted in a most decidedly *medical* manner, with a palpable and immediate succession of consequences altogether different from what the gradual coolness of the sponge and tepid water can be expected to produce. If these cases are correctly stated, as they appear to be, it is preposterous to confound the febrile paroxysm with reaction from a cold bath, or to expect any portion of the beneficial effect of cold immersion in fever, from tepid or cool sponging. The two kinds of treatment are in no measure similar.

But it may be supposed there is a danger in the sudden and active employment of the cold bath in fever. We suspect that this is entirely imaginary. Dr. Currie was certainly very bold in its administration, and had extensive experience of its effects. In the second edition of his work he says :

“ I have thus related all the instances which have occurred to me since the last edition of this volume (a period of five years of extensive and attentive observation), in which the affusion of water on the surface of the body, cold or tepid, proved either less beneficial in its effects in fever than I had formerly represented it, or entirely unsuccessful. I would add, if any such had occurred, the instances in which this remedy had appeared to be injurious. But experience has suggested to me no instance of the kind, and extensive as my employment of the affusion has been, *I have never*

heard that it has suggested, even to the fears or prejudices of others, a single occasion of imputing injury to the remedy." (Vol. ii. p. 25.)

This statement, which does not appear to have been assailed, goes far towards proving the innocence, as his numerous cases do the curative powers, of reaction in the treatment of fever. We certainly cannot quarrel with hydropathists for seeking to revive, in its real character, a method supported by so high an authority.

8. It is scarcely necessary to remark that a judicious system of cold bathing is a valuable tonic. This has been always known; but it has not been so widely recognized in practice as in doctrine. It has been thought necessary that cases for cold bathing should be carefully selected: that they should consist only of such patients as have unimpaired constitutions; that certain diseases were absolute contra-indications against the use of this remedy; that it is a treatment requiring unquestionable vigor in the patient, and skill in the physician, to employ it without injury. It is scarcely too much to say it has been regarded as a treatment rather for the strong than the weak, and as tending rather to reduce than augment the powers of the system, and yet it is called a tonic. This is an illogical paradox not quite solitary in medical literature. The cold bath seems to be professionally employed to strengthen the body, as temptation is to strengthen virtue, by furnishing an enemy to struggle against. Thus it is considered more as a test than as a source of strength.

The hydropathists have discarded this excessive precaution, and boldly used their remedy as a tonic, wherever a tonic is required. They have administered it to the young and the old, the weak, the bilious, the gouty, the scrofulous, the dyspeptic, and the paralytic. Neither mucous membranes nor mesenteric glands, infantile weakness nor senile decrepitude, have stood in their way. To almost all cases, all ages, and all constitutions, their method has been applied. Unless it can be shown that this all but universal administration of the system has produced serious evils, we are actually driven to admit that it is in the same proportion safe. And we are bound to admit, though we have known some instances where the practice has been seriously injurious, and have heard of others of a similar kind, that the proportion of bad consequences has not appeared to us greater than in the ordinary modes of treating similar diseases. The practice of the hydropathists is so open, and their disciples so numerous, that the innocence of their proceedings may be said to be established by the absence of evidence to the contrary. We cannot enter any circle of society without encountering some follower of this method, ready to narrate a series of *psuchrolousian* miracles, prepared to defend, and zealous to applaud the Priessnitzian practice; but few or none come forwards with satisfactory evidence of any thing like general mischief having resulted from its general practice. Judgment must, therefore, be entered by default against its opponents, and hydropathy is entitled to the verdict of

harmlessness, since cause has never been shown to the contrary.

But not only have hydropathists despised the discrimination usually employed in the selection of cases for cold bathing, they have manifested an equal apparent boldness in the manner of using it. In place of the spongings and the dribblings to which ordinary practitioners commonly deem it prudent to limit the use of this remedy, they employ active plunging and powerful douches. Perhaps it is to this that they owe some portion of the impunity with which they appear to have applied it so generally. They assert that the more violent practice is really the more safe, and that the danger to be apprehended is in proportion to the supposed mildness of the process, sponging being less safe than total immersion, and a shower bath more dangerous than a douche. And assuredly theory, in this respect, goes with them to some extent. In the plunge there is a sudden shock, which awakens nervous energy, and leads to speedy and effectual reaction; whereas, in sponging, the whole surface is exposed to a gradual and powerful cooling, without the protection of stimulus. In the former, the whole frame is at once covered with water, and shielded from the reducing evaporation which would attend the latter. Moreover, the plunge can be more speedily gone through, and followed up more immediately by exercise. The same distinction may be made between the hydropathic douche and the orthodox shower-bath. The force of the latter falls almost exclusively on the head and shoulders, as it merely trickles

down the rest of the frame. How different is this from the powerful impulse of the douche upon all the muscular parts !

9. Another conspicuous item in the catalogue of hydropathic machinery is the *sweating process*. On this subject hydropathists are, in some measure, divided. It is said that Priessnitz has considerably modified his views respecting its efficacy and its safety. In the earlier period of his practice he seems to have employed it in nearly all cases. More recently he is said to have discarded it, as a general remedy, in favor of packing in the wet sheet, though still largely applying it in cases to which his matured experience has taught him to regard it as especially beneficial. We wish here to direct attention to it merely in a physiological and pathological point of view, and need not, therefore, enter into the question as to the relative value of the past and present practice of Priessnitz.

The skin is a part through which nature has arranged that a large amount of matter should be removed from the body during health, and a still larger amount, of different character, in the process of recovery from many diseases. It is well known that a deficient cutaneous excretion is incompatible with perfect health. Perhaps there is scarcely any disease in which the function of the skin is not, to some extent, deranged. To what extent, physicians have not bestowed sufficient pains to learn ; nor have they been accustomed to give much attention to this part, in the practical investigation of diseases. Still less has it acquired an important

position in the list of parts to which medical treatment is directed. Therefore, we possess little information, in medical writers, as to the amount or frequency of cutaneous disturbance in general disease, as to the effect of therapeutic means in correcting such disturbance, or as to the value of the correction in the cure of disease.

According to Priessnitzian writers, in almost all cases of indigestion, gout, rheumatism, nervous affections, indeed, of chronic disorders in general, the action of the skin is either deficient or depraved, the part itself being found dry, hard, rough, thick, pale, relaxed, or in some other manner unnatural. They further tell us that a course of perspiration, or of the wet sheet, followed by cold bathing, corrects these signs of disorder, and reduces the part to its normal condition; and that the beneficial influence of the remedy is speedily manifested in the improvement of the case in other respects. But it might be expected that such a course would, at least, reduce the general strength, and require more vigor of constitution than many such patients possess. And yet, if we may believe the hydropathists, or even their patients, a course of active hydropathic sweating is found to strengthen, instead of weakening, the system. There is a gain, instead of a loss, of weight under its operation. Whether this be attributable to the subsequent cold bathing, to the water drinking, or to the peculiar regimen, may be a matter of question; but the fact would seem to be too notorious to be contradicted. We are told that it is no unfrequent occurrence at hydro-

pathic establishments for the liquid perspiration to be streaming on the floor, having penetrated through the material on which the patient is reclining, as well as the blanket in which he is wrapped! The blanket also, when removed from the person, is dripping with liquid in all directions, as if itself just removed from the bath! On these occasions several pounds of matter must be removed from the body. The patient, dripping and steaming, next hastens into the plunge bath, stays there his appointed time, undergoes the prescribed friction, drinks his water, and finds himself actually invigorated by the strange process he has undergone!

Nay, more; it is placed beyond doubt, by experience, that this proceeding may be repeated daily, or even twice a day, for *many months*, without producing any deleterious effect upon the general health! Many cases have occurred in which it has been ascertained that it has been attended with an increase of weight, and that of no slight amount. We know the particulars of one case, in which a gouty gentleman gained seven pounds in a fortnight of such treatment; and of another, in which there was a gain of eight pounds in ten days. We are also acquainted with the case of a lady who was unable to walk at any other period of the day, except immediately after the sweating process, a sure proof that it did not occasion debility.

The safety of the immediate succession of cold bathing upon copious sweating has been called in question; but the practice of so many hydropathists as there are

around us amply establishes this point. On scientific grounds the question was completely set at rest by Dr. Currie.

An effective and innocuous means of increasing the excretion from the skin being thus found, which appears to combine with its own peculiar action the indirect effect of a tonic, have we not reason to regard it as a promising instrument of cure, in many disordered states of the system? We fully believe that we have. We know the utility of augmenting the secretion of the mucous membranes, the liver, the kidneys: we recognize this in our constant practice. It is by this means that we combat a large proportion of chronic as well as acute maladies. Why should the skin alone be neglected? Physiology teaches us that it is the vehicle for conveying out of the system a large amount of matter, as well solid as liquid; and practical experience exhibits it as the channel through which the *materies morbi* in many instances, and the burthen of plethora generally, find their exit. These facts indicate it as a legitimate locality for the same artificial measures which are found serviceable on other secreting organs.

It may be objected to what we are now urging, that profuse perspiration itself characterizes many diseases, of which it is one of the most formidable symptoms. How can sweating cure acute rheumatism, it may be asked, of which it is almost a constant feature? But the same remark applies to other medical phenomena. Excessive purging and increased action of the kidneys are dangerous, frequently mortal, symptoms. But

does that prevent our employing them as remedies? Do we not, in spite of our frequent experience of their injurious effects, apply them almost constantly to the cure of disease? Are there ten cases out of ten thousand in which some kind of purgatives are not administered? Nay, is not dysentery itself treated by purgative calomel? Let us extend the same tolerance to sweating. It is contrary to all the instruction of experience to confound the consequences of a phenomenon violently excited by morbid causes with those it induces when seasonably created, and carefully managed, by skilful treatment.

In many of these cases the benefit does not appear to result so much from stimulating the function of any particular organ, as from removing a certain portion of matter from the system at large. There is no reason to suppose that exciting the liver, the colon, the duodenum, or the kidneys, for instance, has any special influence over a morbid condition of the brain. We find that drugs which act upon any of these organs frequently relieve such conditions, and they may often be selected indiscriminately, the one answering much the same purpose as the others. A common anti-bilious pill, retailed for a penny by a druggist, or a patented nostrum of Cockle or Morrison, will generally do as well as the most elaborate prescription. The particular adaptation seems to depend more on constitutional idiosyncrasy than on any fixed relation of the part diseased with the part treated. The whole of those remedies appear to act in such cases, either by a general

principle of counter-irritation, or by removing a quantum of fluid, or of excretory matter, from the circulation, either of which objects might be attained as speedily, as certainly, as extensively, and as safely, by the skin as by any other part.

But the power of the Water-Cure over excretions is not limited to the skin. It professes to be both a purgative and a diuretic. That it is diuretic, in a certain sense, needs no proof. It is no new discovery that, in proportion to the quantity of fluid imbibed by the mouth, will be the quantity emitted by the kidneys. This, though verbally, is not medically a diuretic action. It may consist simply in the mechanical discharge of the fluid imbibed, with no augmentation of the proper functions of the kidneys, as respects the previous condition of the blood-vessels. But it is not perhaps unphilosophical to give hydropathists the benefit of supposing that water-drinking may do indirectly what it does not appear to do directly; by its diluting power may it not destroy the influence of any mischievous constituent of the blood, the excess of dilution being immediately repaired by the removal of the water through the kidneys, in company with the deleterious matter dissolved in it? This view might be admitted if it could be shown practically that drinking water has the same effect on disease as taking diuretics.

10. The purgative action of hydropathy is less equivocal. It frequently happens, in cases of constipation, that after a few days' or weeks' use of its appliances, the patient is attacked with diarrhœa. This is sometimes

troublesome, but we believe seldom dangerous. On its subsiding, the bowels are said to have generally acquired a regular and healthy action, which is thenceforward maintained by persevering in the drinking, bathing, etc. In other cases, a regular action of the bowels comes on in a gradual manner, without the occurrence of diarrhœa, the treatment appearing to influence the bowels through its action on the system at large. In others, and every one has seen examples of this, the mere drinking of a few glasses of water before breakfast is represented as a purgative that may be relied on. In these the daily dose is regulated according to circumstances, being increased when signs of torpidity are observed. We are ourselves acquainted with some persons who regulate this function as accurately by water-drinking as they formerly did by medicinal aperients. There are cases, again, in which the sitz-bath, or other external applications of cold water, produce a purgative effect.

It may be asked, is not this effect too uniform for the purpose of the practical physician? Does it not often result from the percolation of water through the mucous lining of the intestinal canal? Is it not, therefore, a mere pouring out of what has been swallowed? Is it not clearly inadequate to excite the particular action of the liver, the pancreas, the lower or upper portion of the intestinal tube? Is it not necessary that we should be able to act on these parts separately, for the effectual cure of disease? These questions, important as they appear, may with equal justice be asked as to

the practical proceedings of our profession in general. It is true that, in theory, many nice distinctions are laid down respecting the peculiar operation, as to locality or otherwise, of different cathartics. But are these distinctions generally observed in practice? Did not Abernethy's page 72 contain the curative maxim for all cases? and were not his prescriptions almost always identical? Has not every respectable family doctor his "my pills," carefully prepared from the same ingredients for every difficulty in the bowels? Is not the black draught as universal a purgative as Priessnitz would make cold water? Are not all our moneyed dyspeptics and hypochondriac nabobs sent in a body to mineral springs, because they are purgative, without any preliminary investigation as to their action on the duodenum or the colon, the liver or the pancreas, or as to the expediency of such action in the individual case in question?

11. We observe, also, in the history of hydropathic practice, the development of a peculiar sedative or tranquillizing influence. It is well illustrated in the following passage from Mr. Mayo's preface:

"Through repeated attacks of a sort of rheumatism, my constitution appeared completely broken down. Already crippled in my limbs, *preserving what power of exertion I still retained only through the use of opium*, and my indisposition still increasing, I looked forward to being, before long, worn out with suffering—as to death, as a release. I could not bear the fatigue of a land journey, or I should have gone at once to Graefen-

berg; but Coblenz and Boppard might be reached from London by water—so I went to Marienburg in June, 1842. On arriving there I was placed on a routine system of sweating and bathing. The immediate effect on my health was strikingly beneficial, *and in a week I was able to relinquish the use of opium.* The rheumatism did not, however, give way proportionably to my general improvement. The pains of the joints were, indeed, heightened.” (P. 1.)

This was a painfully severe case, one in which every conceivable remedy had been previously tried, not excepting repeated change of air, the Bath waters, etc.; yet nothing had succeeded in relieving the system from the necessity of constantly using opium. A “routine system of sweating and bathing” was applied, and in a week the patient was able to relinquish his doses of opium, notwithstanding that the rheumatism did not give way; indeed, the pains in the joints increased. How is this to be explained? Only by supposing that, independent of any curative influence over the actual disease, the Water-Cure exercised some sort of sedative action on the system at large. Similar instances are said to be familiar at hydropathic establishments. If these accounts may be depended on, hydropathy would appear to contain in its armamentarium even an anodyne, and one of great power. Every practitioner knows the difficulty presented in the treatment of chronic cases, by morbid irritability, and painful nervous sensations, which are not only intolerable to the patient himself, but most prejudicial to his recovery; and

which can only be relieved from time to time, by repeated and gradually augmented doses of a drug, whose own effects are almost as pernicious as the symptoms it is used to palliate. This is one instance of a predicament in which the physician is not unfrequently placed, when he has most gravely to consider whether there is most mischief in the disease to be combated, or in the only remedy by which it can be encountered. If "a routine system of sweating and bathing" affords a means of extrication from the present instance of this difficulty, this is a strong reason why it should not continue to be obstinately excluded from the well-fenced pale of the medical profession.

12. In addition to the effects already considered, and which have occupied as much as can be spared of our space, the Water-Cure pretends to the possession of other important powers. Thus, it is said to be a *stomachic*, since it almost invariably increases the appetite. It is a local *calefacient*, in the application of the wet cloth covered by the dry one. It is a *derivative*, cold friction at one part, by exciting increased action there, producing corresponding diminution elsewhere. It is a local as well as general *counter-irritant*, the compress frequently acting, if not like a blister, at least like a mustard poultice. It is essentially *alterative* in the continued removal of old matter by sweating, and its renewal as shown in the maintenance of the same weight.

13. Lastly, our subject brings us to make a few remarks on *medical habits* in reference to chronic cases.

In such cases we have only commenced the treatment, when we have removed the immediate symptoms; the real difficulty consists in preventing their recurrence.

Accordingly, the patient quits his physician with ample instructions for his future guidance, and with most impressive warnings as to perseverance in their observance. What are these instructions, and to what habits do they lead? Let us take a case of "biliousness" or chronic dyspepsy, and briefly trace the history of its "legitimate" treatment, according to the heroic school of London.

In addition to constipation, the patient, we shall suppose, is affected with acidity, deficient or depraved appetite, foul tongue, oppression after meals, susceptibility to cold, debility, headache, despondency, irritability of temper, inconstancy of purpose, hopelessness of relief, with divers local grievances. A few brisk cathartic doses, combined with mutton diet, and a gentle stimulant, empty the bowels, and carry off most of the attendant ills. By continuing this plan for a short time the patient is, what is medically termed, cured; but, for future protection, he is furnished with a prescription—say of aloes, colocynth, and calomel, or some such compound, to take *pro re nata*; another of senna and salts to take less frequently, as more urgent symptoms require; a third of calumba, gentian, or cinchona, to take at noon with a glass of sherry. He is told to live on boiled mutton, rice, and dry bread, avoiding fruit and vegetables.

What future, as respects health, has such a person

before him? As long as he lives he will be a martyr to the disease, probably in an increasing degree; he must abandon all hope of the action of the bowels ever resuming its normal state; his general strength will gradually diminish; his nervous system will become more and more irritable; his whole comfort and enjoyment will be sacrificed in order to empty the alimentary canal; he will become one of the most pitiable of all sufferers, a "person living by rule;" his health will be supported, as one of our witty doctors remarks, like a shuttlecock between two battledores, by the alternate impulse of senna and sherry, of calomel and coffee, of jalap and gentian. As long as these instruments are so directed, that their respective influences succeed each other in compensating proportion, all seems, for the time, smooth; but let either overdo or underdo the mark, and every thing breaks down. The game must then be commenced anew, to be continued as long as feather and cork resist the tendency which it has to knock them to pieces.

This is scarcely a caricatured picture of the discipline to which dyspeptic patients are often forced to submit. Every body's experience must furnish abundant proof that the illustration is too close to nature. It is in the latter stages of these affections, when the patients have long been under the influence of therapeutic means, that Priessnitz pronounces them "drug-diseases." If, by this term, he means that drugs constitute the whole disease, then he is no doubt wrong; yet, in one point of view, he is right. The original

complaint for which the drugs were administered might, very probably, have been one requiring some artificial remedy, and which would have induced more serious consequences, had not some such remedy been employed. But it is quite possible that a persevering use of such remedies may create a train of symptoms, in addition to those which existed before, and induce such a host of wants as may constitute a prominent feature of the case, by the time it is submitted to the curative process of such a practitioner as Priessnitz; therefore his term, drug-disease, may not be altogether inapplicable.

But what is often the result of placing the cases, now under consideration, in a hydropathic establishment? Precisely such as might be expected from the abandonment of a pernicious custom, and the adoption, at the same time, of a more natural mode of life with healthier and hardier habits; and with the additional mental stimulus of cheerfulness, of faith and hope in the new system, and of unbounded confidence in the new doctor. It is accordingly the general report that, in a large proportion of such cases, the patients are enabled immediately to discontinue the use of purgative medicines; they can bear a mixed animal and vegetable diet, in the ordinary proportion; a regular action of the bowels is shortly acquired, and no further stimulant or pharmaceutical tonic is necessary. When they quit the establishment, formal and complex means being no longer required, we are assured that they are able, for a time at least, to maintain the ground gained, sim-

ply by common-sense diet, drinking a few glasses of water in the morning, taking a daily cold bath, and persevering in their habitual exercise. The country rings with such accounts as these; if they are correct, undoubtedly the patients are in a fair way of recovering their lost health and strength, and are pursuing, subsequently to systematic treatment, a much more rational and scientific course of medical habits than that enjoined to the dyspeptic disciple of medical orthodoxy.

The questions, with which we set out, may now be hypothetically answered: they were, "Does hydropathy furnish the physician with instruments which he, as a skilful workman, can undertake to employ? Does it contain, among its various machinery, any really therapeutic means, any properties capable of carrying out the indications which we regard as palpable in many diseases?" These questions, we think, may be allowed to have been answered in the affirmative, if we may depend on the results of our own limited experience; they must be allowed to be so answered, and unequivocally, if we may admit as perfectly trustworthy the accounts published by the hydropathists themselves, and by those who have subjected themselves to the treatment. On another occasion we may, perhaps, endeavor to sift this evidence in a more rigid manner, in order to ascertain, with certainty, what in it is true, what false, what doubtful, and what inapplicable. But in any inquiry we may institute, we must continue to examine the Water-Cure relatively to other modes of practice:

this is the only method of arriving at an estimate of its actual value to the practical physician. The imperfections which it shares in common with ordinary treatment, and which are inseparable from all human performances, may be left entirely out of sight; to dwell on them would be uselessly to encumber the question, like inserting a crowd of corresponding items upon both sides of an equation. The philosopher's duty is to remove such superfluities, in order that the real problem may appear in a just and intelligible form.

In conclusion, we will venture to place on record the following, as among the more important impressions which have remained on our mind after a careful examination of the whole subject:

1. We should be glad to see Dr. Currie's practice revived (for the sake of experiment, at least), in all its boldness, for the suppression of the general febrile paroxysm. On carefully looking over the evidence published by Dr. Currie and his contemporaries, it is impossible to deny that they attained a larger amount of success in treating fever by water than other practitioners have done by other means. We have already pointed out how their practice has been misunderstood by modern writers. But, while we regard this practice as well adapted for treating general fever, we find no proof that it is competent to meet the dangerous local complications with which fever is so often accompanied. These complications may reasonably be expected less frequently, when the early treatment of fever is ren-

dered more efficacious. But when they do occur, we find nothing in hydropathic writers to show that lancets, leeches, etc., can be dispensed with.

2. In a large proportion of cases of gout and rheumatism the Water-Cure seems to be extremely efficacious. After the evidence in its favor, accessible to every body, we think medical men can hardly be justified in omitting—in a certain proportion of cases, at least—a full trial of it. No evidence exists of any special risk from the water-practice in such cases.

3. In that very large class of cases of complex disease, usually known under the name of chronic dyspepsia, in which other modes of treatment have failed or been only partially successful, the practice of Priessnitz is well deserving of trial.

4. In many chronic nervous affections and general debility we should anticipate great benefits from this system.

5. In chronic diarrhoea, dysentery, and hæmorrhoids the sitz-bath appears to be frequently an effectual remedy.

6. We find nothing to forbid a cautious use of drugs in combination with hydropathic measures. On the contrary, we are convinced that a judicious combination of the two is the best means of obtaining the full benefit of each. The Water-Cure contains no substitute for the lancet, active purging, and many other means necessary for the relief of sudden and dangerous local maladies. The banishment of drugs from his practice was necessary, and perhaps natural, on the

part of Priessnitz: the like proceeding on the part of qualified medical men superintending water-establishments in this country evinces ignorance or charlatanry—or both.

7. With careful and discreet management, in the hands of a properly qualified medical practitioner, the Water-Cure is very rarely attended with danger.

8. Many of the principal advantages of hydropathy may be obtained in a private residence, with the assistance of ordinary movable baths. Therefore it can easily be brought under the direction of the regular medical practitioner.

9. In many cases, however, it is evident that what may be termed the mere *accessories* of the Water-Cure, are of extreme importance in bringing about a favorable result; and these accessories are frequently not available—or available in a very inferior degree—in ordinary practice. Among the more important of these accessories we may mention the following as having relation to most of the chronic cases treated in hydropathic establishments: 1st, relief from mental labors of an exhausting or irritating kind, from the anxieties and responsibilities of business, from domestic irritations of various kinds, from mental inaction or ennui, etc.; 2d, change of locality, air, scene, society, diet, etc.; 3d, the fresh mental stimulus involved in the almost constant occupation of the patient's time in the performance of the numerous and various dabbings, paddlings, sweatings, washings, drinkings, rubbings, etc., imposed by the water-treatment; 4th, the

frequent and regular bodily exercise taken in the open air, or within doors; 5th, the powerful mental stimulus supplied by the confidence generally reposed by the patients in the means employed, and by the consequent hope, alacrity, cheerfulness, etc.; 6th, the total abandonment of vinous and other stimulants, and drugs—all of which have, in a large proportion of cases, been tried and found, not only useless, but, probably, productive of disadvantage.

10. A certain and not inconsiderable portion of the benefits derived from hydropathic establishments are, however, attainable without them, by other means, as by travelling, etc., etc. For example, we suspect that many of the most striking results witnessed in such establishments, as in the case of Sir Edward Bulwer Lytton or Mr. Lane, would have probably been obtained, if the patients had chosen to hire themselves, and had worked as agricultural laborers, in a dry, healthy district, and had lived on agricultural fare, sufficiently nutritious in quantity and kind, for a sufficient length of time.

11. Notwithstanding the success of the founder of hydropathy, its practice by non-professional persons can neither be fully advantageous nor safe. At the same time, it is true that very little experience is necessary to enable an educated medical man to acquire sufficient insight into it for purposes of practice. Many of the best hydropathic physicians have, in the first instance, devoted very few weeks to studying the subject in Germany.

12. Many advantages would result from the subject being taken up by the medical profession. The evils and dangers of quackery would at once be removed from it. Its real merits would soon be known. The tonic portion of its measures might then be employed in conjunction with special remedies of more activity, which, no doubt, would often prove exceedingly beneficial.

13. The benefits ascribed to hydropathy, but arising indirectly from the abandonment of drugs, vinous and other stimulants, etc., may certainly be obtained without sending patients to Graefenberg.

14. Finally, it must always be remembered that the distinction between quacks and respectable practitioners is one, not so much of remedies used, as of skill and honesty in using them. Therefore, let our orthodox brethren be especially anxious to establish and to widen, as far as possible, this distinction between themselves and all spurious pretenders. "*Artem medicam denique videmus, si à naturali philosophia destituatur, empiricorum praxi haud multum præstare. Medicina in philosophia non fundata, res infirma est.*"

The first part of the book is devoted to a general history of the United States from its discovery to the present time. It is divided into three volumes. The first volume contains the history from the discovery of the continent to the establishment of the first colonies. The second volume contains the history from the establishment of the first colonies to the declaration of independence. The third volume contains the history from the declaration of independence to the present time.

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III.

DR. E. WILSON ON THE WATER-CURE.

ON THE INFLUENCE OF ABLUTION AND BATHING ON
THE HEALTH OF THE SKIN.

THE preceding chapters* on the structure and purposes of the skin, and particularly those parts which treat of the constant abrasion and reproduction of the scarf-skin and the functions of the oil-glands and perspiratory system, afford the groundwork upon which much of our reasoning on the necessity of ablution must rest. The scarf-skin is being constantly cast off in the form of minute powdery scales; but these, instead of falling away from the skin, are retained against the surface by the contact of clothing. Moreover, they become mingled with the unctuous and saline products of the skin, and the whole together concrete into a thin crust, which, by its adhesiveness, attracts particles of dust of all kinds, soot and dust from the atmosphere, and particles of foreign matter from our dress. So that in the course of a day, the whole body, the covered parts least, and the uncovered most, becomes covered by a pellicle of impurities of every description. If this pellicle be allowed to remain, to become thick, and establish itself upon the skin, effects which I shall

* See Preface.—*Editor.*

now proceed to detail will follow. In the first place, the pores will be obstructed, and, in consequence, transpiration impeded, and the influence of the skin, as a respiratory organ, entirely prevented. In the second place, the skin will be irritated both mechanically and chemically; it will be kept damp and cold from the attraction and detention of moisture by the saline particles, and, possibly, the matters once removed from the system may be again conveyed into it by absorption. And, thirdly, foreign matters in solution, such as poisonous gases, miasmata, and infectious vapors, will find upon the skin a medium favorable for their suspension and subsequent transmission into the body. These are the primary consequences of neglected ablution of the skin; let us now inquire what are the secondary or constitutional effects.

If the pores be obstructed and the transpiration checked, the constituents of the transpired fluids will necessarily be thrown upon the system, and as they are injurious, even poisonous, if retained, they must be removed by other organs than the skin. Those organs are, the lungs, the kidneys, the liver, and the bowels. But it will be apparent to every one, that if these organs equally, or one more than another, which is generally the case, be called upon to perform their own office *plus* that of another, the equilibrium of health must be disturbed, the oppressed organ must suffer from exhaustion and fatigue, and must become the prey of disease. Thus, obviously and plainly, habits of uncleanliness become the cause of consumption and other

serious diseases of the vital organs. Again: if the pores be obstructed, respiration through the skin will be at an end, and, as a consequence, the blood, deprived of one source of its oxygen, one outlet for its carbon, the chemical changes of nutrition will be insufficient, and the animal temperature lowered. As a consequence of the second position, cutaneous eruptions and diseases will be engendered, the effects of cold manifested on the system, and the reabsorption of matters once separated from the body will be the exciting cause of other injurious disorders. The third position offers results even more serious than those which precede. If a pellicle of foreign substance be permitted to form on the skin, this will inevitably become the seat of detention of miasmata and infectious vapors. They will rest here previously to being absorbed, and their absorption will engender the diseases of which they are the peculiar ferment.

With such considerations as these before us, ablution becomes a necessity which needs no further argument to enforce strict attention to its observance. But I fear that water, the medium of ablution, hardly receives a just appreciation at our hands. Water is the most grateful, the most necessary, and the most universal of the gifts of a wise Creator, and in an age when man drew his luxuries more from nature, and less from works of his own production, when water was his friend more than his servant, water was regarded as a representative of the Deity, and was raised to the dignity of a mythological god. Thus the rivers of Greece

and Rome were represented allegorically by a tutelar god, with his attendant nymphs, and to this day the Ganges is adored by the votaries of Brahma. The practice of the worship of rivers has undoubtedly, in some instances, obscured its principle, a remark applicable in the most modern times, in the most civilized countries, and to most serious objects ; but the principle evidently is, *the utility of water to man*. From the first hour of existence to his latest breath, in health and in sickness, on the throne or in the cellar, water is a universal good. Baths were dedicated by the ancients to the divinities of Medicine, Strength, and Wisdom, namely, Æsculapius, Hercules, and Minerva, to whom might properly be added, the goddess of health, Hygeia. The use of water has been enforced as a religious observance, and water has been adopted as one of the symbols of Christianity.

Let us now turn our attention to water in its several relations to cleanliness, health, and the relief of disease. In its former capacity it enables us to remove the pellicle of impurities previously spoken of from our bodies, and also from the clothes which we wear nearest our skin, and it effects this purpose by its quality of dissolving saline matters, and holding in temporary suspension those which are insoluble. There are, however, certain substances for which water has a natural repulsion, and over which it consequently exerts no influence until assisted by a chemical power. These substances are oily matters of all kinds, and the skin, as we have seen, is abundantly provided with an unc-

tuous secretion. The chemical power which is called into use for the subjection of the oil is soap; soap renders the unctuous product of the skin freely miscible with water, and hence is an invaluable agent for purifying the skin. I may affirm that it is an indispensable aid, for in no other way can the unctuous substance of the surface of the skin and the dirt which adheres to it be thoroughly removed. I am aware that certain substances termed "wash-powders," are occasionally used as substitutes for soap; they are rubbed on the skin with the hands, and act in the same manner that crumbs of bread do upon a chalk drawing. But draughtsmen well know that they cannot remove the chalk which has entered the crevices of the paper, nor can they, indeed, restore the surface to its original whiteness and purity. Neither can wash-powders follow the innumerable apertures of the skin, nor enter the mouths of the pores otherwise than to obstruct them. A skin cleaned in this manner may always be detected by a certain kind of shining, not to say greasy, polish, and the whole complexion looks mellowed into a kind of *tone*, as we say of pictures, in which dirt and time have softened and chastened the tints. But surely no one would care to put up for the reputation of resembling *an old picture*, however rich its tints or admirable the art developed in its painting. Soap is accused of being irritative to the skin, but this is an obvious injustice done to soap, *for soap never irritates the delicate skin of infants*. Depend upon it, that when soap does cause irritation, the error is in the condition

of the complainant, and betokens either an improper neglect of its use, or a state of susceptibility of the skin verging on disease of that membrane. If we would have health, we must use soap. If soap act as an irritant, we must train to its use by beginning with a small quantity and increasing it gradually. I may be asked, What is the best soap? I reply, Good white curd soap, without scent, or scented only by its contiguity to odorant substances. The use of soap is certainly calculated to preserve the skin in health, to maintain its complexion and tone, and prevent it from falling into wrinkles; and if any unpleasant sensations are felt after its use, they may be immediately removed by rinsing the surface with water slightly acidulated with lemon-juice.

The unpleasant qualities usually attributed to soap are frequently referrible to the temperature of the water used in ablution. In this, as in most other of the rules of health, extremes should be avoided. To a man whose duties call him to brave the cold of winter in all its intensity, water at its lowest temperature is appropriate and refreshing. But to woman or an invalid, such a degree of cold is not merely painful, but really injurious to the skin. The temperature of the water should be raised to a point at which it feels lukewarm, but no higher. For if cold water be hurtful to the skin, that which is hot is infinitely more mischievous, particularly in the winter season. The heat excites the circulation of the part and stimulates the nerves; it is then, perhaps, immediately exposed to a cold at-

mosphere, sometimes a piercing wind. Can we be surprised that, with such an extreme, the skin should be irritated, roughened, and chapped, or that the complexion should suffer? In alternations of temperature, as of food, clothing, and exercise, moderation and judgment must be used; and if we are in doubt, we had better trust the casting vote to our sensations, which will rarely deceive us. As regards the frequency of ablution, the face and neck, from their necessary exposure to the atmosphere and the impurities which the latter contains, cannot escape with less than two saponaceous ablutions in twenty-four hours; the feet, from the confined nature of the coverings which are worn over them, require at least one; the armpits, from their peculiar formation in reference to the detention of secretions, and also from the peculiar properties of the latter, at least one; and the hands and arms so many as nicety and refined taste may dictate. No harm can arise from too frequent ablutions; much evil may result from their neglect.

Such is ablution when intended for the purpose of cleanliness, but it must be in the experience of every one, that other effects originate from its use; that nothing is more refreshing than a thorough ablution; that, in point of fact, to those who conduct the operation properly and with a due attention to temperature, nothing can be more luxurious, nothing restore the energies more surely and more agreeably, after hours of toil or exertion; and, as I am about to show, nothing can be more healthy. The common terms which we

hear applied to the effects of a thorough ablution is "bracing;" in professional language we speak of them as being "tonic;" and in truth there exists no better means of restoring the "tone" of the system than the judicious employment of water; and this leads me to the modes in which water may be used with the best prospect of benefit to the health.

It must not be supposed, that because water is a good and excellent tonic, our health would be better for being thrown into a fever by it, or even drowned in it, any more than that a parallel argument would be tenable with regard to food, clothing, or exercise. I know very well that equilibrium is not suited to the times; that there exists among mankind, in medicine as in politics and religion, a certain thirsty "go-ahead" or "go the whole hog" principle which is absolutely insatiable. I do not say that this character is the peculiar attribute of the present age, for the history of nations proves it to have existed at all periods of the world. There is no philosopher's stone of health any more than for commuting the grosser into the precious metals. But every one who desires it has the elements of an equally valuable "arcanum" in conforming to a correct practice of diet, clothing, exercise, and ablution.

The simplest mode of applying water to the skin, and that by which the smallest extent of surface is exposed, conditions of much importance to the weakly and delicate, is by means of the *wetted sponge*. In this mode, the water may have any temperature that is

agreeable to the sensations, a part only of the body is exposed at a time, and as soon as that part has been *briskly* sponged, and as *briskly* wiped dry, it may be again covered by the dress. The whole body may in this way be speedily subjected to the influence of water, and to the no less useful friction which succeeds it in the operation of drying. An invalid rising from a bed of sickness would adopt this remedy by degrees, beginning first with the arms, then proceeding to the chest, and then, gradually, to the whole body. He would use warm water in the first instance, but if the season were summer, would be speedily able to proceed to cold. A person of weakly habit beginning a system of daily ablution for the first time should commence in the summer, and by the winter his powers of endurance will have become so well trained, that he will bear cold water without inconvenience. It must be admitted that the plan here laid down is very simple; it requires no apparatus, a sponge and a basin being the sole furniture for its use; but it is no less a valuable appliance to health. The cold chill of the sponge, which was at first disagreeable, becomes pleasant, the quick friction which ensues is agreeable, and while it stimulates the skin, gives action to the whole muscular system; and the warm glow, the thrill of health which follows, is positively delicious. I must, however, call attention more strongly to the "glow of warmth" over the surface, as it is the test by which the benefit of the remedy is to be estimated in this and in all other forms of ablution and bathing. I can hardly conceive a case

in which the application of water, according to this method, could leave a chill behind it; but if such an occurrence take place, the individual has need of medical aid, and that should be promptly applied. I may mention that it was the present form of ablution which was used by Sir Astley Cooper, and to which he attributed much of his unusually robust and excellent health.

The second form of ablution by the sponge requires the aid of a large shallow tub, or sponging-bath, in which the bather stands or sits, while he receives the water from a sponge squeezed over the shoulders and against his body. The same precautions, with regard to temperature, may be taken in this as in the preceding case, but the bather is necessarily more exposed, and the form of bathing is suitable only to persons in moderate health, excepting in the summer season, when it may be borne by invalids. In the early use of the sponging-bath, the bather should content himself with a single affusion from the sponge, and should then dry the body quickly. As there is more freedom for the limbs, there is more muscular action in this than the former method, and the glow is proportionally increased. Indeed, in the sponging-bath, exercise and ablution are combined, and its employment by persons of sedentary habits is highly advantageous. I know but one circumstance that could render the sponging-bath objectionable, and that is the occurrence of palpitations. This, however, may be obviated, by relinquishing the drying of the body to an attendant, or

adopting the "wet sponge," and after a short time, if there be no tendency in the system to disease of the heart, the palpitations will cease.

A third kind of ablution is that with the shower-bath, which provides a greater amount of affusion than the former, combined with a greater shock to the nervous system. But that which more particularly distinguishes this from the previous modes is the concussion of the skin by the fall of the water, the degree of concussion having reference to the height of the reservoir and the size of the openings through which the little columns issue. The usefulness and convenience of the shower-bath and its facilities of application render it a necessary article of furniture in every house, the only question of importance with regard to it being the kind of apartment assigned to its use. I have known instances of the shower-bath being transferred to an area, an outhouse, or a cellar, so that the bather had to make his way from a warm bed, if the bath were taken at rising, only partly dressed, through cold passages, to his bathing place, and was generally chilled on his way. The bath, in such a case, becomes an instrument of punishment and disease rather than of health. The shower-bath must be located in a dry room, a room in which a fire can be lighted in the winter season—in an airy dressing-room, for instance—and every regard paid to comfort and convenience. It is in this that the public bath is generally so much superior to that of home; in it, every suggestion that comfort and even luxury can invent is realized, and over such a

bath only does Hygeia preside. The shower-bath admits of modification, to render it suitable to the most delicate as well as to the most robust. The extent of fall may be increased or diminished, the apertures may be regulated, so as to produce the lightest shower or the heaviest rain; the temperature of the water may be adjusted to any degree of warmth, and, moreover, the quantity delivered also determined. I cannot too often repeat that the sensations of the bather must be tenderly regarded, if good is to follow the practice of ablution; and this is in no case more necessary than in delicate or convalescent health. By judicious training, the nervous system, which would shudder under the application of a tepid sponge to the skin, could be made to bear, without uneasiness, a smart charge of cold water from the shower-bath. It is evident that in this case a victory is gained over the sensations of the utmost importance, and one which cannot be too highly valued; for, by a parallel reasoning, the skin, which in this way is made to bear the shock of a shower-bath, could better and for a longer period resist the influence of atmospheric cold and its consequent morbid effects on the economy. In making use of the word "shock," as expressive of the effect of a discharge of water by the shower-bath on the surface of the body, it must not be supposed that I refer to any unpleasant or painful effect; this is far from being the fact; the shock with warm water, with which the bather should always begin, is really agreeable, and the feeling will be one of regret when the shower is at an end. A person

unaccustomed to the shower-bath entering one with a strong charge of water at a low temperature and pulling the valve-string, would certainly be shocked by the sudden and unusual sensation caused by the rush which immediately follows; but this is abusing, not using, the shower-bath. In the like manner, a feeble stream of electricity may be passed through the body without producing a disagreeable sensation, and with benefit to the part, while half the quantity from a Leyden jar would occasion a severe and painful shock. In using the cold shower-bath, it will be found that the first impression made upon the skin is much colder than that which follows; and after being prolonged for a few minutes, the sensation is really one of warmth. This is an effect of the concussion of the skin by the water, which I shall hereafter have more particularly to allude to. The old "tumbling bath" is the parent of the present shower-bath, and much inferior in its value, for in it the whole body of water contained in the reservoir is thrown at once upon the bather.

Before quitting the subject of the shower-bath, I must refer to an objection that has been made to its use, namely, that it is liable to cause a determination to the head, and is therefore improper for persons of full habit. This is an error originating in the abuse of the bath, and is only so far related to truth as to the assertion that an excessive meal will produce apoplexy. If a person whose vessels are oppressed with excess of blood subject himself without training to the sudden shock of a shower-bath, a shock whose first

effect is to impel the blood inwards upon the vital organs, it is impossible to answer for the result; the result, in fact, must be ruled by the physical strength of the tissues of those organs to resist the impulse. But the whole tenor of the observations on food, raiment, exercise, and ablution contained in this book is to guard against violent extremes, which are, in reality, a wilful risk of life. If, in the case above supposed, the individual be young, and the tissues elastic and strong, the vital organs will not only resist the strain, but will not in any wise be injured. If, however, the person have reached that time of life when the tissues are brittle rather than yielding, something must give way. But I repeat that I cannot look upon this otherwise than in the light of an exceptional case, and such an one as could not occur if the rules of bathing, here laid down, were strictly followed. Indeed, the *training* necessary to arrive at the comfortable use of such a bath as has been supposed, would itself prevent the fulness, which in this case was the cause of mischief. To prevent the dangerous consequences attributed to the shower-bath, it has been suggested that the feet should be immersed in hot water during the operation. I can only say, that if this harmless expedient will in any way conduce to the confidence of the bather, let it be practised, by all means; but, philosophically, it is useless; *the secret of safety lies in the training*, not only in this, but also in all other matters in which the vital organs are concerned. I should not deserve the pardon of my lady readers if I were to neglect another matter connected

with this subject, namely, the suggestion of some covering for the protection of the hair. The best contrivance for the purpose that I have seen is a high, conical, extinguisher-shaped cap, made of some light material, and covered with oiled silk. A cap of this shape has the advantage of not interfering with the descending shower, while, by the breadth of its base, it effectually protects the head, and offers the means of tying a border of the same silk beneath the hair.

The douse, or douche-bath, is a contrivance for applying water locally, and, combining with affusion, more or less concussion of the skin. As the remedy for local disease, this form of bath has been in use from time immemorial: a jug of water poured from a height on a part of the body is a douche-bath; and a more complete one is the stream from a pump, the popular treatment of a sprain. The douche-bath to the head is also applicable to some kinds of insanity. From these remarks it will be apparent that the douche-bath is less manageable than the forms previously described, and that recourse must be had to some bathing establishment when its use is required. In establishments of this nature, the douche may be obtained of any size or temperature, and may be received in any direction, some being horizontal and some also ascending. The concussion of the skin, caused by the blow of the water against the surface, is a feature of importance in this form of bath; and when a sufficient height of column cannot be obtained, the blow may be supplied artificially

by a little wooden hammer, with which the skin is beaten as the water falls.

The cold bath is of three kinds, fresh, saline, and mineral, and the properties of each may be modified by being at rest or in motion. The still, fresh-water, or plunging-bath offers few advantages over the shower-bath, and combines the same principles. The affusion is, perhaps, somewhat more complete; the shock is dependent upon the temperature of the water, and the concussion on the activity and energy of the bather, who, by his active movements in the bath, supplies the want of motion in the fluid. The cold-water bath on the banks of a stream is infinitely preferable to that taken in an apartment; the temperature of the atmosphere is probably agreeable, the sun may be warm, the fresh air breathes upon the limbs, and the immersion is active, and accompanied by diving, or the exercise of swimming. The saline bath, at rest, differs from the fresh-water bath in the more stimulating properties of the saline matters which it contains, and in the greater weight of the water; while the same bath in motion, that is, in the open sea, produces a greater degree of concussion than the river stream, particularly when accompanied by active motion or swimming. The mineral baths, in like manner, owe their special properties to the mineral salts which they hold in solution.

When the cold bath is disagreeable to the sensations, or to the constitution of the bather, it may be raised in temperature to suit his purposes. It then changes its designation, and, according to its heat, is termed tem-

perate, tepid, warm, or hot. A temperate bath ranges from 75° to 85° ; a tepid bath, from 85° to 95° ; a warm bath, from 95° to 98° ; and a hot bath, from 98° to 105° . In other words, the warm bath comes up to the elevation of the warmest parts of the exterior of the body, the hot bath to that of the interior, and a little beyond, the temperature of the blood on the left side of the heart being 101° .

The vapor-bath offers some points of difference from the preceding, in the circumstance of extending its influence to the interior as well as to the exterior of the body. The bather is seated upon a chair, in a position agreeable to himself, and the vapor is gradually turned on around him, until the requisite temperature (from 90° to 110°) is attained. The vapor is consequently breathed, and thus brought into contact with every part of the interior of the lungs. The vapor-bath has undergone much improvement within the last few years, and its powers as an agent for the cure of diseases have been increased by the discovery of various vegetable substances, whose volatile elements are susceptible of being diffused through the vapor, and thus introduced into the blood are made to act upon the system.*

Bathing and exercise are very closely allied to each other—they both stimulate the actions of the skin, and both, if carried too far, are productive of fatigue.

* I have lately had the opportunity of examining and testing the merits of some admirably-conducted baths of this kind, kept by Mr. Sturgeon, of No. 3, New Basinghall-street, and my opinion is strongly in their favor.

Bathing, again, is indebted to exercise for some of its useful properties. In like manner, the rules of bathing and those of exercise are very similar. Bathing, to be efficient in preserving health, should be regular, should be commenced by degrees, and increased by a process of training, and should not be permitted to intrude upon hours devoted to some important function, such as digestion. It must not approach too near a meal, that is to say, if it be attended with the least fatigue; nor must it follow a meal too closely, three or four hours being permitted to elapse. The time occupied in bathing in cold water by invalids should not exceed a few minutes, ranging, perhaps, from two to ten; but persons in health may carry it to the point of satiety, provided always that they combine with it active exercise. The period for the tepid, warm, or vapor-bath is from a quarter to half an hour, unless special indications require to be fulfilled.

I come now to the immediate physiological effects of bathing on the system. When the body is moistened with a sponge wetted in cold water, or when affusion by the sponge or shower-bath is effected, the skin immediately shrinks, and the whole of its tissues contract. As a result of this contraction, the capacity of the cutaneous system of vessels for blood is diminished, and a portion of the blood circulating through them is suddenly thrown upon the deeper parts and internal organs. The nervous system, among others, participates in it, and is stimulated by the afflux, and communicating its impression of stimulus to the whole system, causes a

more energetic action of the heart and blood-vessels, and a consequent rush back to the surface. This is the state termed "reaction," the first object and purpose of every form of bathing whatsoever, the test of its utility and security. Reaction is known by the redness of surface, the glow, the thrill of comfort and warmth which follow the bath, and the bather should direct all his care to insuring this effect. By it, the internal organs are relieved, respiration is lightened, the heart is made to beat calm and free, the mind feels clear and strong, the tone of the muscular system is increased, the appetite is sharpened, and the whole organism feels invigorated. This is the end and aim of the bather, and to this all his training tends. The error is, to expect the result without the preparation. After a proper training the most plethoric and apopleptic individual may derive health and safety from systematic bathing; but it will be seen at a glance, by the above explanation, that without the training the attempt would be madness. But the reader must not imagine that because there is danger in bathing in a particular case, the practice is dangerous: that would be an erroneous inference. I have endeavored to show that food, raiment, and exercise, when judiciously used, are the source of many enjoyments, and the means of our existence; and I think it will be granted me without difficulty, that excess in either is replete with danger. Are we to give up the use of food because an incautious person eats himself into an apoplexy? Bathing is as little dangerous as

food, the difference between the two being, that we prefer the one, and therefore take it under the mantle of our protection, while we repudiate the other, because it is less agreeable to our appetites, or perhaps a little troublesome.

In order to increase and promote the reaction of the skin, various measures and manipulations are resorted to, some of them being practised in the bath, others after quitting it. Of the former kind is the operation of shampooing, which consists in pressing and kneading the flesh, stretching and relaxing the joints, and brushing and scrubbing the skin. In the East, the practice is most singular. You are laid out at full length, rubbed with a hair brush, scrubbed, buffeted, and kicked; but it is all "very refreshing."* The ancients were in the habit of scraping the skin with an ivory knife. But practices so agreeable to the bather have been little followed in temperate and cold climates, partly from the prevailing neglect of the bath, and partly from the necessity of having the operation performed by a person skilled in the manœuvre. Our common means of stimulating the skin are confined to the rough towel, the horse-hair glove or rubber, and the flesh-brush, which are used after quitting the bath.†

* Sir Alexander Burnes's Travels in Bokhara.

† Since the above was written, I have had the opportunity of examining a flesh-glove that comes recommended to us by the experience of ages, and certainly offers advantages superior to any other kind of rubber for the skin in existence. This is the Indian flesh-glove or kheesah, a glove, or rather mitten, which has

Indeed, this short catalogue embraces all the appliances requisite for the purpose. For tender and delicate skins, the rough towel answers every purpose, and should be used by the bather himself, unless the exertion be found too great, or cause palpitation of the heart. In the latter case, it must be resigned to an attendant, and the process completed by the bather, in order that the reaction may be increased by some degree of muscular exercise. Some skins bear the horse-hair and bristle brushes equally well with the rough towel, in which case these may be used after the drying is effected. When there is any delicacy of the respiratory organs, the horse-hair and bristle brushes, by producing an increased degree of stimulation over the chest and trunk of the body, are important additions to our means of cure. It is not intended, however, that the remedy should be more unbearable than the disease, which is likely to be the case if the common horse-hair gloves are employed: a better kind

been used, from time immemorial, in Hindoostan, Persia, and throughout the East, and by a race of people, both from necessity and luxury, more attentive to the skin than any other upon the face of the globe. The glove was introduced into England by Mr. J. Ranald Martin, of Grosvenor-street, and much labor and expense have been employed by Messrs. Savory and Moore in having a similar glove manufactured in London. Their imitation, however, is perfect, both in appearance and properties; and it is a subject of much satisfaction to me to be enabled to recommend so admirable a contrivance for promoting the health of the body, through the agency of the skin. The glove is made of goat-hair, the material used in the manufacture of the Burruck or Persian glove-cloth, of which the original kheesah is composed.

are those which have a brush surface; they are much softer, and more efficacious.* The electrical qualities which are spoken of in connection with horse-hair gloves are an innocent fraud on the imagination of the purchaser. The best form of flesh-brush is one in which the bristles are set on a leather back.

The influence which the bath exerts over the nervous and circulating system of the bather is not the least remarkable of its effects. The temperate and the tepid bath, for example, produce a gradual diminution in the number of the heart's pulsations, a calm in the nervous system, and a tendency to sleep; in other words, they are *sedative* in their action on the system. The hot bath, on the contrary, causes an excitation of the nervous and vascular system, an increased heat of the interior of the body, a quickened pulse, and profuse perspiration. It is a *stimulant* to the system. The warm bath, occupying a mid-position between the tepid and the hot bath, is also intermediate in its effects; but as the power of maintaining and bearing heat is very different in different persons, it is impossible to fix upon the exact point of neutrality for all. It appears to extend over a range of about ten degrees, from 90° to 100°, so that if we wish designedly to produce a sedative or a stimulant effect on the economy, we should, having always regard to the feelings of the bather, select a temperature above or below the neutral range.

* In Hindoostan, the horse-hair glove is employed for rubbing down horses, a purpose for which they are certainly better fitted than for using on the human skin.

Another curious and important law is associated with the influence exerted by the bath over the state of the pulse, which is, a power of absorption by the skin below the neutral range, and an augmented transpiration above it. The absorbing power is modified by various circumstances, such as the quantity of fluids already contained within the tissues of the bather, the state of the body in relation to food, activity of nutrition, etc. In this sense, medicated baths have the power of acting upon the system. The process is, however, slow, and requires long immersion when the water-bath is used, but more active with the vapor-bath.

The opposite effect is produced when the temperature of the bath rises above the neutral range; in other words, above the temperature of the blood. In this case, transpiration is so active, that the bather loses weight. If the bath be prolonged, there is danger of its proving fatal, by the over-excitation of the system; the pulse, as before mentioned, becomes rapid, the beating of the heart tumultuous, the respiration quickened; the bather experiences a sensation of oppression amounting almost to suffocation; he is faint and giddy, and falls into the insensibility of apoplexy.

ON THE MERITS OF HYDROPATHY, OR THE TREATMENT
OF DISEASE BY WATER.

The advantages to health of a judicious and sound system of diet, clothing, exercise, and ablution cannot

be better illustrated than by reference to what has been termed the "Water-Cure." The water practice has effected important results in the treatment of disease, and will, I trust, be instrumental in restoring to Medicine one of her most valuable and important auxiliaries. Medical men may be jealous that these benefits have been "conjured from the vasty deep" by other hands than those of the high priests of Therapeia, but they have no just reason of complaint; the treatment of disease by water had been improperly neglected; now, however, its merits may be tested, and the test aided by public encouragement; moreover, the remedy will revert to those who are alone qualified to employ it, and we may fairly hope that a correct system for its use will be established by their labors. Priessnitz, the peasant of Silesia, has done much, but he would have done infinitely more had he received a medical education; he would then have avoided many errors, and have entitled himself to the rank of a discoverer. At present, though armed with the experience of twenty years, he is little more than an experimentalist, and, in some instances, a rash and incautious one. A warm supporter* and eulogist of Priessnitz remarks: "The knowledge acquired by anatomy, physiology, and pathology is indispensable to the full understanding of the Water-Cure and to its practice, without frequent error. It is true it has been discovered and brought to extraordinary perfection without this knowledge, but Priessnitz did not bring it to its

* Dr. James Wilson.

present state without twenty long and patient years of practical study of the powers of water, of the vital phenomena, and of those of disease, however imperfect his knowledge may be. But Priessnitz is a genius—an extraordinary case—one of those isolated instances which occur so seldom in the history of man; let not, therefore, other uneducated persons attempt to practise the Water-Cure because Priessnitz has practised it; the power of genius is no rule for ordinary mortals.”

This I believe to be a plain statement of the amount of merit due to Priessnitz, and such, as I think, we cannot refuse to accord him. To weigh truly the advantages of the system, we must, as the same author advises, “allay the force of habit, and the passion of prepossession.” “One of Priessnitz’s great peculiarities,” he observes, “is his tact; this is a valuable attribute, and indispensable to a great practitioner, though, when unaided by a knowledge of every mechanical and rational means of ascertaining the precise state of all the organs, it must frequently be followed by error.” His patients, strange to say, look at this blundering upon the right at the risk of hitting the wrong, as a special *clairvoyance*, as a mode of “peeping into the internal recesses of the bosom, and into all the windings of the abdominal cavity.” The truth is that, being incomprehensible to themselves, they regard it as supernatural and wonderful, while the same persons would consider the cautious process of induction and mature judgment, founded on carefully observed data and the collective experience of ages of the medical

man, as nothing at all out of the common. This is the natural consequence of training a people to believe that drugs are their cure; they at last value the filthy stuff alone, and despise the judgment which directs it. Truly, indeed, do we deserve Napoleon's contemptuous sneer, that "England is a nation of shopkeepers," so long as we tolerate the mental attributes of the medical man only for the sake of enjoying his drugs, and pay gladly for the drugs, while we repudiate any reward as the harvest of a scientific education.

But to return to Priessnitz. When a patient is brought to him to be submitted to the Water-Cure, "he looks at and feels the skin, examines the make of, and marks on, a man with the greatest attention and accuracy, and makes them valuable guides as to what he ought to do, and what opinion to form as to the state of the constitution and nature of the disease. He goes no further, for the best of all possible reasons: because he does not know or understand the means. He does not feel the pulse or look at the tongue, both valuable, and almost indispensable, when understood, and joined with all other means: had he done this, he would have acted somewhat differently in many cases which I have noted." I think some of my invalid readers will shudder before such a picture of medical examination. Priessnitz is evidently incompetent to investigate disease, and his examination embraces less than half of the inquiry of every medical man. To visit his want of knowledge charitably, we must admit that *he sees with half an eye*, a kind of inspection that

I should think ill supplied by all the "tact" which the uneducated peasant can bring to bear on his treatment. But this does not invalidate the benefits of water and hydropathy; it only leads us to the conclusion that we should not prefer to seek them at the hands of the redoubtable Priessnitz, if we could obtain them at home, administered by those in whom we feel confidence, and whom we know to have deserved that confidence by the nature of their education and qualifications. The secret of Priessnitz's success seems to be explained in the following passage: "He evidently tries to stick as close to nature as he can, and by this he has done wonders." But this remark immediately precedes a proof of his failure, and shows him, with all his disposition to try, a blundering expounder of nature's laws. For example, pursuing his perquisitions into himself, a Silesian peasant, as the *book of nature*, he arrives at the conclusion, that whatever is suitable to him must be good for his patients. Now listen, ye dyspeptics, to a few "first lines" of this Silesian peasant-book. "Priessnitz is himself so strong and hearty by his mode of life that *he does not know he has a stomach*, the truest sign of the healthy state; and not feeling with his patients, he forgets, or, from some mystification of reasoning, overlooks the fact that others are not in this enviable position, or takes an unphysiological view of the influence of an overloaded stomach on the whole body, on each of its organs, and on any disease with which it may be affected."

The consequences of self-inspection, ignorance, and

obstinacy,* on the part of Priessnitz, are attended with the most mischievous and injurious results to his patients. Dr. Wilson continues: "With all Priessnitz's sagacity, it is a matter of surprise that he has fallen into an abuse which interferes greatly with his excellent cure; this is, allowing vegetable and animal matters at his table, which are of an indigestible and pernicious nature, such as pork baked to a cinder, sausages, 'sauer kraut,' salted cucumbers, and bad pastry, articles of diet which, even in health, should be avoided when any food of a more salutary nature can be obtained. What, then, must be the effect when the majority of his patients have, complicated with other complaints, some disease or derangement of the digestive organs? But a more flagrant error still is the quantity which each person consumes. There is a kind of *furor* who shall devour most. It is true that with the Water-Cure every person can eat infinitely more than he could under any other circumstances. But this is not enough; indigestion may take place, and excess be committed in the Water-Cure as well as elsewhere. Water only counteracts the evil effects. But the point I am convinced of is, that it interferes with, and retards the final cure of, the majority of the patients of Graefenberg." The following is a vivid picture of the effects of this abuse. The author is detailing a case of dyspeptic hypochondriasis; speaking

* "The expression of his countenance is intelligent and inquiring; he has a general appearance of firmness, which he possesses, in fact, to the degree of obstinacy."

of the patient he observes: "One day he came to my room, and I examined him. The lungs and heart were perfectly sound. On pressing deeply on different parts of the stomach and bowels, great pain was caused, particularly about the region and pyloric orifice of the stomach; in the latter there appeared to be some hardness. I found that the process of pressing, though made with great gentleness, made his hands and feet quite cold. The case was a clear one: he was ordered to go through the sweating process twice a day; a hip-bath and douche; to *eat as much as he could, and without distinction*. At the end of seven months of this active treatment he left Graefenberg very little better. The error in this treatment was the douche, sweating, and diet." Dr. Wilson goes on to say that the misapplication of treatment arose from the perversity of Priessnitz's theory, which enforced the necessity of ejecting the Morrison's pills, which were the cause of the disease, and other morbid "stuff," out of the system, the proper treatment being "the general fomentation by 'the wet sheet,' and an additional hip-bath, and the warm compress to the bowels, foot-bath, etc. Another fatal error was in the diet, for he stuffed enormously the most indigestible matters, in the hope of gaining strength. After a dinner of pork and 'sauerkraut,' salted cucumbers, and pastry for a ploughman, I always, the next morning, made a point of conversing with him. I generally found him sitting on a bench by himself, looking on the ground, and avoiding all intercourse." While in this state, he had

an objection to answer any questions, but after a little solicitation would acknowledge that he had passed a horrible night, sleepless and sick. The tenor of the human mind, in such a case as this, and the intolerance of good advice under such circumstances, is well displayed in the next remark of the author. "If I had said a word about the pork, 'sauerkraut,' and other indigestible 'combustibles,' he would never have spoken to me again." Dr. Wilson "made it a rule to inquire, the morning after one of the indigestible dinners, how the dyspeptics and hypochondriacs found themselves. They were invariably in a suffering state."

Another of the peasant's vagaries is an objection to warm clothing. "Priessnitz recommends people to clothe lightly, and to avoid flannel next the skin." "His prejudice against flannel is so great, that he will not allow its use under any circumstances." "What makes Priessnitz so obstinate on this point, I cannot exactly determine; but he has, with all his genius and sagacity, two or three decided mystifications." So, besides being poisoned with improper food, taken in improper quantities, the invalid is to be deprived of his warm coverings, and their future use prohibited. These are startling propositions; and we can only come to the conclusion that such a plan may be suitable for Graefenberg and Priessnitz, but most unsuitable for any place possessing inferior advantages of air and means of taking exercise. Priessnitz's tact and sagacity are then purely local, his plans applicable to Grae-

fenberg alone; he is, in every sense of the word, a "genius loci;" remove him from his native "berg," and the fruits of his twenty years' experience will be well nigh lost—he will have all to learn over again. It must be recollected that, in drawing these inferences of the true character of Priessnitz as a minister of disease, I have taken the statements of a warm admirer as a groundwork; and though in my own mind they do not detract from a certain kind of merit due to the man, it is necessary that he should be brought down from the pinnacle of nonsensical flattery upon which his eulogists have raised him, in order that he may be rightly comprehended. The British nation are hearty detesters of "humbug;" and it is to be regretted that so much of that material should have been interwoven, by indiscreet adulators, among the laurels of Priessnitz, both for his own sake and that of his system. The artificial throne upon which he has been chaired, itself explains the remark of Dr. Wilson, that at Graefenberg "nothing can exceed the prejudice against medical men." To which may be added another little reason, which savors of negligence, but which is diluted obviously with *water*, into the expression "reserve." This reserve, then, "has its inconvenience when carried to excess, for he frequently omits to give the necessary instructions when the patient forgets, or does not know how to ask for them."

Dr. Wilson deserves the warmest praise for his candid analysis of Priessnitz and the Water-Cure, and still more for putting its principles into practice in Britain.

But his long residence at Graefenberg, and his extreme anxiety to establish the "universality of water," render him a partial advocate of the merits of his remedy. Thus, after the narration of a case, which I shall presently quote, he observes, "here there was not air and exercise, and no particular diet. No doubt it will stagger a little those who think that diet, air, and exercise constitute the principal parts of the Water-Cure." Now I think I may answer for my readers as well as for myself, that we are quite willing to give a fair share of honor to well-directed ablution; and that, although we could wish to see an equally well-directed diet added, we are disposed to be satisfied in this case with abstinence from alcoholic and other stimulants. But we cannot agree with him that air and exercise were omitted in the case referred to. The patient was unable to walk out, but she breathed the fresh air of Graefenberg, *to her a change of air*, in her apartment; and exercise does not imply walking many miles, but simply action of the muscles, to an extent commensurate with the powers of the individual. Such motion was enjoyed by the patient in question, firstly, through the friction used by the attendants, and, subsequently, movement in obedience to her own will. The patient was a lady nearly seventy years old; she was completely crippled with rheumatic gout, and had not been out of her bed for nearly twenty years. For sixteen years she was unable to lie horizontally, and for seventeen had not used a pen. Priessnitz at first refused to receive her, but yielding to solicitation, she was treated as follows:

“Every morning the upper part of her person was gently rubbed all over for a few minutes with a towel moistened in cold water. She was then well dried, and her dress replaced; the legs and feet were then well rubbed in the same way, and the same thing was repeated in the evening. A bandage, well wrung out of cold water, was placed round the waist, covered with a thick dry one, and the same dressing occasionally to the legs. A few tumblers of water were drunk during the day, more or less, as she felt inclined.” Under this treatment she got well. But this is no case in disproof of the value of air and exercise. A walk across the room to a feeble invalid is equal to a mile of brisk walking to a person in health.

The following remarks by Dr. Wilson give a proper view of the treatment of disease by water: “It is next to impossible to do more than lay down general rules in the treatment of any given complaint. The treatment must be changed from day to day, according to the state of the patient, the nature of his disease, and the powers of his constitution. One day using cold water, sweating, and douche; at another time substituting the wet sheet, chilled or tepid water; and even sometimes warm or hot water, which Priessnitz has recourse to in rare cases; at other times, doing nothing, or next to it. In fact, it resolves itself to this: all depends upon the knowledge and tact of the practitioner; and it requires the same study and same knowledge of all diseased states, the powers, properties, and combinations of the remedy, as in the practice of medicine.”

In admitting that disease has been cured, and that much benefit to health has resulted from the treatment adopted at Graefenberg, there are one or two considerations which must be taken into the argument. One of these relates to the arbitrary medical rule which reigns there, a rule of absolute necessity in the Water-Cure, and the very basis of success in all medical treatment. The place recognizes but one king, and dereliction is immediately followed by banishment. This, therefore, is a condition of importance, if we wish to transfer the benefits of the Water-Cure from Silesia to Britain. We must have Graefenbergs in the form of institutions, under strict laws and rigid discipline. The advantages of institutions of this nature are thus referred to by Dr. Wilson: "Among the foremost is the removal of the patient from all business, care, and temptation that can interfere with the cure, and his return to a healthy state. The patient goes to bed early, and gets up early, and goes through the different parts of the cure with more ease and pleasure from the stimulus of association and example; he has the advantage of seeing similar cases to his own cured, of comparing notes, and receiving consolation." At Graefenberg, therefore, existence and mind are dedicated to health; the pursuit of health is the sole occupation of the day; the votaries of water WILL follow out the rules of their director; they WILL be cured, and they ARE cured. Now it is only in an institution that we could hope to combine these advantages in Britain; and I trust that the day is not far distant when we shall see such institutions, *hygienic*

sanatoriums in fact, in the neighborhood of all our large cities, and at our watering-places. My readers will perceive an additional necessity for institutions in the following glance at the instructions to a patient, who inquires how far he may venture to practise the "water-cure" alone: "You can apply cold water every morning, either by the wet sheet, wet-sheet bath, cold bath, or shower-bath, or simple ablution; take a quiet walk, and drink three, four, or five tumblers of water before breakfast; take a foot-bath at eleven or twelve o'clock, a tumbler or two of water, and a good long walk. The fomentation may be applied during the day to the stomach, as described. For a cold, you can lie in the wet sheet, and be afterwards well rubbed in the shallow, chilled bath for five minutes; or when heavy and indisposed, a good sweating and a bath; but not much more would I recommend to ordinary people to try themselves." I think few persons would be so bold as to venture upon these instructions, however simple they may appear to the suggester, without the supervision of a medical director. It has been said of a person who conducts his own case in a court of law, that he has a fool for his client; politeness forbids me to say what kind of a patient a man has who physics himself.

Those who have not read any authentic detail of the "water-cure," will be astonished to hear of a writer saying of himself, that in eight months he has taken five hundred cold baths, four hundred hip-baths, has reposed in a wet sheet for four hundred and eighty

hours, and drunk three thousand five hundred tumblers of cold water. "I once," he writes, "by way of experiment, swallowed thirty tumblers of water from the spring before breakfast, each a large half pint, two of which I sometimes took at once. I was nearly three hours about it. At nine o'clock I was so hungry that I could hold out no longer, otherwise I would have tried another dozen. When I went out at six, I had a wet bandage on the stomach, tightly applied, and covered by a thick dry one. When I went to breakfast, the abdomen was diminished in size, for my bandage no longer stuck so close. I never enjoyed a morning's walk more, and during the day felt perfectly well. My usual quantity was from five to ten tumblers before breakfast, two before dinner, one or two at dinner, and two or three during the evening. This is about the general rule that ought not to be exceeded during the cure."

With our present knowledge of the importance of the application of the principles of hygiene to health, it will not be without interest and instruction to pass in review the various modes of using water practised by Priessnitz. His manner of producing and keeping up profuse perspiration is excellent; it is thus described by Dr. Wilson: "The bedding is removed, and a blanket of the largest size is spread out on the mattress; the patient, lying down at full length, is enveloped in it as closely as possible, and so as to fit well about the neck and feet. The best covering over this is a small feather bed, which must be tucked

in about the head and shoulders, and all the way down to the feet; it is as well to elevate the head as high as the patient finds it convenient or comfortable. In this state he is left until perspiration comes on; it is then allowed to continue for a longer or a shorter time. It generally takes two or three hours before perspiration begins; but it is a good plan, when it is slow, after the first hour, to begin rubbing the hands gently against each other, and up and down the sides, doing the same with the feet, but not so as to fatigue or affect the breathing. As the packing up takes place at four in the morning, not to lose any part of the day, the patient has generally a good sleep for an hour or two. When perspiration has fairly set in, the window is thrown open, and from time to time a wine-glassful of cold water is given to drink. When it is considered that sufficient perspiration has taken place, the bed and blanket are thrown off, and the patient steps into a bath (if it be in his room) containing about a foot of cold water, where he is well washed and rubbed, assisting himself as much as possible. Before sitting down in the bath, it is well, as a general rule, to have a basin of cold water at the side, in which he just gives his hands, face, and breast a rub. When the large bath is used, the patient walks to it, still enveloped in the blanket, a cloak thrown over if necessary; here he plunges in at once, if it is large enough. Sometimes it is necessary to have two baths, one with cold, the other having water with the chill taken off. In this case,

he enters first into the warmer bath, and after a good rubbing, transfers himself quickly into the colder one, where the same thing takes place for a minute or two, returning again to the warmer one. Where the douche is in the house, it is sometimes made use of instead of the bath; I doubt its great utility. After all these processes, he dresses quickly, and goes out to walk for an hour or longer, drinking, from time to time, a tumbler of water." It is not to be wondered at that Priessnitz should have considered this as a process which no disease could elude, a thorough purgation of the humors through the skin. But he found, in practice, that it was not generally applicable, that it was liable to produce emaciation and irritability, and that it was injurious in persons having a determination of blood to the brain or mucous membrane, or suffering from nervous debility; that, in fact, he merely separated the diluent water from the system by this means, and left the blood, loaded with salts and highly irritative, behind.

There is one part of this process, however, that calls for special remark, and that is, the sudden immersion of the body in cold water while bathed with perspiration. This is easily explained; the skin is stimulated to excess, and were not some means taken to check the action, it would be prolonged indefinitely, and would be a cause of chill to the surface of the body, and give rise to cold and fever. The cold water, applied in the manner described, is a stimulant; it produces a momentary shock to the nervous system, causes the arrest of the

perspiration, and is followed by a general reaction.* In describing the manner in which cold was produced by draughts of cold air, I had occasion to remark that the checked perspiration was the effect, and not the cause, of the injury done to the system, and that the real cause of mischief was the chilling of the cutaneous nerves, and the consequent depression of the nervous powers. Cold never injures the body when acting as a stimulant; it is only when it acts long upon the surface, and robs the latter of its heat. The youth of Rome, to avoid cold, were wont, after their contests on the plain of Mars, to leap into the Tiber. By this practice, they checked and removed the perspiration from the skin, prevented its slow evaporation and the cold engendered by that process, and caused a healthful reaction. If we hear of disease following this practice, it is in cases where the object is unknown or overlooked. The individual is laboring under nervous exhaustion from fatigue, or his nervous powers are lowered by the long continuance of the ablution; or he is passive in the bath; there is always some such depressing cause. As a stimulant, I repeat, immersion cannot be injurious. If the patient were to get up from the bed and dress, the probability is that he would take cold; he would then necessarily chill; but the old action is stopped, and a new one induced, by the cold affusion.

* It is but fair to mention that, at all hydropathic establishments, the temperature of the water is regulated by the state and power of the invalid. This rule is particularly enforced in the excellent establishment with which I am most familiar, namely, that of Miss Price, at Harrow, Middlesex.

I may refer also to the practice of Russia, as an illustration of the harmlessness of exposure to a *stimulant cold* while the skin is perspiring. The Russian quits his hot vapor-bath to be rubbed with snow, he then returns to the bath, and again to the snow, repeating the process several times, but always finishing with snow. The cold in his case has another effect; it subdues the excitement of the circulation caused by his clumsy bath. But in the Priessnitzian mode there is no such excitement. A method of treatment introduced into medicine many years ago, but rarely adopted at the present day, consisted in pouring several pailfuls of cold water upon the patient, then drying him well, and returning him to bed. This remedy never gave cold.

The *cold bath* of Priessnitz differs in nothing from the ordinary bath, excepting in its application, being rarely taken but as an appendage to the sweating process, or wet sheet. The *shallow bath* is a large tub, containing from six to twelve inches of water. The patient remains in it from three to ten minutes, rubbing his skin and dashing water over the surface. It is also coupled with the affusion, once or twice, of a basinful over the whole body; this bath is a derivative in its action, and is employed by Priessnitz in fevers and inflammations, in which the period of ablution is prolonged according to the judgment of the prescriber. The hip-bath (*sitzbad*),* like the preceding, is deriva-

* I am enabled to give strong testimony in favor of the sitting-bath from my knowledge of its successful use in chronic disorders of the head, chest, and stomach, at the Harrow establishment.

tive in its action, and is used for chronic diseases, more especially in those of the upper and lower stomach. It also relieves determinations to the brain and chest, "flatulence, colic, spasms, and vomiting." The period of prolonging it is from fifteen minutes to an hour, and during its continuance the surface of the stomach is to be quickly but gently rubbed with the hand. In commencing either of the above baths, the temperature of the water is to be slightly raised, and in succeeding days gradually reduced to its natural standard. The skin, under the stimulation of the water, becomes warm and vividly red.

The *damp sheet* (leintuch) is the chef-d'œuvre of Priessnitz ; it is simply a linen sheet wrung out of plain water until no more drops fall. It is then placed on a blanket over a mattress, and the sides of the sheet are brought over the patient and tucked in, so that he is well packed up from neck to foot. The blanket is then arranged in the same manner as the sheet, and a light down bed placed over all. The head may be raised to any elevation that may be agreeable to the patient, and, when there is headache, a fold of linen dipped in water may be laid upon the forehead. The process lasts for half or three quarters of an hour, or an hour ; the patient then rises, takes the cold or chilled bath, walks for an hour, drinks some tumblers of water, and then is in high condition for breakfast. In different cases, the process may be modified by reducing the size of the sheet, leaving out the legs or arms, or both, and enveloping the trunk only ; but in the most delicate

invalid, the shallow bath at an agreeable temperature, after the removal of the damp sheet, is indispensable. "Where there is great heat of the skin from fever or internal inflammation, the damp sheet is changed as often as it becomes warm; sometimes as often as fifteen or twenty times before the patient is put into the bath; but all this of course depends upon the symptoms. It is a powerful prophylactic remedy, and as I have said, possesses, at the same time, a sedative, soothing, and soporific property, calming the pulse, removing feverish heat from the surface, and allaying pain and irritation." As regards domestic qualities, Dr. Wilson observes, "After a long journey, or travelling day and night, a damp sheet and cold bath remove every symptom of fatigue and any disposition to cold." "After a feverish night, awaking with headache, malaise, or what is called a state highly bilious, let this process be gone through, using, at first, a shallow bath with ten inches of water at 80° of Fahrenheit, and a good rubbing for five or ten minutes." Such is the "damp sheet," and such are stated to be its effects. It is certainly calculated to equalize the circulation, taking heat here, producing contractions of vessels there, checking the vital chemistry of mal-nutrition in this place, promoting perspiration in that, determining to the surface, and occasioning a general and soothing calm to the nervous system. And it is equally certain that, administered properly, it is not likely to produce cold. If employed improperly, the cold bath which succeeds is the antidote to its bad effects. The test, however, of this,

as of all other modes of application of water, is the subsequent reaction ; where this occurs, the remedy, however monstrous to the eyes of prejudice in its shape, is perfectly harmless.

The *wet-sheet bath* (*abreibung*) is a sheet less completely emptied of its water by wringing than the damp sheet, and thrown over the patient, who draws it about him, and rubs the upper part of his body, while an attendant does the same by the back and lower limbs. This is continued for two or three minutes, and then replaced by a dry sheet, with which the skin is thoroughly dried. The author observes, "this is an excellent portable bath," and very convenient for daily ablution and travelling. It is tonic in its medical effect.

The *wet bandage*, or *compress* (*umschlag*), is a damp sheet in miniature for application to a part of the body. When used for superficial inflammation, it acts by evaporation, and the thinner the material employed the better. When the inflammation is deep or chronic, it is made to perform the purpose of a fomentation in the following way : a thin fold of linen is wrung out of water until no moisture runs from it, and is then spread smoothly on the skin ; a second and thicker fold, but dry, and of larger dimensions, is placed over the preceding, and both are retained in their place by a broad bandage which completely envelopes them. The wet compress is derivative and sedative in its action, and keeps up a gentle excitation of the skin and free perspiration. Whenever it dries, which does not

take place for several hours, it is again wrung out of water and applied ; and its action is increased by water drunk during the period, and exercise. In this manner the wet compress may be worn for days together, or only during the night or day. Whenever it is laid aside, even for a few hours, it must be recollected that the surface is warm and perspiring, and the perspiration must be stopped by rubbing the skin briskly with cold water, and then drying it well. In the latter case, water is used as a stimulant. The above remedy is very useful in dyspeptic disorders. It is undoubtedly based on the soundest physiological principles, and enjoys the advantage over some of the other modes of application of water of being perfectly safe, and so manageable that the experiment can be easily made. It is by no means disagreeable ; after a few minutes, the wet is no longer felt, and the compress is then warm and not unpleasant. And this is the test of its utility ; if it be disagreeable to the sensations and remain so, it will do harm rather than good, and should be abandoned. I have been familiar with the wet compress in different shapes for many years, and have seen the most beneficial and surprising results follow its use ; it answers every purpose for which a poultice is generally used, and is infinitely more agreeable as a remedy.

The *douche*, as used by Priessnitz, is a column of water of from "one to six inches, or more," in diameter, and descending from ten to twenty feet.* His

* The *douche* baths employed at the Harrow establishment are,

foot-bath, head-bath, and partial baths offer no peculiarities worthy of notice. The cold foot-bath is used by him as a derivative in determination to the head and vital organs of the trunk. "It is," says the author so frequently quoted, "the best local remedy for habitual cold feet, keeping them in a glow for the rest of the day, and with repetition, permanently restoring the warmth and circulation in them. To insure a speedy reaction, the feet must be warmed by rubbing or exercise before putting them in the cold water, and immediately after the bath exercise must be taken. A certain way of warming the feet and keeping them so is by drawing on a pair of cotton socks well wrung out of cold water, over them another pair of thick dry ones, and a pair of large boots. A walk in this state warms the feet immediately, and they remain in a glow the whole day."

1st, a waterfall douche of twenty feet descent; 2d, a vertical column douche, varying in diameter from half an inch to two inches; 3d, a horizontal column douche; 4th, a vertical shower douche; and 5th, a horizontal shower douche. The douches are sparingly used, and never at the beginning of treatment, except in particular cases.

The first part of the history of the United States of America is the history of the colonies. The colonies were first settled by Englishmen in 1607, and they grew in number and in power until the Revolution of 1776. The colonies were at first dependent on Great Britain, but they gradually became more independent. They had their own laws, their own courts, and their own governments. They were also engaged in trade with other countries, and they were becoming more and more self-sufficient.

The second part of the history of the United States of America is the history of the Revolution. The Revolution began in 1776, and it ended in 1783. The colonies fought a war against Great Britain, and they won. They became a free and independent nation. The Revolution was a great event in the history of the world, and it has had a great influence on the history of the United States.

The third part of the history of the United States of America is the history of the Constitution. The Constitution was adopted in 1787, and it has been the foundation of the government of the United States ever since. The Constitution is a great document, and it has been the source of many of the freedoms and rights that we enjoy today.

The fourth part of the history of the United States of America is the history of the Union. The Union was formed in 1789, and it has been the source of many of the successes and failures of the United States. The Union has been a great source of strength and unity, and it has been the foundation of the American dream.

The fifth part of the history of the United States of America is the history of the present. The present is a time of great change and of great opportunity. The United States is a great nation, and it has a great future. We must continue to work together to make our country a better place for all of us.

IV.

SIR CHARLES SCUDAMORE ON THE WATER-TREATMENT.

THE Water-Cure treatment is one powerful for good and evil, and too much information cannot be obtained to give a right direction to the public feeling and conduct as to its reception. Toward this object I am willing to contribute the results of my personal observation and experience. As usually happens when any novel mode of practice is brought forward, it finds both friends and foes; and often, too, in such hostile array, that the desire of truth is lost in the conflict. I take the liberty of recommending to the heads of the profession not to entertain any strong prejudices against the Water-Cure treatment; for, however laudably desirous they may be to exercise a conservative principle on behalf of their patients and of society at large, let them not decide without examination, or pronounce a verdict without a candid hearing of the cause.

It is undoubtedly a startling proposition that one like PRIESSNITZ, born in humble life, without the advantage of much general education, and none of medical, should have brought forward a system professing to supersede, in a large number of disorders, the ordinary practice of physic. The idea may be humiliating

to the natural pride and dignity of the learned physician; but the question is not to be decided in this manner: it is the measures, and not the man, that we have to consider. I have always been of opinion that a physician should consider himself a student to the latest period of his life; for the wisest must still have something to learn. The maxim of Hippocrates should never be forgotten, of "the shortness of life and the length of art."

It appears to me that the subject of hydropathy is one of the highest importance to the whole of the civilized world, and that its principles and practice deserve the closest examination. It would be the height of injustice in any part of the medical profession to disdain its pretensions because it had its beginning from a humble source. As well might we cease to admire the noble river, in thinking only of the little spring from which it took its rise.

I think that some of the writers on hydropathy have not expressed sufficient praise and acknowledgment to Priessnitz as the inventor of the treatment constituting a complete systematic plan. To follow in a path is always comparatively easy. It is quite true that parts of the whole plan, and the principles, have been known and practised* since the time of Hippocrates, and by

* At Malvern, the water of the Holywell, so long as 200 years ago, had a great celebrity for the cure of sores, especially of the scrofulous kind, both in its external and internal use. See *Camden's Britannia*, and *Dr. Wall's Experiments and Observations on the Malvern Waters*.

none more ably and scientifically than the late Dr. CURRIE, of Liverpool. But all that can be quoted from history bears no comparison with the regular systematic whole which Priessnitz has so happily constructed, and by which he has raised for himself an imperishable fame. It cannot be expected that a man devoid of medical knowledge by education should be free from imperfections. Some acquaintance with anatomy; with physiology, or the laws of the animal economy; with pathology, or the knowledge of various diseases; and more especially with good diagnosis, would surely be an advantage to him to possess, if it could be given to him as a superstructure on the foundation which he has built for himself. He never could have made such discovery of the powers of water if his thoughts and attention had been divided with other studies. It is truly surprising in how eminent a degree his experience and ready powers of observation do supply the absence of regular science. Let it not, however, be supposed that he does not reason upon every case that comes before him. The able discrimination which he makes sufficiently proves his good sense and his judgment. * * *

I think that the Water-Cure measures, in combination with all the other circumstances that favor health, are powerfully calculated to effect an entire alteration in the system, and change the composition of fluids and solids in a remarkable degree. This fact is, indeed, sufficiently proved by the numerous wonderful cures which have been effected at Graefenberg, in instances

which had bid absolute defiance to the usual means of professional art. * * *

It is my wish to speak of the Water-Cure treatment rather as a valuable addition to the resources of medical art than as its offensive rival or foe. It is very true that my representation of hydropathy gives it pretensions of no small extent; yet they have many and important limits. Every day presents cases in which the whole system of treatment is not applicable; and the following diseases may be enumerated in the exception; confirmed consumption; confirmed epilepsy; apoplexy, or a threatening tendency to it; inveterate scrofula; all serious diseases of structure; cancer; the maladies of infirm old age; certain states of great debility, and some other conditions of aggravated malady. I ought, however, to observe that, in the first stage of consumption, or, rather, when its earliest threatenings are disclosed, certain parts of the treatment can be employed with the greatest advantage; and, even in the onward stages of this melancholy disease, I have seen rather more than palliative effect result from using two or three of the processes. In chronic bronchitis the practice, to a certain extent, is very useful.

It is an interesting consideration *how far advantage may be taken of the Water-Cure in city or town, without going to a water establishment.* It appears to me that in all the *acute* disorders, the various fevers and inflammations, or certain spasmodic attacks, in which its adoption may be held expedient, it would be

as available in city or town as in the country, in a street as on the mountain top. In the circumstances of highly excited circulation, with burning skin and great disturbance of the sensorium, exercise with the treatment would be manifestly improper; and I am certain that here we might employ cold water in its different suitable modes to act as a refrigerant, evaporant, and sedative with the utmost propriety; and by a skilful use of this powerful agent be enabled to cut short an inflammatory disease, somewhat as we would extinguish fire. In such acute diseases as I am now alluding to, the water treatment would be quickly brought to a conclusion. We might think it necessary or judicious to combine with it some employment of medicine, and especially to meet particular symptoms. In *chronic* disease a different view is to be taken. I do not mean that even here every part of the hydropathic measures is to be prohibited to the town inhabitant; but it is obvious on the least reflection, that in any case in which the full treatment is required by the long fixture of the disease in the system, all the adjuncts which I have before mentioned, of the purest water, the finest air, all temptations to abundant exercise by beauty of country, with regulation of diet and regimen, must be comprised, in order that the patient may have the best opportunity of obtaining a cure. It is always the aim of Priessnitz to eradicate the disorder from the system and effect a complete cure, not being satisfied with a temporary amendment; and hence such patience is required on

the part of the invalid, that he must not reckon time too anxiously. The question naturally presents itself to the physician, *Cannot the period which appears to be required for the success of the Water-Cure treatment, in long-standing diseases, be abridged by the assistance and co-operation of medical means?* At Graefenberg, the answer is given by the positive revolt against all use of medicine; and, indeed, as relates to mercury and iodine particularly, it is the professed object of Priessnitz to expel these poisons from the system with almost as much solicitude as he seeks to eradicate disease itself. A devotee of water, he has afforded us the opportunity of seeing fully what water treatment alone is capable of effecting; and so far we have been taught by a non-medical person what we could not otherwise have learnt. The extraordinary length of time which, in numerous cases of chronic disease, Priessnitz requires for the stay of the patient, must often be matter of regret, from the inconvenience of the sacrifice; and hence the question again arises, *Can the period be shortened with propriety by joining the influence of some mild medicinal alterative in a manner not inconsistent with the full use of the water processes?* In many of the establishments conducted by medical proprietors, if not in all, I know that medicine is occasionally employed. This is certain, it should not be officiously used; and I am convinced, as a general statement, that it cannot often be required. The administration of medicine is the exception, not the rule. On the other hand, it is not necessary to

suppose that the Water-Cure is so perfectly understood in all its parts as not to admit of any improvement.

In regard to the opposition of a great part of the medical world to this innovation on the ordinary practice of physic, looking at human nature, we must attribute a little of it to its interference with settled interests; but with the respect which I entertain for my profession, I am of opinion that a higher and nobler principle is usually exercised, and that a sincere desire is felt to protect the public from a supposed danger, or cause of injury. It is, therefore, with a due regard for such laudable feelings—and to those of an inferior nature I shall pay no attention—I am desirous to give the most searching inquiry into the principles of this new treatment, and to gain converts to it by convincing the judgment, instead of misleading the imagination. With this view, therefore, more remains to be said on this subject than I have yet offered.

In examining the cases which I have related,* the great amount of treatment, the various processes used almost from hour to hour, and continued from day to day, from week to week, and from month to month, we must at once perceive the great influence necessarily produced upon the whole animal economy; not in an insulated manner, upon any particular organ; not upon one order of blood-vessels, or other description of vessels distinctly; not upon separate parts of the nervous system; but that by means of strong im-

* Vide Sir CHARLES SCUDAMORE'S *Medical Visit to Graefenberg*, pp. 38 to 86.—*Editor*.

pressions produced on all the living functions, and of chemical action taking place within the body in connection with vital force, the great change and effect is produced. I object, therefore, to partial explanations of the *modus operandi* of the Water-Cure treatment.

Hence it is that I wish to receive with caution the doctrines of Liebig, as bearing on the present question, if attempted to be used as chiefly explaining the question which I am now discussing. It is with diffidence, and with deep respect for this profound chemical philosopher, that I venture to offer a few remarks. I cannot resist the conviction that, however much we may render our attention to the ingenious reasonings which belong to this modern chemistry, we are bound to keep in view the higher importance and still greater influence of vital force and nervous energy, as compared with simply chemical action; or, at least, we must always view every chemical action and process in the human body as intimately united and identified with the vital* function, which is itself very complicated in its nature, and too mysterious indeed for our perfect comprehension.

Liebig observes, "the act of the waste of matter is called the change of matter. It occurs in consequence

* As a proof that the vital power of vegetables has an influence upon their secretions which is not explained by modern chemistry, it may be mentioned that bamboos, canes, the corn plants, and some others, are covered with a thin epidermis, consisting of pure flint or silica, which is evident from analysis! The stems of these plants, when burned, will produce a vitreous substance, arising from the fusion of the silica which they contain. This is indeed a wonderful chemistry of nature, in connection with vital action.

of the absorption of oxygen into the substance of living parts. This absorption of oxygen occurs only when the resistance which the vital force of living parts opposes to the chemical action of the oxygen is weaker than that chemical action; and this weaker resistance is determined by the abstraction of heat, or by the expenditure in mechanical motions of the available force of living parts." "*Disease* occurs when the sum of vital force which tends to neutralize all causes of disturbance (in other words, when the resistance offered by the vital force) is weaker than the acting cause of disturbance."

"In medicine, every abnormal condition of supply or waste in all parts, or in a single part of the body, is called *disease*." "The globules of arterial blood, in their passage through the capillaries, yield oxygen to certain constituents of the body. A small portion of this oxygen serves to produce the change of matter, and determines the separation of living parts, and their conversion into lifeless compounds, as well as the formation of secretions and excretions."

It is evident that chemical action—pure chemistry—does play a very active part in the various processes of the human body concerned in its waste. But let us always carefully keep in view that it is subservient to a higher department of function, namely, vital force, which is again connected with, and largely depending on, the nervous principle, or energy, as we may choose to term it.

Our bodies are always undergoing change by means of the removal of old and deposit of new matter; but

it takes place so slowly as to be imperceptible to our senses ; except that it is more manifest in growing children ; for in childhood, as Liebig observes “more is supplied than is wasted.” When so much excitement is given to every function of the body, as in the full employment of the Water-Cure treatment, we cease to be surprised at the great effects which are produced. Liebig observed to me in our conversation : “By means of the Water-Cure treatment a change of matter is effected in a greater degree in six weeks than would happen in the ordinary course of nature in three years.” Hence arises an additional reason why good judgment is required to proportion the amount of treatment to the constitutional powers of the individual.

It is pleasing to observe the kind of change which is produced on the body by the pursuance of the Water-Cure for a sufficient time. In its favorable progress, the physical condition of the patient improves in an evident and sensible manner. The skin, from being pale or sallow, acquires a ruddy hue ; the muscles become fuller and firmer ; fat decreases, and many are glad to lose a corpulent abdomen. In young, growing persons, it is soon made visible that the capacity of the chest increases, whence the lungs have fuller play and a brighter bloom appears in the cheeks. Exercise, at first a difficulty, now becomes a pleasure. The mind partakes fully in these benefits of the body ; the senses become more acute ; the faculties more energetic ; and buoyant spirits take the place of languor, depression, and ennui.

I have to address some observations equally to the timid and the bold. Many, on hearing the subject of the Water-Cure mentioned, shudder with horror, and think it another name for certain danger or sudden death. Others, on the contrary, view it as too simple, think the process cheap and easy, and desire to treat themselves. The separate employment of any one of the processes may not suit the taste and feelings of the individual, but cannot be considered unsafe, unless used under improper circumstances. The shower-bath, or plunging-bath, or douche may not be appropriate to a case; but who would speak of either as dangerous, in a general sense? The rubbing down with a wet sheet (*abreibung*) is a far milder proceeding than any of the other three modes of applying cold just mentioned. I daily made diligent inquiry at Graefenberg whether accidents ever happened from any part of the treatment. I have related all the casualties which I could hear of. How few are they! and those few attributable to the errors and carelessness of the individuals, and throwing no deserved reproach on the water treatment itself.

On the other hand, the practice is not to be lightly undertaken by invalids; and it is only the voice of kind warning to say that they ought not to attempt self-treatment. So-called local diseases, but which are really constitutional, require general treatment. I heard lately of a gentleman treating his knee, affected with a rheumatic inflammation of the joint, by cloths constantly wetted with cold water, without employing

any constitutional measures. Within thirty hours a fatal metastasis to the brain took place!

The agreement and good effects of each and every process depend on nice and correct management. How much more, then, of the whole systematic treatment! A competent bath attendant is of the greatest importance. There must be, in order to success and the avoidance of accident, a good head to direct, and a good hand to execute.

I much fear that, from the facility and apparent simplicity of the practice, and the temptation to pecuniary gain, persons without the qualification of medical education will be induced, not only to form water establishments, but conduct them altogether, and boldly undertake the responsibility of the public health. In no illiberal spirit, but from honest feelings, I protest against this monstrous pretension and error. Diagnosis is most essential. Who that is untaught and inexperienced can understand the different kinds, and the many phases of disease? And without such discrimination, and also judicious estimate of the powers of the individual to bear treatment, how can its amount be properly prescribed? A second Priessnitz, a man of so much original genius and powers of observation, with so vast an experience derived in so extraordinary a manner, is not, perhaps, again to be found; and I hope, therefore, that his example will not be considered a precedent that hydropathy shall be practised by other persons, wholly unacquainted with either the

exterior or the interior of the human body, and the complicated functions of the animal economy.*

The *principles* of the Water-Cure treatment are, I am sure, founded in nature and truth, and rest, therefore, on an immutable basis. The *practice* may be occasionally abused, and then evil, instead of good, result. If I could think that such a consequence was necessary, I would not for one moment be its advocate. But, convinced as I am that we have in our power a new and most efficacious agent for the alleviation and cure of disease in various forms, and, in proper hands, as safe as effectual, I should be no friend to humanity, nor to medical science, if I did not give my testimony in its recommendation.

The established practice† of physic is not to be set

* The partial exercise of hydropathy by benevolent persons, or the half-working of the system in incomplete establishments, do not come within the whole force of my criticism. There is as much difference between using the water treatment on a small scale, in this manner, and the employment of the complete system, as practised at Graefenberg, as between taking two or three doses of medicine, and undergoing an active course of strong remedies. In the little way of treatment there would not be much risk of doing harm, but a cure of important disease could scarcely be effected. I confess myself disgusted with any prospectus which holds out the idea of treating *cancer* with success.

† An invalid of rank, at Graefenberg, had adopted the water treatment on account of an obstinate intermittent, to which he had long been subject. It returned occasionally, even in the mountain air. In a severe attack the water processes were employed, as usual, for the relief of the paroxysm; but his physician, who was domesticated with him, did not hesitate to give him free doses of quinine, in order to prevent the return of the ague; and the result was most satisfactory.

aside, as some enthusiasts at Graefenberg would declare! It would be absurd to think of it; but if the occasion for the use of medicines can be lessened, there must be a consequent increase of human comfort. Besides, the inadmissible diseases for the treatment, convenience as well as preference, will induce the large majority, every day, to meet their ailments by medical help rather than by hydropathic means. Not that my present inquiry relates to mere policy, or partial interest of any kind—no; it is one of deep and important truth, and to which I desire that justice should be done.

Hitherto I have been considering the value of the Water-Cure treatment for those who can make their choice of means, and can command every comfort in health and sickness. Before I leave the subject let me treat of the poor and needy, who are afflicted with disease, and under so many forms of suffering, that might be treated by hydropathy with certain success. I appeal to the rich and the benevolent to take into consideration the practicability of forming a hydropathic hospital, in a healthy locality, in the vicinity of London, where the greatest good might be rendered to suffering humanity, at a smaller cost, probably, than hospitals in general can be conducted.

It will be a fortunate circumstance for the public health, if the increasing popularity of hydropathic principles should lead to a more familiar and regular use of some mode of bathing or free ablution amongst the community, the lower orders especially, than has

hitherto existed. The number and severity of skin-diseases would become materially lessened. But, also, when we render health and tone to the skin, we almost close a large avenue to numerous forms of disease.

Small parts of the hydropathic treatment are applicable for every-day use, to all constitutions, and to persons of every age, and the practice of which, in conjunction with temperance, could not fail to produce the most important and happy results for the welfare of the rising generation.

The Water-Cure patient, who may have been blessed with recovery from disease and long-suffering, should be mindful of all the rules of Hygeia for the rest of life. If he relapse into the same errors, which may have led to his loss of health, has he any right or title to expect a permanent cure?

In reflecting upon the virtues of water as a remedy, when properly applied, for the alleviation or cure of many forms of disease, we find another occasion of gratitude to the Great Creator, who has in his beneficence provided so convenient an antidote for numerous evils which "flesh is heir to."

The careful study of nature is essential to the making of a physician; and he who attentively follows her precepts will the most readily be conducted to a knowledge of disease, and the rational method of cure.

*Naturæ præcepta colit, morbosque medetur,
Filaque Parcarum lentius ire docet.*

APPENDIX.

VISIT TO PROFESSOR LIEBIG, AT GIESSEN.

IN company with my friend, Dr. Buxton, I made a long detour from Fulda to Giessen, for the sole purpose of paying a visit to Liebig, and learning the sentiments of that distinguished chemical philosopher on the subject of the Water-Cure. We had the satisfaction of enjoying a long interview with him; and I owe him great acknowledgment for his exceeding kindness and courtesy on that occasion. He had formed a high opinion of Priessnitz and his system. I have already detailed many of the observations which he made. He comprehended the great rationale of the treatment of chronic disease in a few words, "change of matter;" and thus the removal of morbid matter, and the substitution of new that is healthy. "But," he added, pithily, "there are other modes—the continued use of purgatives, and a walk to Milan."

I am well convinced, from long experience, that in the distinct use of medicine for important chronic diseases, the persevering use of alteratives and aperients comprises the only effectual method of cure, diet and regimen also being regulated. In this way I have been often successful in the treatment of the more aggravated cases of chronic gout, chronic rheumatism with sciatica, chronic hepatitis, and other maladies which had taken their deep hold of the system. Let it not be supposed, therefore, that I lose my respect for the practice of physic in the approbation which I bestow on the new system; but I do very deliberately declare that there are states and conditions of disease, especially those of a gouty and rheumatic nature, in which I would prefer the Water-Cure treatment to any other, used either distinctly, or in alliance with some medicine. The "walk to Milan" reminds me of the physician who sent a nervous patient to a very distant part of Scotland, on the pretence that he would there find one who was particularly successful in his description of case. He searched for him in vain, and on his return vented his displeasure on the physician for the cheat: but he was cured!

We conversed on the subject of diet. Liebig remarked that coffee impeded the digestion of food for an hour or two, its carbonaceous principle requiring oxygen; that green tea should be looked upon as poison. He was himself much in the habit of taking black tea; but, for the Water-Cure, considered milk and water the fittest beverage, morning and evening, and that no wine should be used, water only. When he wished to study for a continuance, he took coffee, to delay the return of hunger. The smoking of cigars he condemned as prejudicial to health, much gaseous carbon being injuriously inhaled, and unduly robbing the system of oxygen.

VISIT TO BOPPART.

Our next visit was to the hydro therapeutic establishment of Marienberg, close to Boppard, on the banks of the Rhine, conducted by its proprietor, Dr. Schmitz. From that gentleman we received the utmost politeness, liberality, and kind attention. He showed us over every part of his establishment, and was minute in his explanations. I had been told that it was the handsomest in Europe, and I saw every reason to believe it. From the greatest arrangement to the least, order, beauty, and neatness were alike displayed. The mechanism in the construction of the various baths was highly ingenious, particularly that used for the sitz-baths and for the shower douches. There was, indeed, much worthy of imitation. I should think that about two-thirds only (at most) of the amount of treatment are used at Marienberg as compared with that at Graefenberg. Upon this difference I shall not comment. I asked Dr. Schmitz whether he gave medicine. He said, "Yes, I am a physician, and do so when I see occasion, which is not frequent." To weak patients, standing in need of, or desiring, the indulgence, he allowed chocolate for breakfast, and one or perhaps two glasses of wine* after dinner; but they must practise this deviation from the general rule in their private rooms, not at the table-d'hote. * * *

* It is habit, so much more than necessity, which prompts us to take wine daily at dinner. For six weeks at Graefenberg, and afterwards, I drank water only, and did not suffer any inconvenience from the privation. Shortly after my arrival I was invited to a dinner party of twelve, where water only was the beverage. I was never in more cheerful society, or where the conversation was more animated.

I am happy in the opportunity of meeting with my friend Mr. Mayo, whom I had attended occasionally in London, when suffering most severely from chronic rheumatism. I was extremely gratified to find him in a satisfactory state of improvement. Formerly, the knees and hands were inflamed, swollen, and painful, so that he could never obtain rest without the aid of a large dose of opium. He then suffered also very much from the inflammation and rigidity of the muscles and ligaments of the neck. Upon examination of the knees and hands, I found them perfectly free from all sign of inflammation, and reduced to their natural size. They were not tender to the handling; but Mr. Mayo was still apprehensive that if he tried to walk, he might bring back inflammation of the synovial membrane. The neck was in a much better state, but still stiff. He had, from circumstances, suspended the greater part of treatment during the winter, to the regret of Dr. Schmitz, who thought that if he could have been more assiduous, he might by that time have been restored. The patient himself was, however, satisfied with his well-doing, and praised the Water-Cure as having saved him from being a cripple. He was in good general health and spirits, and full enough of energy to take charge of the health of others.

I asked Mr. Mayo if, during his observation of the Water-Cure treatment, for upwards of a year, he had ever witnessed any accident to occur from it. He assured me not a single one, and that carbuncles did not take place, as is supposed—only boils. He added, “This new system of treatment more than doubles our power of doing good. Of course it will meet with much opposition; but none, come from what quarter it may, can possibly prevent its progress and its taking firm root. It is like truth, not to be subverted.”

V.

DR. HERBERT MAYO ON THE WATER-TREATMENT.

THE cold-water cure is a highly artificial course of treatment, which experience has shown to be capable of removing several diseases that were before intractable, and, generally, to make a capital restorative for impaired health.

The cold-water cure is a sort of training, of which, when conducted with caution and judgment, many more can avail themselves than one would have anticipated. When overdone, it has occasionally led to serious, nay, fatal consequences. But there is so much good in it as a whole, that for the most part its misuse even, when not extravagant, leaves the patient with a surplus of benefit.

The cold-water cure can hardly be said to contain any new curative element; almost all its means had been tried and approved before, but they had not been combined to form a system.

The cold-water cure cannot do what medicine can; neither can medicine do what the cold-water cure can. The latter, viewed rationally, does not come in to supersede the former, but to help it out where it was at fault.

There is nothing in the cold-water cure at variance with the use of medicine, or to prevent the two being employed in conjunction, where neither alone would meet all the exigencies of a case. Then to consider in the most general way, what medicine can, and what medicine cannot do, the better to fix the place and determine the therapeutic importance of the cold-water cure.

Acute inflammations of important organs constitute the strongest ground a physician can take, by which to exemplify the utility of his art. In this class of diseases the timely use of blood-letting, calomel, tartar-emetic saves many lives, by arresting disorganizing processes, which left to their natural course would prove fatal.

Another remarkable field in medical practice is that of spasms, pains, irritation, and nervous excitement; that is to say, the large variety of cases over which opium, as the most efficient representative of its class, dominates.

A third field comprises different forms of morbid diathesis, whether congenital or from subsequent vitiation of the body, in correcting which certain drugs possess a specific influence, as mercury and iodine in syphilis, colchicum in gout.

The three classes of remedial agents, which have been thus specified, like every other good thing, are liable to be misused, and much harm may thence arise, and has often thence arisen. But a practitioner, nevertheless, who should try to combat disease without

them, would resemble a boxer who should enter the prize-ring with his right arm tied behind him.

When tonic remedies are required, drugs are less efficient; but, on the other hand, they are for the most part innocuous.

Where alterative means are necessary, the course resorted to in English practice, however serviceable in the main, is not equally unexceptionable. To get rid of general and local plethora, to rouse torpid actions, to move secretion, to evacuate, purgative drugs are the means generally employed. But they are liable to fail, and their continued use is not without bad consequences.

The instances last adverted to belong to the domain of hydropathy. If a tonic, reductive, or alterative course is needed, the means which hydropathy brings to hand are far more efficient and safe than the corresponding courses of medicine.

Then the place to be assigned to hydropathy in the treatment of disease nearly coincides with the use of mineral springs to drink of or bathe in. The cold-water cure comprises the same valuable accessories which the practice of visiting mineral springs holds out, but it embodies them in a much more perfect and efficient form. It is not, however, pretended, at least by me, that the cold-water cure can be brought to supersede the use of mineral waters. On the contrary, I know that the latter are occasionally of service where hydropathy has failed. The two, justly viewed, are distinct resources, each available, as circumstances require, in aid of medicine. But the compass and reach

of hydropathy are wider and more extensive (especially when its sedative agency, hitherto not adverted to, is taken into account) than those which can be claimed for mineral baths or waters; the former method of treatment is, besides, less empirical than the latter; its objects are more intelligible; what it does has a more obvious and direct tendency to correct disordered actions, and to remove disease.

* * * * *

There are four principal intentions to which the means that the cold-water cure embraces may be made subservient. The cold-water cure may be rendered either tonic, or reductive, or alterative, or sedative.

I. THE TONIC COURSE.—Of this, sweating forms no part. Cold bathing, with friction and exercise, and cold water drunk in moderation as a stomach-bath, are its elements. There may be considerable variety in the application of these means, even with the single object at present contemplated. To take examples almost at random, the following are different plans, which I have ordered with advantage to patients, of whom the weaker could at the time only bear the first, while others were only benefited by the last and most stimulating.

a. A sitz-bath at eleven in the forenoon, for from five to ten minutes, to be repeated in the afternoon.

b. The douche in the fore and afternoon.

[These, and the like formulæ, are for the class of patients who, however differing otherwise, agree in this,

that they are not strong enough for any curative discipline till they have, as it were, fully awakened their vital powers by being up and out, breathing the fresh air, and having begun to digest a nutritious breakfast.]

c. Friction in the wet sheet at six in the morning, and a sitz-bath twice in the day.

d. Packing in the wet sheet in the morning for an hour, followed by friction in the wet sheet, or cold affusion; the same repeated, or a sitz-bath in the afternoon.

e. The full bath for half a minute, followed immediately by the douche for three minutes at six in the morning. The douche for five minutes at eleven A.M.; a flowing sitz-bath at five in the afternoon; rubbing with the damp sheet at nine, before going to bed.

With such and other variations in the use of the baths, the quantity of water drunk and of exercise taken, and the diet of the patient, require often to be as scrupulously measured.

To what classes of cases, it may next be asked, is the tonic course of the cold-water cure applicable? Without attempting to make a complete enumeration of such cases, I may particularize several groups, and the medical reader will have no difficulty in adding to the catalogue.

1. This tonic course may be employed with advantage in cases of general debility, left by protracted illnesses, courses of medicine, hæmorrhages—in short, in general debility not the result of coexisting disease.

2. In debility depending upon constitutional weakness of the circulation.

3. In cases of deficient innervation, comprehending, for instance, hysteria, in which the use of cold affusion is well known; mental depression, with powerlessness to exert the mind and body, except at capricious intervals; delirium tremens, in which the failure of nervous energy has arisen from over-excitement by drink, opium, tobacco; certain forms of palsy; palsy of one side in persons not advanced in years, in whom the head derangement which caused the paralytic stroke is at an end, and the causes which produced *that* are no longer in operation; muscular weakness of the legs threatening paraplegia.

4. In children disposed to scrofula, and even in those already laboring under scrofulous disease, in the joints, bones, or sub-cutaneous glands. In such cases this treatment is singularly beneficial. It must not be resorted to when either the lungs or the mesenteric glands are the seat of tubercle.

5. In muscular rheumatism, and in regular gout, in certain habits.

II. THE REDUCTIVE COURSE.—The basis of this course of treatment is profuse sweating, with just enough cold bathing afterwards to prevent the debilitating effects of the former. The sweating process is repeated twice in the day, or, under special circumstances, is continued for many hours. In the former case, sweating by adventitious heat is often to be resorted to.

The cases in which this course of treatment is required (among invalids who travel at least) are comparatively few ; I have seen but two cases in which it was positively indicated and carried into effect ; one, where it would have been good practice, and was not done ; many in which it has been pursued, in my opinion, improperly.

A trivial error, common in hydropathic practice, is to apply the reductive treatment to severe colds in the head or on the chest. The error is encouraged by the facts that trivial colds, which would soon get well spontaneously, are not prevented doing so by hydropathy, and that severe colds are often gone through with with less inconvenience to the patient when he sweats and bathes than otherwise ; for the sweating really relieves the cold a little, and the cold bath which follows is a temporary fillip, and makes the patient feel better, even if it protracts his cold. A gentleman, who is a great advocate of hydropathy, and has passed some weeks of the summers of the last four or five years in hydropathic establishments, told me that he went last summer (1844) to Graefenberg, with little the matter with him but a cold, which he had accidentally caught, but with a firm faith that Priessnitz would cure that for him at once. However, his cold lasted him three weeks at Graefenberg. Then I remember an English lady at Marienberg, one of the most undaunted followers of the cold-water cure whom I have known, who for a cold consented to be wrapt up in the blanket twice a day for a fortnight ; but at the end of that time she was no bet-

ter, and was compelled to give in by the weakness and giddiness which such violent perspirations had brought on. The proper remedy for a severe cold is to keep for three or four days in a warm room, and take light and great part liquid diet. This I knew before I tried hydropathy, and therefore deservedly suffered when I allowed myself to believe and to be lured to try sweating and cold bathing as a substitute. To impress this point the more strongly, I will narrate another case. A patient came to Marienberg in June, 1843, while I was yet there, and because I was there. He brought with him a severe cold and bronchitis, which he had contracted on his journey, and which, being a surgeon, he knew well enough how to treat. But feeling a delicacy in Dr. Schmitz's house as to the use of any remedy but hydropathy, and being, notwithstanding his past experience, still a staunch believer in the whole system, he put himself into Dr. Schmitz's hands to be cured. Accordingly, he was packed in the blankets, with a wet bandage applied round the chest, twice a day for three to four hours, and profusely sweated; and the operation terminated by his being washed with cold water, which brought on, as regularly as it was used, suffocative fits of coughing. However, he went on with this for three days, till his condition really became alarming, which I led Dr. Schmitz to see, who then proposed that I should take him under my own care. All that the poor fellow wanted was warmth and quiet—just to be liberated from hydropathy. So, ordering him some warm diluent, I left him to the repose he needed; and

I found the next morning that, exhausted as he was, he had slept well without using the opiate I had placed at his bedside. He woke refreshed, his cough looser, his chest less sore; and, living on tea and broth for a few days, he was convalescent.

The reductive course in hydropathic treatment promises to be of signal value in the cases which on intelligible medical grounds require it, of which the most prominent are the asthenic forms of gout and rheumatism; but when not so required, it strains the system and is liable to be very mischievous. And there is this source of delusion attending it: persons of fair strength, in whom it is employed without any occasion, are not at the first the worse for it; but with keener appetites and invigorated powers of digestion, at first even gain flesh while they are pursuing it. After a while they, unaccountably to themselves, fall away through what first agreed with them, and lose flesh, strength, and tone of health.

III. THE ALTERATIVE COURSE.—The basis of this mode of treatment is the employment of the two antagonist means of sweating and cold bathing in counterbalancing proportions; to produce free perspiration, but not to reduce by it; to give tone by cold bathing, but not to stimulate; to bring the other secretions to a wholesome state by exciting moderate action of the skin; to give tone to the stomach and alimentary canal by draughts of cold water; to promote all the vital actions by moderate exercise: these are the intentions of the alterative course.

Thus, the patient is to be packed every morning in the blanket, or in the blanket and wet sheet alternately, till perspiration commences, and then to have water poured on him, or to take the plunge-bath. This, with attention to the accessories of hydropathy, and drinking a few tumblers of spring-water at appropriate hours, constitutes the essential of the alterative course. And it certainly seems difficult to imagine a course of treatment, on the one hand, less exceptionable on any ground; on the other, better calculated to work a salutary change in the blood and the system. Certainly the ordinary resources of medicine, the small dose of blue pill at night, the tonic aperient draught in the morning, or a course of alkalies and sarsaparilla, or what not, however useful these means, when others are not to be had, are not only experimentally, but to one's common sense, resources that promise less than the simple hydropathic course above specified. For it is to be borne in mind that the function of the stomach, and the action of the bowels, on which so much turns in the restoration of health, are invariably improved by hydropathy, and that these effects are obtained without nauseating the one organ or heating the other.

Then what I have specified as constituting the proper alterative course in hydropathy, simple as it is, contains all that is necessary for the restoration of a vast variety of cases. And there are many and many patients, the progress of whom towards recovery is materially retarded by complicating the treatment, and subjecting them to increased discipline. As the phy-

sician is often pressed by the patient himself to allow him to do more than is right in his natural anxiety to get on faster towards health, and as the hydropathist himself may be supposed to have a bias in favor of employing many baths, the patient seldom escapes with so little discipline.

Often, again, more treatment either is at first requisite, or shortly becomes so. The alterative course has often to be shaped to one or other additional character. It has to be rendered, often, alterative and tonic—when sitz-baths, douches, river-baths have to play their part in the fore and afternoon, following the early morning discipline; or it may require to be rendered alterative and revulsive, of which long-continued frictions in the half-bath are the characteristic element. Then let me briefly specify what the cases are, which are likely to derive benefit from an alterative hydropathic course.

There are many who have started in life with every promise of enduring health and strength, yet who, “*nel mezzo del cammin*,” either from over-exertion of thought, or anxiety, neglect of proper relaxation, neglect of exercise, living in confined air, errors of diet—from some or all of these causes combined, have found that promise defeated. Their spirits have lost their elasticity, their temper has become irritable, mental exertion is often an effort, and leaves them unstrung and exhausted: they experience headache and loss of sleep, the appetite and digestion are capricious, the bowels torpid, they look out of health, and with no positive illness are yet standing on the threshold of dis-

ease. Head disorder, confirmed dyspepsia, irregular gout, this or that local ailment may come out of such a beginning, and convert them into permanent invalids, or, at the lightest event, throw them temporarily out of their career of active life and useful exertion.

To the large class whom this outline embraces, the invention of hydropathic establishments is a signal benefit. Two, or three, or four months of the cold-water cure will serve, not to patch up these threatenings of disorder (which is just what ordinary expedients do), but to restore the patient to sound and solid health, with the comfortable conviction, derived from the thorough restoration he has obtained, that by attending always more or less to the rules of hydropathy, or, if need be, resorting, from time to time, to its strict discipline, he may preserve the renewed blessing of health without relinquishing an active career in life.

Gout has hitherto been one of the "opprobria medicorum." Sydenham could only console the patients whom he could not cure with the remark that the wise and the wealthy are its surest subjects. Now hydropathy can eradicate gout; and this, not only in incipient cases, but in all but a few extreme cases of old standing and great inveteracy. And the method is the simplest in the world; all that is generally needed is the alterative course of the cold-water cure. * * * The great use of hydropathy in gout is to eradicate the complaint—not to subdue what are called fits of gout. Over these, indeed, it has great power, and in some instances reductively, in others sedatively. But, in general, it is

better to subdue a fit of the gout supervening under hydropathic practice by the assistance of opium and colchicum, without interrupting the general treatment. The fit is then disposed of more quickly, and at less suffering to the patient, while the radical cure of the complaint goes on as before. I am aware that the soundness of this advice will be questioned by many who have had experience of hydropathy. In that case my reply is, try and compare both systems before you condemn mine.

Constitutional rheumatism, irregular gout, blind gout, dumb gout, general gout, or by whatever name this troublesome complaint is in preference designated, yields equally well and surely with regular gout to the cold-water cure. * * * Finally, there are cases of pure scrofula to which the alterative hydropathic course is properly applicable. Generally, however, where I have seen sweating employed as part of the treatment of scrofula, it has been manifestly injurious.

Diseases of organs to which the alterative hydropathic course is applicable.—Indigestion, congestion and disordered action of the liver, torpor of the bowels, local disorders of the rectum, urinary diseases, uterine complaints, nervous disorders, paraplegia, hemiplegia, etc. In lighter head disorder, nervous headache, headache from determination of blood, and their complications, it is evident how much is to be expected from an alterative hydropathic course, conjoined with the use of sitz-baths, foot-baths, and the like.

Disorders of the skin are not the best cases for hydropathy, inasmuch as the hydropathic means all tend to irritate the skin. Nevertheless, as disorders of the skin are often the result of general derangement of health, many are thus cured. Their treatment requires a very light hand, and the frequent substitution of warm or tepid baths for the cold bath.

IV. THE SEDATIVE COURSE presents the following varieties: it may consist in—

1. Cold affusion.
2. General or partial immersion in cold water for a period from half a minute to three hours or more.
3. Packing in the wet sheet, to be renewed as soon as the bodily heat has reached its full pitch again—for instance, every twenty minutes for several hours consecutively.
4. Long-continued immersion in cold water, succeeded by packing in the blanket.

The cases admitting the application of the sedative course are fevers, inflammations, spasmodic affections of the voluntary muscles, mental excitement, delirium, insanity.

The application of cold affusion in fevers, and in the exanthemata, was made by Dr. Currie, on so extensive a scale, and crowned with such success, as to make it a matter of wonder that physicians who united in believing and applauding his statements should have been afraid to adopt his practice. I have little doubt that Dr. Currie's method is preferable to the more elaborate hydropathic manner of applying cold in fe-

vers, when the object is to cut the fever short. On the other hand, in the advanced stages of fever, and for the exanthemata, it is probable that packing in the wet sheet may prove the best practice.

Again, in rheumatic fever, it is probable that reiterated packings in the wet sheet, each prolonged till perspiration has begun, are the proper basis of treatment. The same, it may be anticipated, will be found to be the appropriate practice, if hydropathy be applicable to the treatment of hectic fever and symptomatic fevers generally.

The efficacy of hydropathy in inflammation is far more questionable than in fever. Yet in inflammation of the brain, and of the abdomen, in some cases of acute phlegmon, as of the hand after wounds in dissection, there is no doubt that the continued application of ice, or iced water, has been of the most salutary effect. But it appears to me that this whole field has to be gone over anew. It is probable that more cases of acute inflammation can be treated by the direct application of cold than one would have ventured to imagine possible. Priessnitz is said to have cured croup in an advanced stage by taking thus all heat out of the body of a child but that necessary barely to keep it alive. Till the experiment has been scientifically tried, we do not know how far it may answer to *let heat* instead of *letting blood* in inflammations.

The efficacy of the cold bath in spasmodic affections has been occasionally evinced in tetanus. But what

would be the effect of repeated packings in the wet sheet wrung out of iced water?

It cannot be doubted that a judicious employment of hydropathy, in cases of insanity, would be of service. But its use must, of course, be secondary to general management and moral discipline. So the experiment can only be well conducted in an establishment appropriated to the care of the insane.

I look back at what I have written and consider it in a double light; in reference to medicine, and in reference to pure hydropathy. In reference to medicine I am fully satisfied. I have shown, with no attempt at a falsely scientific coloring, but simply and practically, how many cases which were imperfectly relieved by medicine, can be restored by a system of cold bathing, and certain accessories used upon the intelligible principles of ordinary medical treatment. In reference to the cold-water cure I am less satisfied. I believe, indeed, that I have spoken the truth; and that in sifting and classifying its different agencies, and ordering them as auxiliaries of medicine, and part and parcel of one healing art, I am fairly reclaiming for medicine her own. * * * Still, I am not satisfied to cut down hydropathy to the rules and ministration of medical practice without a tribute to the genius of the inventor. I believe that the therapeutic inventions of Priessnitz will prove of great benefit to

humanity. * * * I do not profess, however, to do the same things that he does. I do not adopt and use his cold-water cure without modifications which *he* would repudiate as hostile to the spirit of his method. But I take its elements and employ them in my own way. Perhaps, if the prescribed routine had suited my own case, I might have been misled by it. But my own case was too serious, and could not be cured by the system with its errors; it happened to require and admit of a part only of the routine treatment; and in following this view, and looking to see how much each individual case of serious disease requires, the system has disappeared, and, in the place of the cold-water cure, I discern only a more extended and scientific use of cold bathing.

The first part of the book is devoted to a general history of the United States, from the discovery of the continent by Christopher Columbus in 1492 to the present time. The author traces the progress of the colonies from their first settlement to their final independence, and then follows the course of the Union from its formation to the present day. The second part of the book is devoted to a detailed history of the United States, from the discovery of the continent by Christopher Columbus in 1492 to the present time. The author traces the progress of the colonies from their first settlement to their final independence, and then follows the course of the Union from its formation to the present day.

VI.

OBSERVATIONS ON HYGIENE AND THE WATER-TREATMENT.

BY ROLAND S. HOUGHTON, A.M., M.D.

SIR BULWER LYTTON, in the commencement of his *Confessions of a Water Patient*, vividly portrays the physical life of the literary brotherhood. Addressing himself with his usual grace to his successor in the editorial chair of *The New Monthly*, the author of *Harold*—mindful of the fate of CAMPBELL, HOOD, and THEODORE HOOK—gives utterance to an outburst of eloquence in which many a home-truth literally shines forth in “words that burn.” “Here we are,” he exclaims, “in these days of cant and jargon, preaching up ‘the education of the mind,’ forcing our children under melon-frames, and babbling to the laborer and mechanic, ‘Read, and read, and read,’ as if GOD had not given us muscles, and nerves, and bodies, subjected to exquisite pains as pleasures—as if the BODY were not to be cared for and cultivated as well as *the mind*; as if HEALTH were no blessing, instead of that capital good, without which all other blessings—save the hope of health eternal—grow flat and joyless; as if the enjoyment of the world in which we are, was not far more closely linked with our physical than our mental selves;

as if we were better than maimed and imperfect men so long as our nerves are jaded and prostrate, our senses dim and heavy, our relationship with nature abridged and thwarted by the jaundiced eye, and failing limb, and trembling hand—the apothecary’s shop between us and the sun! For the mind, we admit that, to render it strong and clear, habit and discipline are required; how deal we (especially we, Mr. Editor, of the London world—we of the literary craft—we of the restless, striving brotherhood), how deal we with the body? We carry it on with us, as a post-horse, from stage to stage. Does it flag? No rest! ‘*Give it ale, or the spur!*’ We begin to feel the frame break under us; we administer a drug, gain a temporary relief, shift the disorder from one part to another—forget our ailments in our excitements, and when we pause at last, thoroughly shattered, with complaints grown chronic, diseases fastening to the organs, send for the doctors in good earnest, and die as your predecessors and your rival died, under combinations of long-neglected maladies, which could never have been known had we done for the body what we do for the mind—made it strong by discipline and maintained it firm by habit.”

Farther on in the narrative, our author tells us that, in preparing to struggle against “the *longa cohors*” of his own complaints, he determined to have some insight into *a knowledge he had never attained since manhood*—THE KNOWLEDGE OF HEALTH. A frank admission!—and yet one that legions and myriads might make with as much truth and sincerity. It is a very

common opinion that there is no such science as the science of human life, and that health and disease are essentially lawless in their nature. Born and brought up with the most vague and indefinite ideas of the structure of the human frame and its physiological uses, and carefully educated in a manner so tenderly luxurious as actually to foster this ignorance, a very large portion of the community has arrived at the belief that health is a mere matter of chance and good luck, and disease an active principle of evil within—an imp or demon which must be killed or exorcised by means of some cabalistic mummary, or some empirical compound supposed to possess great potency and virtue, and profound discrimination! There is many an intelligent, estimable, and distinguished personage in our country who is grossly ignorant and infatuated with regard to the subject of health and disease, and medicinal treatment. Look in almost any newspaper, glance over its advertising columns, and who are most loud and enthusiastic in praise of the new panacea, the last patented pill, and the most recent (and “genuine”) extract of sarsaparilla? Are they not too frequently “educated” men—members of the clerical calling, for instance, more “philanthropic” than discreet? Are there not members of the bar who are sometimes equally out of their element? Professor DICKSON mentions a judge in one of our Southern States who had contracted the habit of taking an incredibly large number of cathartic pills as regularly every morning as his breakfast; and we frequently hear of individuals who are sadly addict-

ed to dosing themselves, and swallowing in particular combinations of calomel, jalap, and gamboge, to an extent that is really monstrous. Instances of this kind are so exceedingly common as hardly to need mentioning; but in this connection it may not be improper for me to advert briefly to one or two recent and melancholy cases strikingly in point, as tending to illustrate the absolute madness of such a mode of life. There are doubtless many in the community who recollect with what profound sorrow the whole country heard of the sudden death at Boston, a few years ago, of HUGH SWINTON LEGARE, one of the most accomplished scholars, jurists, and statesmen our country has ever produced. It is now perfectly well settled that the fatal termination in this case was owing to the long-continued use of purgative medicines in large quantities, and among them some of the most violent drastic-cathartics. A terrible disorder, of which I may perhaps give some definite idea by styling it a double knot in the intestinal canal, was the result of this practice: a malady wholly beyond the reach of the ablest members of the healing fraternity. In the case of Mr. LEGARE, outraged nature finally sank under an unequal conflict; and thus fell an illustrious victim to that absurd and miserable feeling which holds it to be manly and intellectual to exalt the mind at the expense of the body; to cultivate the one to the top of perfection, and either slight the other with persistent neglect, or force it to unnatural action by any means whatever, no matter how harsh. I remember having also seen it stated that

JOSEPH STORY, the learned, amiable, and excellent justice of the Supreme Court of the United States for the Eastern District, whose death succeeded only two or three years afterwards, perished of a similar disorder. Strange that the learned expounders and the nice observers of the constitution of our government should so persistently violate the laws of their own being! I am fully aware that such sudden deaths are commonly regarded as "melancholy dispensations of Providence;" but is there not reason to believe that this phrase is by far too often and too lightly employed? Is there any cause whatever for especial wonder, in the two instances just cited, that the distinguished subjects came to an end so fearful? Do we not see in the result merely a just retribution for an obstinate violation of the laws of nature; or is it so very difficult to arrive at a correct conclusion that we are forced to believe in a supernatural cause of death? Can any intelligent, candid mind hesitate on such a point for a moment? Have we any reason to suppose that the sublime Intelligence which fashioned the beautiful fabric we call "man," would place it in the world subject to no fixed rules of action, much less create it for the purpose of becoming its capricious destroyer? With such light as we now have on the subject of health and disease, is it not strange in the extreme, that when we are thus called upon to mourn the loss of valuable lives—lives of men whom our country can ill afford to spare—and who die mainly from their blind refusal to believe that there is such a science as the science of human life, with its

own fixed principles and rules of action, and that any and every infringement upon those laws which the Creator has established with such consummate wisdom, is sure to be followed, sooner or later, by some equally fixed and precise penalty: is it not strange in the extreme, that such calamities can be regarded as direct, especial, "divine visitations?" What possible ground can we discover for thus distinguishing between divine and physical laws? Are they not one and the same? Were they not pre-ordained for our guidance at the creation of the world by the same Almighty Power? And have they not continued in force up to the present moment? Why then should we resort to doctrines so thoroughly imbued with weakness and credulity, if not absolute impiety? Do they not savor more of the old heathen superstition so general in the days when it was implicitly believed, that the gods descended from above in their own proper persons to wreak their cruel, unrelenting vengeance upon their human victims, than of the Christian theory of an active, merciful, superintending Providence, manifesting itself no longer through the agency of direct miracles, but through the quiet, regular operation of natural laws? I do not think it is too much to say that, if we were closely to scrutinize the daily habits of the unfortunate "victims" of the many so-called "divine dispensations," in almost every instance (and the exceptions would only serve to confirm the rule), we should promptly discover some aberration from correct habits and principles of life, of a nature amply sufficient to account for the fatal termination in

each one of such cases, without uttering calumnies upon the laws of nature. I cannot believe that an all-wise and all-merciful God would resort to a miracle to accomplish what the follies of man are every day effecting without one; and I do not deem it unjust or irreverent to style those who are so constantly on the alert to discover supernatural causes of death, blind worshippers in the temples of false gods, when the sublimely simple laws of health are so plain to every one of barely ordinary intelligence and capacity that "he who runs may read."

There is nothing lawless in human life; there are laws of health and disease as clearly defined as those which govern the planets in their wanderings and keep the universe in order—as fixed and unalterable as those which regulate heat and light and the electric fluid—as firm and unchanging as those which control the tides. There is not a single process, healthy or morbid, in the functions of life, which does not closely follow its own especial laws of action. Nature does not more intensely abhor a vacuum than any thing which tends towards anarchy and chaos in the human constitution; ever acting as our "benign mother," her vigilance is unceasing, her kindness untiring; her silent forces are continually on the watch to preserve, or defend, or repair, so exquisitely organized is the human system, so admirably contrived to discharge every natural function during the allotted period of human existence, so finely endowed with intelligence to warn, control, and determine our steps; our mental and physical organizations

are each so perfect and healthy as originally constituted, and so simple and clear are the laws which have been pre-ordained for our guidance, that we are forced to arrive at a conclusion (which to a wise man would look like a truism), that our life on this earth is naturally one of confirmed health, and that every thing like disease is the necessary penalty of physical disobedience. I am not disposed, however, to push this doctrine to the verge of ultraism; I do not believe that disease is, in all cases, "synonymous with guilt," or that all ill-health should be denounced as "sin;" and no one can be more ready than I am to make all reasonable allowances for peculiarities of constitution and morbid susceptibility arising from local residence or hereditary transmission. Still, the proposition that I have laid down, is one that is based upon unquestionable truth, notwithstanding cases may (and often do) arise in which some difficulty may be experienced in making a close application.

It is sad to think how very few persons have any thing like a correct idea of what is meant by "a high state of health." The eccentric Mr. Abernethy is said to have expressed the belief that there was not in his day a single healthy person in London! A similar opinion has also been put forth with regard to our own country! Such assertions, however, may seem too broad and sweeping to those who have no clear and distinct ideas upon the subject; but they will wear a very different aspect to those who correctly appreciate the laws of nature and the value of judicious hygienic

management. It is a common objection, I know, that "life is too short" to enable one to devote the requisite time and attention to the care of "mere health," and that the exacting usages of modern society, the multiplied claims of business avocations, and the pressing urgency of domestic duties all conspire together against putting into practice what every one will admit to be "a very good *theory*." This is the usual way of "begging the question," to say nothing of its evincing that kind of fondness for error which is so peculiar a proclivity of poor human nature. The subject is one of such interest, however, that I venture to brave the charges of prolixity and pedantry for the purpose of taking it up and considering it in detail.

We understand by the term "healthy organization," the physical condition of the human being as he was originally constituted by the Supreme Creator. From the moment of the earliest inception of life, the physiological nature of every human being has been pre-ordained with the wisest forethought and most sublime simplicity. If we trace the progressive development of the human being from the primal form of existence to the full maturity of growth, we cannot but be wholly at a loss to appreciate adequately the consummate wisdom which has controlled every step—regulated every process. The nice adaptation of parts, the accurate distribution of functions, and the wonderful provisions by which harmony has been induced and sympathy secured between the several organs constituting the one symmetrical whole—all these are only a few of the con-

siderations which tend to elucidate the true province of nature. The human frame is the very perfection of earthly beauty, simplicity, and symmetry. The Venus of the Palazzo di Medici and the Belvidere Apollo of the old sculptors still remain in our own day the unrivalled types of a godlike (but still merely human) beauty. There are thousands of seemingly complicated details which go to make up the grand sum-total which we call the animal economy; but the system itself, in whole or in part, is unequalled and inimitable as regards simplicity and symmetry of construction. What instrument has ever been designed by plodding philosopher or scheming sage more symmetrical than the HAND? What daring optician will strive to out-rival the EYE?

The intelligent student of human anatomy is always enthusiastic on a theme like this. The very skeleton itself is to him no image of foul corruption, or grinning, ghastly horror. In its component parts he sees nothing but "organs of support" (as Wilson describes them), "giving firmness and strength to the entire fabric, affording points of connection to muscles, and bestowing individual character upon the body." He finds that the bones form "hollow cylinders in the limbs, admirably calculated by their conformation and structure to resist violence and support weight;" in the head and trunk he sees that their arched formation is peculiarly fitted to protect the important and delicate organs beneath; in one place he finds them acting as pulleys, in another as levers; and all, wherever they are situa-

ted, most ingeniously contrived “to fulfil every movement which may tend to the preservation of the creature, or be conducive to his welfare.” The joints by which these bones are articulated together, the ligaments by which they are bound in place, and the muscles attached to their various surfaces and prominent points, so as at once to invest and protect them, while they at the same time fulfil their principal office as the moving organs of the animal frame, next demand and receive his closest scrutiny and most profound admiration. He finds utility every where present, with no attending superfluity; for nature is never known to exceed or fall short of the exact requisite; all such extremes she carefully avoids, and all such errors—no matter whether they be of omission or commission. He sees that each muscle is assigned especially to its own specific duty, while bands “of various extent and thickness are distributed through the different regions of the body for the purpose of investing or protecting the softer and more delicate organs.” Passing next to the arteries which run their course from the grand central organ, the heart, and tracing them in fancy to their final termination in the minute capillaries, whence the veins in their turn arise, carrying the impure fluid back to the right auricle, he is lost in astonishment (and who would not be?) at the stupendous machinery of the circulation of the blood. Glancing next at the nervous system, which suffers so terribly in “wear and tear” amid the absorbing cares of a literary and professional career, the more he examines the less he wonders that

all human efforts to explain its mode of action have proved utterly futile! He finds that we know literally nothing of the manner in which impressions are conveyed to "the organ of the mind," from all parts of the system, and the principles of motion and sensibility sent forth from the same kingly organ to its subordinate instruments. On attentively considering the organs of sense, or those "instruments by which the animal frame is brought into relation with surrounding nature," our anatomist finds that he can conceive of nothing more exquisitely delicate or philosophically beautiful. The organ of voice is, also, a study of itself; the lungs, with their air-tubes, and every thing pertaining to the function of respiration, likewise constitute a theme for curiosity and wonder; and the farther he proceeds in his minute researches—the more he examines the silent processes by which nature carries on the functions of life—nourishing all parts according to their just measure, promptly removing aught that is worthless or effete, and carefully repairing all breach or damage (though how it is all done no mind can tell!)—the more he pursues such researches as these, the greater will be his admiration and awe, so "fearfully and wonderfully are we made!"

After a survey like this, it is not difficult for a mind that is properly constituted to arrive at the conclusion which I have already set forth, that "our life on this earth is naturally one of confirmed health," and that "every thing like disease is the necessary penalty of physical disobedience." It is readily apparent that the

original constitution of our race was perfectly sound, and especially adapted to fulfil every one of our natural wants during the allotted period of human existence ; in other words, that our physical organization was originally healthy. None of the organs of sense or natural instincts of our race, in the early period of the world's history, could possibly have been in any respect polluted or depraved ; and we certainly were originally endowed beyond all other creatures with both physical and mental capacities for the proper regulation of our daily habits and walks in life. The ingenuity of man in the earliest stage of his existence could have found no occasion for seeking out new means of indulgence, and created no new tastes and appetites to sway his career as with a rod of iron. The functions of life were always discharged with their wonted regularity, as long as the dictates of reason and nature were faithfully obeyed ; and disease, and sickness, and physical suffering of every description were wholly unknown. These were the days when Adam and Eve were in paradise.

It would not be akin to my present purpose, however, to trace from this point the departure of our race from simplicity of life and obedience to natural laws, to the present period of unlimited physical indulgence and consequent physical suffering. I have mainly to do with the world as it is ; and my present object will have been fully accomplished if I have clearly established my original positions by such brief references to the world as it was. I now turn to a concise consideration of those

rules of life which are usually comprehended under the name of HYGIENE.

The daughter of Æsculapius, HYGIEIA, participated with her sire in the divine honors that were paid him in "heathen" Greece. We worship no Goddess of Health at the present day; we have other things to adore—money, politics, railroads, and steamships—in this nineteenth century of "Enlightened Christendom." In our very medical books, the laws of nature, from whose general neglect the great mass of our physical woes and miseries derive their origin, are curtly considered under the singular designation of "*non-naturals*." Under the general term *res non-naturales* the ancient physicians comprehended "air, meat and drink, sleep and watching, motion and rest, the retentions and excretions, and the affections of the mind; or, in other words, those principal matters which do not enter into the composition of the body, but at the same time are *necessary* to its existence." In what respect, however, all these NECESSARIES are "*non-natural*" it would be of very doubtful profit to stop to inquire: I therefore proceed to consider the hygienic value of each member of this class in its proper order:

"*Air*."—It would hardly seem necessary to advert to the importance of thorough ventilation in all kinds of edifices, public or private, railroad cars, ships, and public conveyances of every description, in order to secure a constant supply of pure, fresh air; and yet it is a matter so commonly neglected that thorough ventilation would seem to be a rare exception, and close,

foul air the general rule. Go to any private dwelling or public edifice, and it would almost seem to have been a cardinal object of the builder to exclude the atmosphere as effectually as possible. The consequent result is, that the air in such places is breathed over and over again; rapidly becomes poisonous; headache, syncope, asphyxia, fever, and general constitutional disturbance are frequently produced, and sometimes the seeds are sown of some fearful and deadly disease. The necessity of a full and steady supply of pure fresh air in order to maintain the health of the whole system, to say nothing of its being absolutely indispensable for the purpose of keeping those delicate structures, the human lungs, in a sound state, is, however, quite too obvious to an intelligent mind to require in this place any detailed argument in support of that position. With regard to temperature I may add, in general terms, that the great object should be to shun either extreme of heat and cold, and to keep the surface as uniformly comfortable as circumstances will permit in each individual case. So great, however, is the variety of constitution with regard to warmth and comfort, that a very wide margin must necessarily be left at every one's discretion. I leave this subject with only one suggestion: it is infinitely more conducive to vigorous health to become hardened by exposure to cold than over-sensitive by indulgence in buckskin and flannels.

“*Meat and Drink.*”—Dietetic errors notoriously cause a great majority of diseases, or else tend very greatly to complicate their dangers. Gross indulgence

in the luxuries of the table has been proverbial in all ages for its deteriorating effects upon both body and soul: undoubtedly hastening the termination of life, debasing and brutalizing the nobler faculties of the mind, and entailing upon the body an endless variety of physical pains. Dietetic excesses may be said to regard both quantity and quality. It is an unquestionable fact that too large an amount (of animal food, especially) is habitually consumed by the greater portion of the community—and particularly by literary and professional men, and all other persons of sedentary habits. The hours of taking food, also, are usually too frequent, approximating each other too closely; insomuch that, as a general rule, the stomach has hardly had time to struggle through with its proper share of the burden of digestion before it is forthwith called upon to resume its labors. The digestive organs of sedentary persons (to say nothing of the brain and the nervous system generally) are sadly overtasked; and it is not to be wondered at that, in the long run, just as the last drop breaks the camel's back, so, the endurance of nature, long overstrained, finally gives way. With regard to the quality of the food ordinarily consumed, it is generally too rich and too concentrated. A due proportion of innutritious matter should always be contained in our articles of diet. An unanswerable argument from analogy may here be adduced in support of this position, from the chemical composition of atmospheric air: it is the oxygen alone which arterializes the blood, and yet nitrogen is mixed with it, though solely to dilute it, very

nearly in the proportion of four parts to one. Were we to inhale pure oxygen we should "live too fast;" the vital functions would be morbidly accelerated; and yet it is precisely so, though in a less degree, with regard to food. The nutritive portion should, therefore, always be combined with a fair proportion of innutritious matter to temper its action and promote the ease of the digestive process. There is an endless variety of improper articles of diet in very common use, but my limits will not admit of my going into any thing like a detailed demonstration of their peculiar demerits. I cannot consent, however, to give in my adhesion to any one scheme of "dietetic reform." As there are no two leaves on the self-same tree that are precisely alike, so there are no two individuals in the whole wide world who have the same tastes and preferences. It is fanatical and absurd to lay down a rigid code of laws minutely prescribing the exact quality and quantity of articles of diet for general use. As well furnish each and every man with a coat or hat of one uniform size and shape and style! The nearest approach we can make on so delicate a point as this, is to define certain leading general principles—such as those inculcating the necessity of moderation in the pleasures of the table, regularity in the hours of taking food, and a rigid abstinence from the use of all highly-seasoned meats, leaden pastry, and any other article of food whose consumption is followed by equally painful and deleterious consequences. We can only caution our fellow-creatures with all earnestness and solemnity that they ought

never to neglect their accounts with their digestion : it is a terrible creditor when one falls into arrears, but an excellent friend on "cash payments." On the subject of beverages I have but little to add. As the old Greek hath it, "WATER IS THE BEST THING ;" but we cannot estimate too highly the luxury of milk, when we have no reason to believe it a vile elaboration of distillery refuse, although it is comparatively harmless when a "joint production of the cow and the pump." The slow narcotics, tea and coffee, are bad enough at the best, but there is some little good sense in the popular doctrine, that they are half-way substitutes, comparatively speaking, for much worse stimulants ; still, far better would it be for the health of the community were they all banished from general use. As to the consumption of these beverages in such powerful doses as to produce their full narcotic effect, no language can be too strong in terms of condemnation. On the subject of "meat and drink," then, we come to the conclusion that, in order to secure the highest state of health of the digestive organs, our food should be sparing in quantity ; plain, simple, and unconcentrated in quality ; and our habitual beverage constitutionally harmless, like water or milk.

"*Sleep and Watching.*"—In the beautiful economy of nature the night has been set apart as the appropriate time for rest. It is then that the silent forces of nature most successfully set about their task of restoring the wasted nervous power, repairing all losses occasioned by the occupations of the day and recruit-

ing each one of our exhausted energies. It is needless to dwell upon the exceeding impropriety of observing habitually unseasonable hours, in accordance with many of the habits of the times, when there is no absolute necessity for such a mode of life; but this is a point which I willingly leave to the good sense of the reader. As a general rule, our sleep should be regular, tranquil, sound, and precisely long enough in duration to give nature a fair opportunity to accomplish her work; but, to secure all this perfectly, the only sure method is to carry out implicitly every law of nature in detail. On this last point, especially, a wide margin should be left to the discretion of the individual, out of a reasonable regard for peculiarity of constitution: there is no uniform, rigid, and unyielding rule arbitrarily defining the duration of sleep, to which we should all be required to give in our obedience. It is true that we have a great variety of precepts to choose from; but the rules I speak of are generally characterized by dogmatic severity rather than any depth of acquaintance with hygienic laws in their widest application; they are usually carried to some one extreme or other, which nature, ever kind and generous, most religiously abhors.

“*Motion and Rest.*”—It is apparent from the physical constitution of man, that habitual exercise is absolutely essential to a high state of vigor and health—not violent and irregular, but moderate and uniform—and general in its effects upon the whole human system. Exercise is by far the best tonic known to our

art; and that kind is most efficacious which carries along with it a certain amount of mental diversion. A long and laborious (because task-like) walk is far less beneficial than one much shorter, but full of relaxation and amusement at every succeeding step. The muscles with which nature has so liberally endowed us, as the servants of our will, were never designed for a life of inglorious ease; for, under all such circumstances, they become weak, puny, and shamefully effeminate; nor, upon the other hand, should our bodily powers or our mental energies be kept constantly on the stretch. There is a world of wisdom in the trite old line—

* * * “neque semper arcum tendit Apollo.”

The Python had ne'er been slain, and Niobe had ne'er been bereft of the children of her pride, had not the archer-god sometimes forsaken his bow for his lute.

There is no doubt that literary and professional men, and all other persons of inactive personal habits, would easily become free from most of the besetting ailments of their class, if they would regularly vary the monotony of their sedentary lives by a proper amount of exercise, accurately adapted to their peculiar tastes, strength, and inclination. When all of these particulars have been carefully adjusted, it is easy to predict a gradually improving state of health, in proportion to the regularity with which the new habits are observed.

“*The Retentions and Excretions.*”—Under this

head we have briefly to consider the functions of nutrition, and the discharge from the system of all useless matter. On the former point there is but little to be said in this place. In order to bring about the proper assimilation of food, we are first to regulate its use in accordance with the proper quantity and quality, and next to attend faithfully to the hygienic laws of life, such as those enjoining abundant exercise in the open air, rigid cleanliness, sound sleep, and tranquillity of mind. "The term excretion is applied to those substances which, when separated from the blood, are not applied to any useful purpose in the animal economy." Under this head are classed the discharges from the kidneys, the alimentary canal, the lungs and their air-tubes, and the external surface of the body. The whole of these are greatly affected by dietetic habits, and hygienic management generally; in fact, in a large number of cases of severe diseases affecting these excretions, a thorough cure may be effected by merely returning to a faithful observance of the simple laws of nature. The last one named, or the sensible and insensible transpiration through the skin, is especially worthy of profound consideration, although, from a variety of causes which I have no room to dwell upon, it is commonly regarded as of trivial importance. "Americans," says Professor Dickson, "are accused of a national neglect of the bath. We are said to content ourselves—and I speak not now of the poor, of the laboring people, but of the middle and upper orders, the great masses who claim to have attained a high

standard of social refinement—we are said, and I fear with some truth, to content ourselves rather with frequent changes of clothing than with the free use of water in ablution, for which there can be no substitute. How far we may be behind our Christian brethren of Europe, I will not pretend to pronounce; the great ‘unwashed’ are affirmed to constitute a numerous body among Teutons, Celts, and Anglo-Saxons abroad, as well as here; but it is certain that we all compare unfavorably with the older races of the East. * * *

But surely, under any contingencies, a Christian should wash his hands as often as a Mussulman or a Hindoo. Cool springs and running streams abound almost everywhere in our inhabited territory, whether of forest or prairie land, and our chief cities are supplied with fountains in royal munificence. From neglect of these matters flows naturally a culpable indifference to the neatness of the clothing, the house, the table, and all other domestic arrangements. All these points of habit are consistent, and we can thus account for the nuisance of the stained and slippery floors of the masticators of tobacco, which offend so many of our senses.” Home-truths all these, and yet expressed with plainness, and all proper moderation! As a general rule, we cannot too carefully attend to the health of the skin. When we barely consider that there are 2500 square inches of surface in a man of ordinary size, 7,000,000 pores, and nearly 28 miles of perspiratory tube,* we may

* See the admirable *Treatise on Healthy Skin*, by ERASMUS WILSON, M.D.

form some idea of the danger to be apprehended from entirely neglecting so vast an organ of transpiration and excretion ; but when we critically examine its structure ; its two different layers, the outer and the inner ; the perspiratory apparatus ; the nature of the oil-glands ; and the influence of diet, clothing, exercise, and bathing upon the health of the skin, no intelligent mind can fail to be struck with the need of rigidly observing those hygienic laws which tend to preserve it in proper tone and activity of function. A very striking illustration of the correctness of this position is cited by Professor Dickson, from whom I have before quoted : “ A little boy covered with gold foil, to appear as the symbol of the golden age, in a procession before Louis XIV., soon died from closure of the cutaneous pores ; and so,” he adds, “ have died, repeatedly, animals smeared over with an impervious gummy solution or varnish, for experiment's sake.” Facts like these can hardly fail to have some little weight with those who eschew personal ablution, and who would become hermetically sealed in like manner, were they left entirely to their own inclinations, and did not social decency absolutely compel them to shake off, now and then, their loathsome lethargy of rankness and filth.

“ *The Affections of the Mind.*”—Mental emotions have a singular influence upon bodily health. Not a few complaints originate solely in distress of mind or the undue exercise of some one or more of the exciting or depressing passions ; and the indication being in all such cases to remove the cause, no radical cure can

be anticipated until the mind itself is restored to its healthy tone. Mental anxiety is often more dangerous to combat than the disease which it complicates; and many a valuable life has been "fretted out" by the mind, when under other circumstances the body could easily have been maintained in a healthy state. The subject of mental hygiene is, however, too vast to be more than hinted at here. I can only say in general terms that, other things being equal, every thing that tends to invigorate the general health of the body likewise tends to give a proper tone and elasticity to the mind; the action is reciprocal and the benefit mutual.

Such, in brief, are some of the leading principles of hygienic management, when the object in view is the preservation of health and the prevention of disease. They are plain and simple and readily appreciable by the most ordinary capacity, and may be easily complied with as rules of life and action by every single individual of common intelligence. Were all mankind to follow them faithfully and thoroughly, little need would there be of a medical profession! There is no probability, however, of any such result in the present state of physical education; and it would savor too strongly of enthusiasm and romance to predict from present appearances that there is any such "good time coming." Still, I shall ever consider it the noblest department of our "divine science" to prevent disease; and nothing will give me more unmingled pleasure than the knowledge that any poor efforts of mine have contributed

in any way whatever to promote the diffusion of THE KNOWLEDGE OF HEALTH.

I come now to speak of what is termed in "the books" the *vis medicatrix naturæ*, or the great conservative tendency of the human constitution when exposed to disease, or suffering from its ravages. I am aware that it is maintained in many high quarters that there is no such power; but it has generally occurred to me that the matter is one of merely verbal criticism, and that those who deny its existence under its learned name, are not wholly unwilling to recognize its presence when speaking of a "good constitution," or "persons who possess a good deal of vitality." The idea, however, whether tangible (as I think) or wholly intangible (as some writers maintain, to whose weight of authority I bow with all respect)—the idea set forth by the term I have employed to designate this power is one which should arrest the earnest and profound attention of every thoughtful and philanthropic physician. His familiarity with this subject should be at least as extensive as his acquaintance with physiology; indeed, it should be generally considered an indispensable adjunct; for it is not only upon his knowledge of what properly constitutes the healthy state, but also of those natural, hygienic laws by whose close observance that healthy state may be prolonged, and even heightened, that the sound physician will base his chief hopes of success in professional practice. He must be able to discover, not only the proper diagnostic symptoms of disease, but also the exact condition of the vital energy of the pa-

tient, as it had been developed and controlled by his previous habits of life. He must not only learn how to ascertain accurately the "scrofulous diathesis," but add to this knowledge an intimate acquaintance with what properly constitutes a "high state of health," as distinguished from "cacexia," or that depraved habit of body which is acquired by all who grossly neglect the laws of hygiene and nature. He will thus be able to ascertain with almost complete precision the exact kind of cases which either expressly demands, or as unequivocally contra-indicates the active interference of his art; he will readily become familiar with the circumstances which are most likely to form an insuperable barrier to the recuperative struggles of nature, when the vital powers have been assailed by disease; and he will be at little loss to know positively what remedial agents are either beneficial or deleterious in their various modes of employment. With such acquirements as these, a physician may safely lay claim to the character of an enlightened member of a noble profession. Coolly disregarding the popular tendency to underrate and even ridicule the power of nature and correct hygienic management, with respect to the prevention and cure of disease, he will not hesitate one moment to enlist in his service two allies so potent for good; and by a judicious reliance upon the *vis medicatrix naturæ*, or "the power and skill of nature's doctors" (as this phrase, now become classical, has been rendered in our vernacular), he will go very far as one individual to redeem his profession from a stigma now

resting upon it: that, "*instead of leading man back to the forsaken paths of nature, physicians have preferred the easier plan of ministering to this altered condition by the ingenious and stupendous system of modern therapeutics.*"* When a rebuke so severe as this is thus plainly addressed to the medical profession by one of its own members, it is exceedingly questionable, to say the least, whether the kind of knowledge which may be derived from studying nature and hygiene has ever been rated at its proper valuation within or without the healing fraternity; and may we not find in it, besides, a correct clue to the process by which so many physicians are converted into mere "routine practitioners," treating all persons alike, as if they were so many patent machines, turned out by the gross or the hundred from the same manufactory! But there is a gratifying change of opinion and sentiment now gradually at work among intelligent minds in relation to this point. Nature is now more earnestly studied than ever before, and her laws better obeyed; hygiene is widening her sway every hour; and we are beginning to discover very important agents for good growing out of a proper attention to the several "non-naturals" I have before described. We are fast learning the value of pure air; a judicious diet; healthy digestion, assimilation, and excretion; sound sleep; a uniformly comfortable temperature of the body; regular exercise, and tranquillity of mind. We are beginning to discover

* Dr. Kneeland's Boylston Prize Essay on Hydropathy: Am. Jour. of Med. Sciences for July, 1847.

that the elysium shadowed forth by the old classic phrase, *mens sana in corpore sano*, is only to be attained by a close observance of the laws of hygiene, both physical and mental; and such knowledge as we are thus acquiring may be said to establish these three positions:

I. The regular observance of those habits of life which sound experience and ripe judgment have proved to be instrumental in preserving and invigorating the general health, will so far diminish the risk of exposure as to render one proof against almost every form of disease.

II. Sickness and suffering invariably result, sooner or later, from neglect of the laws of nature and hygiene.

III. Directly in proportion to our neglect of those laws will the powers of nature decay, while those of disease will be strengthened.

The career of Howard the Philanthropist is a very striking illustration of the truth of the assertion that the proper observance of natural, hygienic laws will render one proof against disease in almost every form. We are told* that the personal habits of Howard were exceedingly singular in his day and generation, just as they would be, perhaps, in our own. "He bathed daily in cold water; and both on rising and going to bed swathed himself in coarse towels, wet with the coldest water; in that state he remained half an hour or more, and then threw them off refreshed and invig-

* Pratt's Gleanings, 1796.

orated, as he said, beyond measure. He never put on a great coat in the coldest countries; and he had not for the last ten years of his existence ate any fish, flesh, or fowl; nor sat down to his simple fare of tea, milk, and rusks all that time. His journeys were continued from prison to prison, from one group of wretched beings to another, night and day; and when he could not go in a carriage, he would walk. Such a thing as an obstruction was out of the question." In answer to those friends who (to use his own words) "threw away their pity on his supposed hardships," he would reply to this effect: "A more puny youngster than myself was never seen; if I wet my feet I was sure to take cold, and I could not put on my shirt without its being aired. I therefore entered upon a reform of my constitution, and succeeded to such a degree, that I have neither had a cough, cold, the vapors, or any more disorder, since I surmounted the seasoning." No human being is known to have exposed himself more greatly to the influence of pestilential causes than Howard. "In the period of sixteen or seventeen years," says his biographer, "he travelled between fifty and sixty thousand miles, for the sole purpose of relieving the distresses of the most wretched of the human race. Plague and pestilence and famine, instead of being evils that he shunned, were those with which he was most familiar. To many of their horrors he voluntarily exposed himself—visiting the foulest dungeons filled with malignant infection, spending forty days in a filthy and infected lazaretto, plunging

into military encampments where the plague was committing its most horrid ravages, and visiting where none of his conductors dared to accompany him ;” and throughout all this he subsisted solely on his plain and simple diet, carefully avoiding the use of wine and alcoholic drinks ; and such, moreover, “ were the accuracy of his observations, and the soundness of his judgment, that, although not himself a physician, yet he was more successful in treating the plague than any of the physicians where he went.” With such vast opportunities for forming an opinion of the efficacy of hygienic management, no other man has ever been favored. The following citation will give a fair idea of his conclusion on this point, expressed as it is in his own decided and emphatic language : “ If we would trust more to NATURE and suffer her to apply her own remedies to cure her own diseases, the formidable catalogue of maladies would be reduced by one-half, at least, of their present number.” It is likely, however, to continue long the main office of the medical profession to palliate disease rather than prevent or cure it radically. So firmly fixed are the habits of life in a population like ours, that it is exceedingly questionable whether the great majority would not unhesitatingly prefer unlimited dosing and drugging every day of their lives rather than submit to any change, or part with any one habitual bodily indulgence. It is more popular by far to swelter in close and stifling rooms than breathe pure, fresh, invigorating air ; to be dainty and extravagant in diet, instead of aiming ever

at healthful simplicity; to lead sedentary lives, or to lounge away existence in unmeaning trivialities; and especially to neglect thorough personal cleanliness on the score of inability to find time to attend to it—perfumery and cosmetics being cultivated in their stead at far greater trouble and infinitely more cost. Mental excitement is, also, a passion among us: witness that morbid appetite for something new or strange that attracted so many thousands to the Astor-Place riot at the very peril of life itself. In fact, such a thing as tranquillity of mind is generally voted an unfailing diagnostic of the tamest flatness or most hopeless simplicity. No wonder that aberrations of the intellect are so common among a people like ours, and no wonder that when the physician is asked, as was Lady Macbeth's—

“Canst thou not minister to a mind diseased?”

he should be so often forced to answer, in precisely his vein—

“Therein the patient
Must minister to himself.”

Under existing circumstances there are, therefore, a great many prejudices to be overcome by the enlightened practitioner, who aims to effect a radical cure through the aid of nature and hygiene, instead of contenting himself with mere palliation. It very often happens that the intelligent physician is obliged to resort to some clever artifice in order to disguise the simplicity of a prescription, which an invalid would absolutely re-

fuse to follow, were he really aware of its exact nature. Lay not the blame of this to the medical profession! Does not the fault lie rather in the blind perverseness of the patient?

The subject of the healing power of nature is, in all its extent, vividly suggestive of a great variety of interesting considerations; but I have here no space for prolonged investigation. An exceedingly interesting field for inquiry lies open in the relation of the curative processes of nature to surgical treatment; and I regret that my limits will only permit me to glance over it in haste. What else is the practice of surgery but a close pursuance of natural laws? That man is ever the safest and most expert surgeon who most thoroughly studies and most closely follows the ways of nature. Such a one finds that the various processes of inflammation, for instance, are subject to certain clear and well-defined laws, and that it must be his constant care either to conduct those processes to a healthy and natural termination, by studiously warding off all disturbing causes, or to modify their action whenever nature is unable, as in cachectic cases, to conduct the cure alone and unaided. The surgeon is, perhaps, the one of all others who is best able to appreciate the *vis medicatrix naturæ*. He finds, sooner or later, that he must content himself with being a prompt and efficient ally of that wonderful power; that the boasted resources of his art are mainly subsidiary to nature, and that without a most liberal allowance for her resources, and the nicest calculations based upon her powers, his greatest skill will

be almost utterly vain. In the treatment of external wounds, fractures, dislocations, and arterial diseases, it is his office to supply certain necessary conditions, but it is NATURE alone who is able to heal. It is the gross disregard of this plain, simple truth which every year hurries so many unfortunates to untimely graves. It almost invariably happens, after any dangerous accident, that there is a clamorous demand on the part of the crowd, which always gathers around the scene of disaster, that the stunned and helpless sufferer should be immediately bled, as if there were some magical charm about blood-letting that would immediately restore life, and consciousness, and health; and practitioners will sometimes be found who are base enough to comply with a demand thus preposterous, merely because it is popular. The consequence is, as any sane man might expect, that the sufferer dies (or, rather, is killed); whereas his life might have been saved almost to a moral certainty, had time been allowed for nature to rally her forces and prepare herself to labor, with her accustomed promptness, in faithful co-operation with the means and appliances of enlightened art. A great deal is to be learned from the following incident in the life of Cornaro. When seventy years old, he happened to be overturned in a coach and very seriously injured. "I received," he says, "so many shocks and bruises, that I was taken out with my head and all the rest of my body terribly battered, and a dislocated leg and arm. When I was brought home, the family immediately sent for the physicians, who, on their ar-

rival, seeing me in so bad a plight, concluded that within three days I should die. Nevertheless, they would try what good two things would do: one was to bleed, the other to purge me, and thereby prevent any humors from altering, as they every moment expected, to such a degree as to ferment greatly and bring on a high fever. But I, on the contrary, who knew that the sober life I had led for many years past, had so well united, harmonized, and disposed my humors as not to leave it in their power to ferment to such a degree, refused to be either bled or purged. I just caused my leg and arm to be set, and suffered myself to be rubbed with some oils which they said were proper on the occasion. Thus, without ever using any other kind of remedy, I recovered, as I thought I should, without feeling any alteration in myself, or any bad effects from the accident—a thing which appeared miraculous even in the eyes of the physicians.” But a volume might be written on a subject so expansive. I am forced, however, to content myself for the present with the brief (and I fear unsatisfactory) effort I have made to establish these two positions: 1st, That, other things being equal, every one of ordinary intelligence can easily attain and preserve a high state of health, with only a reasonable amount of care and perseverance, and, as a necessary consequence, with no occasion whatever for the employment of medicinal poisons; and 2d, That NATURE, ever watchful, kind, and generous, is the most faithful and reliable physician within the reach of those who duly obey her laws of life.

I now pass on to the consideration of what seems to my mind the most natural, safe, and philosophical mode of medical treatment yet known to our art: **HYGIENIC MANAGEMENT AND THE TREATMENT BY WATER.** I do not propose, however, to enter into any detailed history of the career of hydropathy up to the present time, any minute description of its several processes, or any labored argument in support of its claims to a respectful consideration from every intelligent member of the healing fraternity. Such a task would now prove more than ever gratuitous, in view of the bold, manly, and conclusive observations on this subject, of Drs. FORBES and WILSON. When medical writers of their high position become the voluntary champions of the hydropathic treatment, it can no longer be denounced as "empiricism," or disposed of with a sneer—most certainly not by mere routine practitioners, who make "regular treatment" the mantle for their lazy indifference or obstinate ignorance.

Before proceeding to give some of my own views upon this subject, I would here repeat what I have said in the preface: I have preferred to reproduce the admirable papers which compose the greater part of this volume, without notes or material abridgment, for the purpose of securing their distinguished authors an uninterrupted hearing. I reserve, however, the privilege of not holding myself rigidly bound to endorse every one of their peculiar views. There are but few points, to be sure, to which I am disposed to take any exception, and these are comparatively of an unimportant

nature; still, I cannot help preferring not to "pin my faith upon any man's sleeve," but to keep myself entirely unfettered by all bonds or chains, save those I may see fit to assume of my own free will.

And here I would take occasion to express my decided dissent from those members of the community who denounce so bitterly *all* "regular practitioners." That there are individual members of the profession who are sadly deficient in the chief requisites for the proper exercise of their noble calling—a good heart, perfect integrity, and a frank, liberal, generous nature, joined to a thorough classical and medical education—he must be a rash man who will venture to deny. There are unworthy members of all professions. Still, the community has very good cause for entertaining a high and unfeigned respect for the honest and enlightened members of the profession as a body; for there are among them men who would adorn any calling—men as upright and honorable as any in the world, for they evince their sincerity in the plainest mode conceivable, both living and dying by the medical doctrines they profess and practise. To style such men deliberate "poisoners" and "assassins" is the height of error and injustice; no matter what ill success may attend their practice at times, such failures being plainly attributable, other things being equal, to a false mode of education, and to the habit of relying upon medicinal poisons in preference to nature. There is a strong reason, besides, for believing that a great many patients are the victims of self-induced maladies; and there is but lit-

tle doubt that quite a large proportion of the "errors in medicine" which are visited upon the heads of the "regular practitioners," originate solely in the blind, ignorant, and superstitious demand of the great mass of the community for drug-palliation. Whenever there is a strong demand, a ready supply is sure to follow; and it is not so very wonderful that, if people *will* be dosed and drugged, practitioners can easily be found, who, in Dr. Kneeland's phrase, are willing to "minister to this altered condition." Again, I say, therefore, to all one-sided cavillers against the regular practitioners, "Do not blame the medical profession *so much as yourselves*; and if you are really desirous of reforming your ways, acquaint yourselves fully with the anatomy and physiology of the human constitution, try to obtain some definite knowledge of the laws of health; learn to believe that *all medicines are poisons*, as every honest and intelligent physician will admit, and there is but little probability of *your* ever being 'dosed and drugged to death,' provided you are only faithful to your task and earnest in seeking out *the whole* of the truth."

The charge of "empiricism" is a dreadful bugbear to a great many minds; but in the legitimate sense of the term there is nothing about it peculiarly appalling. Hooper says that an "empiric" is "one who practises the healing art upon *experience* and not theory." Now this is all well enough, so far; no doubt every one would sooner trust an experienced physician than one fresh from the clouds; but what says Hooper farther on?

“This is the *true* meaning of the word empiric; but it is now applied, in a very opposite sense, to those who deviate from the line of conduct pursued by scientific and regular practitioners, and vend nostrums, or sound their own praise in the public papers.” In other words, “Empiricism” does not mean “empiricism,” but “*quackery!*” A very extensive signification truly! But why not say “quackery” outright? It has a good, loud, sonorous twang, and carries along with it a very fair idea of its meaning, while “empiricism” does not. However, we must take that definition, I suppose, which popular usage has assigned to the phrase; so now for the gist of all these remarks. I will here bring to bear a case exactly in point. “When I was at college,” says Dr. JAMES WILSON, of the Water-Cure establishment at Malvern, in England, (the same excellent physician to whom Sir BULWER LYTTON is so grateful in his “Confessions”)—“When I was at college, from over-work combined with other imprudencies, I was attacked with a fever of a mixed typhus and bilious character. I was attended by Dr. STOKES, who has since made himself known as one of the most eminent physicians of the day, with unremitting kindness and attention. I was above a month in bed, leeches, blistered, and my head shaved, and great quantities of cold water were poured over the head. There was an extreme state of debility for months afterwards. From what I have seen and experienced since of similar states of disease, there is no doubt but that a few wet sheets, etc., etc., would have sent me out walking in some

days, with little or no debility. I sent one of my books to Dr. Stokes by a patient. When it was presented with my grateful remembrances, he said, with a sigh, 'Ah! I never taught Dr. Wilson empiricism.' Thus this distinguished physician, whose good opinion I have always coveted, in the politest way it could be done, insinuated that I countenanced quackery. But I have learned patience; and I have no hesitation in predicting that, before two years are past and gone, Dr. Stokes will be practising in his hospital what he now deems a quackery. I do this boldly, from the unbounded confidence I have in his intelligence, vast medical knowledge, and that uncompromising rectitude which in him is hereditary." Now Dr. Stokes's allegation has quite enough pith and point to render it well worth while to examine it in detail. The water treatment he places under the ban of "empiricism"—that is, in plain English, *quackery*. This charge, we have seen, as now understood, embraces three several indictments:

I. The hydropathist is accused of "vending nostrums." "This word *nostrum*," says Hooper, "means *our own*, and is very significantly applied to all quack medicines, the composition of which is kept a secret from the public and known only to the inventor." Perhaps this particular charge against the hydropathic school may be a novel one to the reader; still, it is one that was brought indirectly, some years ago, against PRIESSNITZ himself. It seems that "the paternal government of Vienna, in its anxious care for the health of its subjects, sent a commission of medical men to

Graefenberg, to inquire into the real state of affairs. Fortunately for the Water-Cure, old Baron Turkheim, the head of the medical department of the empire, was also at the head of this—a man celebrated for his independent spirit, his great learning, and scientific acquirements. He stayed some time at Graefenberg, and on his return to Vienna, being at a medical society, he was asked what he thought of “the new charlatanism;” he replied, “Priessnitz is an honest man and no impostor, and his mode of treatment is more successful than ours; believe me, gentlemen, you have much to learn from this countryman.” This made the sages of Vienna still more angry and violent against the Water-Cure and its founder—shutting up the avenues of their understanding against the evidence of their senses, notwithstanding the accumulated facts which presented themselves among their patients, who, leaving them with little hope, returned in perfect health. The commission analyzed the water to discover its mystic virtue; but they were disappointed to find that it was nothing more than pure spring water! The sponges he used were also examined with great care, to see if they contained any secret remedies. After this, Priessnitz threw away the sponges, and has never used them since, finding that rubbing with hands—“flesh to flesh”—was better. (At the time I speak of, he was called the Schwamm, or sponge doctor.) He was now taken under the protection of the government, and additional police placed at Freiwaldau, to note the number of patients, and report the deaths and other results of the

treatment. To 1841 he had treated 7219 strangers, and there had been 39 deaths. Some of these I found by the registry had died before commencing the treatment, and some others were reported in a forlorn state before any thing was attempted."* So much for the charge of nostrum-vending—a charge which falls to the ground of its own weight and stupidity. [I might cavil a little, in this place, at the expense of some of the "regular practitioners," for their use of such *nostrums* as *James's Powder*; but this would be displaying a little of a spirit I despise; so this is a point for retaliation I very cheerfully let drop.]

II. The hydropathist is also accused by implication of "sounding his own praise in the public papers." This charge is hardly more tenable than the other. It is the open, avowed, and unblushing quack—the man of pills, elixirs, and panaceas—who is most given to this sort of thing; and I have yet to learn that such a mode of self-trumpeting is a peculiar characteristic of any respectable hydropathic physician. Legitimate advertising and the publication of works on the water treatment are very different affairs, of course, and do not properly come under this particular "charge." I know of no good reason why the honest physician should not publish his card of announcement as freely as he pleases, under the judicious restraint of public opinion and a proper degree of self-respect; and with regard to the publication of medical works, I do not know that there is any especial reason by which this

* Dr. James Wilson.

practice should also be tabooed by the profession. The public generally regulate this matter for themselves. If a work appears, for which there is an existing demand, the public will buy it; if no one wants it, it is quietly left on the publishers' shelves. In this connection, the following citation from Dr. James Wilson is not wholly *mal à propos*: "Popular works on the art of healing are considered *infra dignitatem*, but I may be allowed to think professional dignity—even supposing it infringed upon—to be of secondary consideration in this matter, seeing that it will not assist in restoring a shattered constitution, make a man happy in the possession of sound digestive organs, cure gout and rheumatism, or prevent apoplexy and consumption. To write on the Water-Cure for medical men alone, would, at the present moment, be a waste of good ink and paper; in this I was confirmed by a recent visit from an old medical friend, whose first complimentary question was, 'Well, are you here still, and is there really something in the Water-Cure?' I asked if he had not had the curiosity to read any of the works written on the subject. 'Not a syllable,' was his reply. In the meantime the multitude are suffering, and to a great extent unnecessarily, under a variety of diseases, and if medical men will not inquire for them, they shall have the opportunity of inquiring for themselves. Facts are simple as well as stubborn things, and they can be well understood by persons to whom their rationale cannot be fully explained."

III. The remaining charge is one which really has

some foundation: the hydropathist being accused of "deviating from the line of conduct pursued by scientific and regular practitioners." Herein lies the whole gist of the controversy. The hydropathist is virtually "read out of church" because he treats disease by the application of PURE, SIMPLE, FRESH WATER in its many and various modes of employment—accomplishing (as he alleges) all the good effects he could hope for, *without doing the constitution any harm whatever*; while the "regular practitioner" treats disease by DRUGS AND POISONS, which he admits do *some* mischief, while he insists upon it that they are absolutely necessary to the restoration of health: a little harm being done to bring about some great good. The hydropathist contends that although he wields a single weapon—in connection, of course, with hygienic management—yet it is of wondrous power in cool and brave and skilful hands; nor does he admit that it is in any respect so harmless and inert as is vulgarly supposed; he believes that its abuse, like that of all strong remedies, is sure to be followed by dangerous and possibly fatal results. He maintains that he finds in pure, soft water the true "fountain of youth," and he invites all without distinction to come freely and partake of its benignant healing. To the young, especially, does he commend an intimacy with the bright, sparkling element, for he greatly prefers prevention to cure; and it is a pleasure to him to teach the plastic and untainted mind of ingenuous youth how to preserve the bloom of early freshness and beauty, and how intimately connected

are physical and mental purity and health. Nor, while successfully treating chronic complaints, does he shrink from a contest with acute diseases; nay, he courts it rather as displaying to advantage the power of his mode of cutting short such attacks; and to guide him he has rules of philosophical beauty and mathematical precision. He rides no hobby and he follows no routine. When he visits a patient he carefully determines within his own mind the amount of vitality and nicely adapts the treatment to his strength, always watching for and promptly paying heed to the silent importunity of nature's supplications. He does not fear at any time to allay parching thirst, or to cool down great heat; in fine, he treats the symptoms just as they arise. He stupifies no nerves; nor does he deprave their function; he rather aims through them to develop vital strength, and that not rashly by the undue use of any alcoholic or medicinal stimulants, but by means of a safe and judicious stimulation applied through the surface and its internal continuation, by means of air, diet, exercise, and water. He has so educated his faculties that he is able to recognize promptly the indications of nature; he finds her always striving in acute disease to throw off the disorder from the more important organ upon one of less consequence—the skin, the bowels, or perhaps the kidneys. He finds her generally competent for her task, when there is enough vital energy, but he is always ready to assist her, by the active interference of his favorite art, whenever her efforts are likely to be unavailing.

The "regular practitioner" has his choice of remedies among a thousand varieties. He has laid under contribution earth, sea, and sky—mountain, valley, and plain—wood, field, and dell—the animal, vegetable, and mineral kingdoms, each and all—in order to obtain his medicinal agents. Of these he makes his appropriate selections, yet ere long he, too, resorts to his single weapons when frequent use has made them familiar to his hand. He knows that his medicines are in reality poisons and believes them to be totally unfit for human consumption in time of health, but when disease has supervened he is fully of opinion that he must introduce into the system some one or more of them, simple or combined, as the case may be, to exorcise the demon and put the monster to flight. He knows that injury is done to the general health by the use of his compounds, but he holds firmly to the doctrine that an evil which he deems trifling should not be taken into account when the action of his specific has been (as he thinks) so prompt and efficacious. Does his dose prove simply and solely palliative? He still continues its use. Does it lose its power? He makes a new selection. And so he goes on, with faith unwavering and judgment undisturbed, rejoicing in the varied resources of his art, and seldom troubling his mind with the thought that his efforts very often produce great "vexation of the spirit," even when they do not literally "mortify the flesh." Rarely indeed is he so fortunate as to avoid leaving as a sequel to the complaint he was called on to treat, a new disease far

more serious and dangerous. He thinketh that *blood-letting* is the right arm of the profession, and he obstinately persisteth in shutting his eyes on the grisly monsters that follow in its train: pain, feebleness, and derangement of the system—catarrh, headache, dyspepsia, and dropsy—a small, puny, wiry pulse, and other symptoms indicating ossification or some other change about the left valve of the heart—precisely such effects as Magendie has proved to constitute the result of profuse bleeding. He resteth upon his *mercurial* as upon a two-edged sword; and so it is proved at the cost of the patient: for every blow which seems to take effect so charmingly on the disease, strikes also at the constitution with equal force. He hath profound confidence in *iodine* in scrofulous cases, and some indistinct idea that it will work such changes in his patient by virtue of its “alterant” action as to make a new man of him, all over. Perhaps his secret delight is in *cod liver oil*; he never stops to inquire whether Providence or nature ever designed that such a substance as the foul, rank, nauseous exudation from decaying cod livers thrown together in heaps—no matter how nicely “clarified” afterwards—should, in any contingency, be introduced into the human stomach: he is contented to know that it is “fashionable in phthisis,” and he thinks that he too must use it, or he will be set down by his professional brethren as “not well posted up.”

But I have no inclination to pursue the parallel: it is an ungracious task, and I am not clear in my own

mind that it would prove of any decided advantage or contribute to the settlement of a long-vexed question. Suffice it to admit the *literal* truth of the allegation which we are now considering: there is no doubt that modern hydropathy is a direct deviation from *modern* allopathy, if we are to include in that school only the so-called "scientific and regular practitioners." The question now arises, however, *Whether modern allopathy is not itself a deviation from the "regular and scientific" practice of older days?* Has it been always and invariably "true to its mission," or has it become itself "empirical" by departing more and more from the ways of nature and the judicious use of a few simple remedies, and by substituting in their stead *the mere* PALLIATION of symptoms by means of the most subtle and dangerous poisons? Herein, I conceive, lies the true point at issue; and if the citation I have made from the prize essay of Dr. Kneeland carries with it any weight, modern allopathy, in spite of its "regular and scientific" mantle, stands convicted before the world on the very same charge it would bring against its rival. I do not care, however, to prolong this controversy. I have only ventured to say thus much on the subject of "empiricism," because it is one on which every respectable physician cannot but feel sensitive, and because it is one upon which the most clear and distinct ideas should be generally entertained. I have only to add that if the hint I have thrown out with regard to allopathic "deviation" from a "regular and

scientific" mode of medical treatment were to be thoroughly followed up, it is not too much to say that enough would be proved to make all practitioners of that school exceedingly chary of bandying a word so significant and offensive.

On the interesting subject of THE ANTIQUITY OF THE WATER TREATMENT I have culled here and there a few additions to the observations on that head which have already been made by Drs. FORBES and WILSON. The inhabitants of the sultry climate of the East seem to have resorted to BATHING at a very early period as a means of bodily purification and invigoration. We read in the inspired writings that Jacob commanded his family to purify themselves before going to Bethel to sacrifice ; and Job speaks of a like purification by snow-water. We read also of the daughter of Pharaoh bathing in the Nile ; as well as of the Mosaic laws of personal cleanliness ; and the delightful pages of the old classic authors have made us familiar with many similar peculiarities. Who that has pored over them in his boyish days does not remember the river-bathing of Nausicaa and her companions, and how the Amazons preserved their resolute daring by frequent baths in the waters of the Thermodon ? Homer has described with pleasing minuteness the bathing of Ulysses and Diomedes—Andromache preparing a warm bath for Hector on his return from battle—and Penelope as resorting to the bath to relieve the tedium of her solitude and sorrow. Minerva is represented as having imparted fresh vigor to the

wearied Hercules by similar means; and Vulcan is said to have offered him warm baths in place of other gifts. Virgil describes the bathing of Æneas before his sacrifice to the gods above, and the "aspersion" enjoined in Dido's sacrifice to the gods below. The baths of the Assyrians, Medes, and Persians—of the last especially—were carried to a very high degree of luxury, insomuch that even Alexander the Great, familiar as he was with the voluptuous baths of Macedonia and Greece, was amazed at the magnificence of those of Darius. The natural warm baths of Bithynia and Mytilene, mentioned by Pliny, and those of the Etruscans, were among the most early known, and extensively employed for hygienic purposes; and I hardly need advert to the Roman baths in the times of the emperors as far surpassing in sumptuous grandeur any thing known even at the present period. So much for the antiquity of the habit of bathing, so "mightily neglected in modern days." I now turn to speak of some of the ancient methods of employing WATER medicinally.

The very "Father of Medicine," HIPPOCRATES himself, was in the habit of using this simple remedy in his treatment of disease. We are told that, in order to produce *diaphoresis*, or perspiration, "he did not resort to the use of internal remedies, but merely poured warm water over the head and body, and then heaped clothes upon the patient, which would produce the desired effect, without the irritation of the internal organs, consequent upon the administration of powerful

diaphoretics.” “Hippocrates,” says Sir John Floyer,* “advises us to be more careful in the use of cold things than hot, because ’tis less agreeable to our natures; yet he freely recommends cold applications in hæmorrhages, and all inflammations while recent; but it blackens old inflammations. . . . If he had designed the description of cold baths and their effects, he could not have done it more plainly than in the following words: ‘Both hot and cold water are good for the tumors of the joints, and for podagricks pains without ulcers, and most part of convulsions. He that pours upon any part much cold water, extenuates it by causing sweats, and stupifies the pain, and a moderate stupor takes away pain. Hot water extenuates the same and softens them. Both the hot and cold baths are good for the gout, resolution of any part, distentions, convulsions, and such like; for stiffness, trembling, palsies, or slight apoplexies, and such like; for lameness, torpors, loss of speech, and suppressions of the inferior parts.’” “Hippocrates,” adds Sir John Floyer, “also recommends temperate bathing for inflammations of the lungs, and pain of the back, sides, and breast.” In another place Sir John says, as justly as shrewdly, “Nature seems to have taught all nations the use of cold water, where the art of physic has never been yet known, as in Tartary, Muscovy, and among the Indians; so that we may esteem the use of cold, as well as hot baths, to be from the dictates of our natural reason and senses, whereby we are taught

* History of Cold Bathing; Letter II.; A.D. 1700.

to heat ourselves by fire, and cool our overheated bodies by water. Cold baths were older than Hippocrates's art, not the product of any hypotheses, but established by the experience of all mankind in the colder climates."

I may add, in this connection, that Hippocrates was perhaps the earliest promulgator of the idea set forth in the term *vis medicatrix naturæ*. "He advanced," says Hooper, "an opinion which has since very generally prevailed, that there is a principle or power in the system, which he called NATURE, tending to the preservation of health and the removal of disease. He therefore advised practitioners carefully to observe and promote the efforts of nature, at the same time correcting morbid states by their opposites, and endeavoring to bring back the fluids into their proper channels." He seems to have deprecated the rash and undue use of medicinal poisons, and to have relied very greatly upon what is now termed the "expectant" treatment. In point of fact, Hippocrates was, to the extent of his knowledge, a very skilful "hygienic and hydropathic practitioner."

GALEN, who lived in the second century, and whose chief object in his writings appears to have been (according to Hooper) to illustrate those of Hippocrates, cured fevers with cold baths; and perhaps it was in this way that his "fortune" was "made," he having succeeded in curing of some such affections the two sons of the Emperor Marcus Aurelius. CELSUS, also, recommended the use of water in the cure of certain

diseases, and advised especially the washing of the head with cold water to prevent rheums, pains of that part and of the eyes. And here it may not be irrelevant for me to refer the classical reader to an Epistle of Horace to Numonius Vala. I know it is one with which most scholars are familiar, but I could wish that they would pay some little heed to *the thought* which lies imbedded in the epistle, and not devote all of their attention to its peculiarities of style and humor, and scathing sarcasm. Let them laugh as much as they please at the portrait of “the diner out,”—

“Scurra vagus, non qui certum præsepe teneret,
Impransus, non qui civem dignosceret hoste,”—

or at the idea of the poet forcing his unwilling horse from the familiar road to the warm baths of Baiæ, and urging him on towards the cold baths of Velia and Salernum; but let them bestow some little reflection upon the reason of the thing and the motives which influenced the director of his course. For the benefit of the uninitiated (and at the risk of being set down as an incorrigible pedant), I venture to append a little of “the story.” It seems that the Emperor Augustus was once severely ill of some gouty disease or rheumatic affection, and that he became reduced to a state of extreme emaciation under the treatment of his physician Æmilius, who made use of hot applications to so great an extent that he even had the curtains of the imperial bed made out of sheep-pelts. Now in this stage of the difficulty, the “hydropathic” physician of

those times, ANTONIUS MUSA, was "called in" to the emperor, and, contrary to the general usage of his contemporary practitioners, treated his imperial patient with cold baths and affusions, gargles and drinks, and with such skill and success, that he was in a short time cured. Antonius Musa was subsequently presented by the emperor, out of gratitude for his services, with a large sum of money, exempted from all public taxes, made free of Rome, allowed to wear a gold ring, and honored with a public statue in the temple of Æsculapius. The new remedy, the cold bath, accordingly came wonderfully into vogue, and the warm baths which had hitherto been mainly employed, began to grow cool in popular favor. Antonius Musa, who was strongly attached to the system of treatment that had saved the life of his imperial patient, prescribed the cold bath for Horace for some disease of the eye.* The poet therefore addresses an epistle to his friend Numonius Vala, who had been using for some time the baths of Velia and Salernum, in order to obtain information respecting the climate of those places, the manners of the inhabitants, etc. But to pursue my epitome.

BOERHAAVE, who flourished at Leyden in the early part of the eighteenth century, recommends the use of water to render the body firm and strong; and (singular to relate for a medical man!) "being of a vigorous

* The papers have lately announced the recovery of Mr. Justice M'Kinley, of the Supreme Court of the United States, from a similar disease, and under similar treatment.

constitution and accustomed to much exercise abroad, he met with little interruption from illness" up to his sixty-second year. It is no more than fair to infer that a great share of his "good fortune" (as some people will term it), with regard to his health, is to be attributed to his use of the element he had recommended. HOFFMAN, of Saxony, a contemporary of Boerhaave, also wrote on water as a curative agent: "If there exists any thing in the world" (such is his language) "that can be called a panacea, it is PURE WATER: first, because it will disagree with nobody; secondly, because it is the best preservative against disease; thirdly, because it will cure agues and chronic complaints; and fourthly, because it responds to all indications." Dr. T. SIGISMUND HAHN, of Silesia, wrote a work "On the Curative Effects of Water," in 1738. He gives instances of the remarkable cure by water of St. Anthony's fire (erysipelas), small-pox, and the whole family of the exanthemata, as well as many cases of insanity. The Rev. JOHN WESLEY, the founder of Methodism (and one of the most clear-sighted clergymen of whom we have any record, with regard to the prevention and cure of maladies), published a work in 1747, on the WATER TREATMENT (which went through thirty-four editions), called "*Primitive Physic, or an Easy and Natural Method of curing most Diseases.*" But one of the very best works on the water treatment is that of JAMES CURRIE, M.D., F.R.S., Fellow of the Royal College of Physicians at Edinburgh, entitled as follows: "*Medical Reports of the*

Effects of WATER, cold and warm, as a Remedy in Fever and other Diseases, whether applied to the Surface of the Body or used Internally." The work is in two volumes,* the first of which includes "An inquiry into the circumstances that render Cold Drink, or the Cold Bath, dangerous in Health; to which are added observations on the nature of Fever, and on the effects of opium, alcohol, and inanition;" while the second volume consists mainly of Dr. Currie's experience of his Remedy, subsequent to the second edition of the preceding volume, and of important communications upon the same subject. Dr. FORBES has already given the reader some idea of this work, which is one of really philosophical beauty and completeness, unusual elegance with respect to style, and the most scientific precision as regards the rules and *rationale* of "the new treatment." I would that I could include in this compilation something further from the pen of so pure a man as Dr. JAMES CURRIE, for *he* is a writer whose "orthodoxy" is unquestionable; but my limits compel me to refrain from so doing, and to content myself with the hope that the public may call for a revival of his work at no distant day.

Of VINCENT PRIESSNITZ it is needless for me to say much in this place; his career and reputation are familiar to the public, and sufficient has been reprinted

* I believe it is now very rarely to be procured. I have in my own possession the Philadelphia edition of 1808, two volumes in one, printed from the fourth London edition, corrected and enlarged, "for James Humphreys, and for Benjamin and Thomas Kite."

in this compilation to enable those of my readers who were unacquainted with his system before to form an intelligent opinion of his merits.

As an appendix to my remarks on the subject of "empiricism," I trust that this brief enumeration of the medical writers, the "cloud of witnesses" who have clearly testified from the earliest times in favor of water treatment, may not be deemed out of place, or wholly without value. It would be easy to expand and extend the list, but I have not felt disposed to run the risk of thus wearying the reader—especially since a great deal of information about the ancient uses of water is to be gleaned from the popular works on hydropathy.

THE END.

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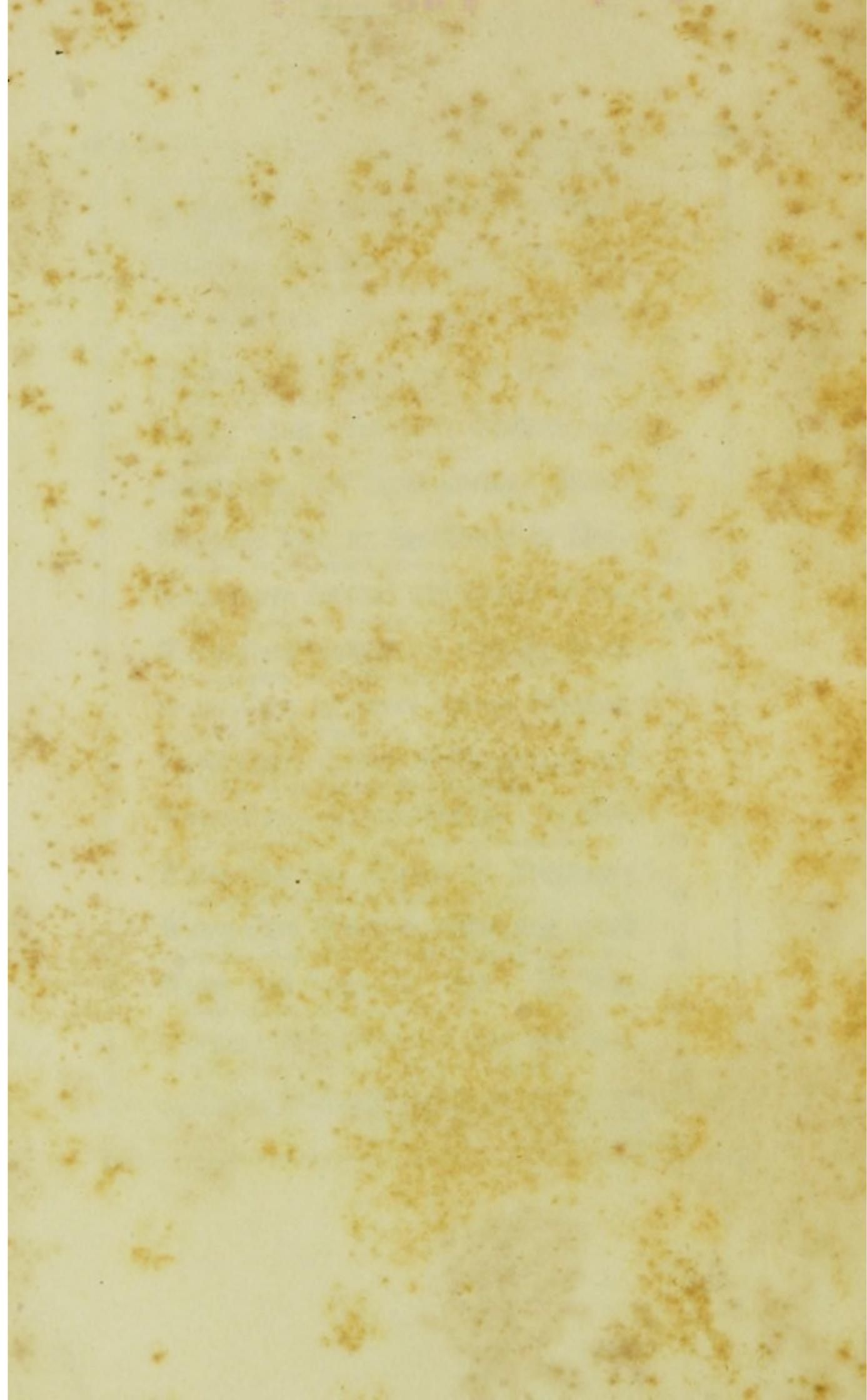
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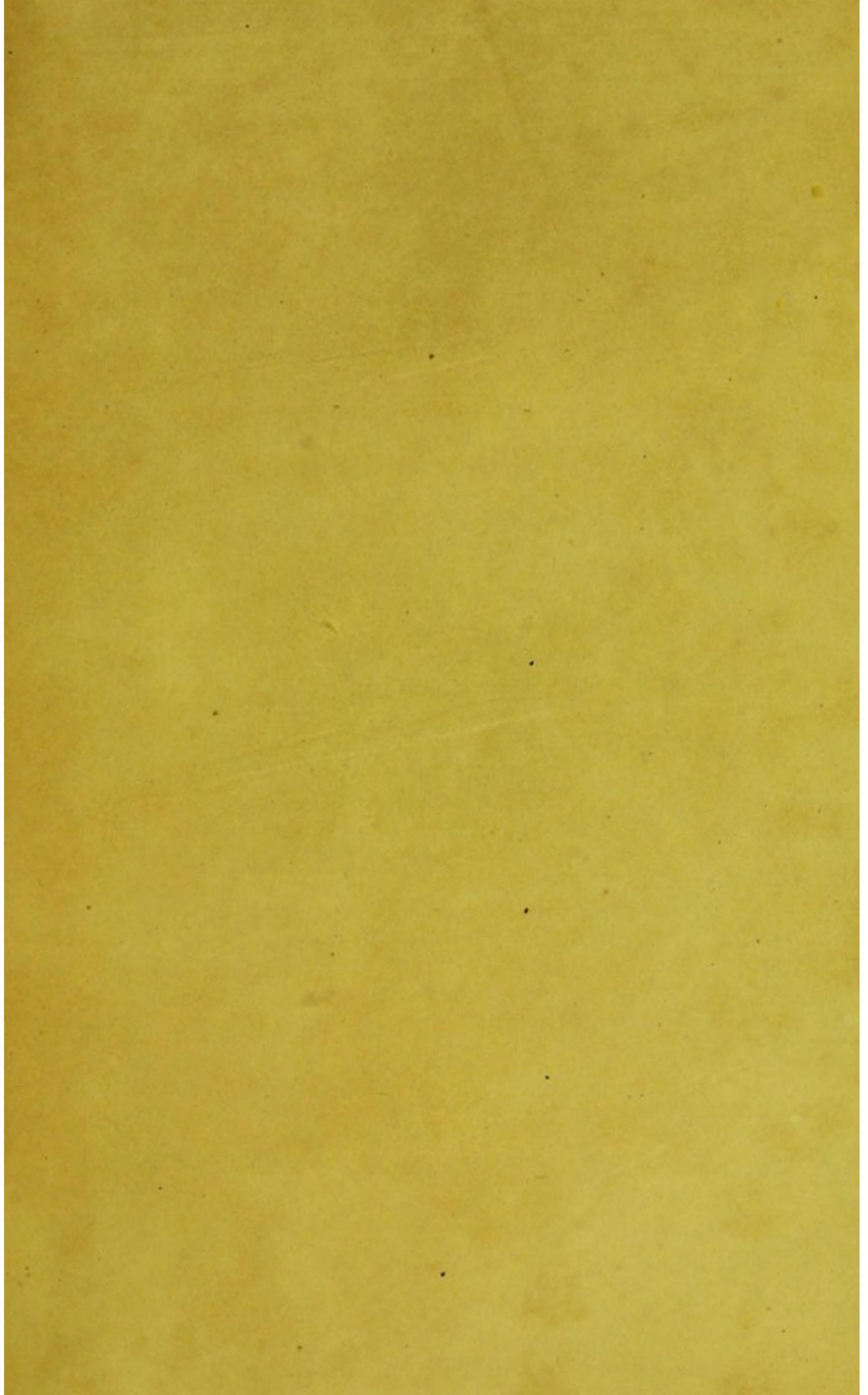
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