ESTE
ON
BATHS

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Albany - April 25 - 1845

Respectfully presented
to the Military Medical
Library, Chatham,
in support of usefull
Establishments, and in
remembrance of ancient
associations, - by
M. L. Este M.D
late 1st Life Guards,
Senr Medl Officer of the R. Horse
Cavalry - in the late Wars -

Therap: Waters

REMARKS

ON

BATHS,

WATER, SWIMMING, SHAMPOOING,

HEAT, HOT, COLD,

AND

VAPOR BATHS;

BY

M. L. ESTE, Esq. M.D.

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Formerly Lecturer on Animated Nature and the Animal Economy at the Royal Institution,
Fellow of the Royal College of Surgeons, and of other Societies at home and abroad.

Ignis, Naturis omnibus, salutarem, impertit calorem!

Cic. de N.D. 227.

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NOTE.

An attempt was made in 1812, to introduce Baths for the poorer classes, under high patronage; the following *Remarks* were then published, at the suggestion of their R.H. the *Dukes of Kent and Sussex,* and were dedicated by special permission to their Royal Highnesses; together with an account of the proceedings under their Royal auspices.

What was then attempted on a comparatively narrow plan, is now prospering on an extended scale; and these *Remarks,* are given to the Publisher that they may be re-printed and circulated by him, upon his own account, in support of the present undertakings.

BATHING.

This is the purest exercise of Health!
Thus life redoubles; and is oft preserved
By the bold swimmer, in the swift illapse
Of accident disastrous—Hence the limbs
Knit into force! and the same Roman arm
That rose victorious o'er the conquer'd earth,
First learn'd, while tender, to subdue the wave!!
E'en from the *body's* purity, the *mind*
Derives a secret, sympathetic aid.

DEDICATION.

TO THE MINISTERS OF THE CROWN,

THE COMMANDER OF THE FORCES,

THE LORDS OF THE ADMIRALTY,

THE ROYAL ARTILLERY AND BARRACK DEPARTMENT,

THE MEDICAL OFFICERS OF THE DIFFERENT SERVICES, AND

TO THE ILLUSTRIOUS PATRONS AND DIRECTORS

OF THE SEVERAL ASSOCIATIONS IN ENGLAND,—

NOW SUCCESSFULLY EMPLOYED

IN OPENING TO THE HUMBLER CLASSES,

GREAT SOURCES OF HEALTH AND ENJOYMENT,

THESE REMARKS ARE RESPECTFULLY ADDRESSED.

PREFACE.

When I venture to reason upon the *virtues of baths*, as luxuries and remedies, and the efficacy of *warmth* and *moisture*, I respectfully submit the result of my observations to the consideration of those, whose liberality I have many times experienced; whose joint labours are invariably directed to one great common end, the health and welfare of society; whose abilities and benevolent zeal render them the distinguished ornaments of their country and profession; for it is in the sanction of their name and authority, that this or any other practice worthy of notice, must ultimately find its most powerful recommendation. In these attempts I do not seek to detract from the merit of any author, particularly of my contemporaries; nor is it my wish to refuse an ample measure of justice to the aids I receive. I have through life been willing to give every thing to others, and to reserve nothing for myself, but the consciousness of not having spared pains to discover, to possess myself of, and to apply the abilities of the profession for its service. I never seek from motives of narrow policy, to suppress any authority, nor to thwart any one in his career; but am always ready, to the height of my means, (and they fall very short of my desires,) to forward those abilities which overpower my own. He who has no other materials to work with, than what are within himself, must indeed be badly provided for, in any undertaking. Poor in my own faculties,

I seek and consider myself rich in the talents of others; but every man is in duty bound to contribute his portion, however small, to the mass of general knowledge, especially in a learned profession; and whoever locks up his talent, inconsiderable as it may be, deserves censure, as an unworthy member of the society in which he lives.

In my present endeavours I respectfully trust, that the peculiarity of my professional education, abroad and at home, and the opportunities I have had, not only of frequenting the baths of our own country, but also those of the continent of Europe, in the Mediterranean, Egypt, and the Levant, and likewise of observing the phenomena and treatment of contagions, may be fairly considered, and may screen me from those imputations of presumption, to which every one is liable in his early attempts. I reluctantly advert to such advantages, from a consciousness that my abilities and attainments cannot correspond, either with my own wishes, or with the expectations that must naturally arise, from a comparison between them and the means that have been afforded me, to which they are not at all proportioned; and again, from the high respect I bear the talents of my contemporaries, and from a conviction that there are but few of them in this enlightened age, who would not have surpassed me in the success of their labours, had their talents been employed in the situations in which it has been my fortune, or rather misfortune, to have been placed. In submitting these few practical remarks to the tribunal of the profession, and the public, and in stating them without the *cant and parade of science,* which I abhor, and would ever studiously avoid, I trust I may not appear wholly undeserving

of that good opinion with which I have hitherto been honored, and which I hope I shall always continue to deserve.

As no principle, or rule of practice is here laid down that has not been often tried, and nothing recommended but the results of repeated experiments, it is respectfully presumed that the following *Remarks* may prove of practical utility to the public, in adding to their comforts, and in alleviating those miseries to which many are, and under the present constitution of society, must continue to be, frequently exposed.

Important objects should be kept in view, should be justly considered and appreciated, as should also the very benevolent efforts of persons of the highest rank and influence occupied in turning such objects to the best account. It is therefore hoped that indulgent allowance will be granted to the Author for the present trespass on public time and attention.

June 1812.

ON BATHS.

WE may fairly mention, as a subject of regret, that hot and vapor baths, and certain other expedients commonly resorted to with the happiest effects, as indulgencies, and preservatives of health, in the Mediterranean, in parts of Italy, in the Levant, and in other countries, should be forgotten in our own; and that we should neglect them, notwithstanding the manifest advantages which result from their habitual use, if it were only with respect to cleanliness and comfort.

I conceived at an early age, and have since, by every day's experience, been wedded to the idea that *nothing can be more conducive to the health, strength and well being of man* than the judicious use of baths; for they seem to impart health and to cherish it; while in many diseases essential benefit may be derived from them alone;—they frequently afford powerful assistance to the operation of other medicines, and are attended with such uniform success, in particular disorders, from contagion, that they seldom if ever should be omitted in their treatment.

The process of *Shampooing*, another luxury of the Levant, and all its happy effects, I am persuaded need only be a little known to be generally adopted. I am not singular in my opinions upon this subject; the Indians hold it in the highest estimation as a remedy; and the practice of rubbing, according to the excellent plan of Mr. Grosvenor, has already been found beneficial in speedily relieving many afflictions, which, beyond the reach of medicine, could not have been allayed by any other known expedient. His practice therefore may be con-

sidered as a step to the introduction of Shampooing. Those who *have been* in India, who *have tried* and who *really know* the value of these expedients, I am confident will gladly assist me with their good report in my endeavours to recommend them. (*Vide* Shampooing, p. 38.)

The Honorable Basil Cochrane, during a long residence in our eastern territories, has added to his own experience many valuable observations on the effects of hot and vapor bathing upon others; and has lately communicated his information to the public in an elegantly written pamphlet.

He tried his steam baths generally at the temperature of 120°, in several cases of chronic rheumatism, of catarrhal fever, attended with hard cough and difficulty of breathing, in cases of gout, gravel and ophthalmia, and invariably with the greatest success.

As I learnt from experience of ophthalmia in Egypt, the superior effects of warmth and moisture over the *cold application* to the eye, which were *sometimes strongly* recommended there, I became curious to know the result of this steam practice; I accordingly made particular enquiries concerning it both of Dr. Veitch and of Mr. Cochrane himself; and I felt sincere pleasure on hearing that it coincided with my own observations. In one instance the relief from the steam was as great as it was sudden: the sight was restored without any return of the complaint, the eyes remained as strong and as well as they were before.

Though Mr. Cochrane's assertions of the very essential benefits to be derived from vapor baths, may apparently exceed any thing that the simplicity of such means can at first sight warrant us in believing; though they may be doubted by a few learned men, *upon principles of unsupported theory*, I nevertheless feel persuaded that their objections to baths, however specious in appearance, cannot stand the test of experience; that

more extended investigation will corroborate his statements, and will justify him in recommending with proper enthusiasm a subject of such great utility to public notice.

It has been remarked by a few, who certainly are not well acquainted with these practices, nor with the state of baths in London, however well informed they may be on other subjects, that these remedies were known many years ago; that accounts have been given of their efficacy in several diseases; that Hancocke formerly published his Febrifugum Magnum, or common water the best cure for fevers. That the *Febrifugum Magnum* has since been considered a *morbifugum magnum*; that there are many well authenticated accounts of extraordinary cures performed by water; that much has been stated in the relations of the Persians and Chinese; much written upon the *acque termale dei Bagni di Pisa;* upon the waters at *Carlsbad, Recova, Bareges, at our own baths,* and at those in Russia and elsewhere; that Dr. Currie published, as lately as 1805, his Medical Reports on the effects of water, cold and warm, as a remedy in fevers and other diseases, whether applied to the surface of the body, or used internally.

Though I may be willing to admit the truth of all these remarks, yet I doubt whether *warm and vapor baths, frictions,* and *shampooing* ever were employed in this country, as they are commonly in India, and the Levant, or as they should be, according to the intended methods. And I must further observe, that however well understood they may have been in former times, they certainly are *neither* duly appreciated, nor generally resorted to at present. In the schools in *Edinburgh, in London,* and *upon the Continent,* these expedients were seldom NAMED, when I attended them between 1793 and 1800, though the use of cold affusions has since been recommended in the lectures at Edinburgh, as appears by Dr. Gregory's letter to Dr. Currie, dated Edinburgh, Nov. 9th, 1803.

Dr. Gregory's letter relates to the success of cold affusions in Scarlatina. He therein states, "your observations appeared "to me very interesting. I transcribed into one of my note-"books that part of your letter *verbatim*, and have read it the "two last winters in college, when treating of the cynanche "maligna; telling my pupils that I had *no personal experience* "of the practice, but that I thought your testimony in its favor, "and "*the analogy*" of the good effects of the very cold "practice in continued fever, and in natural small pox, *so strong*, "that I was resolved to try your practice of the affusion of cold "water in scarlatina, the first good opportunity." Dr. John Gregory tried the affusions with the best success upon his son, and says in his letter, "I *can now propose and urge the practice* "*with a good grace and some confidence*, after having tried it "with success on a child of my own."

He likewise tried it upon his other children, with the same happy results that attended its adoption with the first child.

A Pavia professor, Erank, Jun. mentioned the warm bath and frictions; and in the hospital there sometimes used common warm bathing with the greatest success, in the treatment of those agues which are endemical in Lombardy; and with which the hospitals at Milan and Pavia are regularly filled from the adjacent rice plantations every summer and autumn.

I have prescribed hot baths, in some instances of ague in this country, with the best effect, and I recommended them in two cases lately, where I met other medical men, of rank in the profession superior to my own, and to whose talents I pay the greatest deference. But each of them made similar objections to this recommendation, upon the very principles in which I had been educated, and which seems to be the prevailing principles of daily practice.

As far as my experience goes, warm and vapor baths prove useful not only in allaying pain, but in restoring patients

reduced by fevers, whether continued, remittent or intermittent, and by the use of mercury, to their former health and vigor.

Strange to say, as not easily reconcilable with modern theory, the colliquative perspirations attending extreme weakness, whether in typhus or from mercury, *will not be increased* but *checked*, by alternate ablutions, and by hot or vapor baths; they indeed often yield to them when they will not yield to bark, wine, acid, and to the several medicines in the catalogue usually exhibited for the purpose of stopping them. In each of the cases before alluded to, there was great prostration of strength, muscular pains in the limbs, and profuse colliquative perspirations in the morning, by which the patients were distressed and considerably reduced. From what I had experienced in many similar instances, in addition to the other remedies used on these occasions, I should have prescribed the hot bath as a powerful auxiliary. The common objections to it were made; namely, *that there was sufficient weakness, and the perspirations were sufficiently profuse without the additional relaxation and excretion* which would be brought on by warm bathing, and the baths were of course omitted.

Notwithstanding our national situation, and the dominion we naturally claim and boast of, over the watery element, such a degree of hydrophobia still prevails among us, particularly among literary men, (who read perhaps too attentively on speculative science) that I fear a practice, in reality simple, though in appearance bold, and contrary to common prejudices, will be slow in making that progress, which from its efficacy and success, it ought to make among us. No very great number of our naval men bathe or swim; a small proportion of our military use the water; and but few indeed of the ingenious gentlemen who remain at home, of the indefatigable Bond-street loungers, and dashing charioteers wallowing in luxuries and pursuing indulgencies; who employ their riches wholly in acquiring pleasure, seem to know the value of one enjoyment, which even *they* may venture to take with comfort and advantage, namely, the *tepid bath*.

They cannot say to each other as Cæsar in the play says to Cassius.

> "——— ——— Dar'st thou, Cassius, now
> Leap in with me into this angry flood,
> And swim to yonder point?———
> The torrent roared; and we did buffet it
> With lusty sinews, throwing it aside,
> And stemming it with hearts of controversy."

The descriptions of Savary may, however, convey to their minds some idea of the value of baths, as luxuries, while the statements of *Addison* and of *Franklin* will carry with them conviction of their use, and the industrious author of the Military Dictionary may furnish them with several curious instances of the application of swimming to war.

SAVARY.—*Grand Cairo.*

The hot baths known in the remotest times, and celebrated by Homer, have here preserved their allurement and salubrity; necessity has rendered them common in a country where perspiration is abundant, and pleasure has preserved the practice. Mahomet, who knew their value, has made their use a religious precept.

A long description of the building is given by Savary, which the reader will find in his Letters on Egypt.

He proceeds to state that, after reposing in vapor for some time, a gentle moisture diffuses itself over the body; an attendant presses and turns the bather, and when the limbs are become supple *makes the joints crack without trouble,* then *masses** and seems to knead the flesh, without giving the slightest sensation of pain: this done, he puts on a camel hair glove, and continues rubbing and freeing the skin of the bather, which is quite wet, from every kind of obstruction, and all the imperceptible particles that clog the pores; he then conducts him into a

* "*Masses*" comes from the Arabic word Masses, which signifies to touch lightly.

cabinet, pours a lather of perfumed soap on the head, and afterwards retires.*

Being well washed and purified, the bather is wrapped up in hot linen, and follows his guide through various windings which lead to the outward apartment, while this insensible transition from heat to cold prevents all inconvenience. Being arrived at the alcove, a couch is ready prepared, on which the person no sooner lies than another attendant comes, and begins to press delicately with warm cloths all the surface of the body in order to dry it perfectly; the linen is once more changed, the attendant rubs *the callous skin of the feet with pumice stone*, and *then brings a pipe and Moka coffee.*

On going from a bath filled with hot vapor, in which free perspiration moistened every limb, into a spacious apartment, and the open air, the lungs expand and respire pleasure. Well kneaded, and as it were regenerated, the blood circulates freely, the body feels a voluptuous ease, a flexibility or rather suppleness, till then unknown; a lightness as if relieved from some enormous weight, and the bather almost fancies himself newly born and just beginning to live.

A glowing consciousness of existence diffuses itself to the very extremities, and while thus yielding to delightful sensations, ideas of the most pleasing kind pervade and fill the soul; the imagination wanders through worlds which it embellishes, every where drawing pictures of happiness and delight. If life is only a succession of ideas, the vigour, the rapidity with which the memory then retraces all the knowledge of the man, would lead us to believe that the hours of delicious calm, which succeed the bath are an age!

Such are these baths, and the pleasures which the Egyptians still enjoy. Here *they prevent or exterminate rheumatisms,*

* The whole expense of bathing thus, to me was half-a-crown; the common people go simply to perspire in the bath, wash themselves, and give a few paras, 2d. or 3d. at departing.

catarrhs, and those diseases of the skin which the want of perspiration may occasion. Here, they rid themselves of those uncomfortable sensations so common among other nations who have not the same regard for cleanliness and comfort. *The women are passionately fond of these baths, where they go at least once a week,* taking with them servants accustomed to the office of baths. After the usual process they wash the body, and particularly the head with rose water. Their attendants braid their long black hair, with which they mingle precious essences. They blacken the rim of the eye-lid and arch the brow with *cohel.**

Their linen and their robes are passed through the sweet vapour of aloes wood, and they conclude the day in feasting. *Such are the baths in which the Georgian, Armenian and Circassian women are particularly indulged;* who are neat to excess, and walk there in an atmosphere of perfumes. Though their luxury is hidden from the public, it surpasses that of European women.

The operation of warm baths upon the skin proves particularly salutary if they *are habitually used.* They give to the coarsest skin a *softness,* a *pliancy,* and preserve in it *an elasticity* and a *delicate whiteness,* which no other known expedients can impart to it The Georgian, Armenian and Circassian women thence derive the extreme fineness and beauty of their skins, and many of the attractions for which they are justly famed.

Form'd by the Graces, loveliness itself,
——— Ye *British Fair!*
When in your cheek the sultry season glows,
When with his lively ray, the potent sun
Has pierced the streams, and warmed the chilling pool,
——— from the town

* Tin burnt with Gall nuts. *Mustapha Bey Elphi* used it copiously in this country; and Mr. Baldwin the consul informed me that it was procured from the Gulf of Nicomedia in Asia Minor. I tried it in Egypt as a remedy in Ophthalmia, where the Turks value it not only as an ornament but as a preservative against that disease.

Buried in smoke, in filth, and pois'nous damps,
Then issuing cheerful to your sports repair,
And taste the consolation of the Bath.
E'en while you wanton underneath its wave,
It every beauty softens! every grace
Brightens anew————————
Cheer'd and expanded into perfect life,
Rising, you feel a genial flush of health,
And like the rose amid the morning dew
Fresh from Aurora's hand most sweetly glow.

Addison observes that there is nothing in nature more inconstant than the British climate, if *we except the humour of its inhabitants.* We have frequently in one day all the seasons of the year. I have shivered in the Dog days, and been forced to throw off my coat in January.

A man should take care that his body be not too soft for his climate; but rather if possible harden and season himself beyond the degree of cold wherein he lives. Daily experience teaches us how we may inure ourselves by custom to bear the extremities of the weather without injury. The inhabitants of Nova Zembla go naked, without complaining of the bleakness of the air in which they are born; as the armies of the northern nations keep the field all winter. The softest of our British ladies expose their arms and necks to the open air, which the men could not do without catching cold for want of being accustomed to it. The whole body by the same means might contract the same firmness and temper. The Scythian that was asked how it was possible for the inhabitants of his frozen climate to go naked, replied, "*Because we are, all over, face.*" Mr. Locke advises parents to have their children's feet washed every morning in cold water, which might probably prolong multitudes of lives.

I verily believe a *cold bath* would be one of the most healthy exercises in the world, were it made use of in the education of youth. It would make their bodies more than proof to the injuries of the air and weather. It would be somewhat like

what the poet tells us of Achilles, whom his mother is said to have dipped when he was a child in the river Styx. The story adds, that this made him invulnerable all over, excepting that part which his mother held in her hand during this immersion, and which by that means lost the benefit of these hardening waters. Our common practice runs in a quite contrary method. We are perpetually softening ourselves by good fires and *warm clothes.* The air within our rooms has generally many more degrees of heat in it, than the air without doors. Young people often from long use can no more live without certain parts of their dress, than without their skins; flannel waistcoats, for instance. Such parts of the dress are not *so properly a coat,* as what the anatomists call *one of the integuments* of the body. Addison further states, that it is the particular distinction of the Ironsides to be robust and hardy, to defy the rain and the cold, and to let the weather do its worst. His father lived to one hundred without a cough; his grandfather used to throw off his hat and go open-breasted at fourscore; he used to be so soused over when a boy, that he looked upon himself as one of the most *case-hardened* of the family; he was so inured and truly tempered that he could say with the Scythian, "*I am* FACE!" or, if my enemies please, *forehead* all over.

Dr. Franklin's Art of Swimming.

I would advise you to learn fairly to swim, as I wish all men were taught to do in their youth; they would, on many occurrences, be safer for having that skill, and on many more the happier, as freer from painful apprehensions of danger, to say nothing of the enjoyment in so delightful and wholesome an exercise. Soldiers particularly should all be taught to swim; it might be of frequent use either in surprising an enemy or saving themselves. And if I now had boys to educate, I should prefer those schools (other things being equal) where an opportunity was afforded for acquiring so advantageous an art, which once learnt is never forgotten. *B. Franklin.*

During the great heat of summer there is no danger in bathing, however warm we may be, in rivers thoroughly warmed by the sun. But to throw one-self into cold spring water, when the body has been heated by exercise in the sun, is an imprudence which may prove fatal.

The exercise of swimming is one of the most healthy and agreeable in the world. After having swam for an hour or two in the evening one sleeps coolly the whole night, even during the most ardent heat of summer. Perhaps the pores being cleansed, the insensible perspiration increases and occasions this coolness. It is certain that much swimming is the means of stopping a diarrhœa, and even of producing a constipation. If those who do not know how to swim should be affected with diarrhœa, at a season improper for that exercise, "*a warm bath* "*by cleansing and purifying the skin, is found very salutary* "*and often effects a radical cure.*"

I speak from my own experience frequently repeated, and that of others to whom I have recommended this.

Common swimming is the act of rowing with the arms and legs, and is consequently a fatiguing operation when the space of water to be crossed is considerable: there is a method in which a swimmer may pass to great distances with much facility by means of a sail, by flying a paper kite, lying on the back, and holding the stick in the hands, the body will be drawn along the surface of the water in a very agreeable manner. Franklin crossed a large piece of water in this way without the least fatigue, and with the greatest pleasure imaginable. He does not consider it impossible to cross so from Dover to Calais; but thinks the packet-boat preferable.

The French have paid particular attention to this branch of military knowledge, (*swimming*), and there are not only individuals attached to their armies, who can swim with perfect

ease, but companies called "*compagnies de nagèurs*" have been formed, and are still encouraged in their service. Their dress is adapted to the functions they perform, such as passing a river, &c. in order of battle, or in detached parties, &c. for the purpose of surprising an enemy's advanced posts, or of affording assistance (by dragging light cables across,) to large bodies of their own men who might be ordered to pass on pontoons. The clothing of these men consist of a worsted jacket and pantaloons, with sandals made of leather and flannel or woollen cloth. Their weapons should be a long light pike, fixed by means of a ring to a leather waist belt. The pike, whilst the man is swimming, floats upon the water, and is of considerable use to him. So that after he has been ten munites out of the water and upon the march, his dress would be dry or nearly so. On the top of his cap, a small compartment is made to hold a pistol, with cartridges and a piece of dry linen.

When the island of *Re* was besieged and blockaded by the English in 1627, Thoirus, who was governor of the place, dispatched three swimmers to make the Duke of Angoulème acquainted with the critical situation in which he stood.—The distance across was upwards of six miles, or two French leagues. One of the swimmers was taken by the English; the second was drowned on his return; but the third reached the duke, communicated the object of his mission, and brought back his answer.

When Cyzicum (the ancient Dindymis, formerly a large and strong place) was closely besieged by Mithridates, Lucullus, (the Roman general) sent instructions to the inhabitants by a swimmer, who faithfully executed his mission. (*Vide* James's Military Dictionary, article Swimming.)

Many of our literary men reason upon baths *more from tradition* than from experience—this is to be lamented; as in their respect for received opinions and customs they may oppose

the *practice of alternate bathing, which promises to afford, perhaps, more health and more relief in several diseases than any expedients they can resort to.* I have often had to encounter doubts, difficulties, and objections, to the alternate exhibition of baths in cases of weakness; because the recommendation of hot and cold alternately, appeared, it was said, contradictory, and seemed utterly irreconcilable with the common doctrines passing current under those dignified and pompous epithets, the *sound* principles of RATIONAL practice.

Experience however will shew that the weakness in fevers and after fevers may be thus relieved; and that colliquative perspirations brought on by mercury, may often be speedily removed by hot and vapor baths, either taken alone or *used alternately with cold ablutions,* in the way recommended by Dr. Currie for the cure of fevers; whose method may, I trust, without exaggeration, be represented as a practice of inestimable value. More lives, I am persuaded, have already been saved by its adoption than we are aware of, or than ignorance or prejudice will readily admit. In some instances, to my knowledge, the good and great effects of the washings were erroneously attributed to medicines, either of no efficacy whatever, or of considerably less energy than the hot and cold ablutions; but as truth has hitherto on most occasions ultimately prevailed, let us hope a practice so simple and salutary as the practice in question cannot long continue shackled with unnecessary restrictions.

Were baths well understood, their use would, no doubt, become much more general than it is, both in health and in disease. I have ever been slow in admitting the operations of opinion and fancy in theories or systems of physic; where nothing but sovereign observation, paramount to all speculation, should direct our course: our knowledge to be useful ought to proceed solely from *observation.* I contracted at an early age a fondness for the water. I read Thevenot and Dr. Franklin's anecdotes of himself; and was favorably impressed with his little treatise on the art of swimming. I resided several years

in Italy at the universities there, before I finished my professional education in Edinburgh and in London, and I made two voyages to Egypt, Greece, the Levant, and have twice visited Italy and France in professional situations since I resided there; and whether abroad or at home, in London or out of it, I always frequented baths, in whatever shape they came before me. I have been more exposed to contagions, perhaps, than most people; but have hitherto proved insensible to their baneful influence, and I consider myself principally indebted to the use of baths for a large portion of the health I at present enjoy.

I at all times refer to the recommendations of Dr. Currie with peculiar delight. The few ideas I had formed upon these subjects were completely met by his observations, and confirmed by his experience. I acquired much additional information from his book, and thoroughly convinced of its value, I think it a duty to recommend its perusal. For the succesful application of such a remedy as cold in fevers, Dr. Currie may surely be said to deserve every reward that can be voted to him. I believe that his suggestions and his practice are beyond all praise.

Our stock of knowledge upon these important subjects has been further enriched since his time, by the observations and experience of another authority, not less respectable than the preceding, namely, Dr. Saunders; anxious to promulgate their principles I frequently avail myself of their excellent suggestions.

In contributing my mite to the body of information we already possess, I hope I may be permitted to regret, without disparagement to the learned authorities I quote, that the attention of such observers was not directed as extensively to *Dilution* and to *hot and vapor baths*, as it has been to cold and tepid bathing, in fevers and other diseases in which they considered them applicable. Dilution, in the present day is neglected—and we do not yet appear to value justly all the virtues of water, either as a luxury or remedy.

WATER.

"Temperantia, tum a libidine avocat, tum insolenti alacritate gestire non "sinit; sedat appetitiones, et effecit ut hœ rectæ rationi Pareant.

Considering water dietetically and medicinally, the following circumstances seem to mark its excellence, and to form the principal part of its medical character.

1st. Simple Fluidity.

2nd. Universal Innocence, or the absence of every quality that can offend the most tender of our organs.

3rd. Miscibility with all the animal juices, except the fat, provided they are in their natural healthy state! Unfitness to dilute or mingle with them, when they are thickened by disease. In common life we lose sight of an important law of the animal economy, a condition to which all animal bodies are subject, viz. the tendency to induration and inspissation, as they advance in years. The softer organs grow firm—those that are supple grow rigid. The organs endowed at first with exquisite sensibility and high organization, grow dull, while the relative quantity and specific gravity of bony substance are increasing in a rapid progressive ratio This progress to induration, inspissation, dulness and insensibility, quickened by the use of fermented liquors, may in some degree be checked and counteracted by simple fluidity and dilution.

Water attenuates and thereby facilitates excretion, it has too a peculiar determination to the surface, and passes off by the cutaneous pores, in the shape of insensible transpiration, more speedily and plentifully than by the kidneys; in consequence, perhaps, of its total want of irritation. It is, besides, the most commodious medium for applying to the human body, *two powerful agents*, viz. *Heat and Cold;* the one expanding and preserving pliant, the other contracting and constringing, all the soft organs and fluids of which our animal mechanism is constituted.

Aut Vinum ne tange, aut multa proluc lympha
Cum Vino indulges, igni, Puer, adjicis ignem.
Intelligemus quam sit honestum, *parce, continenter, severè, sobriè viverè.*

HEAT AND HOT BATHS.

Now O *Sun*
Soul of surrounding Worlds, in whom best seen
Shines out thy Maker, now I sing of Thee !!
——— Thou powerful king of day
Shoot'st nothing forth but *Animating warmth*
And *Vital* lustre.
Thou shin'st in boundless Majesty abroad,
High gleaming from afar,—*Prime Cheerer Heat*,
Of all material beings first and best !!
Efflux divine !
Without thy quick'ning glance our cumbrous mould,
Were brute unlovely mass, inert, and dead;
And not as now, the sweet abode of Life;
How many forms of *Being*, wait on Thee !!
Inhaling spirit; from the *unfettered* Mind,
By *Thee* sublim'd, down to the daily race,
The mixing Miriads of thy setting Beam—
The *Vegetable World* is also Thine!!
The very *dead Creation* from Thy touch
Assumes a mimic Life——— But this,
And all the much transported Muse can sing,
Are to thy *Splendor*, *Dignity*, and *Use*
Unequal far! Great delegated Source
Of *Light*, and *Life*, and *Grace*, and *Joy*, below.

I was taught to consider hot and vapor baths relaxing—they are represented so in books and in the schools. When I first began to try warm baths, and frequent thermal waters, *I was fearful of remaining too long in them at too high a temperature, lest I should bring on relaxation and weakness;* and lest in consequence thereof I might lose the fitness and fondness I had acquired for common cold bathing. But as none of these inconveniences ever followed the continued use of tepid, hot and vapor baths, either in my own personal experiments in health, or in the trials I made of them upon others in disease, I grew more and more doubtful with experience upon this point, and began at last to question altogether the truth of this speculative idea, and to consider whether its admission may

not be injurious to society, inasmuch as it leaves the mind prejudiced against an healthy, *invigorating*, "not debilitating" *enjoyment;* and against a remedy, which will be found as agreeable in its adoption as it is efficacious in its operation. I conceive the *warm swimming bath of the ancients* to be one of the greatest luxuries we ought to possess.

Our animal temperature when in health, is at about 98 degrees.—A bath, to deserve the epithet of *warm*,should convey a sensation of warmth to the skin during the whole time of immersion. A bath at about 94, or from 92 to 94, though at a temperature lower than that of the body, will nevertheless appear warm; because water is a denser or heavier medium than the air; and its heat is pressed by its weight upon the body immersed; and *because perspiration is suspended during immersion in warm water, and the constant flow of heat out of the body into the atmosphere, necessary for the formation of the vapour always emanating from the surface is checked.*—The tepid bath may be said to begin at about 83 degrees, and the warm bath at about 93 degrees, or from 90 degrees or upwards, to as high a temperature as can be borne short of inconvenience; the degree of warmth best suited for the warm *swimming bath*, would be from about 87 degrees to 90 degrees. The baths at Bath are in fact the only natural baths we possess; our other baths are called warm, not from being warm to the touch, but because in comparison with common spring waters, their temperature is found a little higher than they usually are.

The action of the heat of *a Bath* on a body immersed in it, is very much greater than the action of the same heat would be *in air*; from the difference between the *specific gravity* of air and water, it would be impossible that a human body should support the same heat in water as it can in *air*, water being 815 *times* heavier than *air*. [*vide* Brande's Chemistry, page 356.]

At Bath there are three principal baths—the Public Cross

Bath at from 92 to 94 degrees; the King's Bath at about 106 degrees; and the Hot Bath at about 116 degrees.

Our other thermal waters, as *Buxton* and *Matlock*, are considerably below the animal temperature. *Buxton* is at about 82 degrees, which gives a shock at first immersion; though that shock is soon succeeded by a highly soothing pleasurable glow, which, according to Dr. Saunders, is, as if the skin were anointed with warm cream. *Matlock* is at about 70 degrees, a temperature so low that it can scarcely be called a tepid bath; it borders on the extreme limits of the cold bath.

The sea in the coldest weather with us is seldom lower than 40 degrees, or higher in the hottest summer than 65 degrees, whereas the heat of rivers, especially when shallow, and when their current is slow, rises higher and sinks lower than those degrees. The temperature of the sea after a succession of sunny days, will be found at times higher than Matlock water.—I found it at Plymouth in September at 66 degrees, and at Sidmouth and Lyme at 64 degrees. At *Carlsbad* in Bohemia, the Caroline baths have been long held in high estimation: these thermal waters, and the exquisite beauty of the country, render it the place of resort of the Hungarian, Austrian, and Bohemian nobility. The most copious stream there, is intolerably hot to the touch, boils up with violence, and is called the *prudel* or furious spring—its temperature as it first issues is, as high as 165 degrees, and keeps steadily to the same point: this is hotter than any mineral water used medicinally.

The *Mulhbrun is* 114 degrees.

At Aix-la-Chapelle, the hottest bath is at 143½ degrees, there are others at 116 degrees. At Barege the hottest is 120 degrees, the coolest water 73 degrees, and around Barege there are many springs, at about 88 degrees to 135 degrees.

Bristol Hotwel is at about 74 degrees, and Cheltenham water is about 53 degrees to 55 degrees. Dr. Saunders observes that the superior power of conducting heat, which water possesses over air, is a circumstance always to be kept in mind in applying cold externally. On account of the cooling power of water, *the body immersed must be constantly employed in producing an unusual quantity of animal heat; this is a great effort of the constitution, which if carried too far, goes directly to destroy the animal powers.* Thus the exercise of *swimming* to those accustomed to it, requires comparatively but little muscular exertion; but *being performed under circumstances that highly exhaust the animal strength, it proves more fatiguing than almost any other motion of the limbs. This too is encreased by a superior* coldness in the medium, and permeability of the skin to heat: and therefore inhabitants of hot climates, protected by the greater unctuosity of the skin, and favored by the warmth of their seas and rivers, are enabled to live almost an amphibious *life.*

Thus in Egypt, the Arabs, who swim from their infancy, swim far, very rapidly, and can remain for hours in the water. The temperature of the sea there, approaches nearly to that of a *tepid* bath. The Maltese, Sicilians and Neapolitans, remain an incredible time under water, in their common occupation, when they dive for shell fish the "*Frutto di Mare,*" and when they examine the keels of ships; and the Indians, (if we may believe the accounts) remain for nearly half an hour under water in the pearl fishery, which is very extraordinary, as the sea, though warm at the surface, becomes at a certain depth, to which the influence of the sun can never reach, of the temperature of a cold bath.

Captain Ellis let down a thermometer to the depth of 2900 feet, when it came up, the mercury was at 53 degrees—the thermometer then stood at the surface at 84 degrees. (*Vide* Philosoph. Transac. for 1751, page 213.)

The Edinburgh Encyclopædia (article Pearl) has the following account of the pearl fishery. It states that the diver first ties a stone round his waist or his feet, to make him sink, and fastens a bag of net work round the neck to contain the pearl oysters. Thus accoutred, he precipitates himself sometimes sixty feet under water; and, as he has no time to lose he no sooner arrives at the bottom than he begins to run from side to side, tearing up all the oysters he meets with, and cramming them into his budget. At whatever depth the divers are, the light is so great, that they easily discover all that passes in the sea; and to their great consternation, sometimes perceive monstrous fishes, from which their address in disturbing the water, &c. will not always save them, and they unhappily become their prey. Of all the dangers of the fishery, this is to them the greatest, and most frequent. The best divers will keep under water *near half an hour*, and the rest do not stay less *than a quarter*. During which time they hold their breath, having acquired by long practice the power of retention. When they find themselves straightened, they cut off the stone that drew them down, pull the rope to which the bag is fastened, and grasp it with both hands; when those in the bark taking their signal, haul them up into the air, and unload them of their cargo, which may vary from fifty to five hundred oysters. Some of the divers want a *moment's* respite to recover breath; while the more expert descend again directly, continuing this violent exercise without intermission for several hours.

Dr. Currie, when treating upon HEAT, has the following passage concerning the operation of unguents on the surface; his words are, "*their operation presents, indeed, a subject for important and original observation. The effects of the warm and tepid bath, though more investigated, are scarcely better understood.* "*The commonly received opinion that the warm bath relaxes and enfeebles the system, must, I apprehend, be admitted with many restrictions!!! Immersed in water or in air, heated to a degree that quickens the circulation, we are, doubtless, speedily enfeebled: But by a heat short of this, it may be disputed whether debility is ever produced!!!*

These expressions are strong and clear: in speaking of the operation of *unguents* upon the surface, it is not of the salutary operation of *simple rubbing, nor of shampooing** that he treats; it is to the medicinal efficacy of mercury, sulphur, opium, or of other remedies introduced through the skin, that he alludes; and, perfectly of opinion with him, I believe, that we are not yet so well informed of the efficacy of medicines so used, as we may be. It is evident that Dr. Currie does not mention heat with that experimental confidence which the practice alone of warm and vapour bathing could have given him; he *doubts* whether heat is relaxing, whether it enfeebles; and *he disputes* whether debility is ever produced by it, unless when excessive. The doubts of so great a man, amount to little less than an admission of what I consider the real fact. His observations and his surmises on all points appear fully justified as far as they went; I only regret that his experience did not extend to heat, to frictions, and to shampooing, as largely as it did to cold.

High respect is certainly due to the doctrines of our ancestors, and we should consider them with all that modesty with which we ought to conduct ourselves in examining received opinions, but with all the freedom and candour we owe to *Truth*, wherever we find it, however strongly it may contradict our notions, or oppose our vanity. For it seems a preposterous mode of reasoning to argue against the fair discussion of popular opinions, lest they may be found without any reasonable support, and lest the discovery should at the moment be prejudicial to our interest or our credit. We frequently proceed as if our welfare did not necessarily depend upon the knowledge of Truth; that is upon the knowledge of those unalterable relations, which it is ordained that every thing should bear to every other. These relations, truth itself, the only measure of happiness, should be likewise the only measure to direct our reasonings.

To these relations we should attend, and not think to force

* *Vide* the article Shampooing, page 38.

nature and the whole order of her arrangement by a compliance with our pride and folly, to conform to our artificial doctrines and regulations, to our SOUND principles of RATIONAL practice and our systems of *Physic*. By adopting this plan we have arrived at all the useful knowledge we possess, and at all the rational happiness we enjoy, and we daily derive advantages from it which are very visible.

At Bath, if I happen to go into the great cauldron, as it is called, or King's Bath, as I frequently have done, at 106 deg. and continue there half an hour, I certainly grow faint for a moment, and am in a manner overpowered by the heat; but in the course of another half hour, by remaining in the open air I do more than recover, I become a stronger and better man in all my powers and faculties of body and of mind, than I was before immersion.

It is not so after the cold bath, taken in health, either at a temperature a little too low, or continued a little longer than usual; the recovery is neither so rapid nor so perfect within the half hour as in the former case; and these effects were experienced by others besides myself. My practice at Bath has been to bespeak over night the PUBLIC CROSS BATH, at four o'clock the ensuing morning, (one hour before it opens to the public) to continue through that hour HOT, in water at 94 deg. and breathing cold, the bath being open to the atmosphere. At five, and often after five o'clock, when other bathers came, I withdrew, and returned to the inn, to enjoy two or three hours delightful repose. I did this regularly, and with infinite pleasure every morning last summer for upwards of a month.

I bathed both before and after that month, at Sidmouth, in the sea: and when I came to town I found I could endure the cold bath in Harley-street better; I could swim round it more often, swim farther in the river without fatigue, than I was able to do before I went to Bath. I cannot admit heat to be relaxing. The *Calabrians*, the *Sicilians*, inhabitants of a hot

climate, are not *a relaxed*, they are *a far more sturdy* people than the northern Europeans. In *Asia Minor*, *Morocco*, at *Marmorice*, *ancient Thelmissus*, *Rhodes*, in *Candia*, and in the *kingdom of Fez*, provinces still hotter than Calabria, the inhabitants seem formed in a prodigality of nature: for the magnificence of their bulk and stature, the beautiful proportion of their muscularity, render them physically superior to the inhabitants in our northern latitudes. Animated nature there is upon a scale of grandeur and magnificence *not known* in colder countries. The camels and other animals are proportionally expanded and majestic. These *full formed people live in heat;* and *many of them take their baths as regularly as they take their daily bread*, without being enervated or relaxed either in body or in mind: for though from their habits they may be indolent, they are naturally of very lively imagination, bold, and astute: and had they the advantages of good government and good education, they would no doubt become morally and physically the finest people in the world.*

This we saw exemplified in the Tuscans, a people of extraordinary ingenuity and inventive powers, of great industry and refinement, who living under a sky as serene and as warm almost as the Calabrian, enjoyed with a mild government, opportunities of improvement which the rude Calabrians did not possess.

Storing afresh with elemented fire
Our strengthened bodies in its blessed embrace
The *Warm Bath* feeds, and animates our blood,
With transport touches all the springs of life
Refines our spirits; thro' the new strung nerves
In swiftiest sallies moveth, e'en the *Brain*;
Where sits the *Soul! intense, collected, quick*,
Bright as a Star, and as the chrystal clear.

* They carry astonishing weights to considerable distances. Many of our grenadiers in Sicily when pitted against the Fachini or carriers, were scarcely able to raise and support burthens with which the Sicilians flew along easily. Temperie Cœli, Corpusque animusque juvantur.

We cannot consider heat relaxing, when we attend to the prodigious strength and luxuriance of the vegetation in the countries before mentioned, which prove its invigorating influence as manifestly, perhaps, as the magnificent race of the animals; for as our motto states, Ignis, Naturis omnibus, salutarem impertit colorem!

The expedients which remove weakness, which restore to health and strength a person melted down by colliquative perspirations, reduced and dejected by excess of mercury, cannot justly be called relaxing!!

THE SKIN.

Hot and vapor baths have this effect; they certainly do render the skin soft and pliable, but the *skin in health* should be so; they keep it in a state proper for its duties; and it is of great consequence that the functions of the *Skin* an emunctory or outlet, should be regularly performed, because a *sort of Respiration* is continually carried on in it. A portion of salutary atmospheric air is absorbed or taken up, while noxious vapors escape, or are thrown off from the body, through the skin; in the shape of *insensible transpiration*, which, when increased to a sensible quantity forms *perspiration*. A double duty or function is therefore effected by the skin; viz. an *absorption* and an *excretion*. In bathing, the fluids circulating over the whole surface of the body, are refreshed in two ways; by losing saline and alkaline matters which the water attracts, and by *dilution*, from the warmth and moisture imbibed. The skin therefore is not only an excellent contrivance as a *general covering* for the body, adapting itself by its wonderful elasticity to all our various movements and attitudes; but it is at the same time an *outlet* and an *inlet*. And such is the *catenation* or association between one function and the rest, so strongly do the internal organs and actions sympathise with the external, and, *vice versâ*, that even the flesh and the joints become to our

sensations easy and supple, after warm bathing; but are we from feelings of increased energy and activity to consider ourselves enfeebled?

If when intense, remiss, irregular, or suspended, the actions of the nervous and vascular systems are restored to their natural moderation, freedom, equability and order, by the genial influence of warmth and moisture, we surely shall not be thereby weakened;—if *the blood*, proceeding from the heart, is caused to flow in its uninterrupted easy stream, through all the various ramifications of arteries;—if the *secreting* vessels are made to perform their offices, and to separate their various humours, while the remaining blood is returned by the veins from the circumference to the centre, in the same moderate continuity of course in which it was originally propelled from thence;—if the *excreting* vessels are incited to carry off their proper humours, to deposit in the stated receptacles such as should be deposited; to discharge such as excrementitious should be discharged;—if the internal surface or membrane lining the whole alimentary canal, which is only a continuation by reflection, or a prolongation of the external skin on which the bath is acting; if the inward surfaces, partaking of the beneficial influence of the bath on the outward surface, are restored to their natural softness, pliability and moisture;—if the absorbents or lacteals upon those inward surfaces, in sympathy with the external absorbents or lymphatics upon the skin, are incited to take up and convey their proper fluids without stoppage or irregularity;—THEN, INDEED, the whole vascular system, in all its various departments of *circulation*, *secretion*, *excretion*, and *absorption*, will be released from painful febrile sensations and motions; and will assume its proper vigour, and be restored to order. The *influence of the bath does all this*, and extends further; it is by no means limited to the vascular system. The subject may be understood without much anatomical speculation; though apparently, and in reality, complicated, it may nevertheless be rendered by the skilful physiologist sufficiently simple to be intelligible.

The surface exposed to the operation of a bath, is extensive, viz. the whole external skin. The first and immediate impressions of the bath are upon that skin, and upon the irritability and sensibility of our external corporeal organs, and through these upon the internal nervous system. Heat and moisture first restore to the skin its natural state of pliancy and softness; the other organs are successively influenced, in virtue of the *consensus*, sympathy,* or association existing between that skin and the *nervous* and *vascular* systems, universally distributed, penetrating and pervading every organ of the body.

If then the *circulation*, the *secretions*, the *excretions*, the *absorptions*, the *motions of the whole nervous system are restored to order*,—If the *corporeal organs, external and internal, are reduced to, and maintained in, that particular state, and disposition, which render them fit instruments for receiving the influence of the sentient, intelligent, incorporeal principle that actuates the whole, then will the body be enabled to perform and exercise with ease, pleasure and proportional strength, all its various actions and functions. The external organs will then receive and transmit to the mind their several impressions in a just degree*, while *the internal senses and powers of memory, imagination, and judgment will be lively, clear and vigorous.* Or in common political language, the balance of power will then be duly established and supported in this microcosm, or little world of man. For when the equilibrium of perfect health is broken, nature generally endeavours to restore equal action: the warm bath seems to predispose the bodily organs for such restoration, and even to support the efforts of nature in bringing it about; and if the bodily organs can be put into that state on which the conditions of health depend,—by the genial influence of warmth and moisture, shall we be justified in attributing to such beneficial agents, relaxing or debilitating effects?—My ideas are, at least, in some degree, warranted; for will not warmth and moisture on the surface be found to act

* Technically termed Catenation.

frequently like a charm in removing our distressing sensations of *burning parching heat, and excessive aguish cold*? in extinguishing *thirst*, in allaying *pain and spasms;* whether superficial or deep seated? in quieting *restlessness*, in releasing *straitness, oppression*, and *anxiety* about the præcordia or lungs? In checking *nervous affections*, as *excessive sensibility, erethismus, itching*, nervous uneasiness? Are not these agents useful in correcting defective feelings, numbness and palsies? Will not warmth and moisture often impart, even to the instruments of voluntary motion, a facility and readiness of action, where there was previous languor and want of strength? Does not their happy influence extend to the digestive organs in *cholics* in *diarrhœa?* To *the kidneys* in the *anguish of a lithiasis?* To the spincter vesicæ in *stranguary*, to the relief of strictures, to the mitigation of gout, to the removal of several disorders of the softer sex, and of infants? I can indeed confidently assert that baths are great auxiliaries to mercury, and to some other medicines; that much may often be done with them, that cannot be done without them; and, in short, that they may be considered as powerful agents in relieving many of the natural evils that flesh is heir to. For these weighty reasons, I consider the warm bath a subject of great importance, and in thus inviting the attention of the public to an object that so materially concerns them,—I trust I may not be thought to trespass improperly upon their time, or their indulgence.*

* I have had it in my power to afford relief in a few instances *by simple dilution and a course of baths*, to persons returning from India and from our colonies, who had suffered severely from the diseases of those hot climates, and from the violence of the remedies necessarily employed there against them.

These sufferers were restored to health by the simple means before mentioned, after they had submitted, in vain, to a painful and protracted exhibition of various medicines.

A nobleman to whom upwards of 530 *grains* of calomel had been given in the West Indies, in less than four days; and a general officer there, who by baths had been roused from delirium, and restored to health from the last stage of yellow fever, both favoured me with their cases. The latter, afterwards, on board a transport, gave health to others by the same means that he recovered his own. I shall avail myself of their permission to make their cases known, on some future opportunity.

Among the means of preventing convulsions in women, previous to or

SHAMPOOING.

An expedient neither known nor understood in this country, but generally used in India and the Levant, as a luxury, and often resorted to as a remedy, in very high estimation. The operation is performed by people regularly trained to the office, called *Shampoo-men;* and to be agreeable, must be done with art: it consists in gently pressing and turning the body, rendered previously supple and pliant by warm and vapour bathing: the Shampoo-man causes the following joints to crack without any trouble; the wrist, the elbow, the shoulder; the vertebræ of the neck, and of the back; the instep, the knee and the hip; and he performs this task as if he were a perfect anatomist. When last in the Mediterranean I saw and submitted to the operation, which was done in the usual manner: to effect the purpose in the dorsal vertebræ, the Shampooing attendant was placed upon a low chair, and made the bather sit

during their confinement, Dr. Denman recommends *the warm bath.* He states, that from its occasional use, women will often find much benefit; and he repeats, that it is *one of the principal means* which medicine affords for preventing puerperal convulsions, and for insuring an undisturbed labour and an uninterrupted recovery—Here is the testimony of a very great man, in favor of warm baths, which he strongly recommends, under circumstances no less critical *than labours rendered complex by convulsions,* and this recommendation is the more valuable, as it rests not upon any preconceived notion, or speculative reasoning, but upon the long and extensive experience of Dr. Denman. He states in another part of his work, *that when convulsions have continued or increased, notwithstanding the bleeding, and the use of all the other reasonable means, the patient may be put into the "warm bath" in which she may remain a considerable time if the convulsions are suspended while she is in it. There have been instances of women with convulsions who have been freed from them while they were in the bath; and I have heard of one or more cases of their being* "ACTUALLY DELIVERED IN THE BATH," *without any ill consequences either to the mother or the child.* These statements are among the few to be met with in books in which this subject seems to be treated as it ought to be. Here we have a man of *enlightened mind, acute observation and unbiassed judgment,* communicating to the world, without *any parade* of science, the plain result of his extensive experience, and so much importance does Dr. Denman attach to this expedient, that he further states, "When a warm bath could not be procured, or while it was preparing, I have directed flannels wrung out of hot water to be applied over the whole abdomen.

upon the ground before it, putting his knee against the concave part of the back, and laying hold of both shoulders, he suddenly pulled them backwards; and at the time gave the body an oblique sidling motion; which caused the dorsal articulations to crack, with two distinct explosions, nearly similar to the report of a small popgun;—as this was done with much expertness, the sensations were singular, and for a moment rather disagreeable; the shampooing attendant then began to knead the limbs, grasping, pounding and gently squeezing the flesh, with the whole hands, like so much dough, from the extremities to the centre, thereby removing every sensation of pain, and concluded the business by putting on a camel-hair glove, and by rubbing the skin briskly, which took from it all the porous atheromatous obstructions, and rendered it soft and smooth as satin.

The sensations after stuping and macerating a long time in warm water, and in steam, after the process of shampooing, *are certainly very different from sensations of weakness;* they are delightful; for in the bath, health is admitted at every pore; while the latter process imparts to each particular joint its full freedom and all its latitude of motion: *the whole gives an ease, a pliability, a suppleness and activity to the mind as well as to the body, which may serve both to correct the *vulgar prejudice* of *the* "RELAXING EFFFCTS" *of warm bathing*, and to confirm the justness of the inference which the ancients drew of the MENS SANA from the CORPORE SANO.

BATHS IN LONDON.

We have in London several handsome cold baths for medical purposes, but they are at too low a temperature for amusement or for swimming in—Such are the baths in Harley-street, in Bagnio-court, at Peerless Pool, &c. The cold bath in Harley-

* The use of the *dumb* bells, common in India, the *quinquertia*, and projectile exercise of the Romans, cannot be too strongly recommended as contributing to give strength and full latitude of motion to the joints of the upper extremities.

street is about the temperature of 54 degrees. The cold bath at Peerless Pool is something lower, about 52 degrees, and this I believe to be the coldest in London. The warm baths are for the most part mere marble troughs—in which the bather, imprisoned sits, or reclines; and into which he can admit by turning a stop cock, either hot or cold water, at pleasure.

There was a warm bath in Bagnio-court upon a little larger scale, 9 feet by 9, nearly 5 feet deep, filled by a steam engine —the bather could just stand erect in it and expand, but the *warm swimming bath* is a luxury wholly unknown in London.

We can form some idea of it from the baths at Bath, at Buxton, and Matlock, though the temperature of the latter is not quite so warm as it should be for a swimming bath.

The Romans borrowed their ideas of artificial baths * from the Greeks, who were much devoted to them; and in the luxurious days of Rome, the baths were conducted there at a great expense, and formed a complicated system. All the most splendid and fascinating luxuries of the emperors, were multiplied and brought together in those prodigious monuments of Roman magnificence, the THERMÆ, which were formed in imitation of the Greek Gymnasia; all that could give entertainment to the mind, afford amusement to the people, all the exercises of the body, all the institutions favourable to health, were there assembled.

The Calida Natatio, and the Concamerata Sudatio, or the warm swimming and vapor baths, were the great attractions.

The system was carried at Rome to an astonishing height; and the construction of baths in which the people might be accommodated *gratuitously*, was an established and successful expedient of the Roman emperors for gaining their affections.

* The *Balneum* of the Roman authors means a private hot bath. By the *Balnea* they denote the public hot baths.

The extraordinary expense and magnificence of those structures are well known; the remains of the baths at Caracalla and Dioclesion, testify their grandeur. According to Fabricius there were eight hundred and fifty-six public baths at Rome, and some of these were large enough to contain at once, eighteen hundred persons.

The rage for *hot* bathing exceeded all bounds; in the days of Seneca the hottest baths were most in estimation, those of Nero seem to have exceeded the rest in heat.

While other countries and metropolitan cities, as *Petersburgh*, *Constantinople*, *Cairo*, and the cities of the Eastern empire have their BATHS, it may fairly be stated as a stigma upon this otherwise proudly pre-eminent capital, that not one establishment exists within it, where its inhabitants can long and safely indulge in this salubrious exercise, and acquire that experimental confidence in the water which nothing but familiarity with the element can give.

I indeed often lament the want of a *warm swimming bath;* but such a luxury is not to be had easily, and I almost despair of ever seeing it here. It would be too expensive an undertaking for a single individual to attempt, upon speculation; while many difficulties would otherwise attend its formation. An object so desirable might perhaps be obtained, if a number of persons would associate and contribute to its formation and maintenance.

There is a society of gentlemen who meet to seek amusement on the water. I once or twice have heard that society lightly spoken of in private companies. Though I have not the honor of belonging to their club, I always stand forward in their support, because their amusements appear to me more rational than the amusements of many other clubs of the present day. Yet I do not think *they* derive all the enjoyment from water

which water may afford them, or which they might indulge in, were they possessed of an establishment of baths, or only the *tepid swimming bath* upon a handsome scale.

Such a society might further encrease its amusements if it would bestow a little attention to some other objects which would become objects of public utility. As, for instance, the construction of life-boats, life-preservers, and in short, every improvement connected with the arts of sailing, swimming and the use of baths.

The great difficulty to surmount in forming a tepid swimming bath would be the heating of the water. Nothing has so much distressed the learned as to find the manner in which the Roman receptacles for bathing were constantly and sufficiently supplied with hot water, the ancients do not inform us of the methods they adopted for heating such large volumes of water as they required to the high temperature they were fond of. I presume it may be done by steam.

All other baths, except the warm swimming bath, namely, the *hot, cold, and vapor baths* for medical purposes, are easily erected, and require but little space; these might be added to the large bath, at a trifling expense, so as to render an establishment complete.

THE COLD BATH.

Frigus,—Corporibus inimicum.

——— Beyond Tornea's lake,
And farthest Greenland, to the pole extreme,
Where failing gradual, *Life itself goes out*,
There Winter holds his unrelenting court.
Near the wild Oby, live *the last of men!*
There, *half enlivened*, by the *distant Sun*,
That rears and ripens man, as well as plants,
There human nature *wears its lowest form!!!*

Deep from the piercing Season, sunk in caves,
Close by dull fires, and with unjoyous cheer,
They waste the *tedious gloom; !!* immers'd in furs
Doze the *gross race;*—nor sprightly jest nor song
Nor tenderness they know, nor ought of life
Beyond the *kindred Bears* that stalk without.

The justness of these observations will not be questioned by travellers, who have compared the sluggish state and condition of the *rude Boors* of the North, with that of the inhabitants of the warmer South; of the Calabrians, Apulians, Anadolians, Circassians, of the Spaniards, for instance, as of many others, physically or mentally far superior to the frozen races. *La Condamine* and *other circumnavigators*, have remarked that the natives of warm countries pass from one extreme of climate to another with much less inconvenience or suffering than the natives of colder regions; a circumstance advanced in proof of their stronger and superior constitutions.

Cold bathing cannot be safely taken as an amusement in the middle age, nor later in life, unless the bather has been accustomed to it from youth, and has not omitted its use. The facility of bearing cold is an affair of habit; at least, in the earlier periods of life it may be acquired not only without inconvenience or prejudice, but with real advantage to the constitution. Perhaps the best mode of giving a taste for cold bathing is to do it gradually: to let it be acquired by degrees from the tepid bath, because the previous use of the tepid bath, as has been stated, gives the power of enduring the cold. Whenever I omitted to swim for a year or two, and have taken to the water again, I first resumed the tepid bath, and have then returned to the cold. If a child unaccustomed to bathing be plunged suddenly into a cold bath, it may take such an aversion to the water as will not afterwards be easily subdued; but if the child be first allowed to indulge in the tepid bath, and be gradually introduced to the cold, it may be brought not only to bear the cold, but to enjoy it; and the degree of cold to which the constitution may be thus endured is quite astonishing.

At *Petersburgh* the washer-women break the ice of the Neva, and continue washing for hours afterwards. At Paris in the Seine, I have seen the washer-women remain at their work through the day, when the surface of the river was covered with cakes of floating ice. During the winter campaigns upon the Rhine, and in Poland, the Austrian, Russian, and French armies were exposed to piercing, dry, continued cold, without tents, and very often without that consolation which a little snow would have afforded them; for snow on such occasions becomes to the warrior a comfortable blanket, he burrows in it like the cattle on the mountains, and can set the foul fiend at defiance.

To a diminished sensibility of the skin towards the impression of sudden cold, occasioned by long habit, we may probably attribute the ease with which attendants on cold and sea baths remain for some hours in a medium, which from its low temperature would exhaust and benumb those not accustomed to this practice.

The facility of TAKING THE WATER, as it is termed, is to be acquired; a little determination and a few day's practice give it; the water is never to be entered gradually by *inches*, for the sensation then, is unpleasant. A beginner, who always has some aversion to the element should muster resolution and throw himself in; for the same reason that any disagreeable medicine is not to be taken sip by sip, when it would be tasted, but is to be swallowed at a gulp, because the rapidity with which it passes over the organs of taste, the tongue and fauces, causes it not to be perceived. The power of bearing cold can never be sought with impunity by persons advanced in life, and unaccustomed to bathing; to them, *in diseases*, the application of cold, *as a remedy*, may prove extremely beneficial, when properly used; but to them, *in health*, the cold bath taken suddenly, will not always prove an innocent amusement. An expedient more grateful to their feelings is, however, open to them. They may find ample consolation in the *tepid swimming*

bath, and need not be under so many cautions and restrictions in resorting to it. Of this luxury women are particularly fond, and when in health they may be freely indulged in it.

If we consider the great difference which there is occasionally between our summer atmosphere and the heat of the sea, the bleak open aspect of many of our watering places, and the keen winds to which bathers are often exposed, we shall find reason to suspect that a number of invalids, of young puny children, and delicate females have materially injured their health, by an injudicious use of the COLD BATH.

The STEAM BATH may possess some advantages besides its powers peculiar to itself; viz. the facility of procuring and conveying it. There are other circumstances too, with respect to steam and ITS MODES OF APPLICATION, that may be mentioned as proper subjects for speculation, to be decided upon by future experience. These relate to its medication and to the propriety of carrying the exhibition of steam beyond the external surface, the inhalation of medicated vapor, &c.

The stupendous magnitude and prodigious remains of the Roman Thermæ, prove the importance the Romans attached to their *warm swimming baths*, which were considered by them establishments of the first consequence, were eagerly frequented by people of all ages,and assiduously promoted by the emperors to preserve *the* HEALTH, STRENGTH *and* COURAGE *of the citizens;* and the Romans, from their constant use and extensive experience of warm baths, must have been well acquainted with their virtues.

In public calamities, the greatest privation the people of Rome could suffer, was the suppression of the warm baths.

On public rejoicings, after victories, and great events, *the warm baths* were thrown open, (as *our Theatres* have been on similar occasions) *gratuitously* to the people; and every

countenance shone gratitude, every eye sparkled with delight. Even at present in the Levant, the days of bathing are considered as festivals, especially by the fairer sex.

Among the Romans some of their hot springs were dedicated to Hercules, the god of strength; and a great people so experienced in baths, would not have dedicated to the god of strength that which is now *erroneously* supposed to *produce a debilitating effect.*

Dr. Franklin was in the constant habit of warm bathing for many years before he died; he used it to relieve the infirmities of age, it answered his purpose, for it afforded him ease under the excruciating torments of the stone, and he lived to the advanced age of 84.

The practices of warm bathing and exercise in warm water, may therefore be considered as conducive to the health and STRENGTH of the BODY, and to the ACUTENESS and ENERGY of the MIND.

To conclude, the genial influence of warmth and moisture in the earlier periods of life will be found to favor growth and expansion, in the middle ages will prove invigorating, and when the pressure of years and infirmities steal upon us, warmth, the great foster nurse of nature, combined with moisture, will still support the feeble, will cherish and give health to the shattered constitution of man.

NOTE.

In many of our great towns, meetings had been held for erecting *Public Baths,* for the poorer classes, prior to the meetings for similar purposes in *London.* The Corporation of *Liverpool* had built baths for their poor; and, after the experience of two years of great advantages, are building more, and extending their original establishments. According to the parliamentary reports, before the end of the second year, these Baths, &c. had nearly paid their expenses and become self-supporting; the original charge for a Warm Bath with use of towel, was 2d., since increased to 3d.; in the second year they had above 12,600 Bathers. *Manchester, Aston under line, Birmingham, Glasgow, Aberdeen, Dundee, Paisley, Greenock, Bolton,* all profited by the example and experience of Liverpool. In November last, a large Meeting was held in *Edinburgh,* over which the *Duke of Buccleuch* presided; and *Lord Kinnaird,* and *Sir George Mackenzie, Bart.* have been exerting themselves to open Baths in Scotland on terms so cheap as to render them accessible to all. Surely this spirit cannot be too highly commended. These Meetings show a sympathy between the wealthier classes, and the more humble; and are manifestations of an earnest desire in the affluent to promote the happiness of their poorer brethren.

The usefulness and success of these plans, having been fully confirmed, it is now proposed to carry them out in *London.*

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BATHS AND WASH-HOUSES

FOR THE

LABOURING CLASSES.

Committee for General Purposes,

Chosen at the Meeting of the General Committee at the London Tavern, Oct. 25, 1844.

President.

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Committee Room, South Sea House; *Office*, 3, Crosby Square, *where there is attendance daily from* 10 *till* 4.

time she uses the tubs. No objection will be made to two women agreeing to wash each other's things. They may take turns for one to wash for both, while the other minds all the children at home. There will be room in the first wash-house for about one hundred and fifty to wash at a time.

The comforts of these WASH-HOUSES will be very great. There will be no need for any labouring woman, who can go to the wash-houses, to wash, or dry, or iron, her family's things at home. If she is *quick at her work* and does *not waste her time*, she may, by paying *one penny* or *two-pence*, save herself *all* the trouble of fetching water for washing, and of boiling it, and of carrying it away: and *all* the mess of washing and drying in her room; and *all* the expense of water, and coals, and irons. Besides this, her family will be saved *all* the trouble and unhealthiness of a damp room; and she will be able to keep her room *much more comfortable* and *much wholesomer* than she can at present. She will have to find her own soap, &c. There are to be no mangles at the wash-houses, because many industrious persons make their living by keeping mangles.

With the BATHS AND WASH-HOUSES together, labouring men and their families may keep themselves much cleaner and more comfortable than they now can be, and *for less money than their washing at home now costs them.* The plan has been tried with *great success* at Liverpool. They will save in time, and money, and labour, and trouble; and it is hoped that they will find the truth of the old proverb that "CLEANLINESS IS NEXT TO GODLINESS."

Committee Room, South Sea House, January, 1845.

I feel as if I could do another week's work, now I have been in the bath.

In Edinburgh the working men are now having Baths built for themselves, mainly at *their own expense.*

There are many diseases which are brought on by having a dirty skin, but which are put down to other causes. A good wash, every now and then, does better than physic, for it helps to stop sickness; and everybody knows that "PREVENTION IS BETTER THAN CURE." A comfortable warm bath will not cost more than a pint of porter.

The charges at the WASH-HOUSES are also to be *very small.* There are to be a couple of tubs for every woman who may wish to wash her family's clothes and other things there. She will first wash her things in one tub. Then they will be boiled in the other tub, so as to take out all the dirt. Then she will rinse them out in cold water, in the first tub. She is to have about 100 gallons of water for all this; which is a *very* handsome allowance. Her tubs are to be close together; and there is to be a wooden partition on each side of her, *so as to keep her comfortably to herself, and prevent her neighbours overlooking her.* When she has washed all her things, she may either take them home, or she may take them into another room, and put them on a clothes horse; which is to be all to herself, *so that her things cannot get mixed with any other woman's things.* The horse will then be pushed into a hot closet, through which there is to be a draught of hot air. In *about half an hour* all her things will be well dried and aired. Then the clothes horse will be pulled out, and she will take her things off it. She may then iron them at the ironing tables; which are to be provided with blankets and hot irons. Any woman who can wash at home, but cannot do her drying and ironing there, may bring her things to be dried and ironed at the wash-house; but she will be charged the same as if she used the tubs also.

For all this, she will only have to pay *one penny,* if she does not stay more than two hours at the tubs, and two hours more at the drying closet, and in the ironing-room. If she stays three hours at the tubs, and three hours more at the drying-closet and in the ironing-room, she will have to pay *twopence.* If she stays longer, she will have to pay more. She will have to pay just the same whether she uses the drying-closet and ironing-room or not; because she will have to pay according to the

BATHS AND WASH-HOUSES FOR THE LABOURING CLASSES.

THERE are very few labouring men in London who can get for themselves, or their wives or children, a thorough good wash, in warm, or even in cold water, without a great deal of trouble. There are very few of them who are not obliged to have their clothes washed, and dried, and ironed, in their own rooms.

The BATHS and WASH-HOUSES are meant to help them in keeping themselves and their families *cleaner and more comfortable* than they now can be. Some large buildings are to be fitted up for this purpose. Nobody is to take *any profit* from the Baths and Wash-houses. *All* the money to build them is *a free gift* from friends who wish to see hard-working men, and their wives and children, made more comfortable. The Queen much approves the plan, and has most graciously given £200. Prince Albert and Queen Adelaide, and a great many others, have given large sums. If there is *any profit*, it is to go towards building *more Baths and Wash-houses*. There are to be *separate entrances* to the men's and women's Baths, and to the Wash-houses, which will be under one roof.

The BATHS are to be *very cheap*. In one building there are to be about one hundred rooms, each of them large enough for a person to undress, and bathe, and dress in. Each of these rooms is to have in it a bath, a seat, and a looking glass. The bath is to be a tub, about as long as a man, and about two feet wide, and two feet deep. This bath is to be filled with either hot or cold water as the bather pleases. The lowest price is to be *one penny* if the water is cold, and *two-pence* if it is hot. Every bather is to have about 80 gallons of clean water. As soon as the water has been used, it is to be run off into a drain, so that *the same water cannot be used twice*. There are to be some larger baths, where a woman may wash all her children under ten years old, and she will only have to pay one penny or two pence, as if she bathed by herself. There are to be shower baths and vapour baths, likewise very cheap. There are to be some six-penny baths also. The difference between the two sorts is to be in the fittings up of the rooms. The bath itself is to be the same in each case. A clean towel is to be found for *every bather*.

The good of these BATHS will be *very great*. A clean skin is not only very pleasant, but helps to keep people in good health. When people who work hard get a thorough good wash all over, the comfort of it is *very great indeed*. They are set up again for their work in a way that *surprises them* if they have not been used to it. The BISHOP OF LONDON said, at the public meeting at the Man-