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PRACTICAL ESSAY

A

ON THE

GOOD AND BAD EFFECTS

OF

SEA-WATER AND SEA-BATHING.

BY

JOHN ANDERSON, M. D., F. A. S., C. M. S., &c. PHYSICIAN TO, AND A DIRECTOR OF, THE GENERAL SEA-BATHING INFIRMARY AT MARGATE.

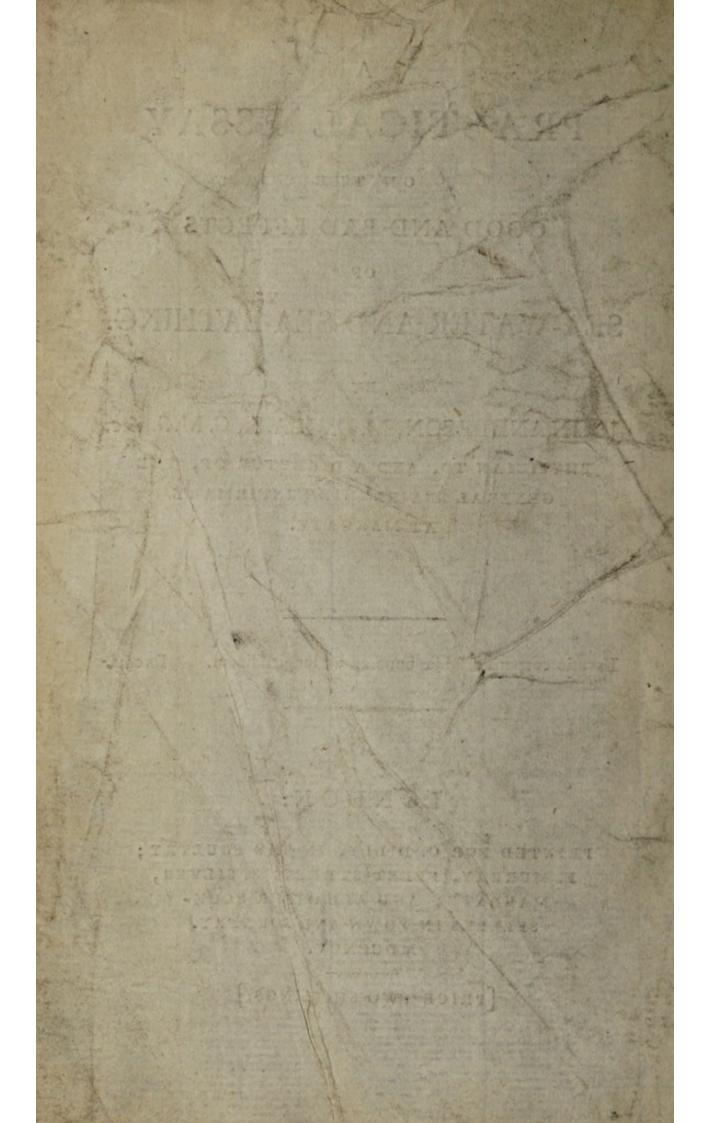
Lavatio corporis frigidæ bona est ad longitudinem.

BACON.

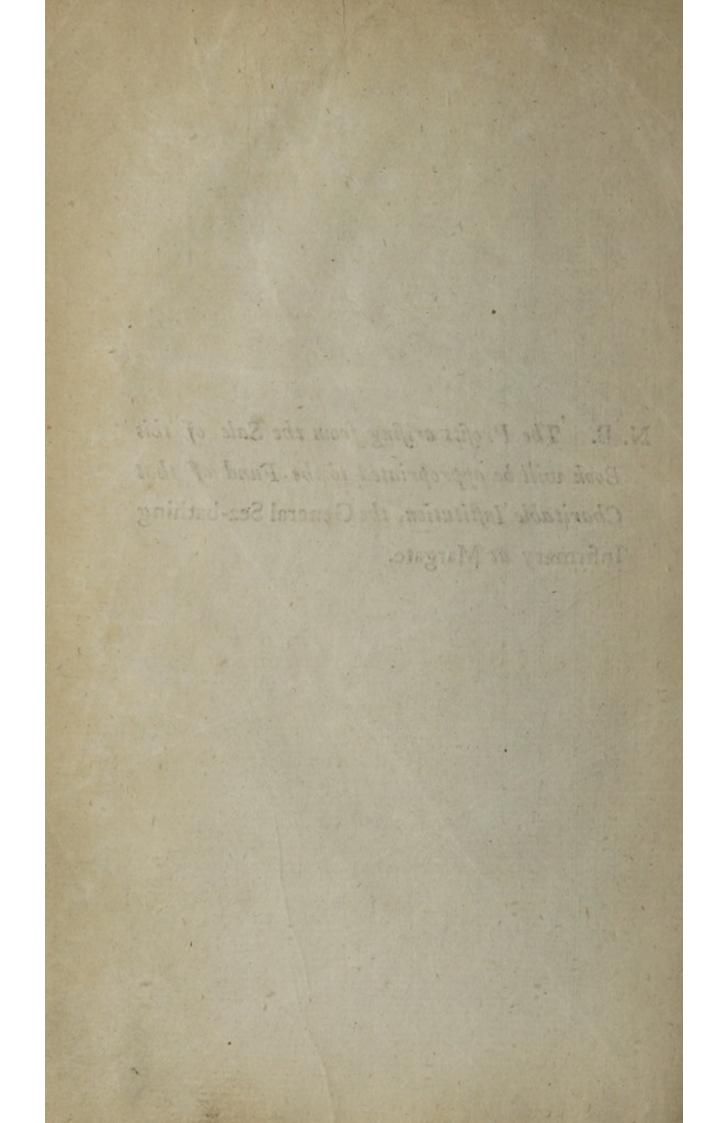
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N. B. The Profits arifing from the Sale of this Book will be appropriated to the Fund of that Charitable Institution, the General Sea-bathing Infirmary at Margate.



THE PATRON,

PRESIDENT, VICE-PRESIDENTS, TREASURERS, MEMBERS OF THE LONDON AND MARGATE COMMITTEES, SUBSCRIBERS, BENEFACTORS, AND ALL ZEALOUS FRIENDS, AIDERS, AND SUPPORTERS OF THAT HUMANE INSTITUTION,

THE

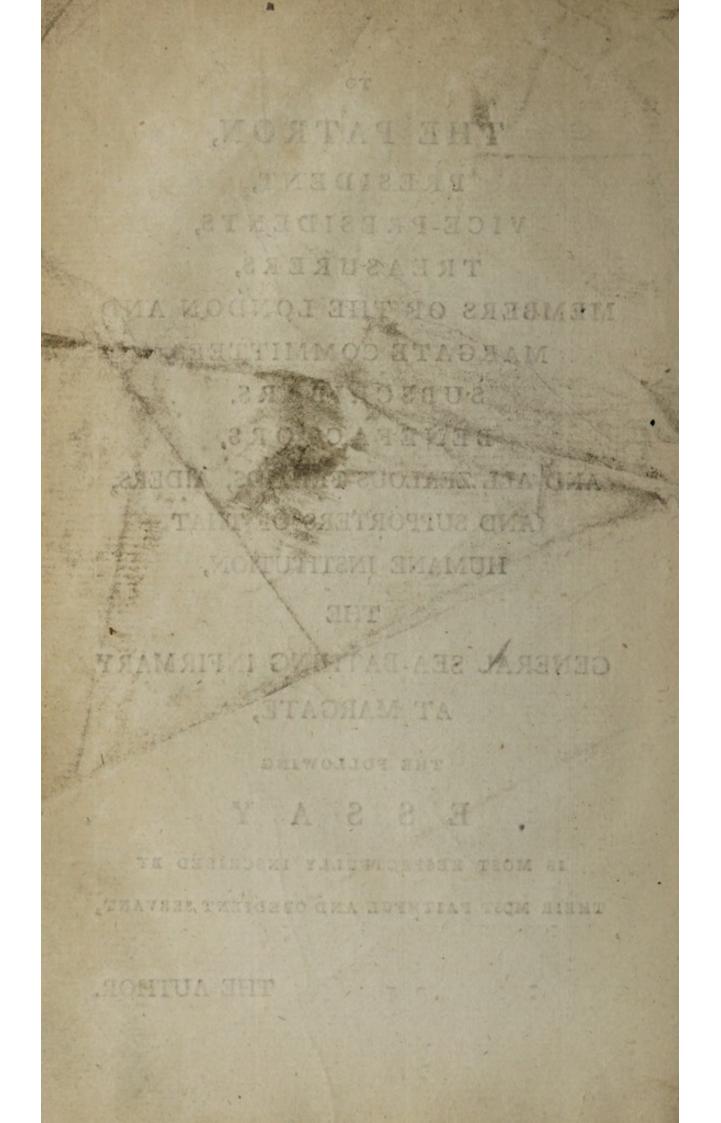
GENERAL SEA-BATHING INFIRMARY AT MARGATE,

THE FOLLOWING

ESSAY

IS MOST RESPECTFULLY INSCRIBED BY THEIR MOST FAITHFUL AND OBEDIENT SERVANT,

THE AUTHOR.



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IN the practice of fea-bathing we have not only to attend to the nature, temperature, power, influence, and effect, fenfible and infenfible, that refult from the use and abuse of the bath and effential auxiliaries, but alfo to the natural and acquired state of the habit or constitution : the nature of a complaint, and times and periods of its use; ex. gr. there is much difference in the power and effect of the fea-bath between going into it with an empty and full ftomach; between going in temperately warm, and in a fervor and perfpiring, or chilly; between going in prepared and unprepared; between going in courageoufly and timidly:

timidly: by all the first there is fafety and good to be expected; by all the latter, hazard and danger, except in that one instance of it, in the bite of a rabid animal, when the bather's mind must be alarmed by the greatest fear, and flaccidity brought on the fystem.

There is again much difference in the effect of the fea-bath ufed immediately before and after a periodical evacuation, fuch as the menftrual; or before and after a mifcarriage: bathing before a period haftens on, and increafes, the difcharge: bathing after, ftrengthens the collapfed uterine fyftem againft a premature and violent, irregular return of them; it helps conception, and to enable the uterus to retain its increafing burthen to the full time of geftation. Bathing immediately before a febrile exacerbation, or convultion, or gouty paroxyfm, by ftimulating to action the folids, and thereby accelerating the circulating fluids, haftens on, and exafperates, the fymptoms.

The efficacy of the fea-bath is much prevented by a perfon's fear, efpecially the feeble, nervous, irritable, habit; fuch as the hyfterical or hypochondriacal, or thofe that may have an antipathy to bathing (hydrophobia excepted), which, if 2 they they have, the intention of the bath will be fruftrated: it is unfortunate, as there is really no danger; they are not carried beyond their depth. If they will only thut their ears, eyes, and mouth, and truft themfelves for a moment in the hands of their fagacious, faithful guide, all will be well. Timid perfons ought to take a glafs or two of generous cordial wine on entering, and on coming out of the bath, if they are the leaft chilly. Ardent fpirits of any kind are improper; they dry, burn, then chill, and check genial perfpiration, ftupify and confound the fenfes, and deftroy the nervous fystem; and, instead of exhilarating the fpirits and appeafing anxious folicitude, bring on horrors, tremors, or fhakings, and depreffion of fpirits, until difease abbreviates the term of life.

When there is a general or particular weaknels in the fecreting organs; when the ftomach and bowels are unable to perform their excretory functions, or the fibres of the arteries cannot vibrate to accelerate the languid circulation, and the fpirits are flat, fecretion obftructed, or flow in the glands, or uterus incapacitated to throw off its monthly purgations; or fenfible or infenfible transfiration is diministed; the fea-bath is efficacious in purifying the habit and maintaining the equipoife.

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A Mifs

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A Mifs P-----, at Nº 18, Holborn, aged eighteen, came to Margate, in Autumn, 1792, to bathe in the fea. She was of a pale chlorotic complexion, and had been four years in the hands of the faculty for bilious bowel-complaints, and irregularity of her monthly terms, which never were in due quantity: in fhort, she had no one fecretion or excretion that went regularly on. She would be frequently conftipated, attended with racking pain and diftention of her ftomach and bowels. Her complexion was livid; her lips pale, eyes dull and languid, and her temper exceedingly fretful and impatient. On her coming from the third bath she felt herself extremely fick and fqueamish at stomach, which increased with great commotion and diffurbance through her whole frame; and by the next day her hands were much fwelled and inflamed, and full of fmall limpid ferous vefications. Mr. John Silver, her furgeonapothecary, called me inftantly to her before any thing was done. I defired her to make herfelf eafy, and to be thankful; for that nature, by virtue of the fea-bath, was doing great things for her, by expelling the morbific matter from the internal habit on the fafeft part of the body; and that we had only to affift nature, as fhe pointed, in her falutary efforts, to exterminate noxious humours

mours and the caufes of them, and fupply their room with more kindly particles to enter in and affimilate with the blood.

I fimply ordered a fomentation to her hands of a decoction of mallow leaves and elder flowers twice a day, and cataplaims of barley-meal made with the fame liquor, to lie on intermediately; and by the next day the inflammation and pain abated, and a ferous limpid humour began to run, which increafed in quantity, at every dreffing, twice a day, and was fo intolerably fetid as even to forbid her mother coming into the room. Thus it ran for a week, and then kindly dried up; when her feet became in like manner affected, difcharged, and healed up alfo in a week. After thefe difcharges fhe found herfelf in the enjoyment of perfect health, and every thing became regular in her conftitution. She took two or three dofes of gentle phyfic, and then went round the town of Margate to fhew what a miracle the fea-bath had performed on her: fhe took only one diaphoretic julep during the time. She left Margate in perfect health and good temper, pleafed with every thing and with every body. This lady waited on Dr. Lettforn and others, to give ocular proof of the great efficacy of the bath.

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The fea-bath not only promotes the morbidly fupprefied monthly terms, in habits efpecially unaccustomed to bathing, but other fanguinary hæmorrhages, and the running of iffues; it ftimulates, expands, and gives energy and force to the debile flaccid folids; rouzes, warms, and actuates the cold indolent mafs of fluids, and feparates noxious particles from the purer juices of the body; fuch as in the cold, pale, languid, feeble, chlorotic virgin, and reftores her to warm comfortable health, ftrength, and colour. Nature is brought into her more regular line. To fay feabathing never fails as an emenagogue would be faying more than is true; for, though I have known it to relieve many obftinately obftructed, still I have known fome to refist its force, and be obliged to have recourfe to other means: it is, however, an excellent auxiliary to medicine.

The fea-bath is certainly a great affiftant to the organs of digeftion: it enables them to act on the aliment for elaborating the crude and imperfect chyle, or nutritious juice, for a fubfequent fanguification. A *cacheclic*, or depraved flate of the fluids, is induced by excefs thrown in, and a defect of the digeftions and natural difcharges.

female fea-bathing

The uterus, being the fpring, or fountain, of many complaints peculiar to the female fex, I have always confidered its irregular action, attended with either a morbid obstruction or an irregular profusion, of the catamenia, as the first step neceffary for the phyfician to attend to in the cure of their complaints. I have never obferved any to yield kindly till that was regulated. There is a great difference, however, in the irregularity being primary or fecondary; for, if fecondary, remove the primary caufe, and the concomitant effects will cease; for instance, dejection, fretting, grief, or difappointment, to the females of great fenfibility and irritability of nerves, may be traced to be the occafional caufe of many of their complaints; fuch as hysteria, fyncope or fainting, epilepfy, obstructio & profluvium menfium, abortion, head-ach, mania, convultions, and nervous complaints in general; all which are objects of fea-bathing, judicioufly managed.

That fea-bathing fhould have the power and property of removing fupprefied menfes, and of reftraining a too abundant flow, *i. e.* open and fhut, relax and brace, appears fomewhat paradoxical; but it is fact, and for which I have the fuffrage of the faculty on the coaft; of the oldeft

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female fea-bathing guides at Margate; of fome of the great antient and modern writers, and my own experience for it, though none have attempted to affign a reafon for its having two fuch very oppofite effects. Virgins who have had their terms obftructed, fome three, fome four, five, fix months, have been relieved after bathing a few times in the fea; fome after a few weeks, and fome have required a flort courfe twice or thrice, previous to the periods of menftruation, before they became perfectly regular and in due quantity.

Weakly women, again, efpecially after bearing children, that have an irregular profusion, have been relieved by fea-bathing in proportion to the ftrength they acquired by it: a very long courfe debilitates, and increases the flooding. Much depends on their being laid fostly down in the water, on their back, and instantly fent out again, and not going in oftener than once or twice a week.

offects will ceafe; for infiance, dejection, fret-

Sea-bathing has been recommended as efficacious in *fluor albus*. I with I had found all the faculty and female guides in one opinion; but they are not. Some fay it is very efficacious, while others fay they never knew it to be of any fervice in

That fea-bathin athould finned the power and

in it. To compromife the matter, though I am not warranted to fay, from my own experience, that it has effected a cure by itfelf, yet I have found it an excellent auxiliary to medicine. *Ætius* advifes the cold fea-bath for the *catamenia* when too abundant, *fluor albus*, and *lapfus feminis*.

The late illustrious Dr. Robert Whytt, king's profeffor of medicine at Edinburgh, fays, in his Treatife on Nervous Diforders, "that he has known "a profusion of the menses and fluor albus cured "in a great measure by fea-bathing, when medi-"cines had failed."

Mr. George Slater, furgeon-apothecary at Margate, favoured me with a lift of complaints in which he found fea-bathing efficacious, namely, in glandular obftructions, chronic rheumatifm, fcurvy, leprofy, hyfteric and hypochondriac affections, nervous complaints in general; *fluor albus*, gleets, feminal weaknefs; diabetes, rickets, and in almoft all complaints arifing from relaxation of the folids; in *profuse* and *suppressed* menfes from debility, and not from inflammation and plethora; and in preventing abortion.

Mr. Edward Daniel, fenior, furgeon-apothecary at Ramfgate, favoured me alfo with a fimilar lift

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lift of complaints in which he found fea-bathing to be efficacious, namely, in fcrofula, hypochondria, hyfteria, chronic rheumatifm, fcurvy, in fome chlorotic cafes, debility, after fits of illnefs, *uterine fluxes*, *fluor albus*, and in low nervous cafes. This was accompanied with general obfervations on the ufe and abufe of fea-bathing, as will appear occafionally in the fequel, and in my intended Effay on the warm fea-water bath.

Mr. Thomas Mantell, furgeon-apothecary at Dover, fays, "that a profluvium menfium he regards in two lights, as proceeding from plethora and debility. In the firft he has found fea-bathing to do hurt; in the latter to be extremely beneficial. In that kind of mænorrhagia which fometimes attends pregnant women he has feen very good effects to refult from its cautious ufe.

"In fluor albus and feminal weaknefs he has found the fea-bath of infinite use, though not in every species of fluor, ex. gr. in gonorrhaa virulenta."

Mr. Samuel Frome, furgeon - apothecary at Broadftairs, fays, " the effect of cold bathing on the human body fhould be that of a tonic or general bracer; neverthelefs it will not agree with every every fubject who is debilitated, and may require a tonic remedy; for, if there be no reaction on the fedative effect of the water, the confequence will be that of rendering the perfon cold and unpleafant all the day, and will debilitate inftead of reftore. In fuch a cafe he prefers warm feabathing, which, by exciting a comfortable degree of warmth, gives vigour to the fyftem.

"Females who do not menftruate regularly, or have not begun at the time expected, if it arife from relaxation, attended with fhortnefs of breath, pale fallow countenance, proftration of ftrength, pain in the loins, ftomach, &c. I would, he fays, recommend cold fea-bathing, provided after one or two trials they find themfelves warm and comfortable after bathing; but if, on the contrary, they fhould be cold, to try the warm fea-bath, for the reafons given ; but fays, we fhould well difcriminate between the females who do not menftruate from debility of the fystem, and those who do not from plethora, or a rigidity of the uterine veffels, attended with headach, tenfion of the veins, &c.; for, as in the former all tonic remedies must be used; in the latter, bleeding, efpecially just before the period when menstruation should take place, in a small quantity, gentle aperient medicines, and putting the feet into warm

warm water, fhould be tried, of courfe fea-bathing muft be very improper, upon the principle of its being a tonic: in fact, every thing fhould be done in this inftance that will relax, while in the former every thing that will reftore; therefore, the *fair fex* fhould not indifcriminately bathe, but fhould previoufly confult with fome judicious phyfician or furgeon. And it is a miftaken notion, when young women do not menftruate regularly or not at all, that their complaints arife from that caufe: the fact is, there is fomething wrong in the fyftem, and menftruation is merely the effect of the conftitution being right; and therefore, where it does not take place properly, we fhould endeavour to mend the conftitution.

"Too great a profusion of the menfes may likewife arife from debility or plethora; the one producing a paffive hæmorrhage, the other active, which should be moderated as its nature may require."

Amongft the female guides, Mrs. Pavey (nineteen years a guide) fpeaks the moft decifive on its effects on *fluor albus*: fhe fays, fhe hath bathed many ladies in the fea for this complaint, who experienced a perfect cure.

The facts being thus fo far afcertained, I had next to trace effects to their caufes; and I am fatisfied that much depends not only upon the conftitution but upon the feafon, temperature of the weather, mode of living, mode of bathing, ftate of the mind, stage of the complaint, length of a course, and distance of time between each bath. All which fhew, that fea-bathing is more at prefent practifed than a knowledge of it is, or can be in general poffeffed. Much will ever depend upon the judgment, diferention, and fagacity, of the rational phyfician, and other judicious, experienced, and well-informed directors, refident upon the fpot, and confidence and compliance of confulters themfelves to rational prefcription, without which nothing advantageous will, or can be gained. Hit or mifs, luck will be all.

Sea-water, whether ufed internally or externally, is a powerful promoter of the monthly terms; for I have known even the paddling of the hands or feet in tepid, and fometimes in cold fea-water, to quicken the evacuation, ufed, at the period of menftruation. I have known others who have indifcreetly, when in a fervor, and menftruating, plunge into a river, and have inftantly ftopped the *catamenia*, fo as to affect the brain and greatly derange nature. Some of thefe I met with in the mad-houfes in the county of Surrey, Surrey, which I attended twelve years with the vifiting magistrates, in virtue of an act of parliament; an act that does honour to humanity.

Those for whom I have been confulted early that were in a maniacal delirium from a fudden fuppression during menstruation, I have relieved, by forcibly bringing on the monthly terms at the next ensuing period.

I have never yet heard that fea-bathing has caufed mania, or madnefs of any kind. As the tepid fea-water bath has proved efficacious in febrile and puerperal phrenzy, why may it not in raging mania, in which there is heat and denfity of blood in the brain, attended with an impervious fkin? I have not yet feen or heard of it being tried. In melancholic mania the cold feabath will fuit beft; but where the *globuli fanguinis* prevail above the natural degree or quantity of ferum, the mind becomes precipitate, furious, inconftant, and flighty; it indicates a thin, attenuating diet, gentle exercife, and the tepid bath.

The female guides all tell me, they attend ladies in the fea-bath during menftruation, as well as when off, and it does not ftop it on them; it rather quickens the difcharge. Moreover they fay, that that many ladies have bathed during pregnancy, and no mifcarriage has happened in confequence of fea-bathing. One of the guides, Mrs. Sharp, went fo far in praife of it as to affirm it to me for fact, that the bathed a lady from conception throughout her pregnancy, to the laft hour, and never had a mifcarriage, and that the laft delivery the had was much better than any the had had before; which only thewed to me, that excefs of the bath had relaxed and paved the way for a mifcarriage which the had laft feafon (1794).

The female guides are certainly very fertile in bringing fubjects to the ftate; and all tell me that many ladies have come and bathed in the fea and conceived, though fome of them, many years married, never had before, and went their full time; nor did fome ftop there, but went on regularly afterwards in the productive line of bearing; wherefore we are led to confider feabathing, by ftrengthening the uterine fyftem, as a potent remedy for barrennefs.

The ftimulus of the fea-bath medicinally ufed, and where it can be borne, no doubt braces and gives tone, warmth, and energy to the fyftem, and if fo, it must to the uterine fystem; but, if carried carried to excefs, efpecially in delicate irritable habits, it debilitates, enervates, relaxes the folids, exhaufts the fpirits, breaks down and vitiates the blood, and thereby increafes the fymptoms of a complaint that terminates in abortion or cachexy.

Three fummers ago an amiable lady, aged thirty-feven, who had been fix years in the East Indies with a first husband, and after bearing nine children to him and a fecond hufband, meeting with fome domeftic grievances, her excellent natural conftitution became injured, and a profluvium mensium enfued. She was recommended to bathe in the fea. She went to Devonfhire, and, to affift the bath, her doctor gave her fome tonics, fuch as the peruvian bark, by which, and the bath difcreetly ufed, fhe received much benefit, and returned after a fhort course to London. Some months afterwards her fymptoms of weaknefs returned, and fhe came to Margate, and bathed not only one, but three fucceffive fummers; but, inftead of using tonic medicines and ftrengthening diet, she told me, her physician had ftrictly enjoined her to live on the low watergruel and vegetable diet; no animal food, or even a glass of cordial wine, or any thing that was comfortable, allowed her; and moreover added, that

that fhe was much in the habit of taking purgatives, the effects of all which were, as might be expected, acidities to prevail in the first passages, with inactivity of the bowels; and the became often conftipated with flatulent bilious colics; and her monthly, I may fay weekly, difcharges (fluxus uterinus) became floodings, and the colour and confistence rather like loturæ carnium recentium than natural. Her ufual fair and ruddy complexion became fallow, her lips livid, her eyes dull, and her features ghaftly; a febrile paroxyim came on every evening about feven, and lasted until morning: on the accession of the fit her right fide over the region of the liver would heave up to a confiderable fize, and fubfide again on the declenfion of the fit. Her tongue was furred and brown, attended with other fymptoms of a flow remitting fever far advanced. In this deplorable ftate, and after having the fentence of defpair paffed on her by her phyfician, fhe came flying to me very much alarmed. Her countenance was ghaftly-the very picture of death. She was exceedingly hafty and anxious to hear my opinion of her cafe. I bade her make her mind eafy; for, that I could account to myfelf for all her fymptoms, upon the principle of inanition, alias starvation, and perfifting in the bath beyond what nature could bear rather than upon that

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that of an irremediable difeafe, and therefore, notwithftanding all that had paffed between her and her doctor, I trufted, by putting her upon the very oppofite plan, I fhould be able to procure her a *reprieve*, and that in no long time.

I forbade her going any more in contact with the water, and enjoined her to forfake the low meagre soup and vegetable diet, and live more generoufly on fifh (fhell-fifh efpecially) and animal food, and to drink a few glaffes of generous red port after dinner; but to begin and increase the quantity of food and wine gradually, as all great and fudden transitions, especially of these kinds, are dangerous; and I ordered for her a tonic febrifuge medicine; all which the ftrictly attended to; in three days her evening fever left her; in feven she had not a morbid fymptom. She got on horfeback, and rode repeatedly about the ifland, acquired strength daily, and returned in two or three weeks to London in high health and good fpirits, and continues to enjoy it. Mr. John Silver was her apothecary while I attended her.

A married lady of Stratford, aged thirty-three, the mother of feveral children, on grieving for the lofs of a favourite child, &c. her health became impaired: fhe became fubject to hyfteric fits, at-4 tended

tended with profusion of the menses; and fo great a failure of fpirits that the least flurry or furprize would throw her into a fainting fit, and bring on floodings. After having taken much medicine without effect, she was sent to Margate ten years ago to bathe in the fea, which fhe did three fucceffive fummers, but at length, inftead of relieving her, it exafperated her fymptoms, that is, from one fit in a week to four or five in a day; and fhe would be feized with a fit in the very act of bathing-an evident proof that the bath was carried too far. I was then confulted, and I forbade her bathing any more, and enjoined her to live more generoufly. I wrote for her a few cordial antifpafmodic medicines, which fhe ftrictly attended to, and in a very few weeks fhe left Margate in perfect good health, and foon after gave her affectionate and endearing hufband another pledge of her love, and continues now, after feveral years, to enjoy good health. Mr. George Slater was her apothecary.

The cordial intelligence had a very happy effect on thefe two ladies, which I confider as incumbent on me to give whenever I can with propriety, and without betraying my judgement: in which cafe it would be cruel. Hope gives energy to medicine, and perfeverance to method:

Bleff-

Bleffed hope, the universal balm To fickness, pain, and misery below.

Lætitia cordis vitam hominis eft.

The phyfician is called upon to comfort, fupport, and relieve nature in her difficulties agreeably to her laws and indications, not to deprefs and kill. The merciful condemn not.

The virtue and efficacy of the fea-bath is not always fo fenfibly felt immediately while on the fpot, as in a few weeks afterwards. In the above two ladies' cafes, wherein the bath had been perfifted in too long, that is, until their habits were too much defpumed, a morbid turn given to the fluids, and lofs of tenfion to the folids; yet, on the bath being defifted from, I found it eafier to reftore their much debilitated habits by proper medicinal and dietetic adjuvants than if the fymptoms had arifen from any morbid caufe. I have found it lefs difficult to cure hysteria after a course of sea-bathing, though I have never met with any yet cured by it alone. I fay the fame of epilepfia and fome other difeafes, wherefore in certain cafes, it is only auxiliary.

(21)

ABORTIONS.

I have feen and heard of but few inftances of mifcarriages having happened in confequence of fea-bathing; one, however, has occurred, and it is for me to mention it and the caufe.

A Mrs. B—, ten weeks gone in pregnancy, and who happened to have one or two mifcarriages, came from London a few feafons ago, to Broad Stairs, to bathe in the fea to prevent this circumftance. After the fecond bath a flooding came on: two eminent accoucheurs (Slater and Mayhew) were called to her, and I to their afftance next morning, when I found her flooding, and had flooded a great deal, and was exceedingly low, though no deadly fymptoms had come on. We fupported her by proper nutritives and a few medicinal draughts, &c. A mifcarriage faved her. Her uterine fyftem was too weak and irritable to bear the ftimulus of the bath.

Mr. Mantell fays, he has attended feveral ladies in pregnancy where fea-bathing had been prefcribed, but not always with fuccefs: he inftances one lady who was fent in the year 1784 to the coaft, both for the advantage of bathing and

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the fea air, to remove an *amenorrhæa*. She attended ftrictly to the advice given; but, after following it for fome time, fymptoms of an abortion came on, which fpeedily took place, and convinced her that fhe and her phyfician had been for three months miftaken; and though none of the *emenagogue* medicines which fhe had taken took effect, fea-bathing did, though not in the moft defirable way.

Thefe two inftances and one more lady at Margate, that was threatened, and obliged, a few feafons ago, to quit the practice, I confefs, rendered fea-bathing during pregnancy fomewhat equivocal with me for fome time; but not meeting with, or hearing of any more fuch, though a great many pregnant ladies have fince come to Margate and bathed; and having the fuffrage of all the female guides in favour of it, my fears are greatly done away, *i. e.* excepting in very delicate, nervous, irritable habits, indicated by a quick pulfe and preternatural heat, under which circumftances, I ftill think fea-bathing hazardous and unwarrantable, efpecially during the firft months of pregnancy.

Where I have observed the *fea-batb* to be of most fervice in an immoderate profusion of the menses, it has been, when used immediately, or foon foon after a period; and, for preventing abortion, foon after conception, or an abortion when the *uterus* is in a collapfed ftate; and it and the general fyftem is more capable of receiving new elaftic tenfion and fpring. Mrs. Sayer and the other guides agree with me in this.

Thofe who are afraid of the fea may have a fpray of fea-water let fall on them, or impinged againft a debile lax part, which powerfully roborates, and gives vibration to the debile veffels. The feabath diflodges cold ftagnating humours in the courfe of the circulation, by fenfible and infenfible transpiration, and warms and invigorates the fyftem, and thereby fortifies the womb.

If the fea-bath had not only the effect of caufing univerfal of cillation and contraction, but alfo expansion, it would not be fo efficacious in fubduing vifcidity, or preternatural cohefion in the fluids, and fitting them for passing through the glandular strainers; and the noxious principle for being separated, and either depurated on safe parts, or cass off by the different emunctories or outlets from the body, to leave room for the introduction of new benign particles fit for the process of affimilation, animalization, and reparation of the waste. Unaffimilated particles bring nothing to

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the ftock of the animal fibres, for making them ftrong and elaftic, in their alternate contraction and dilatation.

Animals and vegetables, as well as the ocean, require to be kept in a continual fluxionary ftate of ebbing and flowing, contracting and dilating, heating and cooling, filling and emptying. And though fome require oftener and greater mutation than others, yet none bear with eafe the violent extreme long continued. Extreme right is extreme wrong. Swimming long difpirits more by the relaxation of the water than by the exercise, and gives cramps, chills, and rigors. The feabath does not altogether depend upon the mere ftimulus of heat and cold on the organs of fenfation, but also upon the absorption of some of the aqueous faline particles, or how comes fuch great changes to take place in the animal œconomy? Sea-water, though very penetrating, as the orifices of the inhalent and exhalent veffels are induced to contract on entering the cold bath, there cannot much of the watery particles be abforbed, or the animal fluids pass off on a momentary dip: only, on a long and a frequent immerfion, laxation and debility take place. The cold application to the fkin, whether of air or water, contracts the pores, and retains innate heat, i. e. concondenfes the rarefied fpirituous air, which, on the preffure being taken off, breaks out again with greater force upon the fuperficies of the body.

As gravity and preffure muft be taken into account, a dip in the fea muft be preferable to a dip in a tub or river. In the tepid bath neither gravity nor preffure, nor fpring is fo much wanted, only longer continuance to anfwer the purpofe of a relaxant, foftener, and cleanfer. All that is wanted by the fea-bath for the animal machine is to bring about the equipoife or mutual balance between the folids and fluids in the fyftem, for maintaining the *pabulum vita*, or fpark of life.

After fatigue and wearinefs, whether by travel, bufinefs, or inceffant purfuit after pleafure, no matter which, if the fpirits be exhaufted, and the body languid by the nervous chords being too far ftretched; or, after a fprain or diflocation, before inflammation and fluxion take place; or, after a regular paroxyfm of gout or rheumatifm; or, indeed, after any violent fit of illnefs, as fever, there is nothing that fo foon, or fo fafely, braces up, or gives elaftic tone or tenfion to the debile relaxed fibres, and acceleration to the flow moving moving fluids, as a general dip, difcreetly ufed; it infpires the foul (divinæ particulam auræ) with rapture and delight; and the being fatisfied in the idea of having fecured an intereft in acquiring and re-eftablishing health — is a good point gained.

Immerfion in the fea is not only of use to the human species but to the brute, such as the horfe and dog: it cleanses, strengthens, animates, and preferves them. Many are the great good effects produced by external application, either by increasing or diminishing animal motion, when below or above the standard of health, as is manifest by the stimulus of heat and cold.

None catch cold by the act of fea-bathing but the unthinking, who plunge into the water while in a fervor, or drefs after it on a wet fkin. I believe it is allowed by phyfiologifts, that wherever there are emiffaries, there are alfo abforbing or inhaling veffels: the body is at no time fo liable to catch cold, or infection, as when perfpiring.

The cold bath refifts, on coming out of it, the fenfation of cold; but on coming out of the warm relaxing bath, the fluids being then rarefied, and the pores of the fkin open, the body is more fufceptible fusceptible of cold; but, the moment the cloaths are put on, a genial glowing heat diffuses over the whole body.

To maintain health, the human body requires a certain degree of circumambient weight and preffure, to give tenfion and vibration to the moving fibres, and velocity to the blood in its circulation, and invigorate the fecreting and excreting organs, for performing their functions daily in feparating and expulsing the recrementitious, and retaining the nutritious, particles for the fupport of life. And, if the gravitation, or weight of air, be not fufficient to maintain the fluids within due bounds, they will rarefy, and be hurried on crude and indigested, and the circulation becomes irregular, fometimes too faft, and fometimes too flow, when recourfe must be had to a more dense fluid to maintain the equipoife; viz. water, which is eight hundred times heavier than air, and feawater is still more heavy, buoyant, infinuating, and deterging, than fresh, by the principles it poffeffes; and has more force, either as a bracer or relaxer, as ufed.

The degrees of preffure of water depend, not only upon the principles it contains, but proportionate to its depth or diffance from the furface: the the deeper, the colder and more compreffive and infinuating it is. A fresh dead corple thrown into the fea finks; but, there being no refistance to the influx of the water, the body prefently fills, and floats again on the furface immensely distended. A well-known experiment shews the vast compreflive and infinuating force of the fea: fink an empty quart bottle, firmly corked, fealed, and wired, by a line and lead, forty, fifty, or fixty fathoms in the fea; on hauling it up inftantly again, the bottle is found full of water, and the cork in the neck of the bottle inverted. Nature, abhorring a vacuum, forces the cork, and the water rushes in. As Homer fays,

" Vaft is the force of the deep flowing fea."

By the fea-bath giving new fpring to the animal folids, and increafed motion to the circulating fluids, preventing depravation, and fupporting the animal powers, it becomes one of the greatest alterants in nature.

Though fea-bathing increases and exasperates febrile and inflammatory complaints, yet hereditary and flow acting chronical affections are objects of it. It is specific in many, regularly and judiciously conducted.

Sayer,

Sayer, Philpott, and the other bathing guides here, all agree in faying, that they confider feabathing as fpecific in cbronic rbeumatifm: that a courfe of fix weeks or two months, going in three or four times a week, leaves little or no remains of the complaint; and by revifiting the place one or two feafons more, completely conquers it, and fortifies the fyftem againft future attacks. They agree with me, that not any difeafe, that is attended with acute pain and inflammatory diathefis of the blood, or with vifceral inflammation or exulceration, is proper for fea-bathing: thefe are objects more proper for the warm fea-water bath, for which it is very efficacious.

In fcorbutic rheumatifm and fcorbutic atrophy, fea or land fcurvy, leprofy, tetterous and other cutaneous defedations and glandular fwellings, it is efficacious. I have not obferved it to be of any use in *pfora* or itch: it enrages it, especially if inveterate, and of long standing. Sea-bathing is of use after it is deadened in cleansing the standard

Celfus and Antillus mention fea-bathing as a remedy for dropfy; and Zacutus Lufitanus mentions a dropfical patient, who being neceffitated on a voyage to drink fea-water inftead of fresh, was I thrown

thrown into a diarrhaa, or loofenefs, and cured. And Barnard mentions an afciles, or dropfy of the belly, cured by drinking fea-water and bathing in the fea. I have enquired particularly if there have been any inftances here to confirm this, but I cannot learn of any having come to bathe for it. In an incipient dropfy, or fcorbutic œdematous legs, it may, and has been of fervice, but in a confirmed dropfy I have no idea of its being of any use. It is rather preventive than curative of dropfy. I rather refer it to the warm feawater bath, as it fweats the bather after it very profulely, and fweating is most wanted in dropfy. In œdematous and anafarcous fwellings the blood moves floweft in the fkin, and when the circula-" tion is flow the fkin is pale and cold. Sea-bathing, by its contractile force and ftimulating power, impels the fluids of the body from the periphera to the center and forces them into their channel, fuch as the urinary, until the preffure of the water is taken off, and moderate exercise and friction after the bath takes place, when the circulation quickens, and the heat reverberates, and is renewed with force on the ikin, and mufcles, which acting kindly on the papilla nervosa, communicates by fympathy fenfation to loft feeling, and thereby renews loft action in the nervous fyftem; the momentum and velocity of the flow languid blood

blood is increafed : it becomes better digefted and more fluxile, and fitter to pafs through the minima vafa, or minute extreme veffels, to the relief of the inundated habit. Secretion is promoted, as we evidently fee by the increafed difcharge of glandular juice from glandular fores, a fign, by the bye, of coming health; for, by it noxious particles are excerned, and the body is purified; and, as the fluids approach nigher to the natural state, the discharge gradually lessens, and the fores kindly heal: the hard impervious fkin is foftened, opened, and impurities cited from the interior receffes, and thefe fluids revel on the exterior fuperficies of the body, whereby the glandular and fanguiferous fystems are relieved, fensibly and infenfibly, by the fkin, the breath, the urine, ftool, bile, pancreatic juice, &c. and the folids are quickened and invigorated, the vital principle fupported, and all the animal actions reftored.

For the tympany, or dry dropfy, Calius Aurelianus commends fwimming in the fea and fweating after it. Poffibly it may be efficacious, but I have not feen nor heard of its being tried.

By the fea-bath ftrengthening the debile fyftem, and promoting the fenfible and infenfible difcharges, it is efficacious in palfies. Befides the very very great cure of palfy it performed on Mr. Allen of Walworth, whofe cafe I gave in my Medical Remarks, I have feen feveral more fince perfectly reftored of palfies by it, efpecially young perfons, and where the complaint had been of no long ftanding. Some even of paraplegia, or univerfal palfy, have been reftored to perfect health by it. The following well known and creditably attefted fact is given me by,

1. Zechariah Brazier, a refpectable houfeholder in Margate, formerly a fea-bathing guide, and the first who conducted a bather in a fimple machine, a cart, into the fea at Margate, who fays,

Twenty-five years ago a Mr. Sanguinetta, aged twenty-four years, was brought from London to Margate, to be bathed in the fea for an univerfal palfy, *i. e.* all below his head was without fenfation or motion, and he was reduced to a mere fkeleton: he retained the faculty of fpeech, and could chew and fwallow the food when put into his mouth. He, and his wife, lodged at his houfe. He had been in this ftate feveral months, and the art of the faculty, and the Bath waters had proved in vain.

" Brazier

"Brazier fays, he had to carry him to, and fetch him from, the bath on his back; and, in the bathing-machine, had three men and his own wife to affift him. When he was ftripped, two of the men threw him into the fea as a log, while he and the other man ftood in the water to receive him, and keep his head above water after every dip. After holding him fome little time in the water, they took him out, rubbed his body long and well with coarfe cloths, then dreffed him.

" After the feventh or eighth time he was thus bathed, he began and made a finall ftruggle with his hands and feet in the water; and though it was but little, yet it was enough to indicate returning ftrength. In eight weeks he could lift the fpoon to his mouth, take hold of his two crutches, and walk acrofs the room: the tenth week he crept down ftairs to the parlour, where, getting into a paffion with his wife, he threw one of his crutches acrofs the room at her. After this he walked to the bathing-machine with one crutch only, where a fingle perfon now managed him in the machine, and handed him into the water; then he ftruck out, and attempted to fwim. After that he threw away his fecond crutch, and walked with a cane, took up his German flute and play-

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ed;

of; a convincing proof of his having got the full use of his arms, fingers, &c.

"After thirteen weeks' bathing, two or three times a week, he returned to London with his wife, perfectly reftored, without the finalleft affiftance of medicine at Margate. If he took medicine before, he was not in the fmalleft degree benefited by it. After he left Margate, his wife bore him feven children. He died only two years ago, that is, he lived twenty-three years after leaving Margate."

Brazier called on him in London, at his houfe in Houndfditch, the year after he left him, and found him the very picture of health, and offered to run a race with him.

This cafe is farther attefted by Mr. Nathaniel Solomon, filverfmith in Margate, and Phœbe Solomon, his wife, who were lodgers with him at the fame time.

2. S. Hubbard, bathing guide for eighteen years, informs me, a gentleman of forty was ftruck with an univerfal palfy: his words were 5 inarinarticulate and unintelligible: in this deplorable ftate he was brought to him to be bathed in the fea. After he had bathed three months, he could fpeak diftinctly and plain, and fenfation and motion returned to every part of his body. His cure was complete. He had been ill two months.

7. Sayer, thirty years a fea-bathing guide, fays, he has not bathed many with palfy; but, of the few he has, all received great benefit. One of the worft he had, had loft the ufe of his fide: his face was miferably difforted, his mouth drawn to one fide, and his words were inarticulate. He had been a ftout man, but now was much emaciated and enfeebled. After bathing a couple of months he left Margate perfectly reftored to full health, and his flefh plumped up again.

G. Philpot, fea-bathing guide for upwards of twenty years, fays, he has bathed a good many with palfy; and has often had a deal of pleafure in obferving the fpecial good effect the fea-bath had in these cases, especially in young persons.

Mrs. Philpot, nineteen years a fea-bathing guide, lately fhewed me a young lady of thirteen, who had had an *hemiplegia*, or palfy of one fide,

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perfectly reftored by the fea-bath : fhe had bathed between two and three months.

T. Wood, a fea-bathing guide for upwards of twenty years, fays, he only bathed three paralytics; and though, thefe came most grievously afflicted with the complaint, all went home well after a course of fea-bathing.

T. Hughes, fea-bathing guide eight years, had a Mr. Nightingale, a breeches-maker, from London, brought to him in 1793, to all appearance in a dying ftate, to be bathed in the fea: his looks were ghaftly, pale, his words unintelligible, and was without the leaft feeling or power of motion of any part of his body. After he had been bathed in the fea eight or ten times, by the help of men, feeling and motion began to return, which did more fenfibly every time after that, infomuch that he foon walked up and down the fteps of the machine and bathed himfelf, put off and on his cloaths, and walked to and from his lodging.

On his coming out of the bath, his fkin was always well wiped and rubbed, not only with coarfe rubbers, but by a brufh until the fkin glowed with heat.

After

After bathing thirty-one times he got well; fo well as to leave Margate in fuch hafte as to forget to take leave of his kind bathers.

I could give abundance of inftances of different fpecies of palfy having been cured by fea-bathing; but thefe now given, I truft, are fufficient to fhew its great efficacy in that complaint. Nor 1s the idea new; for, *Cælius Aurelianus*, a renowned ancient, commends, very much, fwimming in the fea for all palfies, and *Celfus*, another well-known ancient, directs fomentations of hot fea-water.

In order to adapt the curative intention in that complaint, we have to attend not only to the proximate caufe—and that is a good deal to be gathered from the nature and temper of the confitution; for, though nervous energy be deficient in them all, and, of courfe, the fubtle actuating principle, whether it be animal fpirits, phlogiftic aura, æther, or other agency, that excites, and fupports, the perpetual motion in the living fubject—the occafional remote caufe muft alfo be attended to and traced; fuch as violent affections of the mind, the too free ufe of fpirituous liquors, or of opium or other deadly poifon; the too free ufe of mercury, without guarding againft the injurious influence of cold air; or

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great wafte of blood; or congestion of fizy blood in the brain, compressing the origin of the nerves and spinal marrow; or debility and flaccidity of the muscular fibres and circular membrane, rigidity, &c. no matter which it be, life is destroyed by agency in excess or desect.

Sea-bathing has been recommended by fome eminent ancient and modern writers, for the bite of a mad dog and other rabid animals; and, having fome doubts of its efficacy in this myfelf, to fatisfy my mind, I have made it my particular bufinefs to inquire of the Margate fea-bathing guides of its effect on those they had bathed; and learn from them all, that they confider it as a certain fpecific.

1. T. Wood, bathing guide, fays, he has bathed many perfons bit by mad dogs, and fome of them barked much like a dog while they were under water; and they, and all who fubmitted to his mode of bathing, were cured, or when early ufed prevented from ever rifing to any head; at leaft, he never heard of any of them ever going mad: on the contrary, always received favourable accounts of them afterwards. He fays, the laft that came were five, who were dreadfully torn by one and the

the fame mad dog: four of them tamely fubmitted to be bathed agreeably to his mode, which is by keeping the head and body as long under water as they can bear, bringing up the head occasionally to refpire, and down with it again, and this alternately, until their ftrength and ftrugglings in the water flag, and they have become feeble, their flesh foft and flaccid. Four of them bathed thus five mornings a week, fome flaid feven, fome of them five weeks, during which time their wounds ran and kindly healed. They went home in high fpirits, and continue well after feveral years. The fifth, who refused to fubmit, his wounds never healed, and he went raging mad, and was fmothered-inhuman practice! Binding the patient to his bed, as recommended by fome, is lefs violent.

Sayer, Philpott, and Hubbard, fay they have bathed many perfons bitten by mad dogs and other rabid animals, and none of them ever went mad; at leaft they never heard any thing but what was favourable of them. Hubbard fays, the laft perfon, fo bitten, that he bathed, appeared much dejected and melancholic: after he had bathed with him a fortnight, his fpirits got up, and he left Margate fatisfied he was well.

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Cold-

Cold-bathing is recommended by *Baccius*, for the poifon of the juice of mandrake : if it is efficacious for that, I prefume it is for opium or other vegetable poifon, and the cold fea-bath is preferable for either vegetable or animal poifon.

Celfus recommends in bydrophobia to be thrown into a pond, and to drink of the water; but as I do not pretend to be acquainted with the virtues of pond water; until I am, I shall prefer throwing them into the fea, and drinking the water. None have been brought to Margate with hydrophobia to be bathed in the fea, fo I cannot fpeak with the degree of precifion on its effects in that ftage of the complaint; but, as hydrophobia has never been known to come on during a courfe of feabathing, I am led to confider it as a powerful prophylactic, or prefervative. Notwithftanding these facts, let none reft wholly on it to the neglect of other approved means. If fea-bathing has potent effect in the first stage of rabies canini, have we not reafon to imagine it would be efficacious in this higher ftage of the complaint?

In raging high, and in low defponding mania, or melancholia, Sayer fays, he has not obferved fea-bathing to do any good in the firft: in the fefecond it was of more fervice: it gave ftrength at least to the body, if it did not cure the deranged mind.

In nervous and bypochondriacal diforders, in which the mind is feeble, irritable, and unftable, the fea-bath, amufements, exercife, and the air of Thanet, have happy effects. I have obferved it in every inftance; wherefore I would advife all who would deliver themfelves from the tyranny of fear to throw afide their long-tried unfuccefsful plan, quit the finoky town, and fly hither to the *Ifle* of *Thanet* (the Ifland of Health), and I will promife them health, ftrength, and good fpirits, unlefs the complaint be too deeply rooted ever to have mens fana in corpore fano.

Sayer fays it is almost inconceivable the spirits got by sea-bathing and the air of Thanet, in all low nervous affections.

Aretæus, a famous ancient, recommends bathing in the fea for *beadacb*; but neither I, nor any of the bathing guides, recollect an inftance wherein it had fuch an effect: on the contrary, have known it to caufe headach in improper and unprepared perfons. There are various kinds of headachs. Perhaps it may be ferviceable in nervous headhead-achs. Rheumatic head-achs I have generally recommended to the tepid fea-water bath, and with good effect.

In acute inflammatory gout, cold fea-bathing increafes the force of the fymptoms, and haftens on an approaching fit, that has terminated, fome in palfy, fome in apoplexy, and fome in violent diftracting pain of the brain or other vifcera: after it, fea-bathing roborates the debilitated joints. I have not feen its effects in atonic or cold numb gout.

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Though the acute rheumatifm be relieved by the warm, and the chronic or long-ftanding by the cold fea-bath, yet I have not obferved any relief given by hot or cold in *fciatica*, called by fome a fpecies of rheumatifm; by others, a fpecies of gout. I have obferved in a few inftances the fea-bath rather to exafperate the fymptoms; and none of the faculty warrants me to fay it relieves: on the contrary, Mr. *Mantell* fays, though it removed in one inftance the pain, it was prejudicial by the extreme debility it brought on: on which he made the patient defift from the ufe of it, but a violent affection of the ftomach with fpafms and moft acute pain fucceeded, which, though relieved by by powerful antifpafmodics, it returned frequently, and at last ended fatally.

Mr. John Silver, furgeon-apothecary in Margate, lately introduced to me a patient of his just recovered of a most violent fciatica, that had baffled the faculty's art both in town and country for fix months. He tried the cold and warm feawater bath at different times, which, inftead of relieving him, exafperated his fymptoms. His pain came on by fits: in one of thefe, the most excruciating he ever had, Mr. Silver was called to him: it was in the evening, when he found him much worn out by pain, fatigue, reftleffnefs, and great anxiety of mind. He gave him a draught, in which he put a fcruple of fucc. cicutæ Spisat. and a few drops tinet. opii, which instantly relieved him : he fell into fweet compofure, in which he continued the whole night, and awoke quite refreshed : it was effectual ; for, the pain no more returned. The draught was repeated for a few nights, to fecure against a relapse. After that he bathed a few times in the fea, which had now most excellent effect in strengthening him; and he returned to London after a few weeks in perfect health, ruddy of complexion, and in high fpirits. After a year had elapfed he fent a letter to Mr. Silver, acquainting him he continued well, and wifhed

wifhed us to publish his cafe, and the bleffed medicine that gave him fuch instant and effectual relief to his unspeakable distress. His name is Corb. M^cNeall, at No. 44, Sackville Street, Piccadilly.

Thefe two inftances, without noticing more, have led me to confider fea-bathing as improper in *fciatica* before pain and inflammation be fubdued, and that the affection is more of a fpecies of gout than rheumatifm.

In Jaundice and other bilious complaints, in which there is great diffurbance in the fluids, and irregular movement in the glands, ducts, and extreme capillary veffels, the fea-bath hath been experienced to do good. I wifh, however, that I could fpeak with more precifion, either from my own experience, or the experience of gentlemen of the faculty on it.

J. Sayer, that long-experienced, obferving, and intelligent bathing-guide here, helps us out: he fays, "I have known, on bathing in the fea for bilious complaints, and drinking the water, the bile to be fet afloat in the habit, caufing retchings, whereupon the perfon has been greatly relieved; but; whether it completed a cure in any, I am not (he fays) competent to fay farther than that the parties parties allowed that they felt themfelves better, which was vifible by their lofing much of the bilious hue from their fkin and eyes." If fo, it muft be efficacious in forcing the bile into its natural channel, and removing obftruction in the biliary organs, which is all we want.

Celfus recommends the cold bath in fummer for jaundice: the power and efficacy of the *fea-bath* was not fo well known in his days for promoting the different fecretions and excretions as now, or he would have given it greatly the preference for promoting the fecretion of bile.

If diabetes, or flux of urine; diarrhæa, or flux of the belly; fluor albus, or whites; lapfus feminis; gonorrhæa virulenta, or other fluor, depended merely on debility and laxity, fea-bathing would be efficacious: but let the fpecific virus and inflammatory fymptoms be firft fubdued before it is applied, or it will exafperate them. In fimple venereal gleets, after fuperpurgation, I have obferved it to increafe the difcharge at firft of foul variegated matter: it fcoured the mucous glands, and the difcharge gradually leffened: it inflames fores at firft, the difcharge increafes, then gradually diminifhes, and the fores heal.

In diabetes we have to procure a due mixture and union of the craffamentum and ferum of the blood with the new chyle: the bath primarily is not equal to change the faccharine quality in the urine without medical and dietetical help; and to attempt to suppress a diabetes by direct astringents is like locking a thief up in a house that breaks out with greater violence : the fymptoms, which I have obferved to enfue thereon, were obstinate conflipation, fuppreffion of urine, tumefaction of the belly, violent pain of the kidneys, urinary bladder, teftes, loins; and, in the female fex, fuppreffion of the catamenia, attended with febrile rigors, fucceeded with burning heat, violent headach, inceffant thirst, &c. If the complaint is from a fcorbutic caufe, it may poffibly be of fervice. I cannot yet fpeak decidedly for or against it: the fea-bath is a ftrong diuretic : by its being fo, it has fwept the urinary paffages of loofe gravel. Mercurialis tells us he cured himfelf of a ftone in the kidneys by bathing in the river Arnus; not, I apprehend, by diffolving the ftone, but by impelling it thence when fmall. Nephritic pains are faid to have been relieved by drinking fea-water.

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There is a rule, increafe one fecretion, and you leffen another. I have tried again and again to increafe perfpiration in *diabetes* both by external and internal means, but never have been able to effect it, even by the vapour or warm fea-water bath: they were uncomfortable in it, and came out chilly with rigors, which fhewed that it difagreed, and that the cold bath was rather indicated; and, *vice verfá*, where the cold difagrees the warm is indicated.

In profuse fweatings, Sayer fays, "he has known many perfons who perfpired profusely, and were much emaciated and enfeebled by it, to have received very great benefit by the fea-bath."

In watchfulnefs the fea-bath has excellent effect if continued long: it caufes fleepinefs in the bathing guides: a fudden plunge roufes the lethargic, and makes a man fober that is intoxicated with inebriating liquor.

The fea-bath is efficacious in frigidity, Venus languidis, languor or indolence, depression of spirits, scorbutic, bypochondriac, and maniac melancholia: in fome spasmodic complaints, fuch as bysteric, epileptic, especially in St. Vitus's dance, Cynic spasm or wry mouth, tetanus or locked jaw: in chronic rheu*rbeumatism, scrofula, lepra, humoral fore eyes and dimness, lax spongy fcorbutic ulcers, and promotes a discharge of depurated gross blood from the piles, to the great relief of the habit.*

Sea-bathing after the fmall pox, chicken pox, meafles, or other febrile eruptive complaints, and drinking the water, is efficacious, in purifying and ftrengthening a debilitated habit. It is fpecific in rickets, and in ftrengthening the fpine and loins of infants, and preventing crookednefs. There never was an inftance of a deformed child who had been well nurfed or bathed in the fea.

I have bathed, fays Mrs. Pavey (nineteen years a bathing guide), a young lady of fourteen, a Mifs S——, of Milk Street, London, this feafon (1793), who had not been able to ftand upon her legs for fix months from a weaknefs of her knee: during that period nothing of the food-kind ftaid on her ftomach, only her breakfaft, and fhe was reduced to a mere fkeleton. After the firft time fhe was in the warm fea-water bath fhe retained her food: after the third fhe could put her foot to the ground, and venture to ftand. After that fhe had recourfe to the fea-bath, by which fhe received fo much ftrength that after the third time fhe walked from her lodging a confiderable way

way leaning on her mother's arm. After having bathed twenty times in all, fhe returned to London with the full use of her limbs, and in fine health. She took no medicines worth mentioning while in Margate.

Mrs. Budd (nineteen years a bathing guide) fays " fhe has bathed many weak ladies after fits of illnefs and after having lain-in, and all acquired ftrength and good health on it. One in particular fhe mentions worthy of notice, who, after lyingin, loft the use of her fide, and was unable to turn in bed for ten weeks; nor could fhe put a foot to the ground for fix months, owing to the tendons of her hams contracting for want of use: by bathing a course in the sea, the tendons extended to their natural length ; her fide acquired fenfation and strength, and she went home in fine lively health. She returned two or three fucceffive feafons, to confirm the good health fhe had acquired by the bath."

When the fea-bath has been too much at first for weakly perfons to bear, I have made them begin with the temperate bath, and gradually reduce its heat till it came to its natural ftandard.

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S. Hubbard (nineteen years a fea-bathing guide) fays, "A boy of three years of age, who, after being cut for the ftone, was brought to be bathed in the fea: he was exceedingly weak, his belly hard and prominent, and his body extremely emaciated: a courfe of fea-bathing perfectly reftored him, and he is now, at fix years of age, a very fine ftout boy."

2. He fays, "An officer in the army, who happened to have two of his ribs broken, and was inwardly much bruifed, by a fall from his horfe. After the bones were fuppofed to be united, he could not endure the leaft jolting motion. After a few dippings in the fea, his pains vanifhed, he could bear exercife as well as ever, and left Margate found and well.

3. "A gentleman, he fays, whofe hand was rigidly contracted from a wound he recived in the palm: by bathing for fome time in the fea, his hand expanded, and was perfectly reftored to its natural ftate."

4. "A child three years old was brought from London to Margate a few feafons ago, to be bathed in the fea for what the faculty called a white

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white fwelling of the knee, but which Hubbard called a black one, as the fkin was dark and tawny, and the tumefaction hard and indolent. He bathed the child firft for fome time in warm feawater, and applied a poultice of *quercus marina*, fea-weed, with the liquor contained in the pods, to the knee twice a day: in five or fix weeks it broke, and difcharged a confiderable quantity of thick creamy-like matter, which it continued to do for fome time, then it healed up kindly.

After it broke, he bathed him for fome time in the fea, and on the intermediate days, *i. e.* once or twice a week, he drank fome fea-water to purify his habit, and his nurfe took him home found and well; and this after the London furgeons thought the leg must be cut off. By a fimilar treatment he has fent many home whole of fcrofulous and weeping fores and moift lepra."

5. "A young gentleman between five and fix, who, it was faid, by fucking a foul-blooded nurfe had his blood dreadfully contaminated: he had fifteen running fores to be dreffed twice a day; having befides a great number of dry brown fcabs and bumps on the fkin, and was fo exceeding weak and feeble as to be unable to walk acrofs the room. Whether there was any thing of a vene-

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real taint in it or not he could not fay, but the faculty fuppofed there was. He bathed his body in tepid fea-water for fome time, and applied the fea-weed poultice mixed with greafe to his fores, which brought them to difcharge. After fome time he left off the tepid fea-water bath, and dipped him in the cold; and intermediately purged him with fome of the water. After fix months the nurfe took him home perfectly found, and he is now a fine fprightly youth, feven years old. Hubbard bathed a gentleman feveral years ago, at the age of ninety-five, who received fo much ftrength by it, that he returned and bathed a fecond courfe the next feafon, and when he left Margate he appeared to be no more than He had no complaint only old age, feventy. and the bath renovated it, hence the propriety of the motto to this work.

Though no one will recommend any to bathe in the fea, or cold fpring bath, in inflammatory continued fever, yet I have no doubt of the efficacy of fea-bathing in the intermiffions of fome agues, feveral having, I am credibly informed, been cured of ague by plunging into rivers: by plunging into the fea there is lefs danger, and it has more potent effect. I, however, know of no infectious or putrid diforder in which fea-bathing would would be of any fervice. I think, on the contrary, it would be death to the patient, and ruin to the others if fent.

OF SCURVY.

Sayer obferves, " that this complaint is very common in the conftitutions of the people of this country, and many of all ages have vifited Margate much afflicted with it, and, after bathing in the fea ten or twenty times, have found great relief; but where the complaint has been deeply rooted, it requires a repetition of the courfe, feafon after feafon, and to drink fome of the water intermediately to purify the blood. Says, he does not know an inftance wherein the fea-bath failed in curing this complaint, provided the perfon conformed to regular hours and proper rules of living." Philpott was much afflicted with the fcurvy before he was a fea-bathing guide, but has been for many years clear of it.

James Mitchener, twenty years a fea-bathing guide formerly, fays,

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r. "Twenty-two years ago a female child, between three and four years of age, the daughter of a Mr. Alverfabello of Hackney, was brought to Margate to be bathed in the fea for what they called a fcorbutic diforder. She was in one continued fcab from head to foot. She was bathed in the fea every other day for three months: during the latter part of the time the fkin of one of her feet came off complete, with the nails, like a flipper which he fent inclofed in a letter to her father : the foot difcharged immenfely for fome little time, then healed up kindly : her whole fkin came to be clear, and fhe was taken home in fine health. He faw her in her teens a very fine woman."

2. He fays, "A farmer in Buckinghamfhire, came to Margate with intent to bathe in the fea for a fcorbutic diforder, which fome called a leprofy: his body was crufted all over with fcales like the fhell of an oyfter, and was fo exceedingly itchy, that he was much worn out for want of fleep. After bathing in the fea for a month the fcales loofened and came off by handfuls in bed. He drank of the water intermediately, and went home perfectly found: he returned three feafons fucceffively after that, to fecure the ground he had gained." 3. He fays, "A young gentleman, who had two venereal buboes that refufed to yield to chirurgical treatment, came to Margate from London to bathe in the fea. On bathing they inflamed. After a fortnight they difcharged freely, and foon the matter thickened, became whiter, gradually leffened in quantity, and healed up kindly: the dreffings were rags dipped in feawater."

"After that came another gentleman fimilarly affected, on whom the bath had fimilar effect," which fhews the great refolving power of the feawater in indurated glands or obstruction of any kind.

The late Mr. *Ifaac Silver*, fifty-one years a furgeon at Margate, favoured me with the following cafe:

"A Reverend Gentleman, well known at the prefent day among the literati, came to Margate twenty years ago with his fkin covered over in many places with thick feabby eruptions and running fores; and his face fo bad as to oblige him to put his head in a cafe, and deny his being feen by any: by bathing a fummer's courfe in the fea,

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and drinking a pint of elm bark decoction every day, and fome fea-water once a week; he got perfectly well, and continues well at this day. His fores were dreffed fimply with cabbageleaves."—His fon John, his fucceffor, remembers the cafe perfectly well, and that it was at the time confidered as a moft miraculous cure.

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Several with *lepra* have come and bathed, who, the bathing guides fay, received benefit, though not all equally. Two young ladies came from London a few feafons ago with incipient *lepras*, and bathed in the fea under my direction, and both got well. They bathed first in the tepid fea-water bath twice or thrice; and I made them live on a more generous diet than they had done; and they drank once a week, or fo, a wine glass full of fea-water as an alterative.

Mr. Mantell fays, "He has never known any cures of leprofy being made by fea-bathing. In moft cafes of elephantiafes he obferves, it has been ufeful, but more particularly in fubjects where, either from the conftitution being broke down by illnefs, or debilitated by mercurial courfes of medicine, tonics were neceffary."

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SCROFULA.

Sayer and the other bathing guides fay, many hundreds of youth afflicted with this complaint come to Margate every year, who, by bathing in the fea and drinking the water, receive great relief after two or three months; but this and all other inherent complaints require a work of time and repetitions of the courfe, year after year, to eradicate than out of the habit, and to give ftrength, as they grow up, to man or womanhood to refift its force."

The many children left here in the winter for the benefit of fea-bathing is in proof of its efficacy in that complaint (fcrofula). Its fummer courfe is only preparatory to a winter one.

Wifhing to know whether the fea-bath is radical or not in fcrofula, many creditable perfons in Margate vouch for it being fo, and one of their proof inftances is very ftrong: it is of a farmer in the neighbourhood, who was miferably afflicted with it in his younger days, and, by perfevering in bathing, year after year, until he grew up into his teens, got to be perfectly well. He married, ried, has got a fine family of children grown up to man and womanhood, and neither of them hath the leaft fymptom of it.

Mr. John Silver has been very fuccefsful in healing fcrofulous fores while under a courfe of fea-bathing by a mercurial lotion or folution of calomel, mucilage of gum arabic made with lime water; and I have been much in the habit myfelf of ufing a fimilar injection for virulent gonorrhœas, venereal and other malignant fores with great fuccefs: it is compofed of calomel, chel. cancr. præparatæ, mucilage of gum arabic made with elder flower water.

SERPIGENOUS ULCERS.

Mr. Edward Daniel, fenior, informs me a young lady of about fix years old, the child of a perfon of diffinction, fent for him lately to look at her lip; he found a dry ferpigenous roughnefs round the edge of it. She had in town the beft advice, and was ordered to bathe. As fhe was of a full habit, he gave her three dofes of rhubarb and calomel, which emptied her fufficiently, and fhe bathed and drank the water alternately for three weeks, and got perfectly well. I canI cannot from experience fpeak decidedly on the efficacy of fea-bathing in *erifipelas* or Saint Anthony's Fire, having feen it but in one inftance tried, and it proved too irritating, inflaming, and repercuffive; and even the warm fea-water applied had fimilar effects. The fea-water as a purge inwardly is proper.

In *labrifulfcio* or tumefied lips, fea-bathing difagrees: coolers and fedatives cure them, unlefs fcrofulous, which is not always the cafe.

Though the warm fea-water bath be efficacious in refolving and foftening indurations of the glands, yet both hot and cold fea-water is too irritating and inflaming for ulcerated cancer.

Of the effects of fea-bathing in fpafmodic, comvulfive, and periodical complaints, I have received various and oppofite accounts. An old female guide tells me fhe had epileptic fits in her younger days, and was cured by fea-bathing, which firft induced her to become a fea-bathing guide. And another fea-bathing female guide (Mrs. *Phillpot*) fays fhe hath bathed feveral ladies with hyfteric fits that were cured; and mentions one in particular not long ago who had the complaint to fo high a degree as to make her life be defpaired of of by the faculty, that after a few weeks bathing was perfectly cured, while two others (Mrs. *Thornton*, thirty-nine years a bathing guide, and Mrs. Sayer thirty-two years) fay they do not recollect an inftance either of the one or other complaint wherein fea-bathing made a cure. *Thorn*ton fays, that fhe had epileptic fits herfelf for many years, while fhe was a bathing guide, which fhe never got rid of until about eight years ago, when they terminated in fwellings of both her feet, fomething like that in a tonic gout. She was then fixty years of age, and obliged to give up the bathing line.

All the bathing guides agree that fea-bathing is a certain cure for St. Vitus's Dance, and that about a three weeks courfe effects it.

Mr. Mantell fays, in hyfteric affection he has found fea-bathing most ferviceable, after the pediluvia, venæfection, and remedies to remove the first cause of this species of neurosis, have been unfuccessfully administered; but that an indiscriminate use of the cold bath, in his opinion, has in this complaint more frequently fixed than removed it.

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Mrs. Sayer fays the hath bathed many ladies for convultive fits before the fit was expected to come on, and, inftead of the bath thoving it off, it haftened it on even in the act of bathing; but on being brought out of the water and well rubbed with dry rubbers the circulation of the blood quickened and increased, and they foon recovered out of the fit. Says the hath bathed after a fit, by which they gained ftrength if they did not get rid of the fits.

I muft fay I have never met with any cured of epilepfia or by/teria by fea-bathing alone. I have, it is true, been fuccefsful with feveral young perfons both in epilepfia and by/teria by fea-bathing and appropriated medicines intermediately, but with none by fea-bathing only; wherefore I confider the fea-bath to be only auxiliary in either of thefe complaints, though curative in fome others. Different conftitutions, different effects. If the affection arifes from worms, vermifuges muft be referred to. Sea-water is an excellent vermifuge purge, whether taken by the mouth or thrown up in clyfter.

In afthma, pulmonary confumption, cough, hoarfenefs, quinzy, or other complaints of the throat, lungs, lungs, or cheft, fo far from being ferviceable, it exafperates the fymptoms. The hectic and confumptive may be referred to the warm fea-water bath, efpecially if it is from a fcrofulous, or fcorbutic, or venereal caufe. If fea-bathing be good in any cough, I imagine it would in hooping cough, by its fedative power and bracing effect afterwards.

On taking a retrospective view of the power, operation, influence, and effect, of sea-bathing it is as used :

Strengthening or debilitating, Bracing or relaxing, Stimulant or fedative, Augmenting or diminifhing, Condenfing or rarefying, Elevating or depreffing, Infpiffating or attenuating, Evacuating or reftringing, Altering or confirming, Purifying or vitiating, Heating or cooling, Indurating or mollifying, Deterging and healing,

Irritating, inflaming, and exulcerating. In a word, in fome affection sit is curative, even fpecific: in others it difagrees, and in fome dubious. Sea-water and fea-bathing having thus very extensive powers, good and ill, it is for me, and for every man who profess himself a guardian of health, to be cautious and correct on whom we recommend to it, left we become guilty, unintentionally, of a breach of the fixth command. Ignorance is not admitted as a plea of innocence for murther.

It is not uncommon for the faculty, when their patients' ftomachs recoil at food and medicine, and their conftitutions much worn out, to recommend a change of air, as the derniere refort, which has, generally fpeaking, either very good or very ill effect, according to circumstances, state of the cafe, and conftitution of the air fent to. But those fent to the fea-coaft, whether for the fake of air or fea-bathing, or for both, we shall suppose them not yet fo far gone, but to be able to take nourifhment, use exercise (cripples excepted) in the open air, to be amufed, and their ftomachs able to receive and retain a medicine occafionally in cafe of need, or they are totally inadmiffible: it only hurries them a day fooner to the gravethe domus omnium-and make the fea-watering places a general receptacle for the dead, inftead of a prefervatory from the fhades.

Although we have had many excellent cures performed, and life renovated, by virtue of the air of Thanet with or without fea-bathing, yet there were ftill *ftamina vitæ* left to work on; for, as the poet fays,

"When Nature cannot work, th' effect of Art is void."

As medical reafoning without fundamental principles-principles confirmed by long and reiterated experience, not only of one man, but that fupported by the concurring evidence of others of large experience, candour, integrity, judgment, fagacity, and just observation, is a vox & præterea nibil. - I have therefore industriously courted the opinions of experienced men of the faculty on this fide of the coaft, and fagacious long-ftanding Margate fea-bathing guides, male and female, former and prefent, and upon their mutual relation and my experience refts the foundation of my reafoning. Some of the faculty and bathing guides have not only favoured me with their candid anfwers to my particular queries thereon, but added thereto their general obfervations; and others have fnewn me important cafes from time to time, and their cures performed either by the cold or warm fea-water bath, or by both:

both; and alfo called me in to the relief of fome who had fuffered by an indifcreet use of either bath, by which only can we possibly attain to a competent knowledge of the use and abuse of the baths.

GENERAL COMMUNICATIONS:

Mr. Edward Daniel, senior, to Dr. Anderson, Ramsgate, 1793,

Says, "Notwithftanding I have feen many cafes in which fea-bathing has been of very great fervice, and efteem it an ufeful auxiliary, yet I have known many others in which it has been of no fervice at all, owing either to the nature of the diforder, or the abfurd use of the remedy. You, Sir, must know there is a mode in medicine as well as in drefs; witnefs the rage of quickfilver, tar-water, and now fea-bathing, all useful things when judicioufly cioufly applied; but when people bathe, as too often is the cafe, merely becaufe it is the fafhion, without taking advice, what can be expected? I have often feen in full, grofs habits, and in fome very tender irritable ones, efpecially in the female fex, very bad effects from it, the fhock being too great for their tender frames. Indeed I have been called to feveral young ladies, and have found them perfectly well in every refpect; but they thinking they wanted bathing, I have always advifed thofe of very delicate habits, with fine fkins, and full, almoft transparent, veins, to let well alone. If you ftrain an elaftic beyond its fpring, it will break, efpecially if it be not well tempered.

"And farther, Sir, you will think with me, that fea-bathing cannot counteract the irregular manner of people's ufing it: the continual hurry of the diffipated life too many live in at the *fea*watering places; their balls, plays, dancing, gaming, drinking, hot rooms, anxiety, and flutter of fpirits, and other irregularities, muft undo any good effects the fea-bath might have. Innocent, rational, and well-timed amufements are abfolutely neceffary to our health and happinefs: it is the excefs we blame. Sea-bathing has certainly very great and powerful falutary effects in cercertain cafes; but ftill it is not fuch a *panacea* as to meet and fubdue all diforders indifcriminately, and correct all the ills of irregularity.

"For thefe reafons, I think a Sea-bathing Infirmary, under proper regulations in refpect to the non-naturals, as they are called, would be of great ufe to the poor who might want it, as they are too apt to follow their betters as far as they can; and under fuch regulations, and the medical advice they would receive, more cures from it might be expected.

"If these few hints can be of any use to you, they are at your service; and believe me to be, with due respect, &c."

Mr. T. Mantell to Dr. Anderson,

Says, "Thus you will fee, Sir, I have done as you defired; I have fpoken my mind freely, and have given, without referve, the few obfervations I have made. If any farther obfervations from me will be of ufe in this work, I will gladly tecollect every cafe that I have had, and with pleafure fubmit it to your judgement.

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"Of the opinion I entertain of the medical effect to be obtained by fea-bathing, great as undoubtedly it is, I think it a fubject on which much remains to be faid; and, that your inveftigation of it may be crowned with fuccefs, you will accept of the fincere wifhes of him who is with much efteem, &c."

Dover, 1793.

Mr. John Silver to Dr. Ander fon,

Margate, 1793,

Says, " If the cafes I have at different times fhewn you, and the obfervations I have made, be worthy of your notice for publication, you are welcome to them, or any I may make. I could give you fcores of inftances fimilar to your own and those you have got from others, but that would be only fact upon fact. Had physicians heretofore put us on the line of observing with nice precision the effects produced by the fea-bath, we should have been much more able to have furnished you with important facts. As they have not, I fincerely with you fucces in your investigation of the subject: it is far yet from being fully discussed, or its powers accurately ascertained. "May you, and philanthropic colleagues in London and Margate, fpeedily fucceed in your laudable undertaking to eftablish the General Seabathing Infirmary at Margate: an institution the most wanted in this or other country for the confervation of human lives. Any fervice I can be of to it in my line shall not be wanting. I am, with all due respect, &c."

Mr. Samuel Frome to Dr. Anderfon.

Broadstairs, 1793.

"Sea-bathing, when properly ufed, is, no doubt, a most excellent remedy, but, like all important medicines, may prove very injurious when ufed with impropriety: to point out therefore where it may be ferviceable, and where not, is a matter of great importance.

"I confider the reaction in fea-bathing as fimilar to that of a fever in which there is a cold and a hot fit; for, upon plunging into the fea the cold water produces a chill or fpafm upon the arterial fyftem, which excites the heart and arteries to action, and thereby a warmth and general glow is felt over the whole body; and, when that is not the cafe, the cold fea-bath can have no good efeffect, but the warm bath should be used in its stead.

"It is, and may be, held as a general rule that fea-bathing is only to be ufed where the conftitution is debile, and requires to be ftrengthened; for that, in all plethoric and ftrong habits, no advantage arifes from it: it is in plethoric bodies that comatofe fymptoms are brought on by its ufe.

"I am well convinced much more may be faid on the fubject, which I will leave to a more able pen; but, if what I have written fhould meet with your approbation, I fhall feel myfelf gratified.

"Permit me to congratulate you, on your zeal and laudable endeavours, in promoting your excellent charity for the relief of the diffreffed; and, wifhing much fuccefs to the undertaking,

" I remain, Sir, refpectfully, &c."

Add to those liberal advocates of the faculty on Thanet for the Sea-bathing Infirmary, Mr. George Slater of Margate, Mr. Christopher Mayhew of Ramsgate, and others, who have not only fealed their their approbation of it by their genteel fubscription, but voluntarily make a proffer of their personal fervices to it. This is charity, and charity is the theological virtue of universal love:

- --- " Only add

Deeds to thy knowledge, anfwerable, and faith; Add virtue, patience, temperance, add love, By name to come call'd *Charity*, the foul Of all the reft."

MILTON.

There is more rhetoric in the fingle word charity than in a library of fermons. From unfeigned charity and brotherly love flow every noble and virtuous fentiment: from want of it every fpecies of vice and cruelty. "Charity covereth a multitude of fins." "The charity or love of God is not in him that hath the fustenance of this world, and feeth his brethren have need." Vide Scripture.

I can fay thus much for myfelf, that, from a fcrupulous regard and zealous wifh I have for the improvement and enlargement of medical fcience, nothing fhall be wanted on my part, God willing, to anfwer the great end and important defign of the inftitution. Unlefs we pufh our refearches into the bofom of Nature, how can we extend tend the boundaries of knowledge? Unlefs we put a torch into the hands of the inquifitive, how can we difcover natural caufes, and natural and preternatural effects, that will prove advantageous or difadvantageous to human kind?

Each of those respective gentlemen of the faculty on the coast, and fagacious Margate feabathing guides, who have kindly affisted these my endeavours for a public good, merit my most grateful acknowledgements, and every thing that is kind of a grateful public. Those who appeared equally disposed to oblige, deserve thanks also, though their observations were inadmissible, as being unsupported and indecisive. It is to be hoped they will be more accurate in future, as hundreds, nay thousands, of lives are the concern every year.

The obfervations I have made relative to the power and efficacy of the warm fea-water bath I referve for another tract.

In the courfe of the foregoing narrative I might have enlarged much more upon the ufe and abufe of fea-bathing; I might have given the *ætiology* of difeafes, their caufes, fymptoms, and medicinal and dietetical proceffes; but, after all, it would not a have precluded the neceffity of taking and following judicious medical advice: to have done it would not only have led off the medical reader from diffinguishing accurately between the power of the medicine and the bath, but have led the common reader into a labyrinth of obfcurity. And though these observations are meant for the common as well as medical reader; having, for that purpose, industriously avoided all technical terms, yet I do not pretend to impoffibilities, i. e. to make every man his own phyfician; vain, abfurd, and dangerous in the extreme; for, I who have written prefcriptions as a phyfician thefe twenty years and upwards, and other phyficians who have done it twice as long upon rational principles, and attended clofely to Nature and her ways, meet with fomething new every day; I do not therefore pretend to be a teaching mafter but a teaching fcholar. Phyfic has done ten times more harm than good in the hands of ignorance. Genius, learning, long and fevere ftudy, and deep reflection, are required to comprehend it.

Finally, in drawing up my evidence, I have candidly ftated the facts on both fides: to have given all on one fide, and not on the other, would have been partial, uncandid, and deceptive. I have confidered it therefore as much for me to G forbid forbid improper objects coming that might receive injury as to invite proper ones to come and receive a benefit: by fo doing I do justice to the Water, justice to the Public, and justice to the *Preferiber* and *Director*.

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