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OBSERVATIONS

ON THE EFFICACY OF

COLD-BATHING,

IN THE

PREVENTION AND CURE

OF

DISEASES.

BY

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SURGEON TO THE DISPENSARY
IN ABERDEEN.

ABERDEEN:
Printed by J. CHALMERS and Co.
MDCCLXXXVI.

ANY STREET OF STREET

THE PRESIDENT AND MANAGERS

OF THE

INFIRMARY

OF

ABERDEEN,

THE FOLLOWING OBSERVATIONS,

AS A TESTIMONY OF GRATITUDE,

ARE INSCRIBED,

BY

THEIR MUCH OBLIGED,

AND

MOST OBEDIENT SERVANT,

AL. GORDON.

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PREFACE.

THE following essay was occasioned by reading an advertisement, in the Aberdeen Journal, of the third of April 1786, intimating, that the Managers of the Infirmary of Aberdeen proposed to sell the Bath, built, not long ago, for the benefit of the patients of the hospital, and the public at large.

This intelligence furprized me much; and I was still more surprized to be informed of the motive which induced the managers to adopt this meafure, viz. that the Bath was so much neglected by the inhabitants of Aberdeen, that it could not be kept up without considerable loss to the funds of the Infirmary; as there had not been so much received for the use of the bath, for some time past, as was sufficient to pay the feu-duty of the ground, and other necessary expences. This must appear very extraordinary, when it is considered, that the rate of bathing for a whole year, is no more than half a guinea each person.

A stranger would from this naturally conclude, that the town of Aberdeen is the healthiest spot in the world, and that few or none of the inhabitants stand in need of cold-bathing. But is this really

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the

the case? Very far from it; for I can assert it as a truth, without fear of being contradicted, that there is in Aberdeen, as there must be in every populous town, a number of people afflicted with disorders, for which cold-bathing is the principal, if not the only remedy.

Is it not then a great advantage to the public, to have a bathing-house so excellently contrived as the one at Aberdeen? If this house should be fold, and should fall into the hands of a person who will demolish the Bath, what a loss will the public sustain? What must become of such weak and delicate people as stand in need of cold-bathing, and are not able to bear it in the open air? They must inevitably be deprived of this useful remedy. And as to the female fex, they must entirely give up cold-bathing, for want of convenience to use it. Why then have not the public made use of the Bath, while they had it in their power? There certainly feems to have been a strange inattention to this matter: and I am afraid, that the public will not be fenfible of the advantage of having a Coldbath, till they be deprived of it.

Full of these reflections, I resolved to write a short treatise on the efficacy of cold-bathing in the prevention and cure of diseases, with a view, if possible, to rouse the attention of the public on the present occasion.

This treatise I now offer to the public; and at

the same time regret, that it was not undertaken by a practitioner of greater eminence, knowing perfectly how much the generality of mankind is influenced by names. However, I hope, that what I have to offer on the subject will be favourably received by the public, and not rashly censured by gentlemen of my own profession, when they consider, that my motive, for undertaking it, is the PUBLIC GOOD, which if I shall be so happy as in any measure to promote, I shall be abundantly satisfied, not being folicitous about the acquisition of literary fame. I am moved folely by those sentiments which the illustrious Dr Sydenham has expressed in the following words: " Neque enim " civis boni est, illud in rem suam vertere, quod " toti generi humano tam ingens beneficium ap-" portet; nec viri prudentis divina benedictione " femet-ipsum privare, quam a summa bonitate li-" ceret expectare, fi ad publicum bonum promo-

" vendum se accingeret *."

I considered it likewise as a duty incumbent on me, to whom, as filling a public office, the health of a very numerous part of the inhabitants of this place is committed, to offer my sentiments on the subject, altho' I have but little leisure for such an

^{*} For it does not become a good citizen to referve that for himself, which may be advantageous to mankind; neither is it the part of a prudent man to deprive himself of that blessing which he may reasonably expect from heaven, if he make it his business to promote the good of the public.

undertaking, having had under my care for three months past, seldom less than eighty patients who required my daily attendance.

The occasion called on some person acquainted with the subject to point out to the public, the utility of cold-bathing; and as no other person has offered his services, I humbly undertake the task, hoping, that the indulgent public will make every allowance for inaccuracy of composition, both from a consideration of the little leisure I have for study, and of the motive which induced me to this undertaking.

What I conceive may have hurt the bathing house in Aberdeen, is the great confidence reposed by the public in two watering places, at present very much in vogue. With respect to these, I observe, that the short time people commonly continue there, and the manner in which they live, may entitle them to the appellation of a fashionable rendezvous, calculated for amusement and pleasure, rather than for health. But I shall suppose, that some attend them for health. It is difficult for such persons to observe a proper regimen, where so many strangers are assembled together; besides, sew who have got families, or business to attend, can be absent so long as is sufficient for a thorough re-establishment of health.

Now I maintain, that every purpose to be expected from either of those places, is to be obtained by frequenting the bath at Aberdeen, drinking the water of a well known mineral near the infirmary, and riding every day when the weather is fine, either in the morning, or before dinner, three or four miles from town. Whoever does not recover by following such a course, has little benefit to expect, from going to any of the above-mentioned watering places.

With respect to the air, I am disposed to affert, that the air of some hilly grounds in the neighbourhood of Aberdeen, is equal to that of either of those two places.

And with regard to the water, I may likewise venture to affirm, from all the observation I ever could make, that it possesses no efficacy superior to that of the above-mentioned mineral.

I should be forry to have it thought, that I mean to infinuate any thing to the disadvantage of those places: But I cannot help regretting, that many, who, perhaps, are not in circumstances to afford it, should go far, and pay dear, for that which may be obtained much cheaper at home.

OBSERVATIONS

ON THE EFFICACY OF

COLD-BATHING,

IN THE PREVENTION AND CURE OF DISEASES.

This is the purest exercise of health,
The kind refresher of the summer heats;
Nor, when cold winter keens the bright'ning flood,
Would I weak shiv'ring linger on the brink.
Thus life redoubles, and is oft preserv'd,
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 when tender to subdue the wave.
Ev'n, from the body's purity, the mind
Receives a secret sympathetic aid.

THOMSON'S SEASONS.

THE greatest of human blessings is health; and though, like most other valuable things, its worth is not known when possessed, yet its attainment when

when lost is eagerly defired by the unhappy sufferer.

That the loss of health should be a common occurrence, is not to be wondered at, considering the prevalence of dissipation and luxury in modern times, and that the most profitable professions in the state require a sedentary life.

To point out the means of preserving health when enjoyed, and of restoring it when lost, is the object of the present essay.

But to do this fully and properly, may be confidered as a very comprehensive plan, as it contains the whole of the Hygiene § and of the Practice of Physic.

But I propose to touch on neither of these, any farther than as comprehended in one article, viz. the employment of Cold-Bathing, or the application of cold water to the surface of the body.

The practice of cold-bathing is a custom of ve-

ry great antiquity.

We find frequent mention of it in the most ancient records in the world, which inform us, that the use of it was most strictly enjoined, by the greatest Legislator and most consummate Statesman the world ever produced.

This great man, who, of all others, both from inspiration, and immediate correspondence with the Deity, must be supposed the most competent

§ The art of preferving health.

judge of its utility, ordered it to be employed in an especial manner for the prevention of diseases. And no doubt the most powerful means were necessary for that purpose, where such numbers were encamped for so long a space in a warm climate.

The practice of cold-bathing was very common among the ancient Greeks and Romans.

That cold-bathing was commonly practifed at Rome, is sufficiently obvious, when in the city, during the reign of the Emperors, there were no less than 142 public baths, and 618 private ones, besides those which belonged to the Emperor.

Nor has the use of cold-bathing been confined to former ages and to warm climates only. It is common also in modern times, not only in warm climates, but in countries which are very cold, particularly Russia and Lapland.

In Lapland †, where the inhabitants are remarkable for health and longevity, the infants, during the first year, are immersed in cold water three times every day, and as often every week, during the subsequent ones.

The inhabitants of the Isthmus of America receive no injury from plunging into cold water when in a sweat. And, as the most speedy remedy for intoxication, the women throw their hufbands into it when drunk.

The women, immediately after delivery, scruple

⁺ Buffon's Natural Hiftory.

not to bathe in cold water with their infants, and yet these women are rarely known to die in labour.

But although this practice might not perhaps be proper in this country, under fuch circumstances, yet it shews, that cold-bathing is used with safety in other countries, in situations wherein we would consider it as highly dangerous.

I might consider cold-bathing in two points of view; either with respect to cleanliness, or with

respect to health.

But, as cleanliness and health are so much con-

nected, I rather choose to consider it,

First, In the PREVENTION; and, Secondly, In the CURE of diseases.

I. I shall consider the power of cold-bathing in the prevention of diseases; and shall begin with

FEVERS.

This will appear more plainly, by considering the cause, or, to speak in the strict language of

Physic, the remote cause of fever.

The two general causes of sever are contagions and miasmata, or human and marsh essure. The former, arising from the human body, occasion a sever of a continued form; and the latter, from moist ground acted upon by heat, give rise to an intermittent sever.

With respect to the first of these causes, it is now well known, that the effluvia which arise from

from the living human body, both from the lungs and furface of the body, if long accumulated in the same place, acquire a virulent and contagious quality; and, when applied in that state to the bodies of men, give rise to a fever which is highly infectious.

That jails, hospitals, prison and hospital-ships, transports, crowded barracks, and other places, where the effluvia of the human body are long retained, give rise to a fever which is highly contagious, is now well known, and fully ascertained.

We have on record two remarkable inflances to

One in the fatal affizes at Oxford, in the year 1577, where scarce any person present escaped the contagion. There died at Oxford three hundred persons, besides upwards of two hundred who caught the infection there, but died in other places.

And another at the sessions at the Old Bailey, in the year 1750. The bench consisted of six persons, four of whom died, together with two or three of the counsel, one of the under-sheriss, several of the Middlesex jury, and others present, to the amount of above forty.

The cause of this infectious sever, were the noxious effluvia which arose from the criminals, and the vitiated air of the rooms where they had been confined. And it is remarkable, that the prisoners themselves were free from the disease. We have had many instances, during the late war, of a contagious fever arising from the same source, which being introduced into his Majesty's ships, has been communicated to the whole crew, and could not be eradicated, till the ships were evacuated and laid up.

And at present, an infectious fever prevails at mong the lower classes of people in this place. In the course of the last three months, I have attended upwards of seventy persons ill of this sever. And as it prevails only among those who live in ill-aired houses, and neglect cleanliness, or among those who have communication with them, I do not hesitate to pronounce the want of cleanliness as the cause of the disease.

Now, cold-bathing, by washing away the effluvia of the body, will readily appear to be the means of preventing one great cause of infection. It is therefore sufficiently evident, that the application of cold water to the surface of the body is a probable means of preventing the effects of contagion, when such contagion has been applied to the surface of the body only.

But as contagion, floating in the atmosphere, must enter the body very readily, by the lungs, as well as the surface of the body; so cold-bathing would fail to prevent the effects of such contagion, had it no other qualities than those just now mentioned.

I therefore proceed to consider its more powerful effects in the prevention of diseases.

I have already mentioned, that the two general causes of fever are buman and marsh essure. And it is now well known, by physicians, that both are of a debilitating and sedative nature. The debility in the course of the disease is always in proportion to the degree of contagion; and whatever debilitates the human body, renders it liable to be affected by contagion †.

That the marsh, as well as the human effluvia, are of a debilitating nature, appears from many considerations; and in particular, from the means which are commonly employed for the prevention of the paroxysms of intermittent fevers, viz. the exhibition of the Peruvian Bark, which is the most powerful tonic in the vegetable kingdom.

From these considerations it is sufficiently evident, that cold-bathing, being a very powerful tonic *, bids fair to be the means of preventing the operation, both of human and marsh essuring; and consequently of preventing continued and intermittent severs. For as the remote cause of both

[†] In the infectious fever which prevails at present in Aberdeen, where whole families are exposed to the contagion, I have remarked, that they who escape, are always persons of greater vigour, or are more in the open air, than those who are affected.

^{*} See Dr Cullen's First Lines of the Practice of Physic, on the absolute and relative powers of Cold.

is of a debilitating nature, so cold-bathing, from the tone and vigour which it communicates to the system, is more likely to prevent the operation of those causes, than any other means which can be

employed.

The means commonly employed by practitioners, for obviating debility, are tonic medicines ‡ and stimulants ||. Now the virtues of both are united in cold-bathing, which acts both as a tonic and stimulant. It acts, not only as a tonic with respect to the system in general, but as a stimulus to the sanguiserous system, especially exciting the action of the extreme vessels on the surface of the body. And therefore, it seems well calculated, not only to prevent the operation of the remote cause of sever, but is highly conducive to prevent the proximate cause from taking place, viz. the spasm and atony, which, according to the celebrated Dr Cullen, subsist at the same time, and constitute the proximate cause of sever.

This illustrious author has proposed cold-bathing, as a probable means of preventing the most virulent of all contagions, viz. that of the *Plague*.

There are several infectious diseases, which are communicated only by immediate contact, either

[‡] Tonic Medicines, are those which brace and strengthen the body.

^{||} Stimulants, are fuch medicines as excite the activity of particular parts, or of the whole system.

with the bodies or apparel of persons labouring under the disease. There is good reason to suppose, that they may be prevented by the application of cold water to the surface of the body.

We proceed, in the Second Place, to confider cold-bathing in the CURE of diseases; and,

I. In INTERMITTENT FEVERS.

Cold-bathing, when employed in the absence of paroxysms, has been known, in several instances, to prevent their return. But the subjects were persons of tolerable vigour. And, as cold-bathing acts in the same manner on the system, as the other remedies commonly employed for the cure of intermittents, there is good ground to expect success from it, in the cure of this disease. But whether it is generally to be admitted in practice, must be determined by farther experience.

II. In CONTINUED FEVERS.

From the great benefit attending the use of cold water taken into the stomach, in some sorts of sever, there is reason to think, that the application of cold water to the surface of the body, would have the same, or more powerful effects. And there are instances of persons highly delirious in severs, who, escaping from their keepers, and plunging into cold water, have been brought home, and put to bed, and falling into a profuse sweat, have

have immediately recovered. But there is not a fufficient number of cures upon record, to authorize this being admitted in general practice.

III. In OPHTHALMIA, or Inflammation of the

Eye.

In Ophthalmia Membranarum, or inflammation of the coats of the eye, the admission of cold air, and the application of cold water, are of great service.

And in the Ophthalmia Tarsi, in which there is a purulent discharge from the eye-lids, the application of cold water to the part, and to the surface of the body, is highly beneficial, especially if the disease be owing to a scrophulous acrimony prevailing in the system.

IV. In CHRONIC RHEUMATISM*, and ATO-

The general indication in the cure of both, is to restore the activity and vigour of the vital principle in the part; and cold-bathing seems a very proper remedy for answering that purpose. Sir John Pringle has particularly recommended cold-

^{*} There are two species of rheumatism, acute, and chronic. The former is attended with sever, pain, and commonly redness and swelling, of the joints. In the latter, which is commonly the sequel of the former, there is no sever The pained joints are without redness, and are cold and rigid.

⁺ The atonic gout, is when the disease, instead of producing an inflammatory affection of the joints, affects the stomach, occasioning indigestion and want of appetite.

bathing and exercise on horseback, as the best remedies which can be employed for the cure of chronic rheumatism.

V. In HEMORRHAGIES, or Effusions of Blood. I do not propose to recommend it, in any case of active hemorrhagy, that is, when there is a degree of fever present, and an increased impetus of the

blood, in the veffels pouring it out.

But I propose it as remarkably useful, in cases of passive hemorrhagy, that is, when the disease is owing to a laxity of the vessels pouring out the blood, and where the use of tonics and aftringents is indicated, the most powerful of which is cold water taken into the stomach, and applied to the furface of the body.

VI. The employment of cold-bathing is particularly useful, in some of the diseases peculiar to the FIMALE SEX.

It is by far the most efficacious remedy, in the cure of Menorrhea and Leucorrhea; and in that kind of Amenorrhaa, which is commonly known by the name of the Emansio Mensium; the effects of which are a debility and flaccidity of the fystem; and the indication of cure is to restore the tone of the fystem in general. Hence the propriety of cold-bathing is fufficiently obvious.

Cold-bathing is likewife a proper remedy, in fuch fuch cases of Amenorrhæa‡ as are owing to a general debility of the system, and consequently of the uterine vessels.

As I am here confidering the efficacy of coldbathing in difeases peculiar to women, I think it proper to mention its singular power in promoting pregnancy. The extraordinary fecundity || of the Egyptian women, has been imputed to their bathing in the river Nile.

VII. In APOPLEXY.

In the apoplexy arising from those causes which directly destroy the mobility of the nervous power, when they do not immediately kill, but occafion only a state of insensibility; one of the most powerful means of rousing the patient, is by the affusion of cold water upon the body.

VIII. In PALSY.

In palfy occurring in constitutions, in which the power of re-action is strong, the application of cold has often been found useful in curing the difease. And the most proper mode of doing this, is by the application of cold water to the body.

IX. In Dyspersia, or Disorders of the Sto-mach.

‡ In the diseases of women, I retain the nosological names, without giving an explanation; and the judicious reader will readily perceive the propriety of this.

|| See Buffon's Natural History.

This is a disease, which, in populous towns, occurs more frequently than any other disorder.

It consists in a want of appetite and digestion, and is attended with different symptoms in different persons, as nausea, vomiting, heart-burn, flatulency, pain of the stomach, and costiveness.

The proximate cause of the disease is most commonly a loss of tone in the muscular fibres of the stomach*.

And the indication of cure is therefore to reftore the tone of that organ: and the method, most approved of by experience, for answering this purpose, is,

First, by applications to the stomach itself.
Secondly, by applications to the whole body.

The most common form of the sirst fort of applications, is in the use of bitters and chalybeates taken into the stomach. Now, the long continued use of the former has been found to destroy, both the tone of the stomach and of the whole system. And the efficacy of the latter, as commonly used in mineral waters, is rather to be imputed to the amusement and exercise attending the use of the waters, than to the small quantity of iron with which they are impregnated.

The fecond fort of remedies, which strengthen the stomach by being applied to the whole body,

^{*} When the disease depends upon an organic affection of the stomach, as tumour, ulcer, or schirrosity, cold-bathing can be of no service.

are exercise, and the application of cold. But it is the last only which we propose to consider here, as consisting in the application of cold water to the

furface of the body.

It has been well illustrated, by the greatest Physician at present in the world, that there is a consent between the external and internal parts of the fystem, and in particular between the stomach and the surface of the body, or between appetite and perspiration. And that cold, when it does not stop perspiration, but proves a stimulus to it, is always a powerful means of exciting appetite. As, therefore, the tone of the stomach is considerably strengthened by the application of cold to the furface of the body, it follows, that the application of cold water, or coldbathing, as it is a tonic with respect to the system in general, and especially as exciting the action of the extreme vessels, must in both respects be a powerful means of strengthening the stomach. And if properly employed, and perfifted in, together with exercise, it will seldom fail to effect a cure.

X. In TETANUS, or the Locked Jaw.

This is a difease which rarely occurs in cold climates, but is very common in the Torrid Zone. And cold bathing is over the whole of the West Indies successfully employed for the cure of the disease.

XI. In the CHOREA †, or Dance of St. Vitus.

As this disease has been most successfully treated, by the exhibition of tonic medicines, such as the Peruvian bark, and chalybeates, is there not reason to think, that cold-bathing might be employed with advantage?

XI. In EPILEPSY*.

The predifponent cause of this disease, is a mobility of the sensorium or brain, occasioned either by a plethoric state of the system, or by a certain state of debility. It is the latter cause only which I propose to consider here, and the means of correcting it are, by exercise in the open air, and the use of tonic remedies, the chief of which is cold bathing.

XIII. In HYSTERIA, or the Hysteric Disease. From the analogy between Hysteria and Epilepsy, it is to be presumed, that there is a similar analogy with respect to their cure; and that cold bathing is a very suitable remedy.

[†] This a particular fort of convulsion, which affects the leg and arm of one side in a very singular manner. It is a disease well known in some parts of Scotland, by the name of the Leaping Ague. Those who wish for more information on the subject, I refer to Dr Cullen's First Lines, vol. iii. b. 3. ch. 3. and to the Schedula Monitoria of Dr Sydenham.

^{*} Vulgarly named The Fits, or falling fickness.

XIV. In disorders of the INTELLECTUAL FUNCTIONS.

In Mania or madness, cold bathing has frequently relieved, and sometimes cured the disease.

In Melancholy, occurring in fanguine temperaments, cold bathing is likewife well calculated for effecting a cure.

XV. In TYMPANITES*.

Cold bathing is well adapted to the cure of this disease, which consists in a preternatural collection of air within the cavity of the abdomen; and the proximate cause of it, is an atony of the alimentary canal; so the application of cold drink, and the use of cold bathing have been employed with advantage in this disorder.

XVI. In DROPSY.

In watery swellings, or dropsies, after the water has been evacuated, cold-bathing, as being a very powerful tonic, may be successfully employed for restoring the tone of the system, and preventing a relapse.

XVII. In RACHITIS, or Rickets.

In the cure of this disease, I need scarce mention it as a remedy, it being so universally known and practised, both for the prevention and cure of the disease.

* The external appearance of this disease resembles that of the dropsy; but the cause of the swelling is air, and not water.

XVIII. In SCROPHULA.

Cold-bathing is particularly adapted to the cure of the Scrophula, or King's-evil, and is the most powerful remedy which can be employed. And I sincerely wish, that its efficacy, in this disorder, were universally known, as there is reason to think, that the proper employment of it, would generally prevent, and frequently cure the disease.

XIX. In CONORRHOEA.

Cold-bathing is an excellent remedy for the cure of feveral species of Gonorrhæa. In the Gonorrhæa mucosa, Gonorrhæa laxorum, and Gonorrhæa dormientium, the cold bath may be used with great advantage §.

Thus I think that I have taken notice of all, or most of the diseases, curable by the use of cold-bathing, or the application of cold water to the surface of the body. And I have only to add, that the partial use of cold-bathing may likewise be employed with great advantage. Every person has daily experience of the refreshing influence of cold water, applied to the hands and face.

The affusion of cold water, upon such parts of the body as are affected with weakness, is found

[§] I have here retained the nofological names, without giving an explanation, for the same reason that I did so in the 6th article.

to be the most powerful means of restoring their strength. Hence the efficacy, of such partial application of cold water, will be very obvious, in the cure of several local diseases.

Having now enumerated all, or most of the diseases, which may be prevented or cured by coldbathing, I shall proceed to give a few DIRECT-IONS, with respect to the manner of using the cold bath; and some CAUTIONS which may be necessary, to prevent an improper use of it.

Those who use cold-bathing, ought to do it in the morning, or at least before dinner, when the

stomach is empty.

They should not go into the cold bath, while the body is hot; nor continue long in the water.

They ought not to use it too frequently. Twice or thrice a week will, in general, be sufficient.

The head should be first immersed in the water.

The body should be well dried immediately on coming out. And,

It is proper to use brisk exercise for some time after.

It is not adviseable to go into the cold bath, on the morning after a debauch.

Cold-bathing is improper, when there is any obstruction in the lungs, liver, or other viscera.

It is dangerous in extreme corpulency, as it may

occasion the rupture of blood-vessels, either in the lungs, or more readily in the brain.

It is proper for people of a full or plethoric habit, to use evacuations, before they begin a course

of cold-bathing.

But, after all, it must still be left to the judgment of the patient, or skill of the physician, to determine with respect to the propriety of coldbathing in certain circumstances; as it is difficult to give general rules, which can be applied to particular cases.

I shall, therefore, conclude this essay, hoping, that I have fully shown, that cold-bathing is very efficacious, both in the prevention and cure of se-

veral difeases.

THE END.