

**A letter to a professor of medicine in the University of Edinburgh
respecting the nature and properties of the mineral waters of Cheltenham /
by Adam Neale.**

Contributors

Neale, Adam, -1832.
University of Bristol. Library

Publication/Creation

London : Printed by J. Swan, and sold by Sherwood Neely, [1820]

Persistent URL

<https://wellcomecollection.org/works/gm9xvpj5>

Provider

Special Collections of the University of Bristol Library

License and attribution

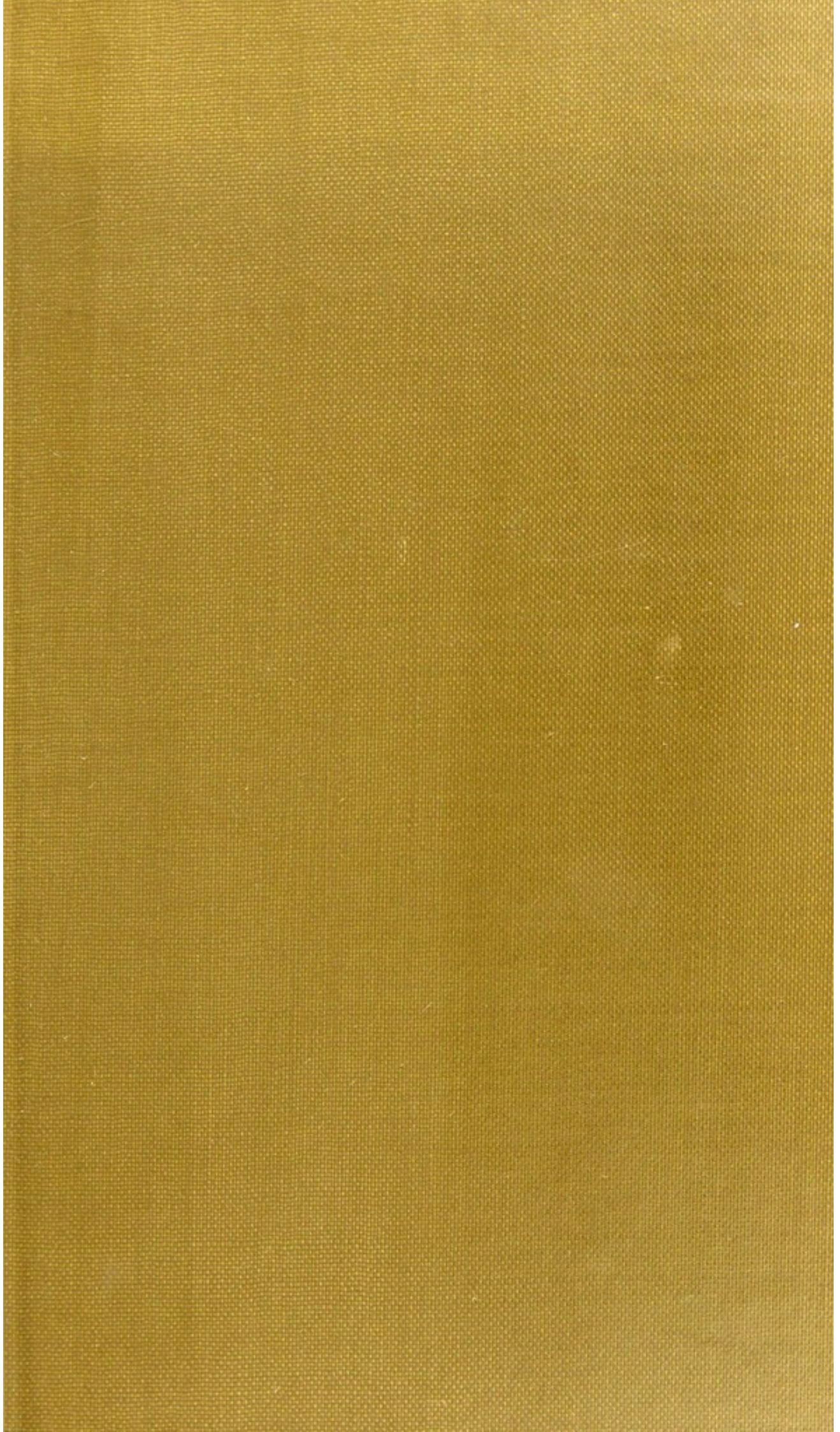
This material has been provided by This material has been provided by University of Bristol Library. The original may be consulted at University of Bristol Library. where the originals may be consulted.

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

**wellcome
collection**

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



15089 35064



UNIVERSITY OF BRISTOL

MEDICAL
LIBRARY





Digitized by the Internet Archive
in 2015

<https://archive.org/details/b21440402>

A LETTER
A PROFESSOR OF MEDICINE,

A
LETTER

TO
A PROFESSOR OF MEDICINE,

At Edinburgh.

A LETTER

A PROFESSOR OF MEDICINE

THE NATURE AND PROPERTIES

MINERAL WATER OF SODIUM

A PROFESSOR OF MEDICINE

In Göttingen

Printed and Sold by J. Neumann, Neudamm, near Berlin.

1800

Price 1 Rthlr. 12 Gr.

6

A LETTER
TO
A PROFESSOR OF MEDICINE,
IN THE
University of Edinburgh,
RESPECTING
THE NATURE AND PROPERTIES
OF THE
MINERAL WATERS OF CHELTENHAM.

BY ADAM NEALE, M.D.

Graduate of the University of Edinburgh; Licentiate of the Royal College of Physicians of London; formerly Physician to the British Army in the Peninsula, and to the Embassy at Constantinople; and one of the Physicians of his late Royal Highness the Duke of Kent, &c. &c. &c.

“Si liberius forte locutus sum adversus impostores, qui artis nostræ veritati et dignitati imponunt: detur quaso hæc licentia philosophicæ libertati et animo veritatis studioso.”

“ Il y a des occasions où l'on ne peut pas se taire, ou il seroit même criminel de garder le silence. Celle ci est une, d'autant plus que la verite dans notre profession est la chose du monde la plus essentielle. Il y va de la vie des hommes, cette seule reflexion nous engage a declamer contre ceux qui travaillent plutot a la detruire qu'a la conserver.” *G. Patin, M.D.*

London:

PRINTED BY J. SWAN, 76, FLEET STREET;

And Sold by Sherwood Neely, and Jones, Paternoster Row; Archibald Constable and Co. Edinburgh; Curson and Spreat, Exeter; R. Nichols and Co. Wakefield; J. and A. Duncan, Glasgow; Eaton, Worcester; and Gilbert and Hodges, Dublin.

[1820]

A LETTER

TO

A PROFESSOR OF MEDICINE

IN THE
UNIVERSITY OF EDINBURGH

RESPECTING

THE NATURE AND PROPERTIES

OF THE MINERAL WATERS OF CHITTENHAM.

BY ADAM SMELLIE, M.D.

OF THE UNIVERSITY OF EDINBURGH, FELLOW OF THE ROYAL SOCIETY OF EDINBURGH, AND OF THE SOCIETY OF PHYSICIANS IN LONDON.

LONDON: Printed by J. B. ROSS, in Pall-mall.

MDCCLXXIII.

THE AUTHOR'S ADDRESS IS, No. 10, St. Andrew's Church-yard, Edinburgh.

THE RIGHTS OF THE AUTHOR ARE RESERVED.

THE RIGHTS OF THE AUTHOR ARE RESERVED.

THE RIGHTS OF THE AUTHOR ARE RESERVED.


THE RIGHTS OF THE AUTHOR ARE RESERVED.

THE RIGHTS OF THE AUTHOR ARE RESERVED.

THE RIGHTS OF THE AUTHOR ARE RESERVED.

THE RIGHTS OF THE AUTHOR ARE RESERVED.

ADVERTISEMENT.



To those who resort to a watering place merely for the sake of amusement or fashion, or who, in the language of our poet Burns, are in the habit of bousing "drumly German water, to make themselves look fair and fatter," it must be a matter of little consequence to be informed that the fluid whereof they partake is stimulating or sedative, beneficial or injurious, factitious or natural. But to the real invalid, to the man who returns with a shattered constitution, from a long residence in a foreign and unhealthy climate, to spend the evening of life amongst friends and relatives, for whose sake, perhaps, he is anxious to prolong the close of even a feverish existence, to such a man I hold it to be of some little moment, that he should be warned against a blind confidence in an equivocal remedy, because he believes it to be a natural one.

The late Sir Walter Farquhar, Bart. who like all old and experienced physicians, became, in his latter days, very sceptical as to the benefit to be derived from the more violent class of medicines, in the cure of chronic ailments attending the decline of life, was anxious to impress on the minds of

his young friends a distaste to tampering too much with such cases. And often have I heard him declare, that, to his certain knowledge, many a valuable life has been abridged by over drugging and over drenching; whereas, if the patient had but borne his ailments with patience, and his physician given a little more fair play to the powers of nature, all might have gone on well for several years. This amiable and accomplished physician died himself but lately, in his 83d year, a striking example of the truths of his own doctrine.

Reflecting on this subject, and applying myself to consider the effects of purgative mineral waters in certain cases, I have thought it might be useful to the public to call their attention to a point, whereon much of the safety or danger attending their use may occasionally hinge: being satisfied myself that those waters which contain an excessive quantity of sea salt cannot be used with advantage, I would say hardly with safety, by a particular class of debilitated invalids. The presence or absence of iron has seemed to be hitherto the criterion upon which medical men have fixed their reasoning, as to judging of the stimulating powers of mineral waters; but I am now well assured that they have been in error; and that, as in the mineral waters of Cheltenham, for instance, the giving of six-tenths of a grain of iron daily, or even more, cannot be half so important as the taking, or not taking, one drachm or more of common sea salt, on a fasting

stomach, in a pint of water for weeks together. In cases of incipient schirrus, it has been well proved and established that iron is beneficial; whereas the application of sea salt, to the irritable villous coats of the stomach and small intestines, will, we know, aggravate the complaint. For this reason, I have judged it of some importance to call the attention of my Medical Brethren to the comparative analysis of the two principal spa waters of Cheltenham; and I will add, that if the object is to pour brine into the circulation, let us rather send our patients to the sea shore, than to an inland mineral water:—but if the intention be to stimulate the peristaltic motion of the intestines, let that particular water be advised which contains the greatest proportion of alkaline sulphates, and the smallest of muriate of soda; and for that reason rather let our patients drink the original spa water of Cheltenham than that of Harrowgate, because the first contains the smallest quantity, and the latter the largest quantity of sea salt, known to exist in any mineral water in this island.

Another point, to which I would call public notice, is the custom which has crept in of late, of transferring mineral waters to cisterns, instead of drawing them fresh from the wells, and delivering them in their natural state. Surely, if we expect any benefit to be derived from the gases which they contain, we must relinquish all hopes of retaining them,

after having been so treated; and I, for one, beg to enter this my public protest against racking off mineral waters into cisterns, to suit the sole convenience of their proprietors. If, however, the impregnation, or non-impregnation, of gases be a matter of indifference, then be it understood that we ought not to advise our patients to undertake long and expensive journeys to mineral springs, since we can furnish them with dilute solutions of neutral salts, as Sancho Panza has it, "dry shod, and in our own country."

One word more. In looking into Brande's Chemistry, in the table of the analyses of mineral waters, I observe that he has admitted only three of the mineral waters of Cheltenham, namely, the Sulphur Spring, the pure Saline, and the Chalybeate; and, as he omits all notice of the others, I should be glad to know if the public are to conclude, that *he* disbelieves in the existence of the other three. Certain it is also, that he takes no notice of that spring which was analyzed by Dr. Fothergill, which is, in my mind, of more value and moment than all the rest; and I should be glad to know *why* he has passed that in total silence. I shall just add, that I have the authority of one of the proprietors here to assure my readers, that the soil around Cheltenham only produces *three* mineral waters.

TO

DR. * * * * *

M.D. F.R.S. &c. &c.

Edinburgh.

MY DEAR SIR,

IN your last letter you inform me, that several of your friends and patients, who have returned from visiting this place, have been rather dissatisfied with the result of their journey, and that some have even expressed their doubts as to the genuine quality of the water served out to them at some of the

wells. In consequence, it is my wish to furnish you, and some other of my friends who reside at a distance, with such a comparative view of the nature of these springs, as may enable you to elucidate to your patients, before they leave home, the cause of some failures and disappointments, and thereby direct them, so that they shall not be misled on their arrival here, to the injury of their health.

The brilliant reputation which these waters possess has arisen chiefly from this circumstance, that the visitors of former times were invariably supplied with water taken from what is now called the old well, or the original spa. For until within a few years there was no other. However, the spirit of commercial aggrandizement having prompted

an opulent individual to make a large purchase of land in the vicinity, and to bore the ground repeatedly in search of mineral waters, he at length succeeded in discovering some weak brine springs; and having built a new pump room, and laid out walks and plantations, and had these waters analyzed by two respectable chemists: some ailing friends, fond of novelty, then exalted their good qualities, and thus succeeded in a great degree in bringing them into vogue—while the old well having been leased out, and placed under the management of a female, who did not understand the arts of competition and *manœuvring*,—Fashion! (which perhaps you know, guides every thing at a watering place,) carried away the tide of visitors to the new pump room, and the new springs!!

This speculation thus having succeeded in producing lucre to its projector, in a degree far beyond what could have been imagined, other individuals, prompted by similar motives, have attempted since the same sort of schemes; so that now this place possesses no fewer than *three* saline aperient, and *three* chalybeate *spas*. The waters of some of these, however, seem to me to be so essentially different, and inferior both in qualities and power, that such of the visitors as follow more the caprices of fashion than the dictates of reason, and repair to these new wells instead of the old one, after some weeks residence here, and ringing out all the changes upon them, (for by the way I should tell you, that they have been numbered, one, two three,

four, five, and six, as if they were a set of musical bells to jingle in the ears of the public rather than cure their diseases ;) many of these visitors, I repeat, have, to my own knowledge, returned to their homes in distant counties, with their health but little improved, and their faith most miserably shaken as to the virtues and efficacy of the Cheltenham waters. Yet, upon making accurate enquiries, I have frequently found, that most of those disappointed invalids had drank of every water but the real one, and that very few had ever repaired to the original fountain. So that, like some of the unfortunate heroes of the Iliad, recorded by the poet, they had indeed seen the plains of Troy, but had never tasted of the waters of the Xanthus.

But to return to our subject and make this fact more apparent, I shall now briefly lay before you a comparative view of the analysis of the principal waters, as ascertained by Drs. Fothergill and Jameson, and Messrs. Brande and Parke. For I am not vain enough to think that my own chemical knowledge could produce more accurate results. Nay, even if I distrusted the facts already published, I should prefer using them on this occasion, to referring to my own notes, for several obvious reasons.

The original spa contains, then, in one pint of water, sixty-nine and three-tenth grains of salts or solid contents, while No. 1 of the Montpelier spa contains seventy-four grains.

But we will place them in parallel columns,
for the sake of more accurate comparison.

<i>Original Spa Water,</i> One Pint.		<i>Montpelier Spa,</i> No. 1. One Pint.	
	Grains.		Grains.
Sulphate of Soda....	} 60,0	Sulph. of Soda 22,7	} 28,7
Sulphate of Mag- nesia		Sulph. of Mag- nesia 6,0	
Iron	6	Soda and Iron Car- bonates	} 1,5
Muriate of Soda ...	6	Muriate of Soda ...	41,3
Sulphate of Lime ...	5,0	Sulphate of Lime ...	2,5
Carbon. and Muri- ate of Magnesia... }	3,1		
	<hr/> 69,3 <hr/>		<hr/> 74,0 <hr/>
GASEOUS CONTENTS.		GASEOUS CONTENTS.	
	Cubic Inches.		Cubic Inches.
Carbonic Acid	3,7	Carbonic Acid	2,5
Sulphuretted Hy- drogen	} 1,8		
	<hr/> 5,5 <hr/>		

From the above tables, then, you will observe, that the Montpelier spring differs most materially from the original well. The quantity of aperient salts, or alkaline sulphates, which it holds being not one half of what is kept in solution by the old spa, while the proportion of muriate of soda, or common sea salt, is *forty times greater!* But the muriate of soda does not act on the bowels. To produce the same effect, therefore, it is necessary to take at least double the quantity of the water of the Montpelier spring; while in doing so the drinker must, of necessity, at the same time, swallow *eighty times as much common salt!!* Therefore the stimulating or heating quality of these two springs may be stated as nearly eighty to one; while it should not be forgotten that the stomach must be

twice as much distended, before the aperient effect can be produced by the new spa water.

There being, then, such a glaring difference between these two waters, it must doubtless appear very astonishing to you, that none of the medical men, residing here for years, should have publicly noticed and commented upon the fact. However, if you will reflect for a moment, you will be aware that, in our profession, those at the head of it have generally but little time, and far less taste, for controversial statements, so that, either from want of taste, or of courage, or from self-interest alone, such ungrateful tasks are generally left to any casual labourer in the vineyard, who, like myself, may choose to take them up from a pure love of truth.

This being premised, I will now add, for your information, the analysis of the other Montpelier springs, from which you will perceive that they all, with one exception, No. 5, contain a redundancy of sea salt.

No. 2, or Strong Sulphuretted Saline.

	Grains.
Muriate of Soda	35,0
Sulphate of Soda	23,0
Sulphate of Magnesia	5,0
Sulphate of Lime	1,2
Oxyd of Iron	3
	<hr style="width: 100%;"/>
	6,45
	<hr style="width: 100%;"/>

GASEOUS CONTENTS.

	Cubic Inches.
Sulphuretted Hydrogen	2,5
Carbonic Acid	1,5
	<hr style="width: 100%;"/>
	4,0
	<hr style="width: 100%;"/>

No. 3, or Weak Sulphuretted Saline.

	Grains.
Muriate of Soda	15,0
Sulphate of Soda	14,0
Sulphate of Magnesia	5,0
Sulphate of Lime	1,5
Oxyd of Iron	,5
	<hr/>
	36,0
	<hr/>

GASEOUS CONTENTS.

	Cubic Inches.
Sulphuretted Hydrogen	2,5
Carbonic Acid	1,5
	<hr/>
	4,0
	<hr/>

No. 4, Pure Saline.

	Grains.
<i>Muriate of Soda</i>	50,0
<i>Sulphate of Soda</i>	15,0
<i>Sulphate of Magnesia</i>	11,0
<i>Sulphate of Lime</i>	4,5
	<hr/>
	80,5
	<hr/>

Scarcely any traces of Iron.

No Gaseous contents.

No. 5, Sulphuretted and Chalybeated Magnesian Spring.

	Grains.
Sulphate of Magnesia	36,5
Muriate of Magnesia	9,0
Muriate of Soda	9,5
Sulphate of Lime	3,5
Oxyd of Iron	3,5
Loss	1,0
	<hr/> 63,0

GASEOUS CONTENTS.

	Cubic Inches.
Sulphuretted Hydrogen	1,5
Carbonic Acid	4,0
	<hr/> 5,5

No. 6, Saline Chalybeate.

	Grains.
Muriate of Soda	22,0
Sulphate of Soda	10,0
Oxyd of Iron	1,5
Loss	,5
	<hr/> 34,0

The cases which are generally sent to Cheltenham are, as you well know, either people who have resided a long time in warm climates, and whose livers and chylopoetic viscera have been injured by the influence of fevers and tropical heats; or such as have never travelled out of Great Britain, but whose abdominal organs have suffered from excessive stimulation, from various causes. In neither of these two classes of patients, according to my experience, does a water, containing muriate of soda, in excess, produce beneficial effects. In both, there is a tendency in the blood vessels to be rapidly and greatly excited into inordinate action, and many a torpid liver, which might have remained for years in a quiescent state, comparatively harmless to its possessor, has been speedily thrown into violent inflammatory

action, succeeded by suppuration, and the patient been hurried into the grave sooner by some years than would have happened, had he not been put upon a course of these stimulating waters. If this is sometimes their effect, in cases of diseased liver, you can easily conceive that the consequences are frequently more rapidly fatal in those plethoric subjects, with large heads and short necks, who are, by nature and habit, prone to apoplectic attacks; and, as one instance, I may mention, that, only last year, I well remember a gentleman of this description, who had prescribed for himself four half-pint glasses of one of the Springs every morning, and who, during the hot weather, having taken his usual allowance, which did not pass off by the bowels, was so stimulated and oppressed by it, that he tumbled down in an apoplectic

fit, after breakfast, and expired. Another circumstance I would mention, is, that in their clumsy attempts to render some of these waters more aperient, the mixers of the waters appear to have no fixed rule, nor measure, in adding "*the saline solution;*" so that some of my patients, last autumn, complained to me that they never could discover the *same taste or effect, for any two days together,* in the water which was handed to them. But, again, I must observe, that this can hardly occur at the old well, because the quantity of aperient salts contained in these waters is, in general, quite adequate to produce the effect required on the bowels; I say in general, because extreme cases will certainly occur of very torpid bowels, where some aid will be found requisite, and I always recommend such patients to see the *solution* of

Glauber's salt measured out, and added to the tumbler in their own presence.

But still, you will naturally be prompted to enquire from which of these springs is it that most benefit is derived; or what is the water which is most employed, in a general way? To answer this query I ought to tell you, that, of every hundred persons who drink here, I find that ninety-five, at least, take the Pure Saline, or No. 4; because its operation on the bowels, as they will tell you, is most expeditious and certain. But seeing, from its analysis, that this water contains neither gas nor iron, shall we not be warranted in drawing this inference, that all these people might have been equally benefited by drinking a solution of Glauber and Epsom salts at home, provided

they had confidence and patience enough to persevere steadily in such a course for a fortnight or three weeks, and rise every morning and walk for an hour or two before breakfast? Scotland, as well as Ireland, can boast of a variety of mineral waters, equally efficacious as those of Cheltenham, Leamington, and Gloucester, provided they were administered in the same manner. And I cannot see why those invalids, who might be so easily cured at Pitkaithly, Moffat, St. Bernard's Well, or even Strathpeffer, should be permitted, by their physicians, to abandon their homes and native country, in search of mineral waters, while they possess so many, equally good, so much nearer home. The only point in which you are deficient, is in the knowledge of "*a little management*;" and, in order to elucidate these mystic

words, I will here subjoin a correspondence which lately took place between myself and an old schoolfellow, who resides at —— Farm, in ——shire, on your side of the Tweed.

TO DR. ADAM NEALE.

MY DEAR SIR,

IT is now some years since we last met at Ciudad Rodrigo, after the battle of Salamanca, and it is only within these few days that I have learnt your present residence. Presuming on our old acquaintance, I hope you will favour me with your advice and assistance, in regard to a measure which is of great moment to me under my present circumstances.

A small landed property has lately fallen to me, by the death of a near relation, upon which I have retired to spend the remainder of my days in peace and repose. My health, as you may recollect, was very indifferent when we last met, so that I have been obliged to quit all the scenes of active life; and with the scanty half-pay of my commission, as Surgeon to the Forces, and the income of my farm, I am educating my family, which is now rather numerous. On my land are some mineral springs, which were formerly held in great repute throughout the adjoining counties, and were leased out, at the yearly sum of — pounds, to a worthy man who resided on the spot. However, to my great grief and mortification, it has lately been discovered that the spas have been losing their repute, and some of the neigh-

bouring gentry, who used to frequent them, have abandoned them, in order to repair to your English watering places; so that my old tenant has declined renewing his lease, unless I will consent to an abatement of half his rent. On enquiring more minutely into particulars, I have found that our water-drinkers hereabouts, who used to swallow down some five or six tumblers-full, very contentedly, before breakfast, and as many in the course of the forenoon, allege that, by *going south*, as our phrase is, they can meet with mineral waters so much more powerful, that two half-pint glasses suffice to produce the desired effect; whilst my luckless springs, although they abound with saline matter, and iron, sulphur, and gaseous fluids, are yet so dilute, that the patient must needs take at least two or three English pints for a dose.

While musing on this sorrowful prospect, of a deficiency in my ways and means, a ray of hope has entered into my mind, on hearing from an old friend, just returned from England to this neighbourhood, that the owners of your English spas have found out some happy means of *managing* their waters, whereby they can double or even triple their purgative effects; and that your English waters are not, in fact, one jot stronger, *by nature*, than those of our Scottish fountains. Now, my dear Sir, if such be really the case, and you can acquire for me this desirable information, pray impart it, and you will confer a lasting benefit on myself and family, and even on the race of Macd——e's yet unborn, &c. &c.

My answer to this was as follows:—

MY DEAR FRIEND,

I CANNOT rejoice that it is really in my power to answer your letter so speedily, and put you in possession of all that information which you desire, on a subject which, I am free to confess, I feel must be of vast importance for you to know; while, at the same time, I am patriot enough to think that, in giving it publicity, it may eventually tend to diminish the number of Scottish absentees, and detain in our poor country some thousands of pounds annually, which would otherwise find their way to this richer portion of the island. You have indeed been rightly informed, that our southern neighbours do possess a secret manner of adding to the strength of their mineral waters, and thereby reaping a rich harvest from the credulity of their visitors; and if you,

or your tenant, can but screw up your consciences to employ the same means, which, however, I cannot say I think to be very legitimate, you may certainly put in your claim to retain your old customers at the spas of Benbibere.

Know then, my good friend, that your first business must be to procure a few tons of Glauber and Epsom salts from the nearest manufactory, where they will cost you at the rate of about fourteen pounds sterling per ton; which accomplished, you must next endeavour to procure a constant supply of the pure element from some rapid torrent or deep well—be it mineral water or not—for that is of little moment; you must then fill a few quart bottles with your spa waters and salt them to your taste, as Mrs. Glasse would say, but of various strengths

remember; and having duly sealed them up, send them to the chemist of the greatest repute in your part of the world, to be analyzed. These bottles you had better number one, two, three, four, five and six, *ad libitum*; but, I should suppose, you need hardly extend it to the Pythagorean number, “seven,” as *six* will be quite sufficient for all your hydraulic purposes. This done, and your analysis having been returned, duly signed, sealed, and delivered, you must next look out for some complaisant Editor of a Monthly Journal, Philosophical, Literary, or Medical, to insert these Analytical Essays, with some enticing preface; as, for instance, “ We congratulate the public on
“ the great discovery lately made on the lands of
“ Mr. Macd——e, of a rich variety of Mineral
“ Waters, whereby those who repair to the

“fountains of Benbibere, may henceforth be
“accommodated with all sorts of waters, saline,
“aperient, chalybeate, or sulphuric, according
“to their several fancies and necessities.” A
spacious pump room, of the form and dimensions
of a Greek temple, must next be built; beneath
the flooring of which you must excavate several
tanks, which are to be filled every night, by
means of leaden pipes, laid under ground all the
way from your well or fountain head, where
you brew the mineral waters. And, lastly, to
prevent the prying curiosity of your visitors,
you must not neglect to build a sort of pigeon
house, or Martello tower, over your fountain
head, large enough to contain a stout forcing
pump, and a large trough for your Glauber and
Epsom salts, a few barrels of which you can
stow there for use upon all occasions. This

Martello tower you must place at some distance in the rear, and let a lawn, or hedge, or paling, intervene; clap a cannon on the top of it, to repel invaders; or, if you are afraid of using powder and shot against the king's lieges, thatch it well at top, to conceal its importance, and stick upon it a board, painted to this effect, "Take notice, that this is *no thoroughfare*, but a private road only, to *Hoaxhall* farm; and whoever trespasses on this ground shall be prosecuted according to law."

All around your pump room you must lay out plantations and walks, with shady trees and flowering shrubs, and, having procured a band of pipers and fiddlers with bass drums, &c. to titillate the auditory nerves of your visitors, while your waters are stirring up their great and

small intestines, you may throw open the doors of your pump room to all hypochondriacs and true believers, who will assuredly flock by hundreds, and tens of hundreds, to the new spas of Benbibere, to seek the Goddess of Health, a statue of whom, for the sake of classical allusion, you had better place over your pump room, with a Latin motto beneath, from one of the old poets, as for instance,—“*Utilis alvo fluit, utilisque crumenæ;*” or, in plain English, I hope this will be as good for your bowels, as it will be to my purse. I must not omit to mention that the waters, as required, must be forced up from the tanks beneath by a forcing pump, to pour it into small troughs some feet above the flooring, from whence it must descend in syphons, terminating in crystal stop cocks. This will make it hiss and sparkle in the cup, to

the admiration of the drinkers, so as to deceive them with the appearance of strong gaseous impregnation, just as a knowing waiter plays off his stalest table-beer, by pouring it from a flaggon elevated over his head. One thing more you must not forget, which is, to have some of your water heated in coppers behind the pump room, to mix up and take off the chill from the cold waters for the sake of your more delicate female visitants.

When you have succeeded in bringing the spas of Benbibere into full fashion, you may then build a manufactory for the preparation of salts from your own springs. For this purpose, you must lay in a proper store of Glauber and Epsom salts, together with a quantity of Sal Polychrest, (the salt of many virtues,

of the old chemists,) the sulphate of potash of the moderns; not, indeed, that this was ever yet found in a mineral water since the days of the deluge, but it has this good and notable quality, that it communicates a solidity and most singular form of crystallization to your salts, which cannot be attained by any other mode; and which serves to puzzle all the apothecaries and chemists, at home and abroad, who will never dream of finding *vegetable* alkali in the salts of a *mineral* water. And, besides, you may then persuade the world that the salts from your wells are of so marvellous a nature, that you are warranted in charging them at about twelve times their real value; and thus you will obtain eight or ten shillings per pound for *that* salt which any of the manufacturing chemists of Wolverhampton will be glad to furnish to you, wholesale, at the rate of sixpence or

eightpence. To be brief: the best proportions for your new salt you will find to be, one part of sulphate of potash, six parts of Glauber's salt, and two of Epsom salt, with half a part of sea salt, which last will render it *more palatable*. This compound salt you may dry, and grind, and twist up in all sorts of forms, and baptize it the real Benbibere effloresced, magnesian, chalybeate, alkaline salt. Put it up in strong glass bottles, labelled with directions for use; and be careful not to omit pasting regular stamps over the stoppers, lest the Excise-office should pounce upon you.

Pursuing these plans, my dear Macd——e, for a few years, you cannot fail to realize a magnificent fortune; and if you can but carry on the farce with due perseverance, and avoid shewing all symptoms of fear, whenever you may

hear of the sudden deaths of any of your new customers, and not neglect, moreover, to breed up one or two of your sons to be writers to the signet, or attorneys, as we call them here, to threaten with legal actions all those who may venture to write against the *orthodoxy* of your waters, you may, I think, live long enough to buy up the estates of half the spendthrift young lairds of your county. The greatest danger, and indeed almost the only risk that I can anticipate to your plans, is, lest, peradventure, in after years, some saturnine physician of the Scotch school, should set himself down, like a plain matter-of-fact man, to practise his profession honestly in your village, when, if he should discover the cunning game you have been so long playing off on the public, and of which he also has been the dupe, then

“ *the Lord have mercy upon you ;*” for I should think it very likely it will fare with you, as it did with an impudent fellow in Spain, who employed an ecclesiastic to perform the funeral service of the Catholic church over the carcase of a dead donkey, by telling him he was interring a rich old miller ; for the priest, having discovered the imposition, from the impulse of honest indignation, had the hoaxer consigned to the dungeons of the Inquisition, where he soon after died, from being forced to banquet on his own water—a mode of punishment, as you may have heard in Spain, not unknown to that humane body, and which, indeed, was threatened against the rebellious Jews in the Old Testament.—Farewell.

THE END.















