The Project Gutenberg eBook of Spadacrene Anglica: The English Spa Fountain, by Edmund Deane

This ebook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this ebook or online at www.gutenberg.org. If you are not located in the United States, you'll have to check the laws of the country where you are located before using this eBook.

Title: Spadacrene Anglica: The English Spa Fountain

Author: Edmund Deane

Commentator: Alexander Butler Commentator: James Rutherford

Release date: August 2, 2005 [EBook #16417]

Most recently updated: December 12, 2020

Language: English

Credits: Produced by Malcolm Farmer, Stephanie Maschek and the Online Distributed Proofreading Team at https://www.pgdp.net

*** START OF THE PROJECT GUTENBERG EBOOK SPADACRENE ANGLICA: THE ENGLISH SPA FOUNTAIN ***

SPADACRENE ANGLICA.

OR,

The English Spa Fountain. BY EDMUND DEANE, M.D. OXON.

The First Work on the Waters of Harrogate.

REPRINTED WITH INTRODUCTION

BY

JAMES RUTHERFORD, L.R.C.P. ED.

AND BIOGRAPHICAL NOTES

BY

ALEX. BUTLER, M.B.

BRISTOL: JOHN WRIGHT & SONS LTD. LONDON: SIMPKIN, MARSHALL, HAMILTON, KENT & CO. LTD. 1922

TABLE OF CONTENTS.

INTRODUCTION.
BIOGRAPHICAL NOTES

BIBLIOGRAPHY OF "SPADACRENE ANGLICA."

Spadacrene Anglica.
THE EPISTLE
The English Spaw.
CHAP. 1.

CHAP. 2.

CHAP. 3. CHAP. 4. CHAP. 5.

CHAP. 6. CHAP. 7.

CHAP. 8. CHAP. 9.

CHAP. 10. CHAP. 11.

CHAP. 12.

CHAP. 13.

CHAP. 14.

CHAP. 15. CHAP. 16.

INTRODUCTION.

If the Author of "Spadacrene Anglica" could see our modern Harrogate, for whose existence he is to no small extent responsible, he would be justly entitled to consider his labours as well spent, however surprised he might be at the change that had taken place in the village as he knew it in the year 1626. For so was Harrogate in those years, a small scattered hamlet, part of that great Royal Forest of Knaresborough, extending westward from the town of Knaresborough for about 20 miles towards Bolton Abbey, with an average depth of about 8 miles from North to South, a Royal Forest, as Grainge in his History thereof premises, from the year 1130 until 1775. Not only the change in the physical aspect of Harrogate would have been noted by our author. Since his days, within a radius of a few miles, have been found over 80 mineral springs, whereby Harrogate is distinguished from all other European health resorts. Not that the curative powers of these waters were altogether unknown before Edmund Deane extolled the merits of the Tuewhit Well in "Spadacrene Anglica." Indeed, he would be a bold man who would dogmatically lay down at what period the powers of these waters were unknown. Thus, in mediæval times the waters of St. Mungo's and St. Robert's were accredited with miraculous powers. The Tuewhit Well itself derives its name, according to some authorities, from its association in pre-Roman times with the pagan God Teut.

"Spadacrene Anglica" was published by Dr. Edmund Deane, an eminent physician of York, in the year 1626, and passed through three editions after his death. All these editions are very scarce, and although there are copies of the four editions in the British Museum, there are only two other copies known to exist. I was indeed fortunate, therefore, when some seventeen years ago I picked up a copy in a well-known second-hand book shop in Harrogate. Now I am reprinting it, not so much for its interest to my professional brethren as a quaint and learned contribution to medical literature in the seventeenth century, but because it is the earliest and most indispensable source of the history of the waters of Harrogate.

A careful study of it will correct a number of remarkable errors, which now pass current as historical facts in connection with the rise into fame of Harrogate as our premier Spa. These errors would never have arisen had there been a more free access to this very scarce book. Most writers appear to have depended for their knowledge of its contents upon the summary of it contained in Dr. Thomas Short's "History of Mineral Waters," published about a century after the publication of "Spadacrene Anglica." In commenting on this and other works abridged in his History, the learned author states:

"Some of them are very scarce and rare. Therefore, such as have them not, have here their whole substance, and need not trouble themselves for the treatises." Unfortunately, they did not have their "whole substance," and hence these errors.

"Spadacrene Anglica" deals mainly with the Tuewhit Well or the English Spa. It is not my intention to discuss here either the history of its distinguished author or the early history of the English Spa. This task has been kindly undertaken for me by my friend and colleague, Dr. Alexander Butler, to whom I take this opportunity to express my grateful thanks for his very suggestive contribution.

Suffice it for the purpose of this short introduction to state that the medicinal qualities of the Tuewhit Well were discovered about fifty-five years prior to the publication of "Spadacrene Anglica," the credit of the discovery being due to a certain Mr. William Slingsby, not to his nephew, Sir William Slingsby as has been persistently but erroneously stated. The Tuewhit Well was first designated "The English Spa" in or about the year 1596 by Timothy Bright, M.D.,

sometime rector of both Methley and Barwick in Elmet, near Leeds, which goes far to support the well established belief that the waters of the Tuewhit Well were the first to be used internally for medicinal purposes in England. To-day the word Spa is, of course, a general term for a health resort possessing mineral waters, but in the days of Dr. Timothy Bright no such meaning attached to it; Spa was the celebrated German health resort, and one can readily conceive with what patriotic enthusiasm Dr. Timothy Bright would proclaim the Tuewhit Well as "The English Spa" when the medicinal properties of this Well were found to resemble those of the two famous medicinal springs of Sauveniere and Pouhon at Spa.

"Spadacrene Anglica" (as already mentioned) was published in 1626. Later in the same year appeared another work on Harrogate, entitled "News out of Yorkshire," by Michael Stanhope, Esq. Further, the time of Mr. William Slingsby's birth has been traced back to between the years 1525 and 1527. The year 1926 is therefore the tercentenary of the publication of Deane's "Spadacrene Anglica," and Stanhope's "News out of Yorkshire," and may also be regarded as the quatercentenary of the birth of Mr. William Slingsby. What a triple event for commemoration!

In this edition of "Spadacrene Anglica" the original title-page and initial letters have been artistically reproduced by the publishers; the text has not been modernized except in the case of the old vowel forms I and U for the consonants J and V. Otherwise, the original spelling and the use of capitals and italics have been retained. The long S has not been retained. With these slight changes one cannot but admire the forceful English in which it is written, and the clearness of the style of the author.

I am indebted to my daughter Dorothy for the sketch of the Tuewhit Well.

JAMES RUTHERFORD.

Saint Mungo, 12, York Road, Harrogate, 1921.

Biographical Notes
OF
Edmund Deane, M.D.
and others in relation to the Tuewhit Well, The English Spa.
BY ALEX. BUTLER, M.B.

BIOGRAPHICAL NOTES

of Edmund Deane and others in relation to the English Spa.

The present reprint of "Spadacrene Anglica" should arouse a keen literary interest in its author, Edmund Deane, and in the early history of Harrogate. As one who had the privilege of reading the original edition of this work, belonging to Dr. Rutherford, I was struck by the marked contrast between Deane's account of the history of the medicinal waters of Harrogate, and that which is to be found in more recent writings on that subject.

These modern accounts cannot be better or more authoritatively exemplified than by taking a short extract from the article "Harrogate" in the "Encyclopædia Britannica." [1]

"The principal chalybeate Springs are the Tewitt well called by Dr. Bright, who wrote the first account of it, the English Spaw, discovered by Captain William Slingsby of Bilton Hall, near the close of the 16th. Century...."

This paragraph, as a statement of facts, accurately sets out what is to be found in more or less detail in the accessible literature of to-day and will be referred to afterwards as the recognised history of Harrogate. It has received the express or tacit sanction of the Corporation of Harrogate and is embodied in its publications. Further a memorial has been erected to Sir William Slingsby, the Captain William Slingsby of Bilton Hall referred to in the above quotation, as the discoverer of the Tuewhit Well.

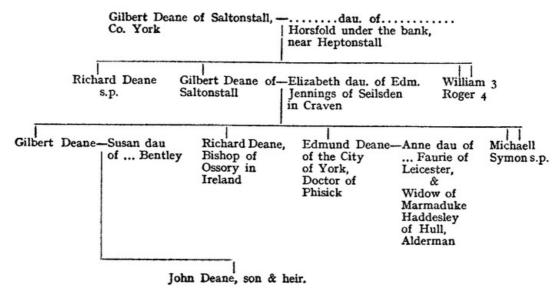
Notwithstanding the complete credence that has been given to this account for many years, I think there can be no doubt that it is entirely erroneous, and that unmerited fame has been given to Sir William Slingsby as the discoverer of the medicinal qualities of the Tuewhit Well, and to Dr. Bright as the author who first wrote an account of it.

Deane's history of the medicinal springs of Harrogate in the Elizabethan period is to be found in the earlier chapters of his book. It is therefore only necessary to mention here that, according to "Spadacrene Anglica" the Tuewhit Well was *not* discovered by Captain (or Sir) William Slingsby,

it was *not* discovered near the close of the 16th Century, and Dr. Bright did *not* write an account of it. It is hardly credible that the history as given in the extract from the "Encyclopædia Britannica" is actually derived from "Spadacrene Anglica." Yet such is the case. Owing to the great rarity of the first edition of that book, and the fact that the later editions were all, more or less, abridged or incomplete, a series of plausible conjectures by later writers founded on these imperfect editions has evolved a history of Harrogate in this period which is, as regards the main facts, largely fictitious. The object of the following biographical notes is, briefly, to restate the history of Harrogate during the Elizabethan period, in terms of the only reliable source for such a purpose, and to trace the accumulated errors, as far as possible, to their origin and source, an inquiry which the reprint of "Spadacrene Anglica" at the present time makes not inopportune.

No history of Harrogate should be written, unless preceded by a biographical note of the author of "Spadacrene Anglica," to whom and to whose work Harrogate doubtless owes its position as the premier Spa of this country; and it is with no little sense of the fickleness of fame that one finds his name so little known, and his worth as a writer unrecognized. As far as I know, no biography has been written heretofore, nor is his life given in the various collective records of the lives of British medical men, such as Aikin, etc.^[2] The same neglect of him occurs in the "Dictionary of National Biography," where in view of the national importance of the Spas of this country, a biography of Deane might not unreasonably be expected. Here and there one is able to glean some small scraps of information about him, but the result of all the gleanings from contemporary records, so far, can be condensed in a very small compass. It does not seem amiss therefore to record here what is known of the "father of Harrogate" albeit at present unrecognized by his off-spring.

Deane was descended from a family who for many generations lived at Saltonstall, a hamlet in Warley in the parish of Halifax, and whose history appears to have been quite uneventful. Owing to the frequency with which the same Christian names occur in the Parish Registers, it is by no means easy to identify the several families of the name of Deane, but in 1612 the family from which the author of "Spadacrene Anglica" was descended, recorded in the College of Arms a short entry of pedigree, of which a copy is appended. His parents were Gilbert Deane of Saltonstall and Elizabeth, daughter of Edmund Jennings of Seilsden in Craven, and their family consisted of four sons, viz. Gilbert, Richard, Edmund and Symon (twins). The date of birth of Edmund is not known, but the entry of baptism is on 23rd of March 1572. The mother seems to have died at their birth, for the date of her funeral is but two days' later.



Of the brothers of Edmund, Gilbert, the eldest, apparently lived at Saltonstall, and it was his son, John Deane, who eventually became the chief beneficiary under the Will of Edmund. Symon (or Michaell Symon), the twin brother, died at the age of seven years. His remaining brother, Richard, born in 1570, entered Merton College, Oxford, in 1589, and in 1609 succeeded Dr. Horsfall as Bishop of Ossory. He died in 1614.

Edmund also entered Merton College, matriculating 26th March, 1591, and took the degree of B.A. on the 11th of December, 1594. He then "retired to St. Alban's Hall, where prosecuting his geny which he had to the faculty of physic" he was licensed to practise medicine on the 28th March, 1601, subsequently taking his degrees of M.B. and M.D. as a member of that hall on the 28th of June, 1608. He was incorporated at Cambridge in 1614. After taking his degrees in medicine he retired to York and practised in that city till his death in 1640. [6]

Nothing further is known of his life in York, except that Camidge^[7] states that he occupied a house adjoining the residence of Mr. Laurence Rawden in the street called Pavement, a name, it has been suggested^[8], derived from the Hebrew Judgement seat "in a place that is called the Pavement,"—this being that part of the City of York where punishment was inflicted and where the Pillory was a permanent erection. It is not unreasonable to suppose that this fact was responsible for Deane's tender pity for the "poore prisoners" in his Will.

In 1626, Deane published his "Spadacrene Anglica" which is here reprinted. "Spadacrene Anglica" is a model of lucid and logical exposition. It provides a quaint and interesting epitome of the medical opinion of the day, but it is of more special interest as the source for the earliest history of the Harrogate waters. Its importance from this particular standpoint will be considered later

Later in the same year Michael Stanhope published his "Newes out of Yorkshire," and in this book he gives a lively description of his journey with Deane to the Well "called at this day by the country people, Tuit Well, it seemes for no other cause but that those birdes (being our greene Plover) do usually haunt the place." The following extract of the first recorded visit to Harrogate will, I think, be of interest.

"In the latter end of the summer 1625, being casually with Dr. Dean (a Physitian of good repute at his house at York, one who is far from the straine of many of his profession, who are so chained in their opinion to their Apothecary Shops, that they renounce the taking notice of any vertue not confined within that circuit) he took occasion to make a motion to me (the rather for that he remembered I had been at the Spa in Germany) of taking the aire, and to make our rendez-vouz at Knaresbrough to the end wee might be the better opportuned to take a view of the Tuit-well (whereof he had sparingly heard) for that it was by some compared to the so much fam'd Spa in Germany. I was not nice to give way to the summons of his desire: the match was soon made, and the next day, accompanied with a worthy Knight and judicious admirer, and curious speculator of rarities, and three other physitians of allowable knowledge, we set forwards for Knaresbrough, being about fourteen miles from Yorke. We made no stay at the towne, but so soone as we could be provided of a guide, we made towards the Well, which we found almost two miles from the Towne. It is scetuate upon a rude barren Moore, the way to it in a manner a continual ascent. Upon our first approach to the Spring we were satisfied that former times had taken notice of it, by reason it was encloased with stone, and paved at the bottome, but withal we plainely perceived that it had been long forgotten^[9], which the filth wherewith it was choaked did witnesse, besides that through neglect the current of other waters were suffered to steale into it. Before any peremptory triall was made of it, it was thought fit first to clense the Well, and to stop the passage of any other waters intermixture, which within the compasse of an hour we effected. The bottom now cleared, we plainely descried where the waters did spring up, and then the Physitians began to try their experiments.

But, first of all I dranke of it and finding it to have a perfect Spa relish (I confesse) I could not contain but in a tone louder than ordinary I bad them welcome to the Spa. Presently they all took essai of it, and though they could not denie, but that it had a different smack from all other common waters, most confessing that it did leave in the pallate a kinde of acidnesse, yet the better to be assured whether it did partake with Vitrioll, the prime ingredient in the natural Spa, they mixed in a glasse the powder of Galls with this water, knowing by experience if this Minerall had any acquaintance with the Spring, the powder would discolour the water and turne it to a Claret die; wherein they were not deceived, for presently (to their both wonder and joy) the water changed colour, and seemed to blush in behalf of the Country, who had amongst them so great a jewell and made no reckoning of it.... You may suppose (being met together at our Inne, where we found ourselves very well accommodated for our provision) we could finde no other talke but of this our new Spa.... Three days after our return to York, Dr. Deane (whose thirst for knowledge is not superficially to be satisfied) by the consent of his fellow-physitians sent for a great quantity of the water in large violl glasses, entending partly by evaporation and partly by some other chimical means to experiment it...."

It would certainly appear from a perusal of the above, that at the latter end of the year 1625, Deane knew little of the medicinal value of the English Spaw. But such a conclusion is entirely opposed to the dedication and text of "Spadacrene Anglica," which clearly indicates that Deane was a close personal friend of the eminent physicians Dr. Timothy Bright, and Dr. Anthony Hunton of Newark-upon-Trent, who for years had been recommending the waters to their friends and patients. Moreover Deane himself had paid many visits to the English Spaw with the physicians of York, and had been at last induced to commit his knowledge to print. Is it

permissible to use imaginative license and see in Deane a humorist who persuaded Stanhope "of taking the aire" while professing no intimate knowledge of the spring, yet going the length of taking the powder of Galls in his pocket to produce a stage effect, which he had never found to fail?^[10]

Stanhope readily adopts the plover origin of the name Tuewhit, but the silence of Deane is suggestive of his doubt, and especially so as he mentions the pigeons haunting the sulphur springs as "an arguement of much salt in them." There is no obvious reason of this kind for the plovers frequenting the Tuewhit Well in preference to any other spring in the neighbourhood.

In 1630, Deane published a number of Tracts which had been left more or less incomplete by Samuel Norton. His share in the authorship of the different tracts varies. The titles of one or two will sufficiently indicate the nature of the subjects, and it can be seen that his studies included the philosophical stone, and other subjects receiving attention at the present time, such as "culture pearls."

"Mercurius Redivivus, seu modus conficiendi Lapidem Philosophicum."

"Saturnus Saturatus Dissolutus et Coelo restitutus, seu modus componendi Lapidem Philosophicum ... e plumbo...."

"Metamorphosis Lapidem ignobilium in gemmas quasdam pretiosas, seu modus transformandi perlas parvas ... in magnas et nobilis ..." etc. etc.

Edmund Deane married twice, first to Anne, widow of Marmaduke Haddersley of Hull; the date is not known, though it was before the entry of pedigree was recorded in 1612. In 1625, he had a license at York to marry Mary Bowes of Normanton at Normanton. There does not appear to have been a family by either of his wives.

He died in 1640, and was buried in St. Crux Church, York. This church was demolished about the year 1885, as it was considered structurally unsafe, but there does not appear to have been any memorial erected to him in the church. The manuscript Registers of the Parish of St. Crux are in the College of Arms: the manuscript extracts do not commence until the year 1678. His Will, however, is preserved. It is dated 30th of Oct. 1639, and was proved at York on the 14th of April, 1640.

In a biography it should be the task of the writer to visualise the personality of his subject as well as to record merely the material events of his life. In this instance it would be quite impossible to do so from lack of material, but yet from his works, and from the opinion held of him by Michael Stanhope, and last, but not least, from the contents of his own Will, I think some picture can be painted of him. A man of learning is shown from his writings: a perusal of "Spadacrene Anglica" will exhibit both the clearness of his intellect and the forcibleness of his style. For many years he successfully practised medicine at York. He was held in high esteem among his professional brethren, and was recognized by them as a leader in the profession with a broad mind, ready to listen to and investigate new ideas. His personality is fully and finely revealed in his Will, and as this is the only biography, as it were, written by himself, I append an extract from it, so that he may speak for himself.

In the name of God, Amen.

I Edmund Deane of the Cittye of Yorke Doctor of Phisicke being some what weake of bodye, yett in good & pfect remembrance of mynd & understanding (praised be God therefore) and calling to mynd the uncertainety of this my naturall life & my mortality, not knowing howe soone I shall laye downe this my earthly Tabernackle & be gathered to sleepe in the grave wth my fathers doe therefore accordinge to the holy Ghost directions make, constitute, ordayne & declare this my last Will and Testament for the better setleing of peace & concord amongst my wife, friends & kindred heareby revokeing in acte, deede and in lawe all other former Wills & testaments whatsoever. In manner & forme following.

That is to say first & principally I comend & bequeath my soule unto the ever blessed hands of Almighty God my heavenly father my maker & creator, whoe out of his meer mercy, free will & love to mankinde & to me in pticuler did vouchsafe to send his onely begotten sonne before all eternity, Christ Jesus the pmissed Messias into this world to save sinners (whereof wth St. Paull I confesse my selfe the greatest) to laye downe his life for mankinde & that he dyed for me & for my salvacon, & that he rose againe the third day for my iustificacon, that where he now is, I shall be there alsoe after my dissolution & I hope & looke to be saved only by his mirritts, death & passion alone, & by noe other meanes whatsoever, & when itt shall please Almighty God to putt an end & period to these my dayes here on earth, ending this my pilgrimage, and layeing downe this my earthly Tabernackle.

Then I comitt & bequeath this my nowe liveing body to the earth from whence itt came, & the same to be buryed (yf I fortune to dye in Yorke or otherwise yf itt may be done wth convenyency) in the p'ish Church of St. Crux wthin the said Citty of Yorke in the Chancell of the said Church & to be enterred as neare as may be unto the body of my late dearely beloved wife Anne Deane deceased wthout any bowelling or embalmeing, & there to be decently enterred by toarch light, wthout any further funerall pompe or solempnity whatsoever, beinge (as I thinke) a custome not altogeither laudable to banquett & feast att funeralls w^{ch} rather ought to be a tyme of mourneing, then banqueting and feasting

 w^{th} said body of myne I knowe & beleive assuredly that I shall rise againe att the last day, & be reunited & ioyned againe unto my soule & that itt shall be made like unto Christ his glorious body, that where he is, there I shall be alsoe liveing and reigneing w^{th} him in his everlasting kingdome for ever.

Now concerning my temporall Estate w^{ch} God in his mercy hath vouchsafed to bestowe on me (or rather lent me as his steward) I bequeath it thus as followeth

First I give & bequeath to Mr. Roger Belwood my pastor thirty shillings.

Item I give to the poore people of the Cittye of Yorke three pounds XX^s whereof to be distributed to the poore of the Warde where I now live and the remmant to the poore of the other three Wardes equally to be divided.

Item I give to the poore prisoners of the castle of Yorke XX^s and to the poore prisoners on Ousebridge called the Kidcoate X^s and to the poore prisoners of S^t . Peters prison in Yorke X^s .

Item I give to the poore people of the old hospitall or massing dewes of the Citty of Yorke thirty shillings. Item whereas....

Item my Will meaninge and harty desire is that my nowe loveing wife Mary Deane shall & may quietly have & enjoye all her widdowe rights whatsoever according to this prince of Yorke \mathbf{w}^{th} out any further trouble molesta $\bar{\mathbf{c}}$ on or vexa $\bar{\mathbf{c}}$ on or suite in lawe and that my Executor shall not make any claime to any such goods or plate as she the said Mary had in her former widdowhood & brought \mathbf{w}^{th} her to me att her marriage \mathbf{w}^{th} me. Item I give to my said nowe loveing wife as a legacy my coatch horses & furniture & what hay or oates, coales, turfes & fuell shall be in my howse att my death. Item I give....

Item I give to Margery Smeton yf shee be my servant at my death forty shillings and to each other of my servants att my death tenn shillings.

All the rest of my goods & chattells unbequeathed, my debts and funerall expenses discharged I give and bequeath to my loveing nephewe Mr. John Deane of Saltonstall Atturney in his Maty Court of Comon Pleas att Westminster & eldest sonne of my late brother Gilbert Deane of Saltonstall deceased w^{ch} said John Deane I doe ordayne constitute & make my sole & onely Executor of this my last

And for as much as most of my Estate doth consist in debts, w^{ch} will require tyme for gathering in, my Will & meaneing is that this my said executor shall have twelvemonethes tyme for the payment of the greater legacies....

And further my meaneing is That for as much as my said Executor John Deane by Gods pvidence is likely to be lame by a fall & not to live & followe his profession as an Atturney to London (but as it weare undone) whome I have made my onely & sole Executor of this my last Will & Testament. Therefore all my nephews & kindred may know I have given them small legacy to doe him good

In Witness.... etc.

In "Spadacrene Anglica" Deane mentions that "out of the divers fountains springing hereabouts" five are worthy the observation of physicians. These are—

- 1.—The Dropping Well.
- 2.—The Sulphur Well at Bilton Park.
- 3.—The Sulphur Well near Knaresborough.
- 4.—The Sulphur Well at "Haregate head."
- 5.—The Tuewhit Well, or The English Spaw.

The number of springs worthy the observation of physicians has largely increased and the relative importance of the five mentioned has altered considerably since Deane wrote. But in 1626, The Tuewhit Well, or The English Spaw, was regarded as the most worthy of fame. This well, according to the later writers, was discovered by Captain (afterwards Sir) William Slingsby: —in Chapter 6 of "Spadacrene Anglica," however, a Mr. William Slingsby is given as the discoverer.

"The first discoverer of it to have any medicinall quality (so far forth as I can learn), was one Mr. William Slingesby, a Gentleman of many good parts, of an ancient and worthy Family neere thereby: who having travelled in his younger time, was throughly acquainted with the taste, use, and faculties of the two Spaw fountaines. In his latter time, about 55 yeeres agoe it was his good fortune to live for a little while at a grange house very neare to this fountaine, and afterwards in Bilton Parke all his life long."

From this it appears that the discovery was made by Mr. William Slingsby in his later years, about the year 1571, but if the Mr. William Slingsby here referred to was Sir William Slingsby he would have been a youth of some 8 or 9 years in 1571. Secondly, one would judge from the text that the Mr. William Slingsby referred to by the writer was dead at the time that he wrote, namely 1626, whereas, as a matter of fact, Sir William Slingsby was alive until the year 1634. Thirdly, it is impossible to conceive that Edmund Deane would refer to Sir William Slingsby as Mr. William Slingsby, seeing that the former was knighted in 1603, or 23 years prior to the publication of Deane's work. It is therefore abundantly clear that Sir William Slingsby—a very gallant gentleman—has no claim to the fame which history has insisted upon according him.

The fact is that the Mr. William Slingsby referred to^[11] was the fourth son of Thomas Slingsby of Scriven, who married Joan, daughter of Sir John Mallory of Studley, and who had a family of six sons and four daughters. The name of the eldest son was Francis, and, as just mentioned, William was the fourth son. Sir William Slingsby was the seventh son of Francis and the nephew therefore of Mr. William Slingsby. Mr. William Slingsby was buried at Knaresborough on the 8th of Oct., 1606, but the date of his birth does not seem to have been recorded. His elder brother, Francis, died in 1600 at the age of 78, so that he was born in 1522. It is not unreasonable to suppose that William, his brother, one of a large family, was born between the years 1525 and 1527. He would therefore be somewhere between 44 and 46 years of age, when he discovered the medicinal qualities of the Tuewhit Well, which equally accords with Deane's statement that in his younger days he had travelled in Germany.

So far as I can trace, $Hargrove^{[12]}$ is the first author to confuse the uncle and the nephew. He writes that the well

"was discovered by Capt. William Slingsby, about the year 1571. This Gentleman, in the early part of his life, had travelled in

Germany, where he made himself acquainted with the Spaws of that country. He lived sometime at Grange House, near the Old Spaw, from whence he removed to Bilton Park, where he spent the remainder of his days. He made severall trials of this water, and finding it like the German, he walled it about, and paved it at the bottom, leaving a small opening for the free access of the water. Its current is always near the same, and is about the quantity of the Sauvenir, to which Mr. Slingsby thought it preferable."

From this quotation it is clearly apparent that Hargrove erroneously inferred that Mr. Slingsby and Capt. Slingsby were the one and the same person instead of being uncle and nephew. In the 3rd edition of the "History of Knaresborough," published in 1782, the reference to Mr. Slingsby is omitted and from that edition onwards, Captain Slingsby appears as the discoverer of the Tuewhit Well in 1571, a discovery clearly inconsistent with the fact that he was born in the year 1562.

The source of Hargrove's information in the above quotation is, without doubt, the summary of "Spadacrene Anglica," published by Dr. Short in 1734 in his History of Mineral waters.^[13] The summary by Short of Chapter 6 of "Spadacrene Anglica" is as follows:—

"This fifth Spaw is a Mile and half from Knaresburgh, up a very gentle ascent, near Harrigate, has much the same Situation as the foresaid Spaws in Germany. It was discovered first about fifty years ago, by one Mr. William Slingsby, who had travelled in Germany in his younger Years, seen, and been acquainted with theirs; and as he was of an ancient Family near the place, so he had fine Parts and was a capable Judge. He lived some time at a Grange-House near it; then removed to Bilton-Park, where he spent the rest of his Days. He, using this Water yearly, found it exactly like the German Spaw. He made several Tryals of it, then walled it about, and paved it in the bottom with two large Stone-flags, with a Hole in their sides for the free Access of the Water, which springs up only at the bottom, through a Chink or Cranny left on purpose. Its current is always near the same, and is about the quantity of the Sauvenir, to which Mr. Slingsby thought it preferable being more brisk and lively, fuller of Mineral Spirits, of speedier Operation; he found much benefit by it. Dr. Tim. Bright, about thirty years ago, first gave it the name of the English Spaw: Having spent some time at those in Germany, he was Judge of both; and had so good an Opinion of ours, that he sent many Patients hither yearly, and every Summer drank the Waters himself. And Dr. Anthony Hunter, late Physician at Newark-upon-Trent, often chided us Physicians in York, for not writing upon it, and deservedly setting it upon the Wings of Fame."

A more consistent form has been given to the error by Grainge, who in 1862 published a memoir of the Life of Sir William Slingsby, Discoverer of the first Spaw at Harrogate. Grainge, like Hargrove, had only access to Short's summary, but he sees the difficulty to which I have alluded, for he writes [14]:—

"From the uncertain expression of the Dr. 'about 50 years ago' the date of this discovery is generally fixed in the year 1576, though it is probably twenty years or more too early, as at that time Slingsby would only be fourteen years of age: and could not have travelled much in Germany or elsewhere: while the expression 'in his younger days' would infer that the discovery was not made until he had attained middle age at least."

Grainge accordingly dates Captain (or Sir) William Slingsby's discovery to 1596 or later, the origin of the expression "near the close of the 16th Century" of the recognised history.

In the first place Dr. Short is inaccurate in that Deane states it was discovered "55" years ago, and not "50." In the second place, the only authority whom Grainge could rely upon was Deane, either directly or indirectly, and Deane could not have made the discoverer to be a boy of nine years of age (not fourteen) for he must have known Sir William Slingsby, a contemporary. Finally, Grainge only consulted the summary of "Spadacrene Anglica" and not the actual work, and it is to be noted that Deane in Chapter 6 says the first discoverer "so far forth as I can learn." These words are not in the summary, but they show that Deane had given care to his work, and if Sir William Slingsby had been the discoverer, Deane could have obtained his information at first hand, and would have given Sir William Slingsby as his authority.

Grainge was an eminent and careful historian, and he has written a number of valuable works.

He had the acumen to see that Sir William Slingsby could not possibly have been the discoverer in 1571, and it is fairly certain that if he had had access to Deane's work, he would have rectified the error as regards Sir William, instead of questioning the accuracy of Deane's statement.

Little has been added to the account of Mr. William Slingsby as given by Deane, but it has been shown at any-rate that the facts of his life fit in perfectly with that account.

The medicinal qualities of the Tuewhit Well having been discovered by Mr. William Slingsby in or about the year 1571, this gentleman did "drink the water every yeare after all his life time" and averred that "it was much better, and did excell the tart fountaines beyond the seas." Much pains were taken to bring the waters into notoriety in the interests of humanity, and by reason of a pardonable national pride that the country could boast of a health resort in every way comparable with the famous German health resort of Spa. Chief among these early advocates of this home fountain was Dr. Timothy Bright, who is responsible for naming the well the "English Spa," which name was apparently adopted by the gentry partaking of the water, whereas the common folk still cling to the ancient name of Tuewhit Well.

Timothy Bright has had a varied literary history. For about three centuries he was almost entirely forgotten, and some of his works even ascribed to purely imaginary authors. In recent years full justice has been done to his name as the "father of shorthand" following the publication by J.H. Ford in 1888 of the tercentenary edition of his work entitled "Characterie," and since that year there has been much written of him. The curious may therefore consult the works mentioned in the footnote, [15] but it will suffice for my purpose to give a brief sketch of his life, not as the "father of shorthand," but as one of the fathers of Harrogate.

Timothy Bright was born in Cambridge in the year 1551, matriculated in Trinity College, Cambridge, in 1565, and took his B.A. in 1567-8. He then went to Paris to study medicine, and in 1572 narrowly escaped the Massacre at Paris on St. Bartholomew's Eve by taking shelter at the house of Sir Francis Walsingham, the English ambassador. Returning to England he graduated M.B. in 1574 and M.D. in 1579. In 1584 he was well launched on his medical career, for he was the physician at St. Bartholomew's Hospital. By this time he had achieved some reputation as a writer and had obtained the friendship of the powerful Cecil Lord Burghley, Sir Francis Walsingham and Sir Philip Sidney, which probably explains how his now famous work "Characterie" was in 1588 dedicated to Queen Elizabeth. His connection with these powerful personages led to a change in his profession and incidentally to his connection with Harrogate, for on July 5th, 1591, the Queen presented him to the Rectory of Methley in Yorkshire, and on the 30th of Dec., 1594, also to the Rectory of Barwick in Elmet in the same county. He held both these livings till his death, which took place in 1615. By his Will he left his body "to be buried when and where it shall please God." He was no mean linguist for he bequeathed his Hebrew Bible and a Syriac Testament as well as Greek, Latin and Italian works to his brother. His books of Phisick and Philosophie he bequeathed to his sonne Titus Bright, M.D. He was fond of music and possessed the standard work on harmony by Joseph Zarlino. This he left, along with some instruments of music, a Theorbo and an Irish harp, "which I most usuallye played upon" to his brother.

In spite of the fact that he took holy orders, it is evident from "Spadacrene Anglica" that he was held in high esteem as a physician (albeit non-practising) by his contemporaries in Yorkshire, and his travel abroad in Germany well fitted him for the post of advocate, which from humane and patriotic motives he assumed on behalf of the English Spa.

Deane states that Bright first gave the name of English Spaw "about thirty years since, or more," that is, in 1596 or earlier. This would seem to indicate that Bright's association with Harrogate began shortly after he was presented to the Rectory of Barwick in Elmet in 1594.

Dr. Bright was a prolific writer and the names of his works are given in a footnote.^[16] Some of his books passed through several editions. Burton's "Anatomy of Melancholy" is said to have been suggested by his "Treatise of Melancholy," and Shakespere was evidently acquainted with his book, "Characterie, an Arte of shorte, swifte and secrete Writing by Character."

"This is not my writing, Though, I confess, much like the character"

Twelfth Night. Act V, Sc. 1.

"All my engagements I will construe to thee, All the characterie of my sad brows."

Julius Cæsar. Act ii, Sc. 1.

Hargrove appears also to be the earliest to assert that Bright was the first writer on Harrogate. In his "History of Knaresborough" it is merely stated "soon after its discovery Dr. Bright wrote on its virtues and uses." [17] There is no authority for that assertion in any of the works of Dr. Bright mentioned in the footnote, and the only evidence in support of Hargrove is that given by Wheater, [18] who writes:—

himself with true Elizabethan flavour. He observes regarding the water that 'It occasions the retention of nothing that should be evacuated and by relaxation evacuates nothing that should be retained. It dries nothing but what's too moist and flaccid, and heats nothing but what's too cold, and e contra: that though no doubt there are some accidents and objections to the contrary, it makes the lean fat, the fat lean, cures the cholic and the melancholy, and the vapours: and that it cures all aches speedily and cheereth the heart.' Such a recommendation," &c.

This quotation, which is apparently the only evidence in support of Hargrove's assertion that Bright wrote the first account of the English Spa, is not taken from Bright's writings at all, but from Dr. Short's summary of "The Yorkshire Spaw." "The Yorkshire Spaw" was a treatise written by Dr. John French in 1652, and so far therefore from being written by Dr. Bright, was actually written thirty-seven years after Bright's death.

It is perhaps only fair to the memory of both Hargrove and Wheater to state that neither of them would have fallen into this error if they had had the privilege of reading Deane's dedication to "Spadacrene Anglica," in which he states that Dr. Bright intended to write an account "in case hee had longer lived." No edition after the original edition contains this dedication, for, as will be shown later, this very important part of Deane's work was omitted by John Taylor in the second edition and was not restored in any of the later. Moreover it is quite clear from the dedication of Taylor's edition, in 1649 that copies of the original edition were even then unobtainable, owing probably to the commotions which had accompanied the civil war.

I may here therefore emphasise the good service that has been done to restore the true history of the medicinal waters of Harrogate, by the reprinting of the original edition of "Spadacrene Anglica" by my friend Dr. Rutherford.

Before passing to the Bibliography of "Spadacrene Anglica," a brief mention must be made of Michael Stanhope, Esquire, whose two books did much to add to the celebrity of the English Spa, and were afterwards associated with the later editions of "Spadacrene Anglica." His first work was published towards the end of 1626, and is entitled,

"Newes out of Yorkshire, or an account of a journey, in the true discovery of a sovereigne Minerall, Medicinal Water in the West-Riding of Yorkeshire, neere an Ancient Towne called Knaresbrough, not inferior to the Spa in Germany. Also a taste of Other Minerall Waters of severall natures adjoyning" By M.S.

Ecclest. 38. 4. The Lord hath created Medicines out of the Earth: he that is wise will not despise them.

A large extract has already been given from this book, which was dedicated "To the Right Honourable, the Vertuous, and Religious Lady, the Lady Katherine Stanhope, wife to the Lord Philip Stanhope, Baron of Shelford."

Stanhope's other work was entitled,

"Cures without Care, or, a summons to all who finde little or no help by the use of ordinary physick to repaire to the Northerne Spa. Wherein by many Presidents of a few late yeares, it is evidenced to the world, that infirmities in their own nature desperate and of long continance have received perfect recovery in the west Riding of Yorkshire. Also a description of the said water, and of other rare and usefull springs adjoyning, the nature and efficacie of the Mineralls contained in them, with other not impertinent notes. Faithfully collected for the publique good by M. St."

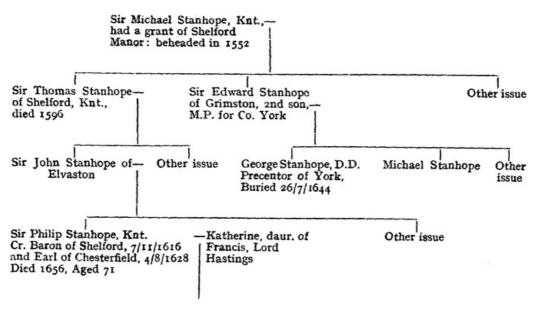
Tibul. "felix quicunque dolore alterius disces posse carere tuo,"

London, 1632.

Stanhope dedicated this work "To The Right Honourable, Thomas Lord Wentworth, etc., Lord President of his Majesties Council established in the North." Lord Wentworth is better known as the Earl of Strafford, and was beheaded in 1642. In it is contained a catalogue of persons who have received either benefit or cure by the waters.

An abridgement of the two works of Stanhope was made by John Taylor and published in 1649 under the title "Spadacrene Anglica ... Treatise of the learned Dr. Deane and the sedulous observations of the ingenious Michael Stanhope, Esquire." The ingenious Michael Stanhope, Esquire, also appears in the 1654 edition, but in that published in 1736, Stanhope appears as Dr. Stanhope. Short^[19] seems to have been the first to make Stanhope a member of the medical

profession. His opinion was soon adopted by others, and has apparently never been questioned. After a perusal of "Newes out of Yorkshire" and "Cures without Care," it is difficult to understand how Short arrived at his conclusion, for the internal evidence is entirely opposed to it. Even in the extract from "Newes out of Yorkshire" already quoted, it is obvious that Stanhope dissociates himself from the physicians with the party, for he writes, "then the physitians began to try their experiments," "three other physitians of allowable knowledge," and he refers to Deane as "one who is far from the straine of many of his profession." This extract was selected for an entirely different purpose, yet it is clearly not the language of a fellow-physician in practice in York. Short himself partially recognizes this. He only summarised "Cures without Care," and he justly remarks of the cures therein related that "some whereof are perhaps the greatest and most remarkable in the Authentic Records of Physic down from Hippocrates to this day." Short writes fully a century after "Cures without Care" was published, whereas Taylor was a Apothecary in York and a contemporary of both Deane and Stanhope there, and is accordingly the best authority on the status of Stanhope.



A clue to the identity of Stanhope offers itself in the dedication of "Newes out of Yorkshire" to Lady Katherine Stanhope, wife to the Lord Philip Stanhope, afterwards the Earl of Chesterfield. An outline of the pedigree of the Stanhope family was obtained from the College of Arms and is here partly reproduced to show the relationship of Stanhope to Lady Katherine Stanhope.

A Michael Stanhope entered Christ's College, Cambridge, in 1597-8, and Gray's Inn in 1593-4, but there is no evidence to identify him with Michael Stanhope the second son of Sir Edward Stanhope, and the author of "Newes out of Yorkshire" and "Cures without Care." It may be mentioned that in the latter book, Stanhope discovers and describes the well at present known as John's well.

BIBLIOGRAPHY OF "SPADACRENE ANGLICA."

1626.

First Edition.

1649.

"Spadacrene Anglica," the English Spaw, or The Glory of Knaresborough. Springing from Severall famous Fountaines there adjacent, called the Vitrioll, Sulphurous, and dropping Wells: and also other Minerall Waters. Their nature, Physical use, Situation and many admirable Cures being exactly exprest in the subsequent Treatise of the learned Dr. Dean and the sedulous observations of the ingenious Michael Stanhope, Esquire. Wherein it is proved by Reason and Experience, that the Vitrioline Fountain is equall (and not inferior) to the Germaine Spaw. Aris[t]on men udôr. Published (with other additions) by John Taylor, Apothecary in York, and there printed by Tho: Broad, etc., 1649.

The important and felicitous letter of dedication in the first edition is discarded, and one of Taylor's own composition, of a very different character is substituted for it. In it occurs the following, which is of bibliographical interest: "The importunate desire of my friends has forced me to reprint this little Treatise of Dr. Dean's Spadacrene Anglica, which the vacillation of these distracted and ruinous times had almost lost and obliterated. To this of Dr. Dean's I have added the Observations of Michael Stanhope, Esquire, which I have excerpted forth of his two books of the Spaw."

1654.

"Spadacrene Anglica," etc., York, printed by Tho: Broad, etc., 1654. The title is the same as the

1649 reprint, except for the fact that Taylor's name does not appear on it. His dedication is also omitted.

1734.

Thomas Short, M.D., "The Natural, Experimental and Medicinal History of Mineral Waters."

In this volume, there are summaries of Deane's "Spadacrene Anglica": Stanhope's "Cures without Care": and French's "The Yorkshire Spaw," etc.

1736

"Spadacrene Anglica, or The English Spaw." Being An Account of the Situation, Nature, Physical Use, and admirable Cures, performed by the Waters of Harrogate, and Parts adjacent. By the late learned and eminent Physician, Dr. Dean of York, and also the Observations of the ingenious Dr. Stanhope. Wherein it is proved by Reason and Experience the vitrioline Fountain is equal to the German Spaw. To which are added Some Observations (Collected from modern Authors) of the Nature, Vertues and Manner of Using the Sweet and Sulphur Waters at Harrogate, Leeds, etc., 1736.

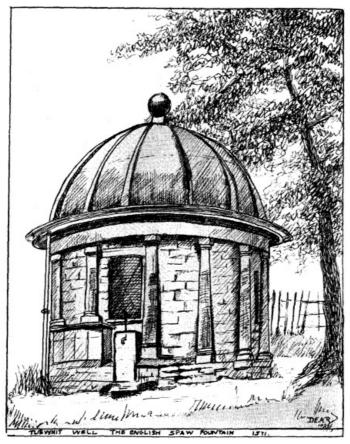
1921.

The present edition, reprinted from the 1626 edition.

Footnotes

- [1] "Encyclopædia Britannica," 11th ed., 1910-11, vol. xiii, page 27.
- [2] J. Aikin, "Biographical Memoirs of Medicine in Great Britain from the Revival of Literature to the time of Harvey," 1780. Wm. MacMichael, "Lives of British Physicians," 1830. T.J. Pettigrew, "Medical Portrait Gallery," 1838. G.T. Bettany, "Eminent Doctors, their Lives and their Works," 1885.
- [3] Watson, J., "The History and Antiquities of the Parish of Halifax in Yorkshire," 1775.
- [4] "The Register of Halifax," Part 1, 1910, page 205.
- [5] "The Register of Halifax," Part 2, 1914, page 253, The Yorkshire Parish Register Society.
- [6] Anthony A. Wood, "Athenæ Oxoniensis," ed. Bliss, vol. ii, page 660. "Alumni Oxoniensis," arranged by Joseph Foster. Vol. 1, 1500-1714.
- [7] Camidge, Wm., "Ye Olde Streete of Pavement," York, c. 1893.
- [8] Davies, R., "Walks through the City of York," 1880, page 247.
- [9] cf. "Spadacrene Anglica," page 125.
- [10] "Spadacrene Anglica," page 92.
- [11] "Pedigrees of the County Families of Yorkshire," Joseph Foster, 1874, Vol. 1 (West Riding).
- [12] E. Hargrove, "The History of the Castle, Town, and Forest of Knaresbrough, with Harrogate and its medicinal Springs." 2nd. ed., 1775, page 45. I have not seen the 1769 ed.
- [13] Thomas Short, M.D. "The Natural Experimental and Medicinal History of the Mineral Waters, etc." 1734, page 238.
- [14] Grainge, W., "Memoir of the Life of Sir Wm. Slingsby." 1862. Page 16.
- [15] "Athenæ Oxoniensis," ed. by P. Bliss, 1815, vol. 2, 174, footnote by Rev. Joseph Hunter. Dictionary of Nat. Biography, 1886, vol. VI. "Dr. Timothy Bright, Some Troubles of an Elizabethan Rector," by Rev. H. Armstrong Hall, 1905, in vol. xv; and "The History of the Parish of Barwick in Elmet," by F.S. Colman, M.A., Rector, 1908, in vol. xvii of the Publications of the Thoresby Society. "William Shakespeare and Timothy Bright," by M. Levy, 1910. "Timothe Bright, Doctor of Physicke, A Memoir of the Father of Shorthand," 1911, by W.J. Carlton. His Will is published in "Yorkshire Archæological Journal," 1902, vol 17.
- [16] "A Treatise: wherein is declared the sufficiencie of English Medicines for the cure of all diseases cured with medicine," T.B. 1580.
 - "Hygieina, id est de sanitate tuenda, Medicinæ Pars prima." 1581.
 - "Medicinæ Therapeutiæ pars: de dyscrasia corporis humani." 1583.
 - "Therapeutica, hoc est de sanitate restituenda. Medicinæ Pars altera."
 - "In Physimam G.A. Scribonii Animadversiones." 1584.
 - "A Treatise of Melancholie. Containing the causes thereof, & reasons of the strange effects it worketh in our mindes and bodies, with the phisicke, cure, and spirituall consolation for such as have therto adjoyned an afflicted conscience, etc." 1586.

- "Characterie, an Arte of shorte, swifte and secrete Writing by Character. Invented by Timothe Bright, Doctor of Physike." 1588.
- "An Abridgement of the Book of Acts and Monumentes of the Church." 1589. Better known as "Foxe's Book of the Martyrs." $\,$
- [17] E. Hargrove, "The History of Knaresbrough." 2nd ed., 1775, page 45.
- [18] W. Wheatear, "A Guide to and History of Harrogate," 1890, page 58.
- [19] Thomas Short, M.D., "History of Mineral Water," 1734, page 243.



TUEWHIT WELL THE ENGLISH SPAW FOUNTAIN 1571

Spadacrene Anglica.

OR, THE ENGLISH SPAVV FOVNTAINE.

Being

A BRIEFE TREATISE

of the acide, or tart Fountaine in the Forest of Knaresborow, in the West-Riding of Yorkshire.

As also a Relation of other medicinall
Waters in the said Forest.

BY

Edmund Deane, Dr. in Physicke, Oxon. dwelling in the City of YORKE.

LONDON,

Printed for Iohn Grismand: and are to be sold by Richard Foster, necre the Minstergate in Torke.

1 6 2 6.

Spadacrene Anglica.

OR, THE ENGLISH SPAWFOVNTAINE.

Being A BRIEFE TREATISE of the acide, or tart Fountaine in the Forest of *Knaresborow*, in the West-Riding of *Yorkshire*.

As also a Relation of other medicinall Waters in the said Forest.

BY *Edmund Deane*, D^r. in Physicke, *Oxon*. dwelling in the City of YORKE. *LONDON*, Printed for *John Grismand*: and are to be sold by *Richard Foster*, neere the Minstergate in *Yorke*. 1626.

THE EPISTLE

TO

THE PHYSITIANS OF YORKE.



hough it was my fortune first of all to set a new edge on this businesse; yet my journeyes to this Fountaine have not been made without your good companies and association, nor the severall tryals had there, and at home, performed without your worthy helpes and assistance; nor this little Treatise begun without your instigations and incitements. Therefore I find none so fit and meet to patronize it, as your selves: being able out of your owne knowledge and observation to defend it against all malicious detractions. To extoll it above the Germaine Spaw, may be thought in me either indiscretion, or too much partiality; but why I may not parallele them (being in natures and qualities so

agreeable) nor I, nor you (I suppose) know any inducing, much lesse perswading argument. Wherefore being thus confident, I thought it no part of our duties, either to God, our King, or Country, to conceale so great a benefit, as may thereby arise and accrue not onely unto this whole Kingdome and his Majesties loving subjects, but also in time (after further notice taken of it) to other foraigne nations and countries, who may perhaps with more benefit, lesse hazard and danger of their lives, spoiling and robbing, better partake of this our English Spaw Fountaine, then of those in Germanie.

It were to be wished, that those two famous Physitians, Dr. Hunton and Dr. Bright had beene yet living, to have given testimony of the great good hopes and expectation they conceived of it. The former of which did oftentimes request me to publish it to the world: and the other was resolved

(in case hee had longer lived) to have done it himselfe. So carefull were they both to promote their countries good, and studious to procure the health of their Countrimen.

I am as briefe and plaine, as possibly I may, to the end the Reader may not be wearied, nor the patient deluded; and, if for these causes I may seem to bee censured, yet I am well assured, that to your selves brevity and perspicuity cannot, but bee acceptable. So wishing you all happinesse, I shall ever rest and remaine

From my house in *Yorke*, this 20th. of April, 1626.

Your assured friend, *Edm; Deane*.

The English Spaw.

CHAP. 1.

Of the situation of the Towne of Knaresborow.



naresbrugh (commonly called *Knaresborow*) is a very ancient Market towne in the West-Riding of *Yorkeshire*, distant 14 miles from the City of *Yorke*; where the Pole is elevated 54 degrees, and 20 odde minutes. On the South-west part thereof is that faire, and goodly Fort, so much renowned, both for the pleasant situation, and remarkable strength, knowne by the name of *Knaresborow Castle*, seated on a most ragged and rough Rock; whence (as learned Mr. *Camden* saith) it is so named.

Both the Castle and the Towne are fenced on the South and West parts with the River *Nid*: which is beautified here with two faire Bridges of stone, which lead from the Towne into the Forest adjoyning, as also unto a large empaled Park of his Majesties, called *Bilton-parke*, well stored with fallow Deere: part whereof is bordered with the said river.

The Towne it selfe standeth on a hill, having almost on every side an ascent to it; and about it are divers fruitfull valleyes well replenished with grasse, corne, and wood. The waters there are wholesome and cleare; the ayre dry and pure. In briefe, there is nothing wanting, that may fitly serve for a good and commodious habitation, and the content and entertainment of strangers.

Many things are very observable in this place, which because they rather do appertaine to the volumes of Geographers, & Antiquaries, then to the purpose intended in this little treatise, are here omitted.

CHAP. 2.

Of the severall earths, stones, and mineralls found neere and about this place.

Although there are in sundry places of this Kingdome as many, or moe severall kinds, and sorts of earths quarreyes of stone, minerals, and mines of mettalls, then in any other Realme whatsoever; notwithstanding no one place hath beene observed to have them either in such plentie, or variety in so small a distance, as this. For here is found not onely white and yellow marle, plaister, oker, rudd, or rubricke, free*stone, an hard greet-stone, a soft reddish stone, iron-stone, brimstone, vitreall, nitre, allum, lead, copper, (and without doubt diverse mixtures of these) but also many other mineralls might (perhaps) be found out by the diligent search and skilfull industrie of those, who would take paines to labour a little herein.

All which do manifestly demonstrate, that nature hath stored this little territorie with a greater diversitie of hidden benefits, then great and spacious Countries otherwise abounding in outward native commodities, and that the fountaines, or springs of water hereabouts cannot otherwise then participate of their severall natures, and properties.

CHAP. 3.

Of the fountaines, of pure and simple waters neere, and about the Towne.

As generally most parts of the West Riding of Yorkeshire (especially the hilly and more

mountaineous places thereof) are stored with fountaines and springs of cleare, limpide, and pure simple waters; so likewise the territorie here abouts is not without plenty of them. Two whereof have gotten and purchased that reputation, as to be saincted: The one called by the name of Saint *Magnus*, or *Mugnus-Well*: th' other, that of Saint *Roberts*.

These, formerly for a yeere, or two, have beene in great request in these parts amongst the common sort, much sought unto by many, and great concourse of people have daily gathered and flocked to them both neere, and a farre off, as is most commonly seene, when any new thing is first found out. Fama enim grescit eundo, even unto incredible wonders and miracles, or rather fictions, and lyes. All which commeth to passe as wee may well suppose, through our overmuch English credulity, or (as I may better say) rather superstition. For to any such like Well, will swarme at first both yong and old (especially the female sexe, as ever more apt to bee deluded) halt, lame, blind, deafe, dumbe, yea, almost all, and that for all manner of maladies and diseases, both inward and outward.

But for as much, as these are springs of pure, and simple waters meerely, without any mixture at all of minerals to make them become medicinable, it is verily thought, that the many & severall cures, which have bin attributed unto them in those times, when they were so frequented, were rather fained, and imaginary, then true, and reall; and that those, who then visited them, were desirous (either to uphold, and maintaine the credit, and reputation of their Saints, or else, to avoyd the scorne and derision of their owne delusion) to have others likewise deceived.

Time hath quite worne all their strength, and consumed all their vertues; so that nothing of worth now remaines with them, saving onely their bare names and titles: *Sic magna sua mole ruunt*.

Wherefore to omit these, as scarce worthy the mentioning; those are chiefly here to be described, which doe participate of minerall vertues, and faculties.

CHAP. 4.

Of five fountaines neare unto the town, which doe participate of minerall vertues.

Out of the divers Fountaines springing hereabouts, five are worthy the observation of Physitians. The first whereof is very neare unto the river banke, over against the Castle, called by the name of the *Dropping-well*, for that it droppeth, distilleth, and trickleth downe from the hanging rocke above. The water whereof hath a certaine quality or property to turne any thing, that lieth in it, into a stony substance in a very short space.

Three of the others (being all of them much of one, and the same nature) are termed by the country people thereabouts the *Stinking-wels*, in regard they have an ill, and fetide smell, consisting most of Sulphure-vive, or quicke brimstone. One of them, and that which hath the greatest current, or streame of water, is in *Bilton park*.

The other two are in the sayd Forest; one is neare unto the towne; the other is further off, almost two miles from it, beyond a place called *Haregate head*, in a bottome on the right hand of it, as you goe, and almost in the side of a little brooke.

The fift, and last (for which I have principally undertaken to write this short Discourse) is an acide, or tart fountaine in the said Forest, commonly named by the vulgar sort, *Tuewhit-well*, and the *English Spaw*, by those of the better rank, in imitation of those two most famous acide fountaines at the *Spaw* in *Germany*, to wit, *Sauvenir*, and *Pouhon*: whereof the first (being the prime one) is halfe a league from the *Spa*, or *Spaw* village; the other is in the middle of the towne.

CHAP. 5.

A more particular recitall of the first foure Wells.

I purpose to speake somewhat more in this place of the first foure Springs mentioned in the former Chapter, in regard the consideration of them may perhaps give some light to those, who shall hereafter search further into the secrets, which nature may seeme to afford in the Country hereabouts.

The first is the *Dropping-well*, knowne almost to all, who have travelled unto this place. The water whereof distilleth and trickleth downe from the hanging Rocke over it, not onely dropping wise, but also falling in many pretty little streames.

This water issueth at first out of the earth, not farre from the said hanging rocke, and running a while in one entire current, continueth so, till it commeth almost to the brim of the cragg; where being opposed by a damme (as it were artificiall) of certaine spongy stones, is afterwards divided into many smaller branches, and falleth from on high in manner aforesaid.

It is therefore very likely, that Mr. Camden in person did not see this Fountaine, but rather that

hee had it by relation from others; or at least wise (if he did see it) that hee did not marke, and duly observe the originall springing up of the water, when in his *Britannia* he saith thus: *The waters thereof spring not up out of the veines of the earth,* &c.

Concerning the properties and qualities thereof, I have nothing more to write at this time (there being formerly little tryall had of it) saving that divers inhabitants thereabouts say, and affirme, that it hath beene found to bee very effectuall in staying any flux of the body: which thing I easily believe

The other three are sulphureous fountaines, and cast forth a stinking smell a farre off, especially in the winter season, and when the weather is coldest. They are all noysome to smell to, and cold to touch, without any manifest, or actuall heat at all; by reason (as may most probably be thought) their mynes, and veines of brimstone, are not kindled under the earth; being (perhaps) hindred by the mixture of salt therewith.

Those, who drinke of their waters, relate, they verily thinke there is gunpowder in them, and that now and then they vomit after drinking thereof.

The waters, as they runne along the earth, doe leave behind them on the grasse and leaves a gray slimy substance, which being set on fire, hath the right savour of common brimstone. They are much haunted with Pigeons, an argument of much salt in them; of which in the evaporation of the water by fire, wee found a good quantity remaining in the bottome of the vessell.

One thing further was worth observation; that white mettall (as silver) dipped into them, presently seemeth to resemble copper: which we first noted by putting a silver porrenger into one of these; unto which *Sir Francis Trapps* did first bring us. Which tincture these waters give by reason of their sulphur.

Touching their vertues, and effects, there may in generall the like properties be ascribed unto them, as are attributed unto other sulphureous Bathes actually cold, participating also of salt.

The vulgar sort drinke these waters (as they say) to expell reefe, and fellon; yea, many, who are much troubled with itches, scabs, morphewes, tetters, ring-wormes, and the like, are soone holpen, and cured by washing the parts ill affected therewith. Which thing they might much more conveniently, and more commodiously doe, if at that in *Bilton* parke were framed 2 capacious Bathes, the one cold, the other to be made hot, or warme, by art, for certaine knowne howers a day.

CHAP. 6.

A more particular description of the fift, or last fountaine, called the English Spaw.

This, being the principall subject of this whole Treatise, is in the said forest, about halfe a league, or a mile and a halfe west from the towne; from whence there is almost a continuall rising to it, but nothing so great, as the ascent is from the *Spaw* village to the *Sauvenir*. This here springeth out of a mountainous ground, and almost at the height of the ascent, at *Haregate-head*; having a great descent on both sides the ridge thereof; and the Country thereabouts somewhat resembleth that at the *Spaw* in *Germany*.

The first discoverer of it to have any medicinall quality (so far forth as I can learn) was one Mr. *William Slingesby*, a Gentleman of many good parts, of an ancient, and worthy Family neere thereby; who having travelled in his younger time, was throughly acquainted with the taste, use, and faculties of the two Spaw fountaines.

In his latter time, about 55 yeeres agoe it was his good fortune to live for a little while at a grange house very neare to this fountaine, and afterwards in *Bilton* Parke all his life long. Who drinking of this water, found it in all things to agree with those at the *Spaw*. Whereupon (greatly rejoycing at so good and fortunate an accident) he made some further triall and assay: That done, he caused the fountaine to be well, and artificially walled about, and paved at the bottome (as it is now at this day) with two faire stone flags, with a fit hole in the side thereof, for the free passage of the water through a little guttered stone. It is open at the top, and walled somewhat higher, then the earth, as well to keepe out filth, as Cattle for comming and approaching to it. It is foure-square, three foot wide, and the water within is about three quarters of a yard deepe.

First we caused it to be laded dry, as well to scoure it, as also to see the rising up of the water, which we found to spring up onely at the bottome at the chinke or cranny, betweene two stones, so left purposely for the springing up of the water at the bottome: Which as *Pliny* observeth in his 31 booke of his Naturall History and the third Chapter, is a signe above all of the goodnesse of a fountaine.

"And above all (saith he,) one thing would bee observed, and seene unto, that the source, which feedeth it, spring and boyle up directly from the bottome, and not issue forth at the sides: which also is a maine point that concerneth the perpetuity thereof, and whereby wee may collect, that it will hold still, and be never drawne drye."

The streame of water, which passeth away by the hole in the side thereof, is much one, and about

the proportion of the current of the Sauvenir.

The above named Gentleman did drinke the water of this Fountaine every yeare after all his life time, for helping his infirmities, and maintaining of his health, and would oftentimes say and averre, that it was much better, and did excell the tart fountaines beyond the seas, as being more quicke and lively, and fuller of minerall spirits; effecting his operation more speedily, and sooner passing through the body.

Moreover Doctor *Timothy Bright* of happy memory, a learned Physitian, (while hee lived, my very kind friend, and familiar acquaintance) first gave the name of the *English Spaw* unto this Fountaine about thirty yeares since, or more. For he also formerly had spent some time at the *Spaw* in *Germany*; so that he was very able to compare those with this of ours. Nay, hee had futhermore so good an opinion, and so high a conceit of this, that hee did not onely direct, and advise others to it, but himselfe also (for most part) would use it in the Sommer season.

Likewise Doctor *Anthony Hunton* lately of *Newarke* upon *Trent*, a Physitian of no lesse worth and happy memory, (to whom for his true love to mee, and kind respect of mee, I was very much beholden) would often expostulate with mee at our meetings, and with other Gentlemen of *Yorkeshire*, his patients, how it came to passe, that I, and the Physitians of *Yorke*, did not by publike writing make the fame and worth thereof better knowne to the world?

CHAP. 7.

Of the difference of this Fountaine from those at the Spaw, to wit, Sauvenir, and Pouhon.

This springeth almost at the top of the ascent (as formerly hath beene said) from a dry, and somewhat sandy earth: The water whereof running South-East, is very cleare, pure, full of life, and minerall exhalations.

We find it chiefly to consist of a vitrioline nature and quality, with a participation also of those other minerals, which are said to be in the *Sauvenir* fountaine; but in a more perfect, and exquisite mixture and temper (as wee deeme) and therefore to be supposed better and nobler, then it. The difference betweene them will be found to be onely *secundum majus & minus*, that is, according to more, or lesse, which maketh no difference in kind, but in degrees. This partaketh in greater measure of the qualities, and lesser of the substances of the minerals, then that doth; and for that cause it is of a more quicke and speedy operation; as also for the same reason, his tenuity of body, and fulnesse of minerall spirits therein contained, it cannot be so farre transported from its owne source, and spring, without losse, and diminution of his strength, and goodnesse. For being caried no further, then to the towne it selfe (though the glasse or vessell be closely stopt) it becommeth somewhat weaker: if as farre as to *Yorke*, much more: but if 20 or 30 miles further, it will then bee found to be of small force, or validity, as we have often observed.

Whereas contrariwise the water of the lower fountaine at the *Spaw*, called *Pouhon*, is frequently and usually caried and conveyed into other Countries farre off, and remote, as into *France*, *England*, *Scotland*, *Ireland*, divers parts of *Germany*, and some parts of *Italy*; yea, and that of *Sauvenir*, (which is the better fountaine, and whose water cannot be caried so farre away, as the other may) is oftentimes used nowadayes at *Paris*, the chiefe City of *France*.

But this of ours cannot be sent away any whit so farre off without losse and decay of his efficacy, and vertue; so ayrie, subtill, and piercing are its spirits, and minerall exhalations, that they soone passe, vanish, and flye away. Which thing wee have esteemed to be a principall good signe of the worthy properties of this rare Fountaine. So that this water, being newly taken up at the Well, and presently after drunke, cannot otherwise, but sooner passe by the Hypochondries and through the body, and cause a speedier effect, then those in *Germany* can. Whereby any one may easily collect, and gather, that this getteth his soveraign faculties better in its passage by and through the variety of minerals, included in the earth (which only afford unto it an halitious body) then those doe.

If then wee bee desirous to have this of ours become commodious either for preserving of our healths, or for altering any distemper, or curing any infirmity (for which it is proper and availeable) it ought chiefly to bee taken at the fountaine it selfe, before the minerall spirits bee dissipated.

CHAP. 8.

That Vitriol is here more predominant, then any other minerall.

We have sufficiently beene satisfied by experience and trialls, through what minerals this water doth passe: but to know in what proportion they are exactly mixed therewith, it is beyond humane invention to find out; nature having reserved this secret to her selfe alone. Neverthelesse it may very well be conjectured, that as in the frame, and composition of the most

noble creature, Man (the lesser world) there is a temper of the foure elements rather *ad justitiam* (as Philosophers say) then *ad pondus*; so nature in the mixture of these minerals, hath likewise taken more of some, and lesse of others, as shee thought to be most fit, and expedient for the good and behoofe of mans health, and the recovery and restitution of it decayed; being indeed such a worke, as no Art is able to imitate.

That *Vitriolum* (otherwise called *Chalcanthum*) is here most predominant, there needs no other proofe, then from the assay of the water it selfe; which both in the tart and inky smack thereof, joyned with a piercing and a pricking quality, and in the savour (which is somewhat a little vitrioline,) is altogether like unto the ancient *Spaw* waters; which according to the consent of all those, who have considered their naturall compositions, doe most of all, and chiefly participate of vitrioll

Notwithstanding, for a more manifest, and fuller tryall hereof, put as much powder of galls, as will lye on two-pence, or three-pence, into a glasse full of this water newly taken up at the fountaine, you shall see it by and by turned into the right and perfect colour of Claret wine, that is fully ripe, cleare, and well fined, which may easily deceive the eye of the skilfullest Vintner.

This demonstration hath beene often made, not without the admiration of those, who first did see it. For the same quantity of galles mingled with so much common water, or any other fountaine water thereabouts, will not alter it any thing at all; unlesse to these you also adde Vitrioll, and then the colour will appeare to be of a blewish violet, somewhat inkish, not reddish, as in the former, which hath an exquisite and accurate conjunction of other minerall exhalations, besides the vitrioline. But this probation will not hold, if so be you make triall with the said water being caried farre from the well; by reason of the present dissipation of his spirits.

CHAP. 9.

Of the properties, and effects of Vitrioll, according to the ancient and moderne Writers.

The qualities of Vitrioll, according to *Dioscorides, Galen, Ætius, Paulus Ægineta*, and *Oribasius*, are to heate and dry, to bind, to resist putrefaction, to give strength and vigour to the interiour parts, to kill the flat wormes of the belly, to remedy venemous mushromes, to preserve flesh over moyst from corruption, consuming the moysture thereof by its heat, and constipating by his astriction the substance of it, and pressing forth the serous humidity.

And according to *Matthiolus* in his Commentaries upon *Dioscorides*, it is very profitable against the plague and pestilence, and the chymicall oyle thereof is very availeable (as himselfe affirmeth to have sufficiently proved) against the stone and stopping of urine, and many other outward maladies and diseases, (*Andernæus* and *Gesner* adde to these the Apoplexy) all which, for avoyding of prolixity, I doe here purposely omit.

Neither will I further trouble the Reader with the recitall of divers and sundry excellent remedies, and medicines, found out and made of it in these latter times, by the Spagyricke Physitians, and others: In so much that *Joseph Quercetanus*, one of those, is verily of opinion, that out of this one individuall minerall, well and exquisitely prepared, there might be made all manner of remedies and medicines sufficient for the storing and furnishing of a whole Apothecaries shop.

But it will (perhaps) be objected by some one or other in this manner: If vitrioll, which as most doe hold, is hote and dry in the third degree, or beginning of the fourth, nay, of a causticke quality, and nature (as *Discorides* is of opinion) should here be predominant, then the water of this fountaine must needs bee of great heat and acrimony; and so become not onely unprofitable, but also very hurtfull for mans use to be drunke, or inwardly taken.

To which objection (not to take any advantage of the answer, which many learned Physitians doe give, *viz.* that vitrioll is not hot, but cold) I say:

First, that although all medicinall waters doe participate of those mineralls, by which they doe passe, yet they have them but weakly (*viribus refractis*) especially when in their passages they touch, and meet with divers others minerals of opposite tempers and natures.

Secondly I answer, that in all such medicinall fountaines, as this, simple water doth farre surpasse and exceed in quantity, whatsoever is therewith intermixed; by whose coldnesse it commeth to passe, that the contrary is scarce, or hardly perceived. For example, take one proportion of any boyling liquor to 100. or more, of the same cold, and you will hardly find in it any heat at all. Suppose then vitrioll to be hot in the third degree, it doth not therefore follow, that the water, which hath his vertue chiefly from it, should heat in the same degree. This is plainly manifest not onely in this fountaine, but also in all others, which have an acide taste, being indeed rather cold, then hot, for the reasons above mentioned.

Of the effects, which this fountaine worketh, and produceth in those who drinke of it..

Experience sheweth sufficiently, besides reason, that this water first, and in the beginning cooleth such, as use it: But being continued it heateth and dryeth; and this for the most part it doth in all, yet not alwayes. For (as we shall more fully declare afterwards) it effecteth cures of opposite, and quite contrary natures, by the second and third qualities, wherewith it is endowed, curing diseases both hot, cold, dry, and moist.

Those waters (saith *Renodæus*) which are replenished with a vitrioline quality, as those at the *Spaw*, doe presently heale, and (as it were) miraculously cure diseases, which are without all hope of recovery; having that notable power, and faculty from vitrioll; by the vertue and efficacy whereof, they passe through the meanders, turnings, and windings of all parts of the whole body. Whatsoever is hurtfull, or endammageth it, that they sweepe and carie away: what is profitable and commodious, they touch not, nor hurt; that, which is flaccid, and loose, they bind and fasten: that, which is fastened, and strictly tyed, they loose: what is too grosse and thicke, they incide, dissolve, attenuate, and expell.

More particularly, the water of this fountaine hath an incisive and abstersive faculty to cut, and loosen the viscous and clammy humours of the body, and to make meable the grosse: as also by its piercing and penetrating power, subtilty of parts, and by his deterging and desiccative qualities to open all the obstructions, or oppilations of the mesentery (from whence the seeds of most diseases doe arise and spring) liver, splen, kidneis, and other interiour parts, and (which is more to be noted and observed) to coole and contemperate their unnaturall heat, helping, and removing also all the griefes and infirmities depending thereupon.

Besides all this, it comforteth the stomacke by the astriction it hath from other minerals, especially iron, so that (without doubt) of a thousand, who shall use it discreetly and with good advice (their bodies first being well and orderly prepared by some learned and skilfull Physitian, according to the states thereof, and as their infirmities shall require) there will scarcely be any one found who shall not receive great profit thereby.

Moreover, it clenseth, and purifieth the whole masse of blood contained in the veynes, by purging it from the seresity peccant, and from cholericke, phlegmaticke, and melancholike humours; and that principally by urine, which passeth through the body very cleare, and in great quantity, leaving behind it the minerall forces, and vertues.

Their stooles, who drinke of it, are commonly of a blackish, or dark greene colour, partly because it emptieth the liver and splen from adult humours, and melancholy, or the sediment of blood: but more especially, because the mineralls intermixed doe produce and give such a tincture.

CHAP. 11.

In what diseases the water of this Fountaine is most usefull and beneficiall.

Over and besides the peculiar and specificall faculties, which this fountaine hath, it sheweth divers and sundry other manifest effects and qualities in evacuating the noxious humours of the body, for most part by urine especially when there is any obstruction about the kidneyes, ureters and bladder: Or by urine and stoole both, if the mesentery, liver, or splen, chance to bee obstructed. But, if the affect or griefe be in the matrix or womb, then it clenseth that way according to the accustomed and usuall manner of women.

In melancholike people it purgeth by provoking the hæmorrhoides, and in cholericke by siege, or stoole. If it causeth either vomit or sweat, it is very seldome and rare.

See here a most admirable worke guided by the omnipotency and wisedom of the Almighty, that a naturall, cleare, and pure water, should produce so many and severall effects and operations, being all of them in a manner contrary one to another, which few medicines composed by art can easily performe without hurt and damage to the party. Wherefore being drunke with those cautions and circumstances necessarily required thereunto, it is to be preferred before many other remedies, as not onely procuring these evacuations; but also (which is more to be noted) staying them, when they grow to any excesse. For seeing that here are minerals contained both hot, cold, dry, aperitive, astringent, &c. there is none so simple but must needs thinke and grant, that it cannot otherwise bee but good and wholesome in grievances, and diseases, which in their owne natures are opposite.

But I may instance in some few, for which it is good and profitable, and therein observe some order and methode; It dryeth the over moist braine, and helpeth the evils proceeding therefrom, as rhumes, catarrhs, palsies, cramps, &c.

It is also good and availeable against inveterate headaches, migrims, turnings, and swimmings of the head and braine, dizzinesse, epilepsie, or falling sicknesse, and the like cold and moist diseases of the head.

It cheereth and reviveth the spirits, strengtheneth the stomacke, causeth a good and quicke appetite, and furthereth digestion.

It helpeth the blacke and yellow Jaundisse, and the evill, which is accompanied with strange feare and excessive sadnesse without any evident occasion, or necessary cause, called *Melancholia Hypochondriaca*. Likewise the cachexy, or evill habit of the body, and the dropsie in the beginning thereof, before it be too farre gone. For besides that it openeth obstructions, it expelleth the redundant water contained in the belly, and contemperateth the unnaturall heat of the liver.

It cooleth the kidneyes or reynes, and driveth forth sand, gravell, and stones out of them, and also hindreth the encrease or breeding of any new, by the concretion, and saudering of gravell, bred of a viscous and clammy humour, or substance. The same it performeth to the bladder, for which it is also very beneficiall, if it chance to have any evill disposition either in the cavity thereof, or in the necke of it, and shutting muscle called *Sphincter*, whereby the whole part or member is let and hindred in his office and function.

Moreover, if there chance to be any ulcer in the parts last specified, or any sore, or fistula in *perinaeo* through an impostume ill cured, this water is a good remedy for it, in regard of its clensing, cicatrizing and constringing power, and vertue; and for that cause it is very proper and commodious for the acrimony and sharpnesse of urine, and against the stopping and suppression of urine, difficulty of making water, and the strangury.

Although it is very availeable against the stone in the kidneyes, and against the breeding, and increase of any new there; yea, and against little ones, that are loose in the bladder; yet notwithstanding it will afford little or small benefit to those, in whom it is growne to bee very great and big in the bladder: Because nothing will then serve to breake it, as *Brassavolus* saith, but a Smiths anvile and hammar. Neverthelesse, if in this case incision be used, it will be very commodious both for mundifying and consolidating the wound, made for the extraction of it.

It shall not bee needfull to speake much of the profit, which will ensue by the fit administration of it in the inveterat venereous Gonorrhæa, causing it to cease and stay totally, and correcting the distemper, and the evill ulcerous disposition of the seed vessels, & the vicine parts.

There are very few infirmities properly incident to women, which this water may not seeme to respect much. The use whereof, after the advice and councell had of the learned Physitian, for the well and orderly preparing their bodies, is singular good against the greene sicknesse, and also very commodious and behoovefull to procure their monthly evacuations, as also to stay their over much flowing; as well to correct, as to stay their white floods; as well to dry the wombe being too moist, as to heat it being too cold, through which causes and distempers conception (for the most part) is let and hindered in cold Northerne Countries, as *England*, and the like. For by the helpe of it these distempers are changed and altered, the superfluous humidities and mucosities are taken away, the part is corroborated, and the retentive vertue is strengthned.

This hath beene so much, and so often observed at the ancient *Spaw*, that it cannot otherwise, but bee also verified at this in aftertimes, when it shall bee frequented (as those have beene) with the company of Ladyes, and Gentlewomen: Divers whereof, having beene formerly barren for the space of ten, twelve yeares, or moe, and drinking of those waters for curing and helping some other infirmities, then for want of fruitfulnesse, have shortly conceived after their returne home to their husbands, beyond their hopes and expectations.

Besides all this, it is good for these women, who, though otherwise apt enough to conceive, yet by reason of the too much lubricity of their wombes, are prone to miscarry and abort, if before conception they shall use it with those cautions and directions requisite.

Also it respecteth very much the hard scirrhous and cancarous tumours, and the grievous soares, and dangerous ulcers of the matrix. All these excellent helpes and many moe it performeth to women with more speedy successe, if it be also received by injection. But here by the way, all such women, who are with child, are to be admonished, that they forbeare to use it during that time

In children it killeth and expelleth the wormes of the guts and belly, and letteth and hindreth the breeding and new encrease of any moe.

I will here forbeare to write any thing of the benefits which it affordeth against old and inveterate itches, morphewes, leprosies, &c. in regard the other three sulphurous fountaines, before mentioned, doe more properly respect such like grievances. Neither will I now spend any more time in shewing what vertues it hath in the cure of the Indian, commonly called the French, or rather Spanish disease: because experience hath found out a more certaine and sure remedy against it.

CHAP. 12.

Of the necessity of preparing the body before the use of this water.

It is not in most things the bare and naked knowledge or contemplation of them, that makes them profitable to us; but rather their right use, and oppertune and fit administration. Medicines are not said to be *Deorum manus*, that is, the hands of the Gods, (as *Herophilus* calleth them) or *Deorum dona*; that is, the gifts of the Gods (as *Hippocrates* beleeved) till they be fitly applyed and

seasonably administered by the counsell and advice of the learned and skilfull Physitian, according to the true rules, and method of Art.

Temporibus medicina valet, data tempore prosunt, Et data non apto tempore vina nocent.

That is,

Medicines availe in their due times, And profit is got by drinking wines In timely sort; but in all reason They doe offend, drunke out of season.

Therefore to know th' originall mineralls, faculties, and vertues of this worthy acide fountaine, will bee to no end, or to small purpose for them, who understand not the right and true use, nor the fit and orderly administration of it. For not only Physicke or medicines, but also meats, and drinks taken disorderly, out of due time and without measure, bringeth oftentimes detriment to the partie; who otherwise might receive comfort and strength thereby: So likewise this water, if it be not drunke at a convenient time and season, in due fashion and proportion, yea, and that after preparatives and requisite purging and evacuation of the body, may easily hurt those, whose infirmities otherwise it doth principally respect. For medicines ought not to be taken rashly, and unadvisably, as most doe hand over head without any consideration of time, place, and other circumstances; as that ignorant man did, who getting the recipt of that medicine, wherewith formerly he had been cured, made triall of it againe long after for the same infirmity without any helpe or good at all, whereat greatly marvailing, received this answer fro his Physitian: I confesse (said hee) it was the selfe same medicine, but because I did not give it, therefore it did you no good.

To the end therefore, that no occasion may hereafter be either given, or taken by the misgovernment, or overrashnesse of any in using it to calumniate and traduce the worth, and goodnesse of this fountaine, I will briefly here shew, what course is chiefly to be followed and observed by those who shall stand in need of it.

First then, because very few men are thoroughly and sufficiently informed concerning the natures, and causes of their grievances, it will be necessary that every one shold apply himselfe to some one, or other, who either out of his judgement, or experience, or both, may truely be able to give him counsell and good advice concerning the conveniency of this fountaine. And if he shall be avised to use it, then let the party (in the feare of God) addresse himselfe for his way to it, against the fit season of it, without making any long and tedious daies journeys, which cause lassitude, and wearinesse.

Then, being come to the place, he ought after a dayes rest, or two, to have his body wel prepared, & gently clensed with easie lenitives, or purgatives, both fit, and appropriate, as well to the habite and constitution thereof, as also for the disease it selfe, and as occasion shall require, according to the rule of method, which teacheth that universal or generall remedies ought ever to precede and goe before particulars. Now what these are in speciall, to fit every ones case in particular, it is impossible for me here, or any else to define precisely. *Ars non versatur circa individua*. We may see it true in mechanicall trades. No one shoemaker can fit all by one Last; nor any one taylor can suite all by one, and the selfe same measure.

Yet in regard it may perhaps bee expected that something should be said herein, I say, that in the beginning (if occasion serve) some easie Clyster may very fitly bee given, as well for emptying the lower intestines from their usuall excrements, as for carying away and clensing the mucose slimes contained therein. After that, it will be convenient to prepare the body by some Julep or Apozeme, or to give some lenitive medicine to free the first region of the body from excrements. For otherwise the water might peradventure convey some part of them, or other peccāt matter, which it findeth in his passage either into the bladder, or to some other weake, and infirme member of the body, to the increase of that evill disposition which is to be removed, or else to the breeding of some other new infirmity.

Object. Some perhaps will here object and say, that the time of the yeere, in which this fountaine will be found to bee most usefull, will be the hottest season thereof; or (if you like to call it) the dog-daies, when it will be no fit time to purge at all.

Answ. 1. To this I answer and say: First, the purging medicines here required are not strong, and generous but gentle, mild and weake, such as are styled *Benedicta medicamenta*: which may with great safetie and profit bee given either then or at any other time of the yeere without any danger, or respect of any such like circumstance at all.

2. Secondly I answer; Although this observation of the dog-dayes might perhaps be of some moment in hotter countries, as *Greece*, where *Hippocrates* lived, who first made mention of those dales: Yet in colder climates, as *England*, and such like Countries, they are of little or small force at all, and almost not to be regarded any whit, either in using mild & temperate purgatives, or almost in any other; or in blood-letting: though very many, or most doe erroniously say and thinke the contrary. So that (if there be cause) they may as well and safely then purge, as at any other time: Or, if occasion shall urge, as in plethoricall bodies, and many other cases, a veine may safely (or rather most commodiously) be then opened and so much blood taken away, as the skilfull Physitian shall thinke in his discretion and wisdome to be needfull and requisite.

Let no man here think, that this is any strange position, or a new paradoxe (for the learned know the contrary) or that I am studious of innovation, but rather desirous to roote out an old and inveterate errour, which in all probabilitie hath cost moe Englishmens lives, then would furnish a royall army, in neglecting those two greater helpes or remedies, to wit, Purging, and Bloodletting in hot seasons of the yeare: which in all likelihood might have saved many of their lives, while expecting more temperate weather, they have beene summoned in the meane time, or *interim* by the messenger of pale death to appeare in an other world.

Wherefore let all those who are yet living, bee admonished hereafter by their examples, not obstinately and wilfully to eschue and shunne these two remedies in hot seasons, and in the time of the Dog-dayes, (much lesse all other manner of physicall helpes) not once knowing so much as why, or wherefore, and without any reason at all, following blind and superstitious tradition, and error, haply first broched by some unworthy and ignorant Physitian, not rightly understanding Hippocrates his saving in all likelyhood, or at least wise misapplying it. Which hath so prevailed in these times, that it hath not onely worne out the use of purging, but also of all other physicke for that season, because most people by the name of physicke understanding purging onely, and nothing else. As though the art and science of Physicke was nothing else, but to give a potion or purge. Then we rightly and truly might say, Filia devor avit matrem.

But for as much as most people are altogether ignorant of the true ground or reason, from whence this so dangerous an error concerning the Dog-dayes did first spring and arise, give me leave a little to goe on with this my digression, for their better instruction, and satisfaction: and I will briefly, and in a few lines shew the case, and the mistake somewhat more plainly.

Hippocrates in his fourth booke of Aphorismes, the fift, hath these words: Sub canicula, & ante caniculam difficiles sunt purgationes. That is, under the canicular, or dog-star, and before the dog-star, purgations are painfull and difficill. This is all that is there said of them, or brought against them for that season, or time of the yeare. A great stumbling-blocke against which many have dashed their feet, and knockt their shinnes, and a fearfull scar-crow, whereat too many have nicely boggled. Here you doe not find or see purging medicines to bee then prohibited, or forbidden to be given at all (much lesse all other physicke) but onely said to be difficill in their working: partly because (as all expositors agree) nature is then somewhat enfeebled by the great heat of the weather; partly because the humours being then, as it were, accended are more chaffed by the heat of the purging medicines; partly, and lastly, because two contrary motions seeme then to be at one and the same time, which may offend nature; as the great heat of the weather leading the humours of the body outwardly to the circumference thereof, and the medicine drawing them inwardly to the center. All which circumstances in our cold region are little, or nothing at all (as formerly hath beene mentioned) to be regarded. For as Jacobus Hollerius, a French Physitian, much honoured for his great learning and judgement, hath very well observed in his Comment upon this Aphorisme; Hippocrates speaketh here onely of those purging medicines, which are strong, and vehement, or hot and fiery; and that this precept is to take place in most hot Regions, but not in these cold Countries, as France, England, and the like.

Over and beside all this, those churlish hot purging medicines, which were then in frequent use in *Hippocrates* his time, and some hundred of yeares after, are now for most part obsolete, and quite growne out of use, seldom brought in practice by Physitians in these dayes; because we have within these last six hundred yeares great choice and variety of more mild, benigne, and gentle purgatives found out by the Arabian Physitians, which were altogether unknowne unto the ancients, to wit, *Hippocrates, Dioscorides, Galen, &c.* which have little heat, and acrimony, many whereof are temperate, and divers cooling, which may most safely be given either in the hottest times and seasons of the yeare, or in the hottest diseases. Let us adde to these the like familiar and gentle purging medicines more lately, yea, almost daily newly found out since the better discoveries of the East and West Indies. So that henceforth let no man feare to take either easie purgatives, or other inward Physicke, in the time of the canicular, or dog-dayes.

The same *Hollerius* goeth on in the exposition and interpretation of the said Aphorisme, and confidently saith: *Over & besides that we have benigne medicines which we may then use, as Cassia, &c.* Wee know and finde by experience no time here with us more wholsome and more temperat (especially when the Etesian, or Easterly, winds do blow) then the Canicular dayes: so that, wee finde by observation, that those diseases which are bred in the moneths of June and July, doe end in August, and in the Canicular dayes. Wherefore, if a disease happen in those dayes, we feare not to open a veyne divers times, and often, as also to prescribe more strong purging medicines.

Wherefore away henceforth with the scrupulous conceit, and too nice feare of the Dogge-dayes, and let their supposed danger be had no more in remembrance among us. And if any will yet remaine obstinate, and still refuse to have their beames pulled out of their eyes, let them still be blinde in the middest of the cleare Sun-shine, and groape on after darkness; and let all learned Physitians rather pitty their follies, then envy their wits.

CHAP. 13.

To speake in generall tearmes, it is a fit time to drinke it, when the ayre is pure, cleare, hot and dry: for then the water is more tart, and more easily digested, then at other times. On the contrary, it is best to forbeare, when the ayre is cold, moist, darke, dull and misty: for then it is more feeble, and harder to be concocted.

But more specially, the most proper season to undertake this our English Spaw dyet, will be from the middest or latter end of June to the middle of September, or longer, according as the season of the yeare shall fall out to be hot and dry, or otherwise.

Not that in the Spring-time, and in Winter it is not also good, but for that the ayre being more pure in Sommer, the water also must needs be of greater force and power. Notwithstanding it may sometime so happen in Sommer, that by reason of some extraordinary falling of raine, there may be a cessation from it for a day or two. Or if it chance to have rained over night, it will then be fit and necessary to refraine from drinking of it, untill the raine bee passed away againe: or else (which I like better) the fountaine laded dry, and filled againe, which may well be done in an hower, or two at most.

Touching the time of the day, when it is best to drinke this water, questionlesse the most convenient hower will be in the morning, when the party is empty, and fasting, about seaven aclocke: Nature having first discharged her selfe of daily excrements both by stoole and urine, and the concoctions perfected. This time is likewise fittest for exercise, which is a great good help, and furtherance for the better distribution of the water, whereby it doth produce its effects more speedily.

CHAP. 14.

Of the manner of drinking this water, and the quantitie thereof.

Those who desire the benefit of this Fountaine, ought to goe to it somewhat early in the morning, &, if they be able and strong of body, they may doe very well to walke to it on foot, or at least wise some part of the way. Such, as have weake and feeble leggs may ride on horsebacke, or be caryed in coaches, or borne in chaires. As for those, whose infirmities cause them to keepe their beds, or chambers, they may drinke the water in their lodgings, it being speedily brought to them in a vessell or glasse well stopt.

It is not my meaning or purpose to describe here particularly, what quantitie of it is fit and meet for every one to drinke; for this is part of the taske and office, which belongeth to the Physitian, who shall be of counsell with the Patient in preparing and well ordering of him; who is to consider all the severall circumstances, as well of the maladie or disease it selfe, as of his habite and constitution, &c. Neverthelesse I may advise, that at the first it be moderately taken, increasing the quantitie daily by degrees, untill they shall come at last to the full height of the proportion appointed, and thought to be meet and necessary. There they are then to stay, and so to continue at that quantitie, so long as it shall be needfull. For example, the first morning may happely be 16 or 18 ounces, and so on by degrees to 20. 30. 40. 50. 60. or moe, in people, who are of good and strong constitutions. Towards the ending, the abatement ought likewise to be made by degrees, as the increment was formerly made by little and little.

Here by the way every one must be admonished to take notice, that it is not alwayes best to drinke most, lest they chance to oppresse and overcharge Nature, that would rather be content with lesse. It will therefore be more safe, to take it rather somewhat sparingly, though for a longer time, then liberally and for a short time. But, indeed the truest and justest proportion of it, is ever to be made and esteemed, by the good and laudable concoction of it, and by the due and orderly voiding of it againe.

It will not be here amisse to adde this one observation further; That it is better to drinke this water once a day, then twice, and that in the mornings, after that the Sunne hath dryed up & consumed the vapors retained through the coldnesse of the night, &c. as is formerly declared. After drinking it, it will be needfull to abstaine from meat & other drinke for the space of three or foure dayes. [hours?]

But if any one, who hath a good stomacke, shall be desirous to take it twice a day; or if any shall bee necessarily compelled so to doe for some urgent cause, by the approbation of his Physitian, let him dine somewhat sparingly, and drinke it not againe, untill five houres after dinner be past, or not untill the concoction of meat and drinke in the stomacke be perfected: Observing likewise, that hee content himselfe in the afternoones with almost halfe the quantity he useth to take in the mornings.

CHAP. 15.

Of the manner of dyet to be observed by those who shall use this water.

The regiment of life in meats and drinks, ought chiefly to consist in the right and moderate use of

those, which are of light and easie digestion, and of good and wholesome nourishment, breeding laudable juice. Therefore all those are to be avoyded, which beget crude and ill humours. There ought furthermore speciall notice to be taken, that great diversity of meats and dishes at one meale is very hurtfull, as also much condiments, sauces, spice, fat, &c. in their dressing and cookery.

I commend hens, capons, pullets, chickens, partridge, phesants, turkies, and generally all such small birds, as live in woods, hedges, and mountaines. Likewise I doe approve of veale, mutton, kid, lambe, rabbets, young hare or leverits, &c. All which (for the most part) are rather to be roasted then boyled. Neverthelesse those, who are affected with any dry distemper, or those, who otherwise are so accustomed to feed, may have their meats sodden; but the plainer dressing, the better

I discommend all salt meats, beefe, bacon, porke, larde, and larded meats, hare, venison, tripes, and the entrailes of beasts, puddings made with blood, pig, goose, swan, teale, mallard, and such like; and in generall all water-fowle, as being of hard digestion and ill nutriment.

Amongst the severall kinds of fishes, trouts, pearches, loaches, and for most part, all scaly fish of brookes, and fresh rivers may well bee permitted. Moreover smelts, soales, dabs, whitings, sturbuts, gurnets, and all such other, as are well knowne not to be ill, or unwholesome to feed on. All which may be altered with mint, hyssope, anise, &c. Also cre-fishes, crab-fish, lobsters, and the like, may bee permitted.

Cunger, salmon, eeles, lampries, herrings, salt-ling, all salt-fish, sturgion, anchovies, oysters, cockles, muscles, and the like shell-fish are to be disallowed.

White-meats, as milke, cruds, creame, old cheese, custards, white-pots, pudding-pyes, and other like milke-meats, (except sweet butter and new creame cheese) are to be forbidden. Soft and reer egges we doe not prohibit.

Raisons with almonds, bisket-bread, marchpane-stuffe, suckets, and the like, are not here forbidden to be eaten.

Let their bread be made of wheat, very well wrought, fermented or leavened; and let their drinke be beere well boyled and brewed: and let it bee stale, or old enough, but in no wise tart, sharp, or sower: And above all let them forbeare to mixe the water of the fountaine with their drinke at meales: for that may cause many inconveniences to follow, and ensue.

Let me advise them to eschew apples, peares, plumbs, codlings, gooseberries, and all such like sommer fruits, either raw, in tarts, or other wise: Also pease, and all other pulse; all cold sallets, and raw hearbs; onions, leekes, chives, cabbage or coleworts, pompons, cucumbers, and the like.

In stead of cheese at the end of meales, it will not bee amisse to eate citron, or lemon pils condited, or else fenell, anise, coriander comfits, or biskets and carawayes, as well for to discusse and expell wind, as to shut and close the stomacke, for the better furthering the digestion of meats and drinkes. And for that purpose, it would bee much better, if the Physitian, who is of counsell, should appoint and ordaine some fit and proper Tragea in grosse powder mixed with sugar, or else made into little cakes or morsels. Likewise marmalade of quinces, either simple or compound, (such as the Physitians do often prescribe to their patients) may be used very commodiously.

After dinner they ought to use no violent exercise, neither ought they to sit still, sadly, heavy, and musing, nor to slumber, and sleepe; but rather to stirre a little, and to raise up the spirits for an houre or two, by some fit recreation. After supper they may take a walke into the fields, or Castle yard.

CHAP. 16.

Of the Symtomes or accidents, which may now and then chance to happen to some one or other in the use of this water.

Although those who are of good and strong constitutions, observing the aforenamed direction, doe seldome or never receive any harme, or detriment by drinking this water: notwithstanding it may sometime so fall forth, that some of the weaker sort may perhaps observe some little, or small inconvenience thereby, as retention of it in the body: inflation of the bellie: costivenesse, and the like. Wherefore to gratifie those, a word [or] two of every one shall suffice.

First then, for to cause a more ready and speedy passage of it by urine, it will not be amisse to counsell the partie after his returne to his lodging to goe to his naked bed for an houre or two, that thereby warmnesse, and naturall heat may be brought into each part of the body, the passages more opened, and nature by that meanes made more fit and apt for the expulsion of it. During which time it will be very requisite to apply hot cloathes to the stomack: but not so as to provoke sweat. Or else, to cause it to voyd and evacuate either by urine, stoole, or sweat, exercise will be a good helpe and furtherance: if the party be fit for it. But if neither of these will prevaile, then a sharp glyster ought to be administered.

The inflation or swelling of the belly hapneth principally to those, who have feeble and weake stomacks; who may do very wel to eate anise, fenell, or coriander comfits at the fountaine betweene every draught, and to walke a little after; or else some carminative Lozenges, made with grosse powders, spices and seeds for breaking of wind: or what other thing the learned Physitian shall deeme to be most fit and proper in his wisdome, and judgment. But if the inflation chance to be very great, then a carminative glyster must be ordained.

Such as shall be very costive may doe well to eat moistning meats, and to use mollifying hearbes, raisons stoned, corants, damascene prunes, butter, or the yolkes of egges, and the like in their broths, or pottage. If these will not be sufficient, then let a day be spared from drinking the water, and let the party take some lenitive medicine, as laxative corants, or some such like thing: whereof the Physitian hath ever great choice and variety, wherewith he can fit directly every one his case; to whom present recourse ever ought to be had, when any of these, or the like accidents doe happen, as likewise in all other cases of waight and moment.

FINIS.

*** END OF THE PROJECT GUTENBERG EBOOK SPADACRENE ANGLICA: THE ENGLISH SPA FOUNTAIN ***

Updated editions will replace the previous one—the old editions will be renamed.

Creating the works from print editions not protected by U.S. copyright law means that no one owns a United States copyright in these works, so the Foundation (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth in the General Terms of Use part of this license, apply to copying and distributing Project Gutenberg™ electronic works to protect the PROJECT GUTENBERG™ concept and trademark. Project Gutenberg is a registered trademark, and may not be used if you charge for an eBook, except by following the terms of the trademark license, including paying royalties for use of the Project Gutenberg trademark. If you do not charge anything for copies of this eBook, complying with the trademark license is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. Project Gutenberg eBooks may be modified and printed and given away—you may do practically ANYTHING in the United States with eBooks not protected by U.S. copyright law. Redistribution is subject to the trademark license, especially commercial redistribution.

START: FULL LICENSE THE FULL PROJECT GUTENBERG LICENSE PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project GutenbergTM mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase "Project Gutenberg"), you agree to comply with all the terms of the Full Project GutenbergTM License available with this file or online at www.gutenberg.org/license.

Section 1. General Terms of Use and Redistributing Project Gutenberg™ electronic works

- 1.A. By reading or using any part of this Project GutenbergTM electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project GutenbergTM electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project GutenbergTM electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.
- 1.B. "Project Gutenberg" is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg[™] electronic works even without complying with the full terms of this agreement. See paragraph 1.C below. There are a lot of things you can do with Project Gutenberg[™] electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg[™] electronic works. See paragraph 1.E below.
- 1.C. The Project Gutenberg Literary Archive Foundation ("the Foundation" or PGLAF), owns a compilation copyright in the collection of Project Gutenberg™ electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is unprotected by copyright law in the United States and you are located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg™ mission of promoting free access to electronic works by freely sharing

Project Gutenberg^m works in compliance with the terms of this agreement for keeping the Project Gutenberg^m name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg^m License when you share it without charge with others.

- 1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg^m work. The Foundation makes no representations concerning the copyright status of any work in any country other than the United States.
- 1.E. Unless you have removed all references to Project Gutenberg:
- 1.E.1. The following sentence, with active links to, or other immediate access to, the full Project GutenbergTM License must appear prominently whenever any copy of a Project GutenbergTM work (any work on which the phrase "Project Gutenberg" appears, or with which the phrase "Project Gutenberg" is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at www.gutenberg.org. If you are not located in the United States, you will have to check the laws of the country where you are located before using this eBook.

- 1.E.2. If an individual Project Gutenberg[™] electronic work is derived from texts not protected by U.S. copyright law (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase "Project Gutenberg" associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg[™] trademark as set forth in paragraphs 1.E.8 or 1.E.9.
- 1.E.3. If an individual Project GutenbergTM electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project GutenbergTM License for all works posted with the permission of the copyright holder found at the beginning of this work.
- 1.E.4. Do not unlink or detach or remove the full Project GutenbergTM License terms from this work, or any files containing a part of this work or any other work associated with Project GutenbergTM.
- 1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg $^{\text{\tiny TM}}$ License.
- 1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg^{TM} work in a format other than "Plain Vanilla ASCII" or other format used in the official version posted on the official Project Gutenberg^{TM} website (www.gutenberg.org), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original "Plain Vanilla ASCII" or other form. Any alternate format must include the full Project Gutenberg^{TM} License as specified in paragraph 1.E.1.
- 1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg $^{\text{m}}$ works unless you comply with paragraph 1.E.8 or 1.E.9.
- 1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg^m electronic works provided that:
- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg™ works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg™ trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, "Information about donations to the

Project Gutenberg Literary Archive Foundation."

- You provide a full refund of any money paid by a user who notifies you in writing (or by email) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg™ License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg™ works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg $^{\scriptscriptstyle{\text{TM}}}$ works.
- 1.E.9. If you wish to charge a fee or distribute a Project GutenbergTM electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from the Project Gutenberg Literary Archive Foundation, the manager of the Project GutenbergTM trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

- 1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread works not protected by U.S. copyright law in creating the Project GutenbergTM collection. Despite these efforts, Project GutenbergTM electronic works, and the medium on which they may be stored, may contain "Defects," such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.
- 1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES Except for the "Right of Replacement or Refund" described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg™ trademark, and any other party distributing a Project Gutenberg™ electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH 1.F.3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.
- 1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.
- 1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you 'AS-IS', WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.
- 1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.
- 1.F.6. INDEMNITY You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg work, (b) alteration, modification, or additions or deletions to any Project Gutenberg work, and (c) any Defect you cause.

Project Gutenberg $^{\text{\tiny TM}}$ is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need are critical to reaching Project Gutenberg^{TM}'s goals and ensuring that the Project Gutenberg^{TM} collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg^{TM} and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation information page at www.gutenberg.org.

Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non-profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887. Email contact links and up to date contact information can be found at the Foundation's website and official page at www.gutenberg.org/contact

Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project GutenbergTM depends upon and cannot survive without widespread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine-readable form accessible by the widest array of equipment including outdated equipment. Many small donations (\$1\$ to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit www.gutenberg.org/donate.

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg web pages for current donation methods and addresses. Donations are accepted in a number of other ways including checks, online payments and credit card donations. To donate, please visit: www.gutenberg.org/donate

Section 5. General Information About Project Gutenberg™ electronic works

Professor Michael S. Hart was the originator of the Project Gutenberg^m concept of a library of electronic works that could be freely shared with anyone. For forty years, he produced and distributed Project Gutenberg^m eBooks with only a loose network of volunteer support.

Project GutenbergTM eBooks are often created from several printed editions, all of which are confirmed as not protected by copyright in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our website which has the main PG search facility: www.gutenberg.org.

This website includes information about Project Gutenberg $^{\text{TM}}$, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.