

NOTES AND DOCUMENTS

Henry Vaughan's Medical Annotations

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☞ WHEN EDWIN WOLF ANNOUNCED in 1960 that a number of Henry Vaughan's medical and scientific books were among the holdings of the Library Company of Philadelphia, important documentary evidence was at last available to resolve some of the mysteries surrounding the poet's medical career. All we knew was that sometime after the brief period of poetic activity (1642–55) that produced his masterpiece, *Silex Scintillans* (1650, 1655), Vaughan began to practice medicine without formal training—and continued to do so for the better part of four decades. When Vaughan died, these Latin volumes from his library were apparently sold at auction or through a bookseller, and this valuable collection was acquired by Dr. William Logan, a practicing physician in Bristol (d. 1758). Logan bequeathed his library of thirteen hundred volumes to his namesake, William Logan (1718–1776), who was the son of James Logan (1674–1751), secretary to William Penn and a book collector, whose own collection—over two thousand volumes and the largest in colonial America—subsequently became one of the cornerstones of the Library Company of Philadelphia, the pioneering subscription library organized by Benjamin Franklin. William's books were also incorporated into the collection.¹

With Wolf's discovery of no less than fourteen medical books in the Library Company collection bearing the autograph signature of Henry Vaughan, a reappraisal of his medical career was at last possible. While these books have already shed some light on Vaughan's medical career—particularly on the likelihood that he practiced Galenic medicine even though he espoused Paracelsian ideas²—no transcription of Vaughan's marginalia in the two most significant books in the collection has hitherto been made available.

1. Edwin Wolf, "Some Books of Early English Provenance in the Library Company of Philadelphia," *Book Collector* 9 (1960): 275–84 at 282. See also Edwin Wolf, "At the Instance of Benjamin Franklin": A Brief History of the Library Company of Philadelphia, rev. ed. (Philadelphia, 1995), 31–36.

2. For a full account of the books themselves and their authors, see Donald R. Dickson, "Henry Vaughan's Medical Library," *Scintilla* 9 (2005): 189–209; for an account of his medical practice, see "Henry Vaughan as Country Doctor," *Explorations in Renaissance Culture* 33.2 (2007).

With the exception of Hippocrates' medical aphorisms, the books are very rare;³ even Sir Thomas Browne had only two of the titles in his vast medical library.⁴ Their very rarity would have made them valuable to a collector such as Logan. Where, how, and why Vaughan acquired these books in the first place remains a mystery, but we can infer that if Vaughan had the means to purchase such rare Latin volumes, he could have obtained far more easily such common English works as John Gerard's *The Herbal: or, General History of Plants* (1597, with many subsequent editions); or Nicholas Culpeper's *The English Physitian* (1652); or *The London Dispensatory* (1653), which would have attracted less interest from prospective buyers. And there is good reason to think that he had ready access to Culpeper.

The majority of the fourteen books bear just his signature and a date and so can tell us about the man only through their subject matter. Vaughan's own notes and marginal annotations in some of the books, however, offer important insights. The books that Vaughan, a self-taught medical practitioner, annotated most heavily are by the Dutchman Nicolaas Fonteyn, a Galenist, and that classic medical authority, Hippocrates. The recipes or medicinal formulas Vaughan records in the flyleaves of these two volumes offer clear evidence that he learned and practiced traditional, Galenic medicine—despite the fact that he attempted to popularize Paracelsian principles of medicine in his translations of Heinrich Nolle's *Systema medicinae Hermeticae generale* (Frankfurt, 1613), which appeared as *Hermetical Physick: or, the Right Way to Preserve, and to Restore Health* (1655), and *De generatione rerum naturalium* (Frankfurt, 1615), which appeared as *The Chymists Key to Open, and to Shut; or the True Doctrine of Corruption and Generation* (1657). The fact that he recorded notes in the Fonteyn and the Hippocrates—one a primer of medicine and the other a basic work on pediatrics, both pocket-sized and easily portable—tells us something about his medical interests and practice. Equally noteworthy is a correction to Jean Pecquet's work on the chyle reservoir, discussed further below. Vaughan did make occasional marginal notes in Hermann Grube's *De arcanis medicorum non arcanis commentatio* (Copenhagen, 1673), Wolfgang Höfer's *Hercules medicus; sive, locorum communium liber* (Nuremberg, 1675), Johann Conrad Peyer's *Parerga anatomica et medica, septem* (Amsterdam, 1682), and Bernhard Verzascha's *Observationum medicarum centuria* (Basel, 1677); and he prepared an index for Grube and Giovanni Benedetto Sinibaldi's *Geneanthropeiae sive de hominis generatione decateuchon* (Frankfurt, 1669), which suggests heavy use. In addition he glossed extensively the only surviving work of *materia medica* in his library, the *Quadripartitum botanicum de simplicium medicamentorum facultatibus* (first edition 1640) of Simon Paulli (1603–1680), professor of anatomy, surgery, and botany at Copenhagen as well as physician-in-ordinary to the Danish king. This

3. None of the private libraries listed in R. J. Fehrenbach et al., eds., *Private Libraries in Renaissance England: A Collection and Catalogue of Tudor and Early Stuart Book-lists*, 5 vols. (Binghamton, N.Y., 1992–98), contained a copy of any of these titles except the Hippocrates.

4. See Jeremiah S. Finch, *A Catalogue of the Libraries of Sir Thomas Browne and Dr. Edward Browne, His Son: A Facsimile Reproduction with an Introduction, Notes and Index* (Leiden, 1986). Browne owned Jean Pecquet's *Experimenta nova anatomica* (Paris, 1651) and Johann Philip Höchstetter's *Rararum Observationum medicinalium decades sex* (Frankfurt and Leipzig, 1674).

tome of over seven hundred pages in quarto, with nearly a hundred pages of indices, incorporated traditional botanical knowledge from Dioscorides to Leonhard Fuchs and was regarded as the standard work on medical pharmacology in its time.⁵ In his copy Vaughan supplied the common English names of the plants for nearly two-thirds of the whole (399 of 625 pages of text) as marginal notes to the Latin, with occasional expansions.⁶ For example, about *alysson*, which is not native to England, Vaughan wrote: "A forreign plant, or shrub: whose very sight or touch cures those that have been bitten by mad dogs" (p. 18). More typical examples include *ilex coccigera*, which Vaughan identified as "cochianeil: or the scarlet-berry-tree" (p. 68); *adiantum* or *capillus Veneris*, as the plant "Maydenhaire" (p. 235); and *Lingua Cervina* as "Harts tongue" (p. 76). The fact that Vaughan took the trouble to annotate Paulli's text in this way suggests that this work was valuable to him (though he did not acquire it until 1682, relatively late in his life).

Among all the authorities Vaughan studied, Jean Pecquet (1622–1674) perhaps best justified the effort, from the perspective of modern medicine. Pecquet believed that the scientist should actively examine nature instead of passively contemplating it from "Cutting up of Dead Bodies," so he opted to work on animals that were still alive.⁷ During the vivisection of a "great hound," he noticed a "milkie liquor" flowing in the *vena cava* that led him to the discovery of the chyle reservoir. This breakthrough in physiology, made while he was still a medical student, helped to confirm Harvey's law of the circulation of blood. In 1651 Pecquet published the description of his anatomical experiments that made him famous, along with an anatomical treatise on the motion of blood and chyle. Thomas Vaughan bought this copy of the Latin *Experimenta nova anatomica* the year after it was published and gave it to his twin brother. Henry's acquisition of *Experimenta nova anatomica*—plainly not a neophyte's text—just as he was beginning his medical self-studies tells us something about his ambition. His copy also shows careful use. In the congratulatory letter to Pecquet from the Parisian physician Adrianus Auzotius (dated 3 January 1651, found on pp. 103–8) is a paragraph on the significance of Pecquet's discovery to the understanding of the causes of fevers, the highlights of which Vaughan underscored:

Sed ut de Vasis tuis dicam, nonne jam omnia in Medicinâ immutanda sunt, cum receptæ sententiæ de Chyli in Sanguinem mutatione à Iecore factâ, penitus innitantur, quam constat minimè fieri; Cor enim Chylum primùm recipit in Sanguinem excoquendum, & Hepar non nisi peculiare officium, sicut & reliqua alia Viscera ad repurgandum transcolatione excrementis Sanguinem, aut perfectione aliquâ donandum, sibi vindicare potest. Inde enim ex singulorum Viscerum intemperie Febris & Hydrops duæ præcipuæ, & contrariæ Sanguinis corruptiones exoriun-

5. *Dictionary of Scientific Biography*, ed. Charles Coulston Gillispie, 16 vols. (New York, 1970–81), 10:426–27.

6. Simon Paulli, *Quadripartitum botanicum de simplicium medicamentorum facultatibus* (Strasbourg, 1667–68), Library Company of Philadelphia shelfmark Loganian 468.Q.

7. *New Anatomical Experiments of John Pecquet*, trans. T. W. (London, 1653), 7.

tur. Vnde jam vix reperire est paginam in libris tum Medicis tum
Anatomicis, in quâ crassi errores sæpius non occurrant.⁸

[But as may I say about your vessels, are not all things by now in medicine to be changed, when the received opinions about the change of chyle into blood made by the liver wholly supports it, then it is certain to be done at the least. For the heart receives the chyle at first for extracting the blood, and the liver is not able to claim for itself its proper duty, as is also the case with the other remaining organs, of cleansing of the blood by filtering of the excrements or giving some completion. In consequence of which, due to the intemperance of the separate organs, fever and dropsy, two particular and opposite corruptions of the blood, arise. Whence it is already difficult to find a page in medical or anatomical books, in which these crass errors do not frequently occur.]

To this observation Vaughan added a marginal note with his initials, making the slight correction that *imperfect* filtering causes the problem: “febris et hydrops ex imperfectâ transcolatione oriuntur. curatio ergo drobssientibus et roborantibus (secundum morbosam intemperiem) perficitur H:V:S:” [Fever and dropsy rise from imperfect filtering. The cure therefore for the dropsical and the robust (according to an unhealthy intemperance) is accomplished.”] Not only does this reveal a certain self-confidence, it also helps confirm that Vaughan operated within a Galenic framework. His use of the phrase *secundum morbosam intemperiem* shows us that he accepted the basic notion of bodily *temperature* or balance of the four humours.

The traditional, Galenic disposition of Nicolaas Fonteyn (fl. 1622–1644) is also clear. He received his medical training at Reims (1631) and from 1640 to 1643 was inspector at the Collegium Medicum in Amsterdam.⁹ He wrote a number of medical treatises, including *Syntagma medicum de morbis mulierum in libros IV* (Amsterdam, 1644), which was translated into English as *The Womans Doctour: or, An exact... Explantation of All Such Diseases as are Peculiar to that Sex: With Choise... Remedies* (London, 1652). This book discusses illnesses specific to virgins, whose blood was thought to thicken, thus leading to sadness, insomnia, and heaviness of mind. He also produced commentaries on Andreas Vesalius and the *De infantium sive puerorum morborum & symptomatum dignotione* of Sebastian Austrius (d. 1550), which Vaughan owned and into which he copied additional recipes.

Fonteyn’s *De puerorum morbis*—which was inscribed with an autograph signature, *Henr: Vaughan Siluris. 1654*, a motto *Salus mea ex Agno*, and notes on the flyleaves—was a handy duodecimo Vaughan acquired at the beginning of his medical studies. Thoroughly Galenic, it even included those aphorisms of Hippocrates dealing

8. Jean Pecquet, *Experimenta nova anatomica* (Paris, 1651), 107 [Library Company of Philadelphia shelfmark Loganian 573.Q]. On the facing page (106) is a maniculum or fingerpost pointing to the phrase, which is underlined “*sed semper longævitatis dispendio*.”

9. *Biographisch woordenboek der Noord- en Zuidnederlandsche letterkunde*, ed. Johannes Godefridus Frederiks and Franz Jozef Peter van den Branden (Amsterdam, 1891), 255.

with children's diseases. For example in chapter 40, "De Alvo humida," which concerns the vital Galenic process of concoction, Fonteyn offered authoritative statements by Rhazes, Avicenna, and others from the *Schola medicorum* about *fluxum ventris*, the cause of the problem.¹⁰ Then Fonteyn discussed various ways to evacuate the "delinquent humours" with observations of his own and supporting statements from Galen, Hippocrates, and so forth.

Vaughan took notes on four of the flyleaves of this small volume, all of which point toward his involvement in traditional, Galenic medicine. The transcription is a diplomatic one. Where necessary I have supplied the case endings, usually abbreviated. Vaughan also used standard abbreviations for weights and measures (for example, scruples, drams, ounces) and occasionally other pharmacological abbreviations (for example, Q: S: for *quantum sufficiat* or a "quantity that may suffice"). Except for *R* for *Recipe* or "Take," which begins every formula, I have expanded all such abbreviations within square brackets. Thus Q: S: is transcribed as Q[antum] S[ufficiat]. When he wanted to indicate that half a quantity should be used, Vaughan used the abbreviation *s.* after the number. In classical Latin, we would expect *semissem* for the accusative, but since Thomas Cooper's *Thesaurus Linguae Romanae et Britannicae* (1584) stated that *semis* was indeclinable, I have used *semis* throughout, as did the *Pharmacopœia Londinensis* (London, 1618). In the notes to my English translation, I have identified only the more uncommon concoctions, using the Royal College of Physicians' *materia medica* or Culpeper's English translation of it, *Pharmacopœia Londinensis: or The London Dispensatory*. Since all of the unusual medicaments (unusual, that is, to modern sensibilities) can be found in Culpeper, it seems safe to assume that Vaughan possessed a copy of this indispensable guide to medicine.



In the following transcriptions, the translation immediately follows the Latin texts.

Vaughan's Annotations to Fonteyn's *De puerorum morbis*¹¹

Acetu[m] laxativum.

R Cremoris Tartari [unciam] s[emis]
fol[iorum] senæ [drachmas] iiii, Cinnamomi
electi [drachmam] i. aceti acerrimi
lib[ram] i. fiat infusio per
diem naturalem, servetur
acetum ad usum.

[front fly fol. 1r]

10. Nicolaas Fonteyn, *Commentarius in Sebastianum Austrium, medicum Cæsareum: De puerorum morbis* (Amsterdam, 1642), 431–52.

11. Vaughan's notes in *De puerorum morbis* [Library Company of Philadelphia shelfmark Loganian 783.D] are on front flyleaves 1r–v and 2r–v; see figure 1.

Ad intemperiem
frigidam et inflationem
uteri vel alterius visceri[s].

℞ ol[ei] laur[i], absynthi ana [uncias] i. s[emis]
[olei] lumbric[orum] de castoreo ana [unciam] i.
In iis fac ebullire leviter
pulver[is] aromat[ici] rosat[i], absyn[thi]
salviæ, ligni aloei ana [drachmas] i. s[emis]
Corall[is] rub[ri] [drachmam] i. Expressi.
factæ adde ceræ flavæ [drachmas] iii.
fiat unguent[um].

Conserva ad eodem
affectus efficacissima.

℞ rad[icis] Cunilæ condit[æ], Conservæ
flor[um] salviæ, roris marini,
aurantior[um] ana [drachmas] vi. Conde
borrag[inis] [unciam] s[emis], specierum aroma[ti]
rosati, Diamoschi ana [drachmas] i. s[emis]
Cum Syropi de absynthio
Q[uan]tum S[ufficiat]. fiat Conditum.
[front fly fol. 1v]

Vomitorium Fontani
pro infantibus et
Junioribus. 506

Contra tussim.

℞ spec[ierum] Diatraga[canthi] frig[idi] [drachmas] i. s[emis].
Diaireos, sem[inum] papaver[is]
ana [scrupulum] i. Sacchari in
Syrupo de rosis siccis
soluti [uncias] ii. s[emis]. fiant tabellæ
in rotulis.

Apozema contra tussim
et phthisicis utilissimu[m].

℞ hordei mundati [unciam] i. rad[icis] aristolo[chiæ]
 glychirrisæ rasæ ana [drachmas] ii.
 Herb[arum] tussilag[inis], urticæ, adianthi
 albi ana n[umero] i. passul[arum] exacin-
 ataru[m] [drachmas] ii. carn[is] dactyl[orum] fic[orum]
 pinguin[ium] ana [drachmas] iii. Coque in
 sufficient[ia] aquæ puræ ad
 lib[ras] ii. Colati adde
 Diacodii [uncias] ii. fiat Apoz[ema].
 [front fly fol. 2r]

Contra affectus melanchol[icos].

℞ aquæ b[or]rag[inis] melissæ ana [uncias] vi.
 Syrup e succo borrag[inis] et regis
 savoris ana [unciam] i. aquæ cinna-
 momi [drachmas] ii. fiat Julap.

℞ conserv[atorum] flor[um] viol[arum] borragi[nis]
 aurant[iarum] ana [unciam] i. Confectio[nis]
 Alker[mes], hyacinth[i] ana [drachmas] ii.
 specier[um] diamarg[ariti] frigidi
 Diambrae ana [drachmam] i. Cum
 Syrupo de pomis regis
 savoris additis duobus
 foliis auri, fiat Conditum.

℞ specier[um] lætificant[is] Galeni
 *Diambrae ana [drachmam] s[emis]. margar[itorum] præpar[atorum]
 lapidis bezoar
 ana [scrupulum] i. Sacchari in aqua
 rosacea soluti [uncias] ii. fiant
 tabellæ

*Cave, si suffocatione hystericæ
 sit obnoxia.
 [front fly fol. 2v]

translation follows on p. 436

Contra affectus melancholice

℞ aqua borrag. melissa ana ℥
 Symplic. i succo borrag. ℥
 Sabonis ana ℥ij. aqua Com.
 monti ℥ij. filt Julap.

℞ Couros flor viol. borrag
 aurant ana ℥ij. Confectio.

Alker, hyacinth. ana ℥ij. ad j

Specier. diamarg. frigid.
 Diambrd ana ℥i. cum A

Syrupo de penis regis
 Sabonis additis duobus
 Solijs auri, fiat Conditum.

℞ specier. lenificand Galini 16

* Diambrd ana ℥ij. margar
 prepar. lapid. bezoar
 ana ℥ij. Sacchari in aqua
 rosacea soluti ℥ij. fiat
 tabella. pud

* Cave, si suffocationi hysterica
 sit obnoxia.

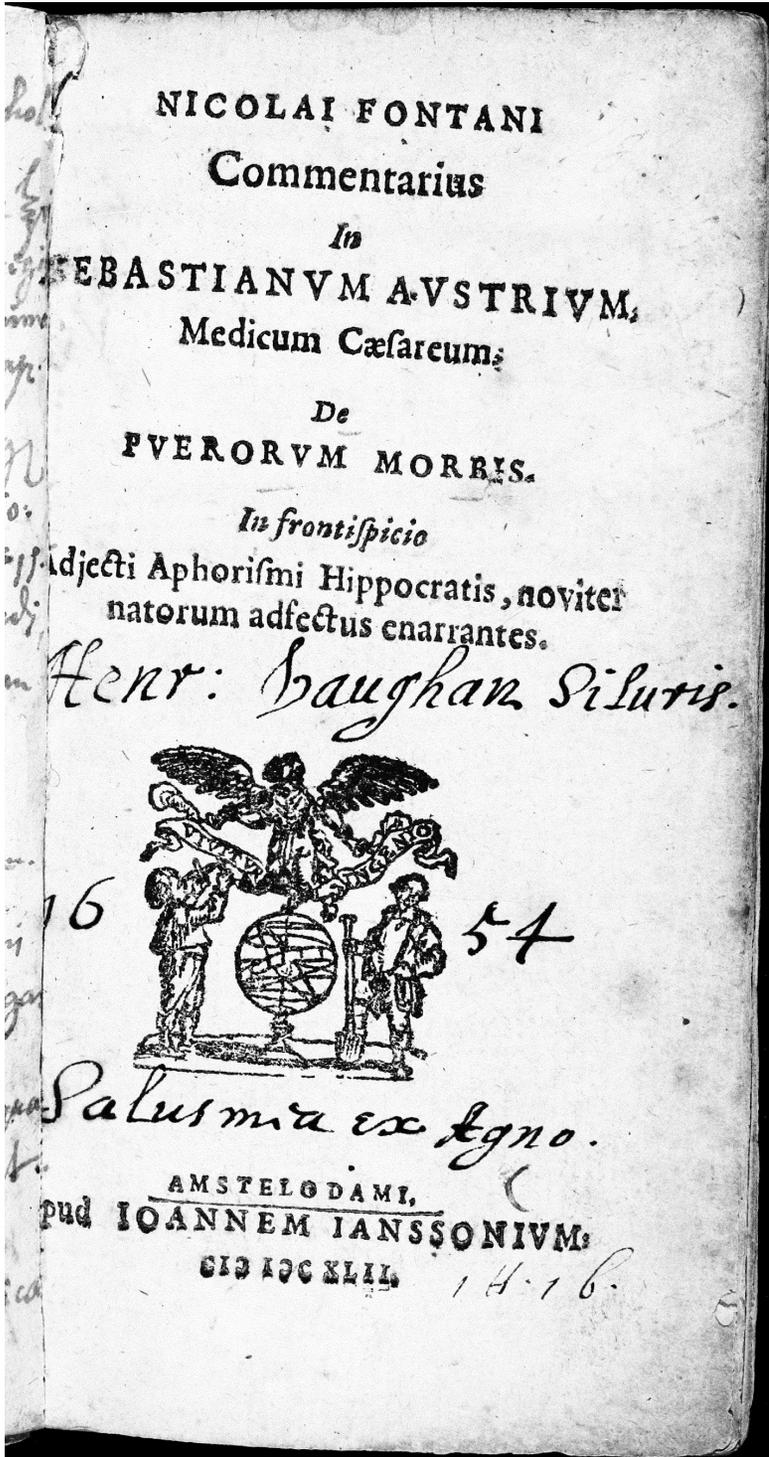


FIGURE 1. Nicolaas Fonteyn, *Commentarius In Sebastianum Austrium* (1642), title page (above) and facing page. Courtesy of the Library Company of Philadelphia.

A laxative vinegar

Take half an ounce of cream of tartar; four drams of senna leaves; one dram of choice cinnamon; one pound of very bitter vinegar. Let the infusion be made for one natural day. The vinegar may be saved for use.
[front fly fol. 1r]

For a Cold Intemperance
and Inflation of the Uterus
or Other Viscera

Take one and a half ounces each of bay oil and of wormwood; and one ounce of oil of earthworms and of castor oil. In these make bubble lightly one and a half drams each of powder of Aromaticum Rosatum,¹² wormwood, sage, and wood of aloes; and one dram of red coral. Let it be expressed. Add three drams of golden wax to what has been made. Let the unguent be done.

A Very Effective Conserve
For the Same Inward Disposition

Take six drams each of preserved root of wild-marjoram, of conserved flowers of sage, of rosemary, and of orange. Season half an ounce of conserved borage, one and a half drams each of a species of Aromaticum Rosatum and of Diamosch¹³ with as much of the syrup of wormwood as suffices. Let the preserve be done.
[front fly fol. 1v]

Fontanus's Vomitory
for infants and youths.¹⁴

Against Cough.

Take one and a half drams of a species of Diatragacanthum Frigidum;¹⁵ one scruple each of Diareos and of poppy seeds; and two and a half ounces of sugar in syrup of dry roses. The tablets may be made in rolls.

12. A species or powder made with roses that, according to Nicholas Culpeper, in *Pharmacopœia Londinensis: or The London Dispensatory*, 6th ed. (London, 1655), "helps digestion, consumes the watry excrements of the bowels, strengthens such as are pin'd away by reason of the violence of a disease, and restores such as are in consumption" (p. 222).

13. In medical terms the prefix *dia-* indicates a concoction made of several ingredients with one predominating (*OED*); Diamosch was based on musk. See Culpeper, *London Dispensatory*, 225.

14. Refers to a recipe in *De puerorum morbis*, 506–7.

15. A concoction made with tragacanth, "a gum or mucilaginous substance obtained from several species of *Astragalus*" (*OED*); see Culpeper, *London Dispensatory*, 226–27, for a formula. Diareos is a concoction made with orris root; see *London Dispensatory*, 223.

A Concoction Very Useful against Cough
and Consumption

Take one ounce of cleansing barley water; two drams each of birth-wort root and of licorice shavings; one each of the herbs colt's foot, of nettle, of white maiden-hair; two drams of raisins with the seeds removed; three drams each of the pulp of dates and of ripe figs. Boil in a sufficiency of pure water (filtered not distilled), up to two pounds To what has collected, add two ounces of Diacodium syrup.¹⁶ Let the concoction be done.

[front fly fol. 2r]

Against the Melancholic Disposition.

Take six ounces each of borage water and balm; one ounce each of syrup from the juice of borage and from [apples] of royal savor; two drams of cinnamon water. Let the julep be done.

Take one ounce each of conserved flowers of violets, of borage, and of oranges; two drams each of Alkermes¹⁷ and hyacinth; one dram each of Diamargariton and of Diamber, with the syrup of apples of royal savor with two leaves of gold being added. Let the preserve be done.

Take half a dram each of a species of the Stimulant of Galen¹⁸ and of *Diamber; one scruple each of prepared pearls and of bezoar stone;¹⁹ and two ounces of sugar dissolved in rose water. Let the tablets be done.

*Beware,²⁰ if it be for suffocation of the mother, it may be harmful.
[front fly fol. 2v]



The only surviving book in Vaughan's library that offered a comprehensive account of the causes and treatments of disease was the *Aphorismi Hippocratis*. Generally hailed

16. "A syrup prepared from poppy-heads, used chiefly as an opiate" (*OED*); see Culpeper, *London Dispensatory*, 199.

17. Confection of Alkermes was an electuary (a powder mixed with a syrup or conserve) featuring Kermes, "The pregnant female of the insect *Coccus ilicis*, formerly supposed to be a berry" (*OED*); Culpeper, *London Dispensatory*, 235. Diamargariton is a concoction featuring pearls; *ibid.*, 224. Diamber is "An old stomachic and cordial containing ambergris, musk, and other aromatics" (*OED*).

18. Listed as a species or powder in the Royal College of Physicians' *Pharmacopœia Londinensis* (London, 1618), 62, *Lætificans Galeni* was prescribed for melancholics; see Culpeper, *London Dispensatory*, 228.

19. A "concretion found in the stomach or intestines of some animals, chiefly ruminants" (*OED*); valued as an antidote to poison, it was among the most expensive drugs of the seventeenth century.

20. The asterisk is Vaughan's own emphasis, urging caution on the use of Diamber, above.

as the founder of medicine, Hippocrates (ca. 470–410 B.C.E.) rejected the idea that illness was caused by possession of evil spirits or the disfavor of the gods and, as a rationalist, stressed the importance of observation, diagnosis, and treatment. His view that the body must be treated as a whole was fundamental to Galen’s principle that health required a balance among the four humours. While Vaughan championed the principles of Hermetic medicine in his youth, it would have been difficult to ignore the weight of the millennia behind the authority of Hippocrates, whose writings were frequently published in Europe in the sixteenth and seventeenth centuries and combed for precedents and nuggets of wisdom. The *Aphorismi* themselves were venerated as the distilled wisdom of the greatest physician of the antique world and, according to Galen, provided the best introduction for beginners. As a compendium of the supposed verities of medicine, written in layman’s terms, it would have been indispensable, even for someone with Paracelsian inclinations.

The Library Company copy bears the signature *Vaughan* on the title page, notes and prescriptions in his hand on the front and rear flyleaves, and some underscoring in the text itself.²¹ It is possible that the *Aphorismi* was acquired soon after publication (1650)—though we have no way of verifying this—since this text provided the foundation upon which his practice seems to have been built. The duodecimo size of this particular edition would have made it a handy traveling reference book. He underscored various parts of the text (for example, pp. 46–54, entitled *Prognostici*) and made occasional notes in the margins. His prescriptions are the most revealing aspect, for they fill all the available flyleaves (six in front and six in back). These prescriptions, mostly for purges, offer further proof that Vaughan’s praxis relied heavily—though not exclusively—on Galenic categories and medicaments.

Vaughan’s Annotations to Hippocrates’ *Aphorismi*²²

Haustus Cathartici
Cratoniani
In hepato bilioso

i.		
℞ passularum [drachmas] vi.		
flor[um] violar[um]	}	ana p[artem] i.
Boraginis		
veronicæ	}	ana [unciam] s[emis]
Epithymi		
Fol[iorum] Senæ		

21. *Aphorismi Hippocratis facili methodo digesti cum ipso textu, aliisque insuper therapeutiis pro curatione morborum omnium totius humani corporis. Denuò eduntur auctiores & correctiores, ut & appendix, De materia medica*, ed. Johannes Tilemann (Marburg, 1650); see figure 2.

22. Vaughan’s notes in the *Aphorismi* [Library Company of Philadelphia shelfmark Loganian 877.D] are on front flyleaves 1r–3v and rear flyleaves 1r–3v. Where Vaughan indicates with a large curved bracket that a single quantity applies to several ingredients, a large right-hand bracket has been used here in the transcription; see illustration on page 447.

Rhab[arbari] Electi [drachmas] i. s[emis].
 Fiat decocti in S[ufficiat] Q[uantum] aq[uae] hordei.

℞ Colaturæ fortitèr
 Expressæ et depuratæ
 [uncias] iiii.
 Syrupi rosacei sol[utivi]
 Mannæ Calabrinæ
 ana [unciam] i.
 Misce.
 [front fly fol. 1r]

2.

℞ tamarindor[um] [drachmas] vi.
 Flor[um] violar[um]]]
 Borriginis]] ana p[artem] i.
 Acetosæ]]
 Coque in S[ufficiat] Q[uantum] seri lactis.
 In expresso macera
 per noctem Rhab[arbari] [drachmas] ii.

Exprime fortitèr et in
 Expresso dissolve
 Syrup[um] rosac[eum]
 Et Mannæ Calabrinæ
 cum Succo limonum
 Irroratæ ana [unciam] i.
 misce.

T. O. Grembs a[r]bor integra
 et ruiniosa hominis
 Joh[an] Loselius de podagra.
 [front fly fol. 1v]

Haustus phlegmagogus

℞ passul[arum] [aurearum] [unciam] i.
 sem[inum] Anisi]]
 Radic[is] filipen[dulæ]]] ana [drachmas] 2.
 Galangæ—[unciam] i
 Flor[um] borrag[inis]]]
 Stæchados]] ana p[artem] i.
 Zingiberis—[scrupulum] i.
 Agar[icorum] trochis[corum]—[drachmas] 2.

Coque in lib[ra] i aq[uae] purae
 ad Consump[tionem] [tert]iæ partis.
 In Colat[uris] infunde per noctem
 Fol[iorum] Senæ [unciam] i.

℞ Colatur[orum] fortiter Expres[sorum]
 [uncias] viii.
 Quibus adde Syr[upi]
 e Beton[ica] et Cortice
 Citri ana [drachmam] i.
 [front fly fol. 2r]

Digestionem Melancho-
 -licis præmittendum

℞ Succu pomor[um] dulc[ium] lib[ram] i.
 Coque lento igne ad mediam,
 et seponetur in vase
 vitreo donec residentia
 fiat. Cola et adde
 Succu boraginis ext[racti] e
 tota planta et defæcati
 [uncias] iii.
 Syrupu e Corticibus Citri
 [uncias] ii.
 Sacchari Q[uan]tum S[ufficiat] Coquatur
 in Syrupum
 usui exhibendum:
 Woeferi Hercules
 Medicus
 [front fly fol. 2v]

Haustus Melanagogus

℞ passul[arum] — [drachmas] vi.	
Capillo[rum] [Veneris] ²³	} ana p[artem] i.
Melissæ	
Scolopendriæ	
Ceterach	
Cuscutæ	

23. Vaughan used the astrological sign for Venus here.

Diamarg[ariti] frig[idi] [drachmas] ii.
 Lætitiæ Galeni
 Lætifican[tis] Rhas[is]] ana [drachmam] i.
 Diaborraginis — [drachmam] i.
 Sacchari albissimi in
 aquis rosar[um] et melissæ
 soluti [uncias] ix. olei
 Cinnamomi [drachmam] i. f[iat] R[otula].

Conditum

℞ Conservæ florum
 Pæoniæ
 borraginis
 Salviæ
 violarum
 Antho[rum]
 [rear fly fol. 1r]] ana [unciam] s[emis]

Rob de Ribes [unciam] i.
 De Berberis — [uncias] 5.
 Diarrhod[onis] Abb[atis] [unciam] i.
 Elect[uar]ii Sassafras[is] [drachmas] ii.
 Manus Christi p[er]latae [scrupulos] ii.
 Confect[ion]is Alcher[m]es [drachmam] s[emis].
 olei Caryophyll[i] gutt[as] 4.
 Cum Syrupo è Corticibus
 Citri[.] fiat opiata
 foliis auri ob-
 -ducenda.

Infusio senæ Quercetani 221²⁴

Pepticon

℞ Cinnam[omi] acutissi[mi] [drachmas] iii.
 Galangæ — [drachmam] i.
 Zingib[eri] alb[i] Macis ana [drachmas] i. s[emis].
 [rear fly fol. 1v]

Carnis Cydon[iorum] siccor[atorum] [drachmas] ii.
 Caryophyllo[rum] — [drachmam] i.
 Myrtiflo[rum] Ital[icorum] [scrupulos] ii. s[emis].
 Coriand[rorum] p[ræ]par[atorum] — [scrupulos] iiiii.
 Corall[i]i rub[ri] — [drachmam] s[emis]

24. This reference to a recipe for an infusion of senna from Quercetanus, found in Tilemann's supplement to the *Aphorismi*, II, 221, seems to have been added later, as the ink is fainter.

Margarit[orum] p[ræ]par[atorum] [scrupulum] i.
 Sem[inum] Anisi, fœnic[uli], Carvi ana [drachmas] i. s[emis].
 pulverisatis diligentè et mistis adde
 Diatrion Santalon [drachmam] i.
 Electu[arii] è Gemmis [drachmam] s[emis]
 folio[rum] auri subtiliter incisorum numero [tert]ia.
 Sacchari puriss[imi] ad p[ondu]s
 omnium. f[iat] p[epticon].
 [rear fly fol. 2r]

<p>R pil[ularum] Aurear[um] Cochiar[um] Troch[ischorum] Alhan[dali] Diacryd[i]</p>		<p>ana [scrupulos] i. s[emis].</p>
<p>Cum syrupo Ros[aceo] sol[utivo]. fiat pil[ulæ] 5. Capiat superbibendo Syr[upi] violar[um] [unciam] i. Alcher[mes] [scrupulum] s[emis].</p>		<p>ana g[ranum] [unc]ia</p>

Spiritus senæ 221 ²⁵		
<p>R pil[ulæ] de 5 gener[ibus] Myr[rhæ] Aggregativar[um] et de fumo terræ Troch[ischorum] Alhandali Diacrydi Cum Syrup[o] ros[acei] fi[unt] pil[ilæ]. Capiat ut prius.</p>		<p>ana [scrupulum] i.</p> <p>ana g[rana] 4.</p>

Ferrarius de morbis infant[ium].
 [rear fly fol. 2v]

Potus Antipureticus.

R aquæ hordei, et vini albi
 ana lib[ram] i. seri lactis dili-
 -genter depurati lib[ras] 2.
 Misce simul et dissolve
 Rob de Berberis [uncias] ii.
 agitentur simul iterum,

25. This reference to *spiritus senæ*, found in Tilemann's supplement to the *Aphorismi*, II, 221, is also in a fainter ink and a slightly smaller script.

et adde limonum et
 Aurantior[um] ana numero 2.
 succum recentissimum.
 Dulcoratur ad gratiam
 cum oxysaccharo, et
 detur ad libitum.

Troch[isorum] de Myrrha [drachmam] s[emis].
 Cassiæ ligneæ [scrupulum] i. Croci [scrupulum] s[emis]
 detur in Syr[opo] de Artemisia.
 [rear fly fol. 3r]

Pulvis Anti[pureticu]s.

Epithymi [unciam] s[emis]
 Lap[idis] bezoaræ, Agar[icorum] trochis[orum] ana [scrupulos] ii
 Scammonii—[drachmas] i. s[emis]
 Cariophyllor[um] 15 n[umer]o.
 f[iat] p[ulvis]. Dosis [drachmas] ii.
 in sero lactis.
 vel ex syrupo borag[inis] et
 violar[um] ana [unciam] i. cum
 aqua melissæ diluta.

Diabræ	} }	ana [scrupulum]
Diamoschi		
Lætif[icantis] Gal[eni]		
Confec[tionis] Alcher[mis] [drachmas] iii.		

Sacchari in aqua melissæ
 et rosar[um] sol[is] [uncias] iiiii.
 fiant tab[ellæ].
 [rear fly fol. 3v]

Crato's
 Purgative Draughts to
 Treat Bilious Liver Disease.

i.

Take six drams of raisins, one part each of violet flowers, of borage, and of veronica; half an ounce each of thyme and of the leaves of senna; and one and a half drams of choice rhubarb. Let the decoction be made in a sufficient quantity of barley water.

Take four ounces of what has been strained and vigorously expressed and purified. Mix one dram each of Syrup of Roses Solutive²⁶ and of Manna

26. Syrup of Roses Solutive was a purgative; see Culpeper, *London Dispensatory*, 207.

Calabrina.²⁷
[front fly fol. 1r]

2.

Take six drams of tamarind, one part each of violet flowers, of borage, and of sorrel. Boil in a sufficient quantity of milk whey. Steep two drams of rhubarb in what has been expressed for a night. Express vigorously and dissolve in what has been expressed one ounce each of Syrup of Roses [Solutive] and of Manna Calabrina moistened with lemon juice. Mix.

T. O. Grembs, *Arbor integra et ruiniosa hominis*
Johan Loselius, *De Podagra*
[front fly fol. 1v]

Draughts for Purging Phlegm

Take one ounce of golden raisins. Two drams each of anise seeds and of the root of dropwort, one ounce of galingale, one part each of borage flowers and of hedge-nettle; one scruple of ginger; two drams of agaric troches.²⁸ Boil in one pound of pure water until reduced to the third part. Into what has been strained pour one ounce of leaves of senna for one night.

Take eight ounces of what has been strained and vigorously expressed. To which add one dram each of syrup from betony and from the rind of citron.
[front fly fol. 2r]

For Advancing the Digestion For Melancholics

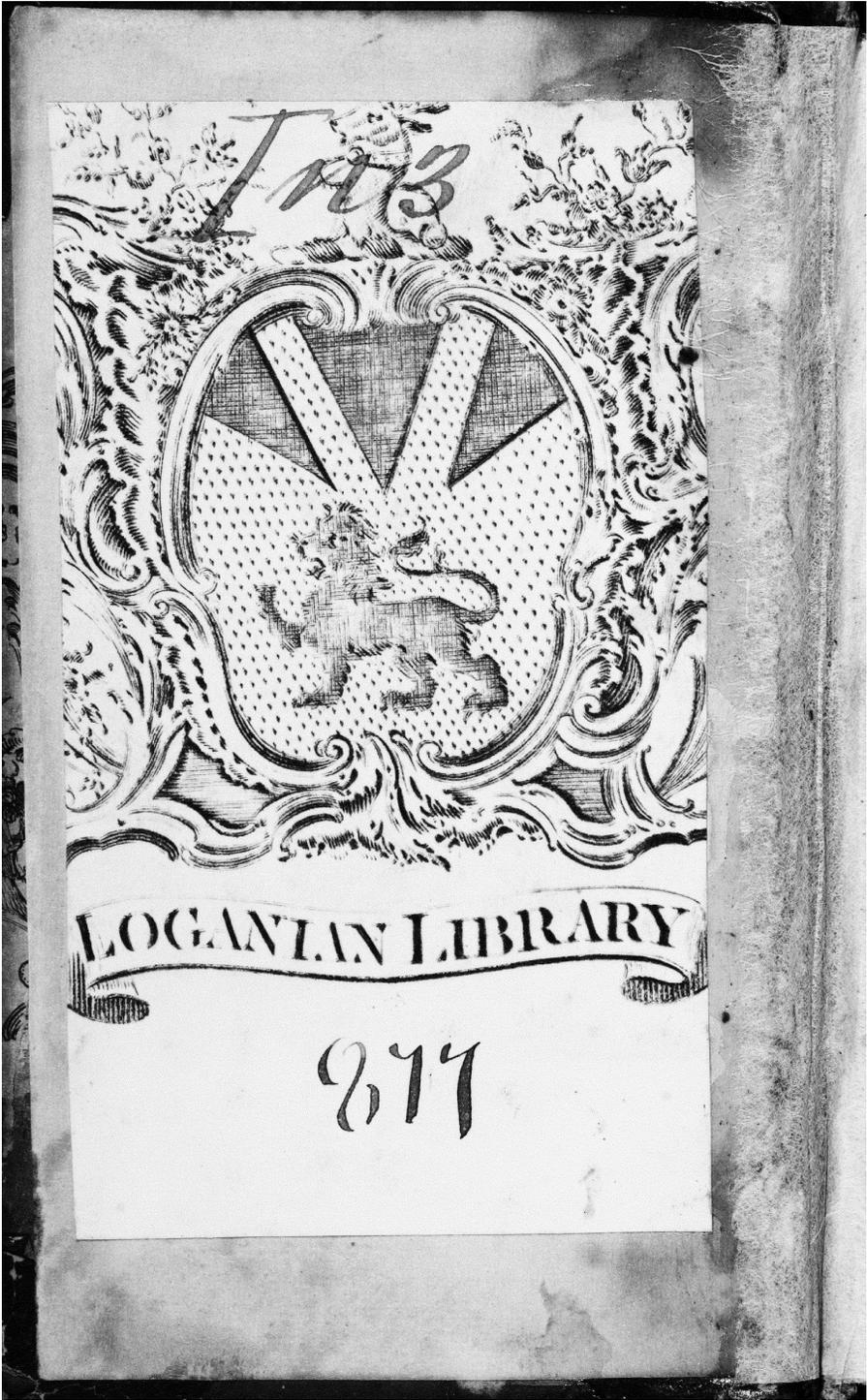
Take one pound of the juice of sweet fruit. Boil slowly with a medium flame and let it be set aside in a glass vase until a sediment be formed. Strain and add three ounces of the juice of borage, extracted from the whole plant and cleansed.

[Take] Two ounces of syrup from the rind of citron. Let a sufficient quantity of sugar be boiled into a syrup useful for examining; Wolfgang Höfer's *Hercules Medicus*.²⁹
[front fly fol. 2v]

27. The manna from Calabria and Sicily drops from the twigs of a species of ash during the months of June and July. At night it resembles dew, but hardens in the morning, hence the association with manna. It is dried and made into a powder that is used as a laxative; see *ibid.*, 44.

28. A species of fungi used as a cathartic or styptic (*OED*), made into a tablet or lozenge.

29. Refers to a recipe for digestive powder for melancholics in another book Vaughan owned, Wolfgang Höfer, *Hercules Medicus; sive, locorum communium liber* (Nuremberg, 1675), 201.



Haustus Cathartici
 Cratoniani
 In hepate bilioso.

ꝯ passularum ʒ. vi.
 flor violay
 Boraginis } ana ꝑ. i.
 veronica }
 Epithymia ana ℥ss.
 Fol: Sena
 Khab Eled: ʒ. i. s.

Fiat Decoct: in d. 2: aq: hordii
 ꝯ Colatura fortiter
 Expressa et depurata
 ℥iij.
 Syrupi rosaci sol:
 Manna Calabrina
 ana ℥ij.
 Misci.

FIGURE 2. *Aphorismi Hippocratis facili methodo digesti*, ed. Johannes Tilemann (1650), inside front cover and flyleaf. Courtesy of the Library Company of Philadelphia.

Draughts for Purging Black Bile

Take six drams of raisins, one part of maidenhair fern, one part of balm, one part of hart's-tongue fern, one part of hart's tongue, one part of dodders, and half an ounce each of thyme and of leaves of senna.

Boil in a sufficient quantity of pure water, and strain. Take four ounces of what has been strained, in which dissolve one ounce of syrup from sun ripened apples; half an ounce each of syrup from fumitory and of Manna Calabrina; and two spoons of cinnamon water; and examine.
[front fly fol. 3r]

Syrup for Purging Fluids³⁰

Pills.

Take one dram of Aloe Rosata³¹ or of a species of hiera, two scruples each of Pills of Fumitory and of Aggregative Pills; half a dram each of agaric troches, and of choice rhubarb; one scruple of Diacrydium³²; two drams of thyme from Crete; half a dram of cinnamon. With the juice of balm let pills be made, or formed into a little mass. Half a dram a dose.

One dram each of Arthritis Pills,³³ of senna, and of turbith gum, of hermodactyls, of Diacrydium, and of calcinated bones, and ginger. One dram a dose.

[front fly fol. 3v] [*last text in front*]

Rotulas Against Melancholia

Take one and a half ounces of a species of pink; one and a half drams of Diamber; two drams of Diamargariton Frigidum; one dram each of the Stimulant of Galen, and of the Stimulant of Rhasis; one dram of diaborage³⁴; nine ounces of the whitest sugar dissolved in rose water and balm; one dram of cinnamon oil. The Rotula will be done.

30. This reference to syrup hydragogus appears to have been squeezed in later. The ink is fainter, the script smaller, and the formula below bears no resemblance to anything found on p. 236.

31. Pills made with powdered aloes and the juice of Damask roses used to treat cholera; see Culpeper, *London Dispensatory*, 257–58. Culpeper regarded pills made of hiera picra, a purgative drug composed of aloes and canella bark (*OED*), as a kind of panacea (p. 260). Pills made from the fumitory plant were used to treat cholera and melancholy (p. 266). *Pilula Aggregativa* was a purgative compounded from seventeen different ingredients (p. 256).

32. Unknown concoction, which may derive from the Greek *diacridon*, eminent.

33. For a recipe, see Culpeper, *London Dispensatory*, 265.

34. A concoction made of borage, a common plant esteemed as a cordial (*OED*).

A Preserve.

Take half an ounce each of the conserved flowers of peonies, of borage, of sage, of violets, and of rosemary;
[rear fly fol. 1r]

one ounce of Rob³⁵ of Currants; five ounces of [Rob of] Barberries; one ounce of Diarrhodon Abbatis;³⁶ two drams of a sassafras electuary; two scruples of Manus Christi pearls;³⁷ half a dram of the Confection of Alkermes; four drops of clove oil, with the syrup from the rind of citron. Let the opiate be swallowed with leaves of gold.

Quercetanus's infusion of senna 221

A Digestive

Take three drams of pungent cinnamon; one dram of galingale; and one and a half drams each of white ginger and mace;
[rear fly fol. 1v]

two drams of dried pulp of quince; one dram of cloves; two and a half scruples of Italian myrtle; four scruples of prepared coriander; one half dram of red coral; one scruple of prepared pearls; one and a half drams each of anise, fennel, and caraway seeds. Add carefully to what has been pulverized and mixed one dram of Diatrion Santalon³⁸; half a dram of an electuary from gems; the third part of a gold leaf cut finely, and pure sugar equal to the weight of the whole. The digestive will be done.
[rear fly fol. 2r]

Take one and a half scruples each of Golden Pills³⁹ and Cochia Pills. Some⁴⁰ Troche of Alhandal with Rose Laxative Syrup. Let five pills be made. One ounce of the syrup of violets for drinking after may be taken with half a scruple of Confection of Alkermes.

35. "The juice of a fruit, reduced by boiling to the consistency of a syrup and preserved with sugar" (*OED*).

36. A concoction made of roses and many other ingredients, which "cools the violent heat of the heart and stomach," according to Culpeper, *London Dispensatory*, 266.

37. A confection made of rose water and sugar that often contained powdered pearl.

38. A species or powder consisting of three kinds of sanders or sandal-wood; see Culpeper, *London Dispensatory*, 227.

39. Pillæ Aureæ were taken as a purgative for the head, as were Cochia Pills (a compound made of colocynth, or bitter-apple, also used as a purgative); see Culpeper, *London Dispensatory*, 249.

40. The quantity here is in doubt; he has an abbreviation for grain, but also a sign for ounce. Troche of Alhandal is concocted from colocynth, or bitter-apple and was used as a purgative; see *ibid.*, 269.

Spirits of senna [II,] 221]

Take one scruple each of the pills from the five kinds of myrrh, of Aggregative Pills, and Pills from the fume of the earth, four grains each of Troche Alhandal and Diacrydium, with Syrup of Roses [Solutive]. Let the pills be done. It may be taken as before.

Omnibonus Ferrarius, *Libri quatuor de arte medica infantium*. Brescia, 1598
[rear fly fol. 2v]

An Antipuretic Potion⁴¹

Take one pound each of barley water and white wine, and two pounds of milk whey carefully purified. Mix at once and dissolve two ounces of Rob of Barberries. Let it be agitated again at once, and add the juice of two very fresh lemons and oranges each. It may be sweetened as you please with oxysaccharum⁴² and given as you wish.

Half a dram of the Troche of Myrrh; one scruple of cassia lignea; half a scruple of saffron may be given in the Syrup of Artemisia.⁴³
[rear fly fol. 3r]

Antipuretic Powder

Half an ounce of thyme; two scruples each of bezoar stone and agaric troches; one and half drams of scammony; fifteen cloves in number. Let the powder be done. Two drams a dose in milk whey.

Or [take] one ounce each from the syrup of borage and violets diluted with water of balm; a scruple each of Diamber, Diamosch, and Galen's Stimulant; three drams of Confection of Alkermes; four ounces of sugar in water of balm and sun-dew. Let the tablets be done.

[rear fly fol. 3v]



Examining the first two formulas listed, “Crato’s Purgative Draughts to Treat Bilious Liver Disease,” in terms of modern herbal remedies may yield some interesting comparisons. According to the *Physician’s Desk Reference for Nutritional Supplements* (2001), most of the herbs mentioned have been used successfully for treatments. Sweet violet has sometimes been used as a remedy for cough and bronchitis, asthma, migraine and other headaches, rheumatism, fever, stress, insomnia, and skin diseases. Borage oil, also known as starflower oil, is a rich source of the long-chain

41. That is, a potion for reducing fevers.

42. “A medicinal preparation of vinegar and sugar” (*OED*).

43. A syrup made from mugwort, used for women’s ailments; Culpeper, *London Dispensatory*, 193.

polyunsaturated fatty acid gamma-linolenic acid; it has been used to treat rheumatoid arthritis and other inflammatory disorders. Veronica has been used to treat indigestion, urinary tract infections, and rheumatism; it has also been used for hepatitis. The syrup made from rose hips is a rich source of Vitamin C. Roses, borage, and violets were three of the four principal Galenic cordial flowers (bugloss was the fourth), thought to strengthen the heart and lift the spirits and frequently made into conserves. Both senna and rhubarb are known to have stool-softening properties, so are still used as powerful laxatives, as was Manna Calabrina in Renaissance Europe. Tamarind is also known for its laxative properties and for relieving fever. Without systematic chemical trials the exact efficacy of these mixtures is unknown, but they likely would have had a powerful purgative effect, given the laxative properties of many of the herbs.

These two prescriptions also illustrate nicely the two directions in which Vaughan seems to have been drawn. The title identifies the source of these two purgatives as Crato, or Johannes Crato von Crafftheim (1519–1585). The son of an artisan (originally, Johannes Krafft), who later took the name Crato von Crafftheim after he was ennobled for his service as physician to successive Holy Roman emperors, he was an authority in his own right due to his edition of Galen.⁴⁴ Crato's recipes accordingly attempt to restore the balance among the humours. Most of the other purgatives—the very term suggests the *purging* of humours through the balancing of contrary humoral effects—noted on these flyleaves were also Galenic cures, including “Draughts for Purging Phlegm,” “For Advancing the Digestion for Melancholics,” “Draughts for Purging Black Bile,” “Syrup for Purging Fluids,” and so on. The note at the bottom of the front flyleaf, however, points to a different medical tradition, perhaps one closer to Vaughan's heart. Franz Oswald Grembs (fl. 1657–ca. 1682) was a well-known advocate of iatrochemical thinking, whose *Arbor integra* examined the similarities between Paracelsian and Galenic medical theorists as well as the differences.

This edition of Hippocrates also contained a supplemental text (in addition to the nearly 400 pages of the *Aphorismi*) that would have been of particular interest to Vaughan and extremely helpful to any physician, for it included the *De Materia Medica* of its editor, Johannes Tilemann (fl. 1635–1664), a physician and professor of medicine at Marburg with decided Paracelsian leanings.⁴⁵ Tilemann's 425 duodecimo pages, with a wealth of formulas for medicaments, was supplied with a helpful index and organized anatomically by body parts—a principle of organization not mirrored in the *Aphorismi*, which treated categories such as the temperaments, the ages of mankind, the effects on health of the seasons, of diet, of sleep, and so on. Even so, Tilemann presented his *materia medica* as substances that restored humoral balance by heating or refrigerating the various parts of the body, either taken internally or applied externally

44. *Galenii Pergameni operum, in quatuor partes digesta*... [bound with] *Controversiarum medicarum et philosophicarum libri decem* (Frankfurt am Main, 1571).

45. Among other works Tilemann wrote *Guldiner Apffel. Von dem Goldbaum dess irrdischen Lebens decerpiret, durch welches Anatomie die geheime und verborgne Universal-Medicin, sampt anderen hierzu nöthigen Wissenschaften geoffenbahret*... *an Tag gegeben* (Tübingen, 1635), and *Experimenta circa veras, & irreducibiles auri solutiones, addenda suo Lapidi ignis Basilii, antehac typis jam divulgato*. (Amsterdam, 1669).

as a poultice or an unguent. Nonetheless, despite this traditional Galenic orientation, Tilemann included many chemical medicines, such as spirits of vitriol, prepared crocus martis, sal armoniac, bezoar, prepared chalybs, sanguinis draconis, sal alcholi, mumia transmarina, sal crystallinum, sal vitrioli, Mercurius vitæ, butyr antimonii, and flores antimonii, to name only a few. The process begun in the late sixteenth century, whereby chemistry invaded the pharmacy and the secrets of the alchemical laboratory were revealed to the apothecary, seems to have been completed. The level of specificity and detail in these formulas, greater than in other such guides, also reveals someone who was very familiar with laboratory procedures. Vaughan took note of several of these, for example, a formula for the infusion of senna made by the iatrochemist Duchesne.⁴⁶ Thus, what appears to be Vaughan's basic medical reference respected both traditional medicine and the Neoterics he admired—his openness to *honour the truth where ever* it might be found⁴⁷—even if he relied more heavily on traditional medicine.

Henry Vaughan probably began his medical self-training just about the time that the second part of *Silex Scintillans* was published (1655), and he continued to acquire and annotate medical books into his later years. Although he was neither licensed nor trained in medicine at one of the universities, he was no different from the majority of practitioners in England at the time. When we look at his annotations and marginalia in the medical texts he owned, we see that he relied on Galenic categories and medicaments, even though he tried to popularize Hermetic medicine in the works he translated. In the absence of any comprehensive medical texts in his library espousing iatrochemical principles, we must assume that Vaughan relied on traditional herbal lore in his daily practice. And in this he resembled, no doubt, the majority of country doctors.

TEXAS A&M UNIVERSITY

ABSTRACT

One of the puzzles in the life story of the poet Henry Vaughan (1621–1695) concerns his medical career, especially the kind of medicine he professed. By examining the annotations and the marginalia in his own medical books, we can construct a more accurate portrait of him: a rural physician who practiced a form of traditional, Galenic medicine, despite his interest in the newer, Paracelsian medicine he helped to popularize through his translations. Donald R. Dickson transcribes and translates Vaughan's annotations in two of his medical books, now in the collection of the Library Company of Philadelphia. Keywords: Galenic medicine, Paracelsian medicine, Nicholas Culpeper, Nicolaas Fonteyn, Jean Pecquet

46. *Aphorismi Hippocratis*, rear flyleaf 1 verso: *Infusio senæ Quercetani* 221.

47. Henry Vaughan, "To the ingenious Reader" [of *Hermetical Physick*], in *The Works of Henry Vaughan*, ed. L. C. Martin, 2d ed. (Oxford, 1957), 548.