

Boerhaave: Author and Editor*

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ABSTRACT

The many facets of Herman Boerhaave's life are presented. He was a renowned teacher, physician, author, and editor. Discussed here are his activities as cataloger of the Vossius Collection, author of books on chemistry, botany, and medicine, and as editor of works by Vesalius and early Greek medical writers. Printing and bookselling in Leiden during Boerhaave's era are described.

HERMAN Boerhaave's name is familiar to everyone managing a library for the history of medicine. Copies of books bearing his name on the title page are still extant in great numbers in many libraries. It is a challenge for me to approach the most famous eighteenth century physician and teacher of medicine from the side of his relations to books, libraries, and publishers.

Thousands and thousands of books went through his hands, books of theology, philosophy, physics, biology, anatomy, botany, chemistry, and medicine. Certainly no day passed without his reading in several books. The content was the main thing, but he had also a keen sense for the appearance of books, and for the making of beautiful books. Though he was, in the strict sense, not a bibliographer or a bibliophile, he certainly possessed some affinity for them both.

Boerhaave wrote many books, but he also edited several important scientific works; moreover, he is the unwilling ancestor of a numerous family of books that were stolen from his lectures, adapted from his works, or inspired by his teaching.

In my *Bibliographia Boerhaaviana* (1) some 600 items are registered, but already some editions are known to be lacking. This family of books reflects Boerhaave's activities as an author and editor. In considering them we become familiar not only with his scientific interests and

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professional skill, but also with his human reactions, thus approaching his personality (2).

THE LIBRARY

In his student years Boerhaave became initiated into the secrets of Leyden University Library and intimately acquainted with one of its future treasures (see Fig. 1-2).

From its foundation in 1575 as a reward for a courageous defense against the long siege by Spaniards, who were only driven away by water pouring in through severed dikes, the trustees of the Academy, called Curators, had shown a far-seeing eye for the real interests of the School. A library was furnished very early in a spacious room of the former Mantle-Beguine Church (Faliende Bagijn Kerk). The very first book of the library was a magnificent Bible in four languages, printed by the famous Plantijn. The volume was a gift of William of Orange (3).

One of the professors was superintendent of the library. It was open for students twice a week, on Wednesday and on Saturday from two until four o'clock in the afternoons. This arrangement for visitors to see the books was much appreciated by the students.

In 1691 some structural alterations were made to the library, as a third long, double book case had to be set up in the middle of the room. Curators now designated the twenty-three year old Boerhaave, who, in the year before, had taken his degree in philosophy, as an assistant to the "custos" in carrying out this work. In this period he received a still more important commitment when he was charged with checking the famous Vossius book collection the University had bought.

THE VOSSIUS COLLECTION

Isaac Vossius (1618-1689), son of a well-known Amsterdam professor Gerard Vossius, was a scholar with a passion for rare books and old manuscripts which he collected on his trav-

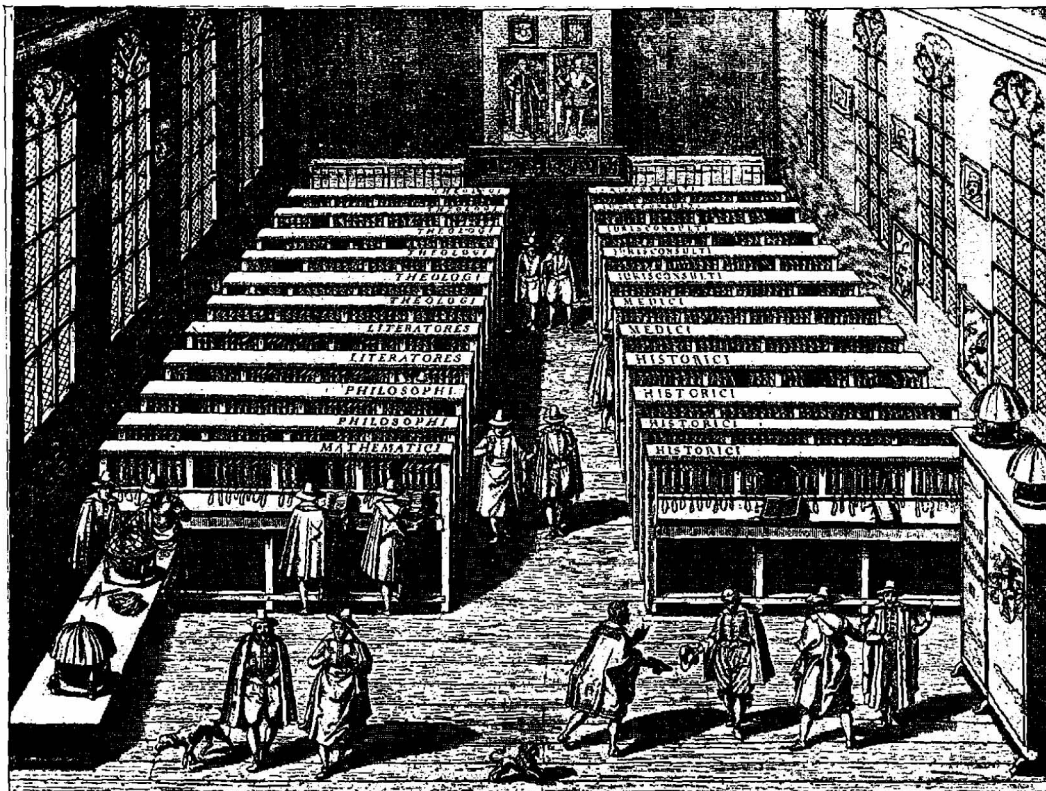


FIG. 1. The Leiden University Library in the seventeenth century (after J. J. Orlers, 1641).

els in foreign countries. Having been in the service of Queen Christina of Sweden (1648–54) he settled in England. He became a well-known theologian and even was appointed canon of Windsor. When he died, in England, in 1689, he left a big collection of books and costly manuscripts some of which he seems to have taken from the possession of the Swedish Queen in exchange for back pay!

The heirs had a list made, and rather than accept the bids of Oxford and Cambridge, they offered the library to Leiden University for a moderate but still considerable sum. In July 1690 a price of 33,000 Dutch guilders was agreed upon. The books were transported to the house of the Dutch ambassador Van Citters at London, and from there, packed in thirty-four cases, shipped by the warship *Reijgersbergh* to Texel, and then to Leiden.

The whole collection then had to be carefully cataloged and checked against the list upon which the bargain had been closed.

This work was entrusted to and skillfully performed by Boerhaave. Regrettably so many discrepancies came to light that the Leiden Curators, being annoyed, began a lawsuit against the heirs of Vossius. The case lasted no less than fourteen years, and a settlement was not reached until 1704. The documents of the lawsuit, bound in six volumes, are still extant in the Archives of the Curators.

In the Vossius Collection the Library acquired a fine collection of valuable books and rare manuscripts several of which are now worth more than the amount reluctantly paid by the Curators for Vossius's whole library. Boerhaave's merits were well acknowledged and an allowance of 200 Dutch guilders was granted to him.

THE UNIVERSITY PRINTERS

During their studies all students had to defend theses (*exercitii causa*) in public disputations. To qualify for graduation a small, printed

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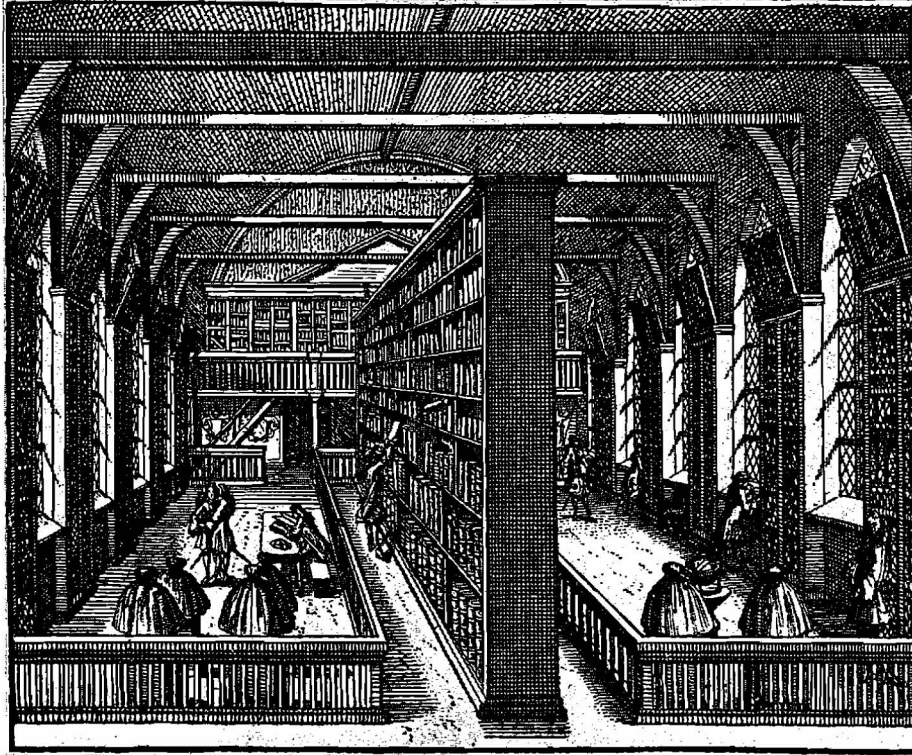


FIG. 2. The Leiden University Library in the eighteenth century.

dissertation (*pro gradu*) had to be submitted. Gifted students sometimes were allowed to deliver an academic oration. For these occurrences Wednesdays and Saturdays were reserved; no lectures were given then. Theses and orations were printed by the University printers (4).

As early as 1577 the University had its own printer, the *typographus academicus*. This official was obliged to keep a bookshop wherein the books that had been shown at the market in Frankfort were kept. In 1582 the famous Christopher Plantijn (1514–1589) fled from Antwerp to Leiden where he established the first scientific printing office in the Netherlands, the *Officina Plantiniana* (1583–1619). When he returned to Antwerp in 1585, his son-in-law Franciscus Rafhelengius, professor of Hebrew, managed the trade until his death in 1597 (5). Rafhelengius printed the first books in Arabic in the Netherlands, and when the office was liquidated in 1619 the tradition of printing in oriental characters was not lost (6).

For nearly a century (1620–1712) this office was held by members of the Elsevier family, the

first of whom, coming from Antwerp, was appointed in 1620. Abraham Elsevier was the last of the family of famous printers to serve as University printer. He did his job poorly, using bad paper and worn-out types. His books were expensive and often were not published by the scheduled date.

The printer's mark of the Elseviers (see fig. 3), a hermit under a tree and the device *non solus*, is still used by the modern publishing company of that name established in 1880.

The Elseviers were only one of many book printers at Leiden. In Boerhaave's time Leiden was full of books, bookshops, and printing offices. Haller, who studied at Leiden in the years 1725–1727, noted in his diary "dass an keinem Ort der Welt so viel Leute von Büchern leben als in Leyden." The foremost of the Leiden publishers at that time was Pieter van der Aa (1659–1733), who for a long time acted as the official printer of city and University; he even dared to publish a book at a price of 500 Dutch guilders (7). We owe to van der Aa a fine engraving by A. von Bleiswijk showing Boer-

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TABLE 1

UNIVERSITY PRINTERS AT LEIDEN

I (Officials)

1577 -	80	Willem Silvius (from Antwerp)
1580 -	82	Caerel Silvius " "
1583 -	85	Christoffel Planteyn "
1585 -	97	Prof. Franc. Raphelengius (his son-in-law)
1597 -	1600	Christ. Raphelengius (son of Franc. R.)
1602 -	20	Jan Paedts

II The Elseviers

1620 -	26	Isaãc Elsevier
1626 -	52	Bonaventura and Abraham Elsevier
1653 -	54	Johannes and Daniel Elsevier
1654 -	61	Johannes Elsevier
1661 -	81	Eva van Alphen, widow of Daniel Elsevier
1681 -	1712	Abraham Elsevier (II)

III (by contract)

1712 -	15	Jacob Poereep (at the same time beadle)
1715 -	30	Pieter van der Aa
1730 -	49	Samuel Luchtman
1749 -	80	Samuel (d. 1780) and Johannes Luchtman
1780 -	86	Johannes Luchtman (continued)
1786 -	?	Johannes (cont.) and his nephew Johannes Luchtman

haave presenting a formal address in the Grand Auditory (see Fig. 4); it was inserted in Boerhaave's rectorial address (1715) printed by Van der Aa (8). Not only is the orator wearing a hat, but also, according to the custom in Holland at that time, and as a sign of freedom, the whole (of course, exclusively male) audience. On the title page, next to the title, one sees the symbols of theology (two stone tables with the ten commandments in Hebrew letters), those of chemistry and medicine together (a pounder and a retort, and the staff of Aesculapius with the serpent), those of physics (a pair of scales and compasses), and so on.

Books of Boerhaave were published not only by Abraham Elsevier and Pieter van der Aa,

but also by several others who were, of course, eager to add his name to their lists. We do not know much of his relations with his publishers (9).

THE Institutes AND THE Aphorisms

The initial rise of Boerhaave's name and fame dates back to his first two books, one on the theory and the other on the practise of medicine. Both, the *Institutes* (10) as well as the *Aphorisms* (11), were originally destined for his own students, but they were soon reprinted elsewhere and translated into modern languages.

The fact that there was not yet a national or international copyright was a source of much

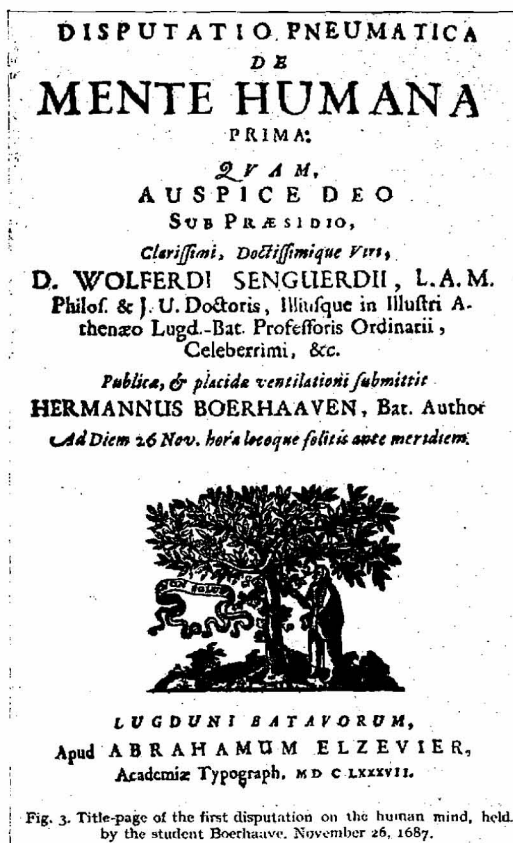


Fig. 3. Title-page of the first disputation on the human mind, held by the student Boerhaave, November 26, 1687.

FIG. 3. The printer's mark of Elzevier in 1687: the title page of a "Disputation" of young Boerhaave.

annoyance to Boerhaave during his whole career. He was to suffer much from the lack of it.

In France there were printing offices that did a good business by publishing book after book of Boerhaaves' with a permit of the king (*avec privilège du roi*), but not with permission of the author. Some years later Italy followed the same practice, as some Italian publishers saw profit therein. Boerhaave could not do anything to prevent this trade in other countries and finally decided to acquiesce in it. When, in 1733, a friend of his mentioned the practice, he answered "I have known for a long time that very large books have been published under my name in Venice and Padua. But what am I to do? I bear with patience that which I cannot set to right" (12).

In his own country, or at least in the province of Holland of the Dutch Republic of the Seven United Netherlands, matters were somewhat

different. Here the Provincial States could issue copyright. True, the printers could try to escape by putting Paris or Rome or Padua on the title page, whereas actually the book was printed at Leiden or Amsterdam. Indeed, this occurred more than once. In these cases the deception concerned mostly his lecture notes. The students approached the printers, or the printers the students. In any event, financial gain was no doubt the main purpose. Yet, at least in one case there was an unsuspected side effect of immense importance.

BOERHAAVE'S MANUAL OF CHEMISTRY AS A RESULT OF A SURREPTITIOUS EDITION

Boerhaave was not only a physician but also an accomplished chemist. At the request of some English students he commenced, in 1702, a year after his appointment as reader (*lector*) in medicine, to deliver private lectures on chemistry. These lectures were so much appreciated that the official professor of chemistry, Le Mort, gradually saw his audience shrinking. Finally he lost his interest in his duty. After his death in 1718 his chair was entrusted to Boerhaave, who was then already professor of medicine and botany. This meant that the University laboratory of chemistry, founded in 1669 but then in decay, became available to him. Boerhaave was now able to give chemical demonstrations apart from his theoretical lectures in that science. Six years later, purportedly at Paris but without printer's name or privilege this course was published in two volumes in Latin under the title *Institutiones et Experimenta Chemiae* (1724). Boerhaave was very vexed and probably suspected rightly that the book had been printed in Holland. He solicited the Senate to request the States of Holland to prohibit in their territory the printing, publishing, sale, or importation of any manuscript, lecture notes, or book published under the name of any Leiden teacher without the consent of that teacher or his heirs.

Moreover, in the Leiden journal (*Leidsche Courant*) of 9 October 1726 he published a warning in unusually sharp words.

... whereas some booksellers of this and other countries, for the sake of lucre only, have highly injured me, and scandalously cheated the public, by printing in my name several books from lectures procured (as they pretended) from my auditors,



FIG. 4. Title-page of Boerhaave's oration *De Comparando certo* (1715) with a picture of Boerhaave lecturing in the Grand Auditory.

who were it so, make a very ill requital for my best endeavours to serve them; I find myself obliged to declare that I owe none such for my works, being fraudulently published without my knowledge, contrary to my will.

However, these heavy guns had no effect whatsoever—on the contrary, in 1727 at London an English translation of the chemistry book, with the happily chosen title *A New Method of Chemistry Including the Theory and Practice of That Art* appeared, in two volumes. This book, in the fluent translation by Shaw and

Chambers and making delightful reading, had immediately a great success.

But Boerhaave was very annoyed as he saw the wretched book in the hands of his students at his lectures and demonstrations. He thought it to be full of errors and faults, scandalizing his name. Though in reality the *New Method of Chemistry* contributed highly to his fame as a chemist, he felt himself compelled to publish his own chemistry textbook.

However, "advancing in years and diminishing in powers," Boerhaave, ill and heavily occu-

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pied by academic duties, saw no immediate opportunity to do so. This circumstance contributed to his decision to resign from his professorships of botany and chemistry in 1729. For ten years he had held three chairs.

Three years later, in 1732, his own manual of chemistry, the *Elementa Chemicæ* came from the press of Isaäc Severinus at Leiden. Now Boerhaave took the trouble to sign personally every copy of the first edition. Apparently the printing of the big, quarto, two-volume work was a great enterprise for the printer. Probably Severinus negotiated with other printers, for in the same year a second edition, produced by the bookseller Imhoff of Tübingen, appeared at Leiden, Bâle, and Tübingen, with the note that it had been printed at Leiden by Imhoff (*Lugd. Bat., Sumtibus J. R. Imhoff*). Severinus apparently sold a part of the impression to his German colleague with whom he seems to have had business relations in 1730.

Later Boerhaave could not refer to this book without mentioning that it had been extorted from him! In the preface he asserted that he never had intended to publish a chemical textbook, but that he had been forced to do so. If this is wholly true, we may, after all, be thankful to those "wicked people" who evoked Boerhaave's genuine indignation by daring to publish his lecture notes surreptitiously.

Boerhaave's *Elementa Chemicæ* became the leading textbook of chemistry for at least half a century.

BOTANICA; VAILLANT

In the field of botany Boerhaave also published a book—not by his own choice, but by moral obligation. When the Curators of Leiden University in 1709 fulfilled their six-year old promise to appoint their lecturer Boerhaave as professor in the first vacancy in the Medical Faculty, it so happened that they had to appoint him as professor of both medicine and botany. For it was that chair that fell vacant by the death of Petrus Hotton. This appointment was a challenge for Boerhaave as he had paid no attention to botany whatsoever since his medical graduation sixteen years before, in 1693. Hastily, for the sake of international exchange of seeds and plants, he composed a catalogue of the plants in the Leiden Garden, the *Index Plantarum* (1710). Soon he saw that several faults had

appeared in the little work, and he had to admit that it had been a premature birth.

Ten years later he redeemed himself by publishing a second edition, the *Index Alter Plantarum* (1720), which appeared in two quarto volumes. It was beautifully executed and illustrated with engravings of new species. Moreover, it showed how successful he had been in his endeavours to enrich the Garden; now nearly 6000 plants—double that in the previous catalogue—were registered. Boerhaave had indeed become very quickly one of the leading botanists in Europe.

In 1718 the Paris botanist Sebastien Vaillant (1669–1722) had, with Boerhaave's help, published anonymously at Leiden, in Latin and in French, an address wherein he upheld the young and still highly contested idea of the sexuality of plants (13). The address evoked much criticism. A sharp critic of errors himself, Vaillant did not dare to publish the booklet in his own country.

Three years later Vaillant, then fifty-two years of age, fell seriously ill. Soon he understood that he would not recover, and therefore not being able to look after the publication of his lifework on the plants in the environment of Paris, he made an appeal to Boerhaave to take over this job. Boerhaave accepted only after his English friend William Sherard (1659–1728) had joined in the request. Vaillant, whose mind was now set at rest, died quietly and peacefully some months afterwards.

But Boerhaave was left with the great commitment made to a dying man. The manuscript was not at all ready for printing, and the work would take years. Moreover, 250 drawings, made by Aubriet, were not yet paid for. Boerhaave felt perhaps generous in showing himself prepared to give 200 Dutch guilders for the drawings, but in the end he had to pay 1,800 guilders to the grasping artist, a former friendly co-worker of Vaillant. The engraving of the numerous drawings, 350 in total, by Jan Wandelaar cost him 2,000 additional guilders.

Soon it appeared that the task was much heavier than he had foreseen. Anticipating that the work would take several years, Boerhaave in 1723 published a small duodecimo volume as a *Prodromus* to the *Botanicon Parisiense*. The latter appeared in 1727 as a fine and abundantly illustrated folio volume. The book, a num-

ber of copies of which were printed on large paper, is a splendid and lasting monument not only to Vaillant's industry and botanical skill, but also to Boerhaave's generous aid to a deceased friend he never had seen. A careful man, Boerhaave placed all the manuscripts of Vaillant he had used with an inscription in the Leiden University Library.

VESALIUS

In 1725 Boerhaave edited, in coöperation with his young colleague the anatomist Bernhard Siegfried Albinus (1697–1770), the *Opera Omnia Anatomica & Chirurgica* of Andreas Vesalius in two folio volumes. The text of the *Fabrica* is based on the second edition of 1555. The China-root Epistle of the famous Belgian anatomist was included; for obscure reasons, however, the venesection letter was omitted. Most of the illustrations are copper-engravings made by Jan Wandelaar; a few are wood cuts.

Harvey Cushing in his monumental biobibliography of Andreas Vesalius testifies: "The typography is excellent and the plates skilfully engraved." Indeed, the editors and publishers had spared no pains or expense to make a splendid folio book in two volumes. The list of the subscribers had 188 names, most of them Dutch. Some subscribed for more than one copy, and two subscribers took eight.

Boerhaave was not a little proud of it. As Vesalius in 1543 had dedicated his *Magnum Opus* to Charles V, Boerhaave conceived the idea to dedicate this fine re-edition to the Emperor Charles VI. Of course, he therefore had to have the permission of the monarch, and he tried to obtain it through the intermediary of the Austrian court physician, Jean Baptiste Bassand (1680–1742), with whom he corresponded for nearly a quarter century. He made the request in a letter on the 28th of February 1725. Receiving no answer, he wrote again on the 29th of May. But finally, as he heard nothing from Vienna, he understood to his disappointment that the petition had not fallen on fertile ground—and cancelled it with the words: "Do not trouble yourself on the dedication of the Vesalius: reprints are not fitting for such a Sovereign. But no other similar work will appear, that is why it occurred to me" (14).

Nevertheless, some months later he did send a presentation copy bound in two French vol-

umes and printed on royal folio. He wrote with some emphasis that the volumes were bound (15). This refers to the fact that, at that time, books were not always bound before distribution. Often they were forwarded in sheets. This happened because of the heavy taxes that were due for complete books. The customs were strict in this respect. For example, when Boerhaave, in 1714, acted as Vice Chancellor of the University, his help was sought by a student from England who was required to leave all his books at the Dutch customs at Rotterdam.

The Boerhaave-Albinus edition of Vesalius had not only the well-known picture of Vesalius, but also a folio portrait of Boerhaave himself made by Jan Wandelaar. As the left fore-arm is apparently too short, another artist Jacobus Houbraken (1698–1780) made a copy of it, but with the left hand hidden in the gown. The two portraits are distinguished as *effigies cum manu* and *effigies sine manu* (16).

THE GREEK AUTHORS ON MEDICINE

Suitable textbooks of medicine were rare in the eighteenth century. Therefore, Boerhaave had published his *Institutes* and *Aphorisms*. But these were not enough for a more penetrating study. So the Leiden printers republished important medical books of foreign authors such as Prosper Alpinus, Lorenzo Bellini, Piso, and others. Perhaps Boerhaave stimulated them. In any case, he showed himself prepared to write thoughtful prefaces to them. In the preface to Eustachius's *Opuscula Anatomica* (1707) he lamented the loss of the anatomical plates of Bartholomeus Eustachius (1520–1574), made by his own hand; this hint led to the recovery of these accurate drawings after "lying dormant about 150 years" (17, 18).

Boerhaave took it for his duty to provide his students with the material necessary for their studies. But, in a broader aspect, he considered it his special task to develop a comprehensive, cohesive system of medicine. Indeed, he did this on the basis of his mechanistic views eclectically enriched. The seventeenth century had brought many discoveries, for example, the blood circulation by Harvey, the movement of the chylus, and the many discoveries by early microscopists. When Boerhaave became a physician, all of the new scientific knowledge had not yet found its proper place. On the contrary,

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there was much confusion. The chemiatic and mechanistic schools combated each other, arabistic and empiristic movements were active. Although the old Greek medicine was somewhat in disrespect, in his first public lecture Boerhaave recommended the study of Hippocrates.

Indeed, he felt that he must take care that the Greek medical authors would not fall into oblivion. Of the works of Hippocrates and Galen the Paris publisher Charterius had provided new editions some years earlier (1697). So Boerhaave undertook the ambitious project to re-edit other important authors such as Aretaeus, Nicander Aetius, and Oribasius.

The plan proved to be more difficult than he had expected. He wanted to furnish reliable texts based on available manuscripts and codices. It cost much effort and many years to collect them. In the end, only the works of Aretaeus from Cappadocia, first century, whom he thought to be the most Hippocratic author after Hippocrates himself, came from the press. Even these did not appear until twelve years later. It was a fine edition with an important critical apparatus; the book was splendidly bound.

THE BIBLE OF NATURE

The last great book Boerhaave edited was finished when he was lying on his last sickbed.

Having resigned from his posts of chemistry and botany (1729) Boerhaave first finished his *Elementa Chymiae*, already mentioned. While pursuing his experiments on mercury, he lectured daily on theoretical and practical medicine, dealt with his extensive practise during long consultation hours, prepared new editions of his textbooks, and kept running an extensive foreign correspondence.

Meanwhile he was engaged in the publication of the manuscripts of his countryman Jan Swammerdam (1637–1680). Swammerdam was the son of an Amsterdam apothecary who possessed a fine collection of natural curiosities. The son assisted his father in his museum. Young Swammerdam, undoubtedly one of the most gifted scientists of his age, made many thorough biological investigations, especially on insects. He was a pious Christian and came unfortunately under the influence of a hysterical, dominating French woman, Antoinette Bourignon, who founded a religious community

wherein she was venerated by her followers as the Light of the World. She declared all former scientific work of Swammerdam idle. He accepted that and spent some years in her community with simple copying work and religious meditations. Soon after his return in a depressed mood he died and left all his unpublished manuscripts and drawings to Melchizedec Thévenot to have them printed. The fate of the manuscripts is a story in itself. Some time passed before they found their way to Thévenot. Ten years later Thévenot died before having done anything with them (19). They drifted around in France for some fifty years until rumors reached Boerhaave that the manuscripts were about to be plagiarized. With the help of his friend Roëll, then in Paris, he succeeded in buying them for the considerable sum of about 2,000 Dutch guilders.

Boerhaave found his young colleague Gaubius prepared to translate the Dutch text, and ten years later, exactly a century after the birth of Swammerdam, the first volume came from the press in Dutch and in Latin (20). Upward of 450 persons had subscribed, 134 of whom had chosen the royal large-paper edition. The second volume followed a year later, when Boerhaave was already on his dying bed. On 11 September he signed with a trembling hand a short letter to his friend Bassand, dictated in French to his own daughter, referring to the distribution of the work. The price of the two folio volumes together was sixteen guilders and five pennies.

The title of the work was happily chosen, especially with regard to the memory of the pious Swammerdam, reminding the readers that God reveals himself not only in Scripture but also in the Book of Nature (the latter term being the title of the English translation).

CONCLUSION

I hope I have given you some idea of Boerhaave's restless activities as an author and an editor. One could ask whether the works he wrote or the works he edited will occupy the more important position in libraries. Undoubtedly those in the latter category, the folio volumes of Vaillant, Vesalius, Aretaeus, and Swammerdam are foremost in importance.

However, the former, the quartos of the *Elementa Chymiae* and the *Opera Omnia*, the

octavos of the *Institutes* and the *Aphorisms*, and the duodecimos of the *Historiae Morbi*, for the greater part went through several editions and were reprinted in foreign countries many times. So they also take up much space on the shelves of the libraries. But they still contain the result of his indefatigable efforts as a medical system-builder and a teacher.

It would be erroneous, however, to think that the tremendous influence Boerhaave exercised on contemporary medicine can be explained alone by his books. The contrary is nearer to the truth.

The influence of his oral teaching can scarcely be overestimated. For some thirty-seven years he lectured several hours on four days a week, always cheerfully. The students came flocking from all parts of Europe to his Leiden lecture room. From the Western Hemisphere two young men, apparently friends, were graduated by him in the summer of 1720: Georgius Crumpius, indicated as *Anglo-Americanus* and Joannes Kirton from the small island of Barbados (21) (see Fig. 5-6).

Boerhaave's audience hung at his lips. Young Haller described the sensation of immense en-

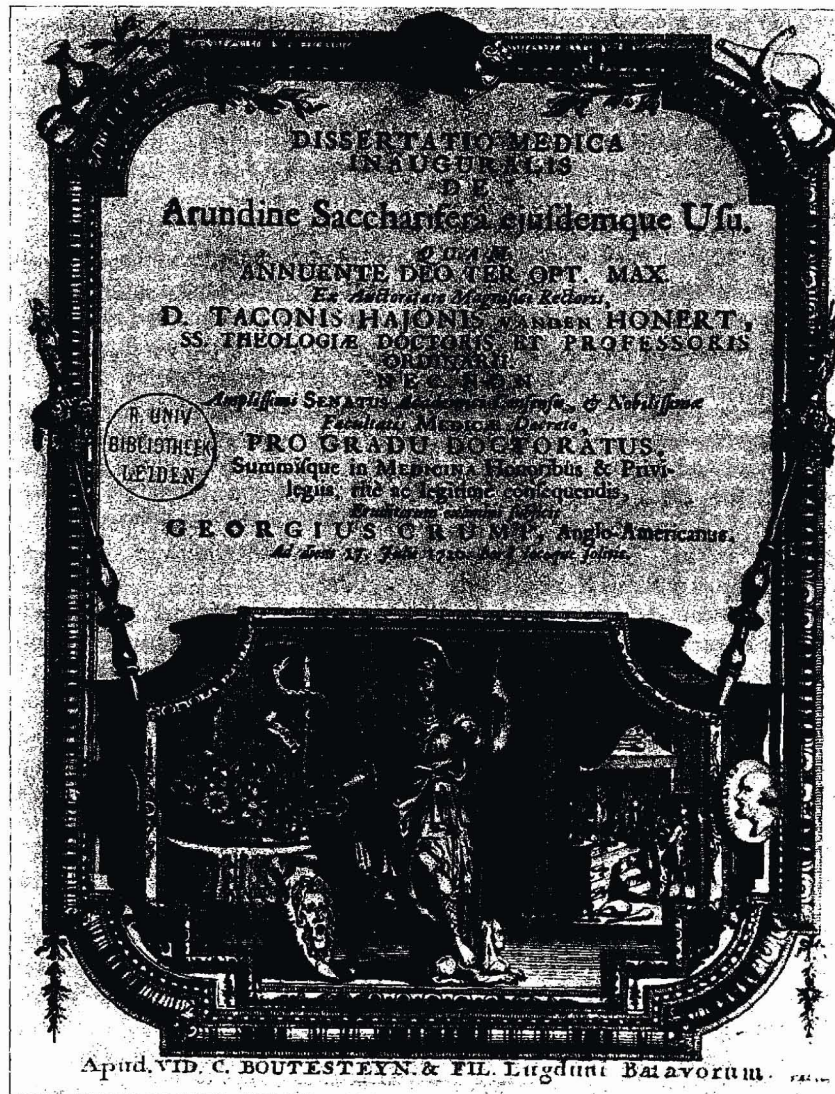


FIG. 5. Title-page of Georgius Crump's dissertation (1720).

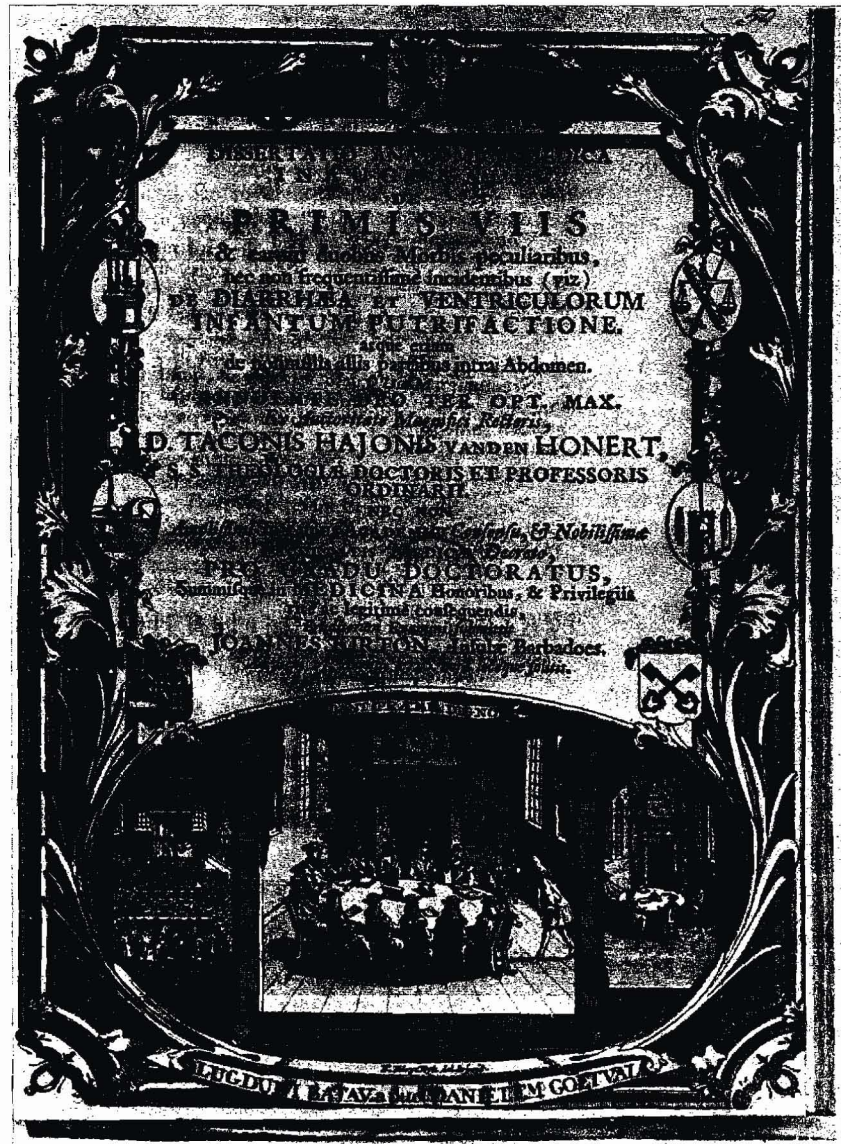


FIG. 6. Title-page of John Kirton's dissertation (1720). In the oval picture three scenes of the graduation ceremony. At the right (with the inscription: *explorant vires*): the candidate is examined secretly in the room of the Faculty (with the fireplace, *sub camino*). At the left (with the inscription *pugnat*): the candidate defends his dissertation. In the midst (with the inscription *Dant praemia digno*): the candidate receives his doctor's diploma.

joyment when he first heard Boerhaave lecturing in classical Latin. That oral teaching radiated from its setting in his personality. The mystery of his fame can only be approached from the mystery of his personality. An English reviewer of my book on Boerhaave said what I did not dare to say for fear of being suspected of na-

tional chauvinism: "Boerhaave was an immensely great man."

Boerhaave was a great man, but not only in an intellectual way; his moral greatness equalled his intellectual greatness. That is very rare in the heroes of science. The fame did not go to his head. He remained modest and even humble,

though in his last years every word of his was considered that of an oracle.

Haller expressed his view that the future perhaps could bring forth an intellectual genius equal to Boerhaave, but scarcely a moral one equal to him (22). I believe that the mysterious lustre of Boerhaave's name and influence originates from the vastness of his knowledge and scholarship, from his untiring devotion to serve his pupils, science, and medicine, and from his character purified in a lifelong hidden intercourse with the God of his life.

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6. The tradition of printing books in oriental languages and types has been continued to the present (Brill). See Folkers, Th. *De Geschiedenis van de Oostersche boekdrukkerij te Leiden*. *Cultureel Indië III*: 53-68. 1941; republished in: Hoogenberk, H. *Cultureel Indië: Bloemlezing uit de eerste zes jaargangen 1939-1945*. 4°. Leiden, E. J. Brill, 1949.
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8. BOERHAAVE, HERMAN. *Sermo academicus de comparando certo in Physicis*. Leiden, P. van der Aa, 1715.
9. Other printers of Boerhaave were Johannes van der Linden, Samuel Luchtmans, Isaac Severinus, Joh. & Herm Verbeek, Th. Haak and others.
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11. ———. *Aphorismi de cognoscendis et curandis morbis in usum doctrinae domesticae*. Leiden, J. vander Linden, 1709.
12. LINDEBOOM, G. A. *Boerhaave's Correspondence II*. *Analecta Boerhaaviana V*. Leiden, E. J. Brill, 1964, p. 323. This work hereinafter cited as "Corres. II."
13. VAILLANT, SÉBASTIEN. *Discours sur la structure des fleurs, leurs différences et l'usage des parties*. Leiden, P. van der Aa, 1718.
14. *Corres. II*; 22 g.
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16. LINDEBOOM, G. A. *Iconographia Boerhaavii*. *Analecta Boerhaaviana IV*. Leiden, E. J. Brill, 1963.
17. *Bibliog.* no. 554; see note 1.
18. [BURTON, W.] *An Account of the Life and Writings of Herman Boerhaave*. London, Henry Lintot, 1743, p. 131. See also: *Bibliog.* no. 535 (see note 1).
19. In fact, there was a lawsuit.
20. *Bibliog.* pp. 97-98; see note 1.
21. See also: KROON, J. E. *Enkele mededeelingen omtrent Leidsche geneeskundige proefschriften de 16de, 17de en begin 18de eeuw*. *Ned. T. Geneesk.* 67. *Tweede Helft*, no. 1. 7 July 1923: 37. Also in: *Bijdragen Geschiedenis Geneeskunde III*. 1923: 145-157.
22. HALLER, A. VON. *Bibliotheca Anatomica I*. Zurich; Orell, Gesmer, Fuessli & Soc. 1774. 757: "Ingenio & eruditione parem forte secula reddent, parum animum rediturum despero."