Three Early Materia Medica Cabinets in Cambridge

by

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THERE ARE three colleges in Cambridge which are singularly fortunate in possessing Materia Medica Cabinets of the early eighteenth century. These are at Queens' College, that of Signor J. Francis Vigani, the collection of John Addenbrooke at St. Catharine's, and that of William Heberden at St. John's College.

Sir Humphrey Rolleston in his History of the Cambridge Medical School says "that from the earliest days of Cambridge University until the last quarter of the nineteenth century the number of medical students was small, and those responsible for the faculty of medicine were inclined to treat their posts as sinecures".

Richard Davies in 1757 wrote, "Anatomy, chemistry, botany and pharmacy have been but occasionally taught when some person of superior talent sprung up and honoured the University by his first display of them." Therefore medical students who wished to get real teaching in these subjects were thus obliged to seek for it elsewhere as Harvey, Caius, and others did at Padua.

Vigani's Cabinet at Queens' College

It was at this time and in this atmosphere of indifference that John Francis Vigani was appointed Professor of Chemistry, and lectured at Queens' College from the collection of materia medica specimens in his cabinet.

All authorities appear to agree that Vigani was a native of Verona, and although we have no definite information, he was probably born not later than 1650. We have no record of his early life in Verona. He has not told us where he studied chemistry and pharmacy, and makes no allusion to any special teacher, and there is no positive proof that he was a physician nor any indication of his having a degree or a licence to practise

medicine or pharmacy. He evidently travelled in Spain, France and Holland, and appears to have examined mines, collected minerals and plants, and gathered information of medicine and pharmacy. We know that during the September of 1682 Vigani was in England at Newark-on-Trent, and may have been for a short period in London before then.

The tenor of a letter by "T.R." (probably Dr. Thomas Robson) indicates that Vigani was familiar with the disputes, which were agitating apothecaries in the middle of the seventeenth century. In 1683 he published a new addition of his book, *Medulla Chymiae*. The reviewer quotes and endorses the commendation of T. R., who, in the prefatory epistle, calls it a "Booklet of small bulk, but overflowing with marrow". Halle, however, is not so laudatory, for he calls it in so many words, "a confused farrago of experiments".

In the Histoire de la Chymie, by Ferdinand Hoefer, there is a long paragraph upon Vigani's work. From this we learn that he had belonged to the famous school of Boyle, and was the declared adversary of the obscure and often incomprehensible theories of the alchemists. He took "experiment" for his guide in his researches, and gloried in the fact that " he championed nothing that he himself had not observed". He was one of the first to destroy the error of the chemists who believed that the antimony used to prepare "la vin emetique" lost nothing of its weight, and the emetic effect of the wine is caused by a substance produced by the combination of tartar in the wine with antimony.

There is, in the University Library of Cambridge, a small manuscript and the title page has upon it "Cours de Chymie Joan

Francis Vigani", Veronensis. The book is in English, and contains directions for compounding chemical preparations and miscellaneous notes and prescriptions. These notes appear to be written by someone who attended his lectures, and not by Vigani himself. Unfortunately, there is neither date

portrait one may well question its accuracy.

We may admit that "the abstruceness of the art" is a reason for de la Pryme having made little progress in chemistry, yet if we may judge by Vigani's correspondence his command of English was distinctly limited, and if we take his spelling as phonetically



Fig. 1. Vigani's Cabinet at Queens' College.



Fig. 2. The Cabinet showing the open drawer and drugs.

nor name of the college where demonstrations were given. Another of such notebooks is also in Queens' College Library.

Abraham de la Pryme, the Yorkshire antiquary, at this time an undergraduate of St. John's College, has the following paragraph in his amusing diary.

"Towards the end of this year I went a course of Chymistry with Signor Johann Franciscus Vigani, a very learned chemist and a great traveller but a drunken fellow, yet by reason of the abstruceness of the art I got little or no good thereby." As an impressionist picture this epigrammatic summary leaves little to be desired, but as a

representing his notion of English words, his pronunciation must have often been quite unintelligible. The reference to being a drunkard is referred to by de la Pryme and by no one else.

In another letter of 23rd March, 1698, Vigani described the Elixir Proprietatis, a well-known remedy of that time.

We now come to the year 1703 and Cooper, a Cambridge antiquary, quotes from the University Statutes thus: "On the tenth of February a grace passed the Senate for investing the title of Professor of Chemistry, John Francis Vigani, a native of Verona, who had taught Chemistry with reputation in Cambridge for twenty years." Monk refers to this appointment as a strong mark of approbation of the University.

Again, in the family memoirs of the Revd. William Stukely, M.D., published by the Surtees Society, there is the following record: "This Winter 1705 I went to Chymical Lectures with Signor Vigani at his laboratory at Queens' College. I took down all his readings in writing and have them in a book with drawings of his manner of building furnaces." Two years later he stated, "I continued to be present at Signor Vigani's Chymical Lectures and this time went through a course of Materia Medica with him." Later on he says, "At this time Dr. Bentley made a new chemical laboratory at Trinity College and Signor Vigani directed it and was chosen Professor of Chemistry by the University and was the first to hold this chair." If Vigani had been, as described " a drunken fellow" the appointment of such a man to a professorship could hardly have been made. Still less would such an abuse have escaped comment especially as he was appointed to teach chemistry in Trinity by the much criticized master, Dr. Bentley. Stukely in an entry in his diary mentions that he went to a course of materia medica with Vigani doubtless illustrated from the collection which Vigani has made.

The late President of Queens', Dr. Fitz-patrick, very kindly searched among old college papers and found various invoices, letters and receipts connected with this old cabinet. The cabinet contains over 600 specimens, a large proportion of which are mentioned in Culpeper's herbal written in 1653 and correspond very largely with the list of substances which the London College of Physicians at that time, requested the apothecaries to keep in their shops. Each specimen is in a paper tray which fortunately in most cases is labelled with the name of the substance.

Some of the papers are gilt edged. I am of the opinion in the main that the writing of the names is that of Vigani and that the paper used to form these trays correspond by their water-marks, to papers made in 1698 with a few exceptions added in 1710 by R. Bradley.



Fig. 3. The invoice of the drugs in Vigani's Cabinet.

There is an invoice and letter, dated 16th January, 1705, from Francis Porter, a druggist in London. The letter is as follows:

Mr. Vigani,

I sent you yesterday by Mr. Martin, Cambridge Carrier, as under written. I had sent these things sooner, but could not get many of them. I returned your bill back by a gentleman that brought it. The hazard, etc., and the charges would be considerable. Your best way is to order your correspondent to send it by a safe road and so the party that brings it to have a receipt. Your friend came in a morning and not a drinking time. If he would have been pleased to have come back in an evening should have been glad to have presented him with a glass of wine.

I am your obliged servant,

FRAN PORTER.

There was also the receipt for the cabinet:

8 August 1704.

Recd. yn of Mr. Clopton Tenn Pounds for a Cabinet for ye use of Queens' College in Cambridge:

By me,

JOHN AUSTIN.

I append a list of substances, many of these mentioned in the invoice. Specimens of especial interest are:

Labdanum, olibanum, benzoin, taccamahacea, guaiacum, tragacanth, cardamom, cummin, psyllium, hyoscymus.

Precious stones: These all have uses given to them in medicine by Culpeper.

Amethyst: " Makes men sober and steady and quicker."

Topaz: "Cools inflammation of the body."

Ruby: "Takes away idle and foolish thoughts and makes men cheerful."

Manna, myrrh, aloes, dragon's blood, opium, lapis calaminaris (native zinc carbonate), lapis hybernica Irish slate (still asked for, for lumbago), bole armenia.

Terra sigillata rubra and alb:

Lemnia: "This is, as its name implies, sealed earth. In the island of Lemnos, on a certain day in the year, 15th August, a mine was opened in the presence of the clergy and magistrates, and after the recital of prayers a certain amount was taken out of the mine, made into paste, divided into small pastilles which were then stamped and distributed. Extravagant claims are made for its use as medicine, one old writer stating that it dries, binds, resists putrefaction and poison, comforts and strengthens the head, heart and stomach and provokes sweat. It is used chiefly in the plague, measles and smallpox, spotted fever, or other malignant fevers, diarrhoeas and dysenteries and the like. Dose—one teaspoonful." The composition of the terra sigillata is aluminium or magnesium silicate.

Galen visited Lemnos and obtained 29,000 of the little seals and used them on his patients.

In Drawer N of the cabinet there is Peruvian, cinchona bark. In Drawer R there are animal substances, such as: musk, castor, fibre, viper, scorpio, spermaceti, chelae

cancrorum, "Dr. Gascons powder consisted of crabs' claws collected when the sun and moon are in conjunction in the sign Cancer", oculi cancrorum, crabs' eyes and cornus cervi. In other drawers there are roots and flowers, rhubarb, jalap, and fossils.

One jar contains: Balsam of Lucatellus, which consists of Venice turpentine, yellow wax, olive oil, and red sanders wood.

Laudanum Londenensis: Thebame opium. "Take care how you be too busy with such medicine lest you make a man sleep until doomsday."

Unguentum Basilicon: Made from white wax, pine rosin, heifers' suet, turpentine, myrrh and oil.

In Drawer 7 there are specimens of: Balsam of Peru, storax, balm of Gilead, oil of aniseed and oil of cloves.

I have had four of these essential oils analysed to ascertain how far they complied with the standard laid down in the 1932 Pharmacopoeia. It was found that three of the four would pass the present-day tests in chemical standards, and only fail in the matter of their physical characteristics.

John Addenbrooke's Cabinet at St. Catharine's College

John Addenbrooke was born in 1680 at Kingswinford, he came up to St. Catharine's as a pensioner in 1697 and became a doctor of medicine in 1710. There is no definite record of John Addenbrooke's studies while at Cambridge, but from the diary of Stukely of Corpus College, who was up at the same time and studied the same sciences, we can gather somewhat the course of instruction which students underwent in those days.

He says "The tutor read to us in classics, Ethics, Logic, Physiology, and Astronomy", and "we acquire a good knowledge therein". Later Stukely says "All this while I turned my mind particularly to the study of Physics and I began to make a near inquisition of Anatomy and Botany. I went frequently 'simpling' and began to steal dogs and dissect them and all sorts of animals that came our way. I contracted acquaintance with all the lads that studied Physics."

Amongst many names, that of Addenbrooke's is mentioned, with these he ex-

plored the circumjacent country, Cherryhinton, Grantchester and Trumpington, and searched the chalk pits and moors for fossils and "simples". "We had meetings in our chambers to confer about our studies, try chemical experiments and cut up dogs, cats and the like." purchased at Cambridge, but it was not until 1740 that the building was started; many delays occurred and eventually in July, 1760, the hospital was opened with 20 beds.

John Addenbrooke's medicine chest is perhaps the most interesting of the relics that



Fig. 4. Addenbrooke's Cabinet at St. Catharine's College.

Such then was the manner in which John Addenbrooke presumably occupied himself during his undergraduate days. The cabinet now in St. Catharine's Library contains besides the drugs many geological specimens which he collected and labelled. After leaving college he practised medicine in London, but owing to poor health he retired, soon after, to Buntingford where he died in 1719 at the early age of 39. He left about £4,500 to trustees with instructions that on the death of his widow they were to "hire, fit up, purchase or erect a building for a small Physical Hospital for poor people of any Parish or County". This bequest gave John Addenbrooke the distinction of being the first Englishman to bequeath his private wealth to found a voluntary hospital. Land was

remain of him and it was presented to St. Catharine's College by Addenbrooke himself. The chest must have been given a considerable time before his death, for in the College Stewards' account book of 1705-16 there is an undated entry as follows: "Library Account: Given to Dr. Addenbrooke's man for bringing ye Materia Medica presented by ye doctor his master to ye library, 00.5.0."

The chest itself is made of deal, it is much the same in shape as a flat-topped writing-desk of the present day, having a knee-hole in the middle, drawers all the way down each side and also at the back of the recess, each drawer of the chest is divided by wooden partitions into compartments of about 3 in square and 2-3 in deep, there are about

20 such drawers altogether, which contain a varied collection of materia medica substances. Perhaps the best of these collections are in the drawer containing gums, rosin and the like, the drawer of roots and rhyzomes, another containing barks and woods, and still another filled with seeds, some of these specimens are labelled by Addenbrooke himself. Other compartments contain labels but no specimens, while still others contain specimens but no label.

Dr. Addenbrooke lived at a time when the teaching of Galen which had dominated medicine for fifteen centuries from A.D. 131 was at last just beginning to be questioned. Heretics such as Sydenham were beginning tospeak with the authoritative voice of clinical experience and scientific observation. At the same time the expansion of commerce resulting from the discoveries of the sea pioneers of the Elizabethan era, together with the discovery of the new world, was bringing many new preparations into the practice of healing.

Sydenham and others had used cinchona, a bark introduced to Europe from Peru in 1638 with great success. Several specimens of "Cortex Peruviana" are found in John Addenbrooke's collection.

There is a fine specimen of coffee berries in the chest. This drug had but recently been introduced, and was coming into fashion as a beverage, and was described in 1680 as being "most useless", since it serves neither for nourishment nor debauchery.

Among other drugs introduced in the seventeenth century, specimens of which John Addenbrooke had, are jalap, serpentaria, and balsam of tolu. Jalap was introduced from Mexico, and at that time was In the jointly given in enormous doses. published dispensatory of the three London hospitals, St. Thomas's, Guys' and St. Bartholomew's, which was published in 1741, it is directed to give the powdered root of jalap in doses of 20 grains for purging. Little wonder that the frontispiece of this publication is adorned with the admonition "Prepare to die, for behold death and judgement is at hand".

Serpentaria, of which Addenbrooke had a

specimen labelled "Radix Serpentaria Virg." is the Virginian snake root which was first brought from America in the seventeenth century. Addenbrooke also had a good specimen of Calumba, which had recently been brought from Africa. These specimens are all of particular interest as showing that he was abreast of the times and willing to accept new light and modern knowledge even if these were opposed to the prevailing opinion of authority.

Mandragora and cantharides are both present. The main interest of these lies in the amount of superstition by which they were surrounded at that time, for they were both used as love philtres and were supposed to have satanic properties.

Another very interesting object is Lapis Nephriticus. Dr. Gunther speaks of this as a grey stone, fat and oily like Venetian Talc., and was valued by certain persons for the cure of the gravel and was much inquired after because of its virtues, which it performs, by hanging about the thigh of those who are troubled by the stone or gravel in the kidneys, from whence it is called the nephritic stone. It is said to have originated in Bohemia and several parts of Spain.

Pomet in his Complete History of Drugs London, 1712, says of it "this stone has the property to break the stone in the rein, and expel gravel by urine, being hung about the neck, thigh or arm".

Other details about John Addenbrooke and his connection with St. Catharine's College, Cambridge, can be seen in the thesis which Dr. A. W. Langford wrote for his degree of M.D. and published in the College Magazines, 1935-6-7.

William Heberden's Cabinet

William Heberden was born on 6th August, 1710. He was at Southwark Grammar School and showed such promise in classics that his mother was persuaded to send him to Cambridge instead of "putting him behind the counter". He was admitted a sizar of St. John's College in 1724 and was made a Medical Fellow in 1734, proceeding to the degree of M.D. in 1739 and practised in Cambridge for about ten years when he left for London.

Heberden gave an annual course of lectures on materia medica, a synopsis of which we still have, and made good use of his knowledge of the classics to adorn them; he was Among Heberden's patients was Dr. Samuel Johnson, and Boswell relates that when he was asked what physician he had sent for he replied, "Dr. Heberden Ultimus

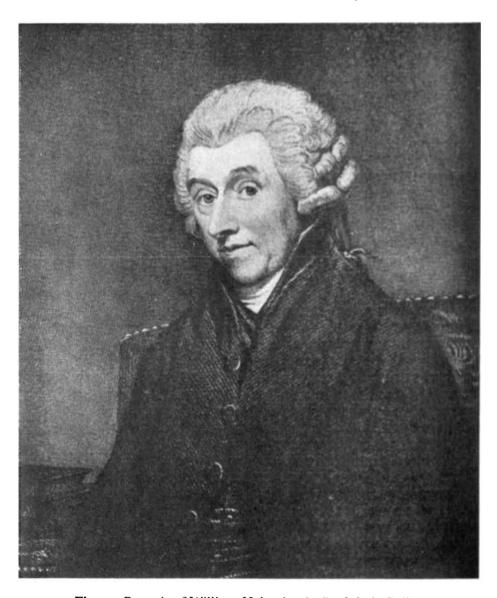


Fig. 5. Portrait of William Heberden in St. John's College.

also Linacre Lecturer, 1734-8. The collection of materia medica he had formed to illustrate his lectures he presented to his college. He wrote an essay in 1745 on "Mithriadatum and Theriaca" in which it was pointed out that the ancients were acquainted with very few poisons except hemlock, monkshood, and those of venomous animals, and knew no antidotes for them.

Romanorum the last of our learned Physicians".

William Cowper, the poet, expressed his gratitude in his poem "Retirement", 1781.

"Virtuous and faithful Heberden, whose skill,

Attempts no task he cannot well fulfil, Gives melancholy up to nature's care And sends his patients into purer air."

Heberden appears to have been a man of singular charm of character. One writer says of him, "His address was pleasing and unaffected, his observation courteous and profound.... He had a happy manner of getting men to exhibit their several talents which he directed and moderated with singular attention and good humour."

When reaching his 90th year he observed that "he knew not if he had ever passed a year more comfortably than the last". He died a year later in 1801.

Heberden's cabinet is made of oak and contains in the upper portion 28 drawers, and below a cupboard with 2 shelves. The drawers 1-4 contain an extraordinary collection of seeds, medicinal, culinary and horticultural. Drawers 5-6 are filled with specimens of flowers, nuts and fruits of great variety. Drawers 7-12 have specimens of roots. Drawer 12 contains woods such as lignum guaiaci and sassafras. Drawer 13 contains substances in stoppered bottles such as balsam of copaiba and balsam of Peru, oil of cloves and oil of mustard.

The contents are given in a manuscript catalogue of 10th July, 1751. From four pages of this book the following are noted: Resina jalap, crocus antimonia, french chalk, sal ammoniacus, resina scammonii, corticus peruviani, cantharides, mumia, os sepiae castorium, bezoar occidentale, chelae cancrorum, balsam peruvianum, substantia calcareum ex aqua collegii, camphora cruda, liquidambar, oleum caryophyllorum.

It would appear, therefore, viewing these three cabinets, that they have many points of similarity: those of Vigani and Heberden are certainly alike in design. All three contain almost identical substances, most of which are mentioned in Culpeper's Herbal and the London Pharmocopoeia of that time. These substances are contained in little paper trays folded in similar fashion and placed in the various partitions in the drawers. There are, however, special objects in each to which I have referred. In Vigani's there are many essential oils and pharmaceutical preparations, in addition to the ordinary drugs. In Addenbrooke's there are the two outstanding substances, the piece of human skull, and the lapis nephriticus. In Heberden's there is the synopsis of his lectures which indicate that the substances were used to lecture from and not for use in medical practice: they are therefore, materia medica cabinets and not medicine chests.

In conclusion I wish to acknowledge my indebtedness to the three colleges, Queens', St. Catharine's, and St. John's, for granting me permission to have access to the cabinets, to Dr. Langford for allowing me to quote largely from his paper on John Addenbrooke, and to the many authorities from which I have drawn the information given.

Cambridge is fortunate in possessing such treasures and we are grateful to the colleges for the care they have taken of them for over two centuries.