
CHARLES SCARBOROUGH, AN ENGLISH EDUCATOR AND PHYSICIAN TO THREE KINGS:
A Medical Retrospect into the Times of the Stuarts

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CHARLES SCARBOROUGH, AN ENGLISH EDUCATOR AND PHYSICIAN TO THREE KINGS

A MEDICAL RETROSPECT INTO THE TIMES OF THE STUARTS

BURTON CHANCE

William Harvey "in his will bequeathed 'to his loving friend, Mr. Doctor Scarborough' his 'velvet gown' as well as 'all his little silver instruments of surgery and desired him and Doctor Ent to look over those scattered remnants of his poor library and what books and papers they shall think fit to present to the College of Physicians.'"

It would be interesting to know something of the man for whom Harvey had such high regard—the man whose epitaph over the tomb in the little church at Cranford, not far from London, stated that he was "among doctors of the English, a Hippocrates; among mathematicos, a Euclid; blessed with a gracious manner, kindly affectioned to all and equable in every duty of life. Of citizens, husbands, fathers, friends, the best." More has been learned about him from his contemporaries than from any special records he had made of himself.

This incomparable person was born in London in the parish of St. Martin's-in-the-Fields, in 1616, and was educated in St. Paul's School, and Caius College, Cambridge.

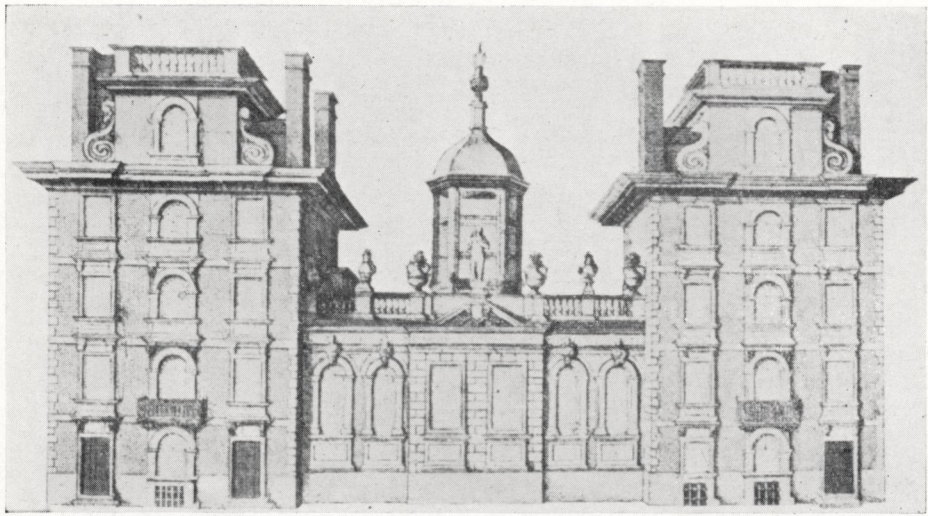
Let us for a few moments consider the kind of education offered boys of Scarborough's age. St. Paul's was among the foremost schools of England. The original school was founded as a part of a monastery centuries before, but it had become 'decayed.' During the reign of Henry VIII, however, it was 'newly erected,' and, in the year 1509, endowed by Colet, dean of St. Paul's, "for one hundred and fifty-three children." It was burned down in the Great Fire of 1666, but was rebuilt by Christopher Wren a few years later. The accompanying picture shows that structure of 1674, regarded as an exact reproduction of the one destroyed in the Fire.

The Masters, selected with great care, were scholarly and in advance of the institutes of the day, in the fore-front of those who had imbibed the 'New Learning.' The Head Master, William Lilye, or Lily, a layman, born in 1468, while a student at Magdalen College, Oxford, began to study Greek. He had learned and later pursued



his studies among Greek refugees in Rome and on the island of Rhodes, after the fall of Constantinople. Lilye was the first to teach Greek in London, and was also the author of several books, especially a Latin Grammar which work, with unessential modifications ruled the schools of England even to the middle of the 19th Century! Furthermore, he was a friend of Sir Thomas More, and a poet of some importance in his day. He died of the plague in 1522.

The school was already famous by the time Scarborough entered,



possessing a valuable library. The discipline and teaching methods were severe and exacting; the scholars were led to take an intelligent interest in the learned literature available.

John Milton was a St. Paul's boy, and so was Pepys, the Diarist. Scarborough, about eight years of age when he entered, being "found apt," remained "till he had completed literature." By sixteen, being ready for the University, he was sent up to "Caius," Cambridge. Here he continued his studies in Greek and Latin, as well as mathematics, and, during his Fellowship, he received students and lectured on Oughtred's "Clavis Mathematicus," the first time that Book was read in the University. He translated Euclid into English, deserving the anathema of school boys ever since. William Oughtred (1557-

1660) it was who devised the multiplication sign, and similar abbreviations commonly used in trigonometry and other operations. One of Scarborough's great acquaintances at Cambridge was Seth Ward, noted Mathematician and Astronomer. In the meantime, Scarborough became attracted to Medicine and under the influence of his fellows at Caius, 'Caius' long the nurse of medical students, began to study it seriously.

The Civil War coming on, Scarborough espoused the Royal cause and promptly was ejected from his fellowship, "for conscience," and "spoiled of his library"; whereupon he migrated to Oxford having been attracted by the influence of Harvey's name, and entered Merton College where Harvey was Warden. Here a friendship that ended only with Harvey's death sprang up between them. About this time Harvey was engaged on his "*Generazione Animalium*" and Scarborough was able to assist him materially in it.

It is of interest to know when Scarborough began the serious study of Medicine. At Cambridge he was known as a Mathematician; and because of his loyalty to the monarchy and so long as the city was in the possession of the Parliamentarians, was admittedly out of favor, and there were no places for royalists at Oxford.

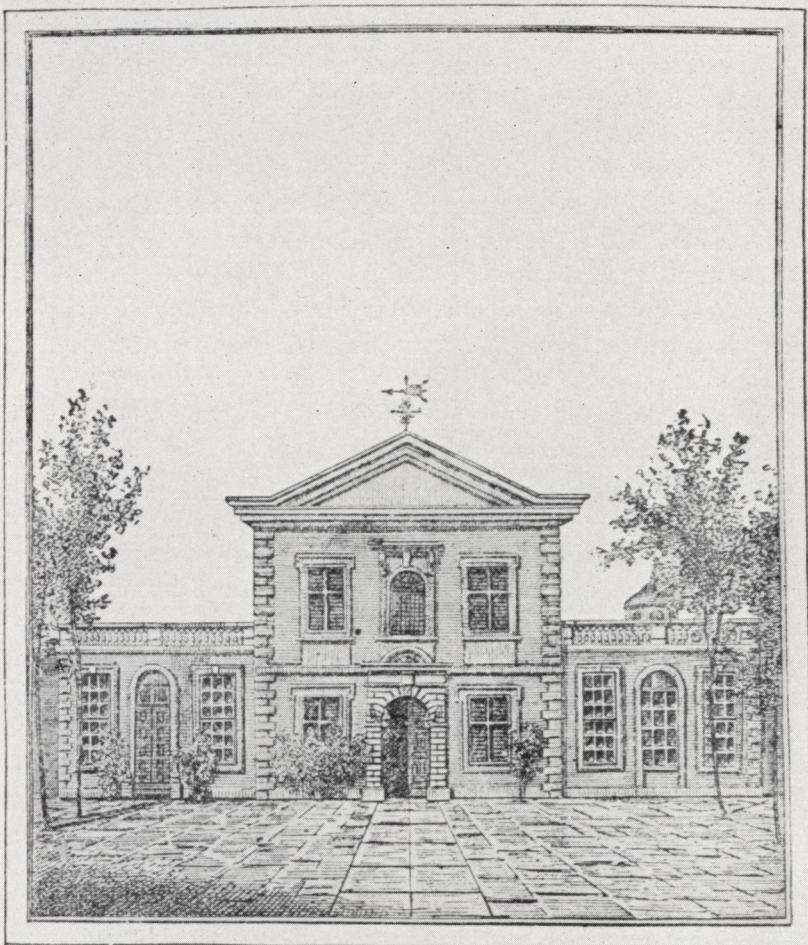
The Universities afforded little or no instruction in medical subjects, and, in neither city was there a hospital where aspiring students might obtain clinical courses. Singularly, at Oxford, it was not unusual for a student to receive the degree of "M. D.," at the beginning instead of at the end of his course. The granting of the degree might come either through the patronage of a powerful or royal friend whose privilege granted him that function. The applicant's theological studies might outweigh in importance his knowledge or skill in Medicine. The College of Physicians had the exclusive authority of licensing physicians in London and vicinity and none could legally practice without its license. At Oxford, in 1646, Scarborough was created a Doctor of Physic. In the letter from the Chancellor of the University he was described as a "Master of Arts of Cambridge of seven years' standing and upwards"; and, Dr. Harvey, in his letters-testimonial, wrote "he is well learned in Physics, Philosophy, and Mathematics." Shortly afterwards Scarborough went up to London, and, 1648 found him enrolled in the College of Physicians.

Harvey, after the surrender of Oxford, returned to London, and one of his first thoughts was to send for Charles Scarborough "in whose conversation he much delighted, and, whereas before he marched up and down with the Army, he took him to him and made him ly in his chamber and said to him: 'Prithee lay off thy gunning and stay here, I will bring thee into practice.'" And well he kept his word, for on the 8th of October, 1649, Dr. Scarborough was elected to the Company of Barber Surgeons, and before long was appointed reader of the Anatomical Lectures.

Wood, the historian of Oxford University, his fellow at Merton, relates that his friendship with Harvey continued unabated to the end of his patron's life; and, when on July 28, 1656, Harvey presented to the College of Physicians the title-deeds of his paternal estate in Kent and resigned his London lectureship, the office was transferred to Charles Scarborough. In his will, as we have already noted, Harvey made affectionate mention of his friend, so that literally, as well as metaphorically, Harvey's mantle fell upon Scarborough, who nobly sustained the charge, heavy as it was. Harvey's affection for Scarborough was aroused early, and in his old age he mastered Oughtred's 'Clavis' and, with his young friend, worked away at solving its mathematical problems. There is no doubt that throughout his life Harvey practiced every branch of the profession, and, since the spring of 1616, had lectured at the College of Physicians. He must indeed have been of great service to Scarborough in the preparation of the lectures which "he read with infinite applause in the Public Theatre of the Barber Surgeons Company, to the admiration of the learned men of the great city."

After helping Harvey with his "Animalium," Scarborough became a "most learned and incomparable Anatomist."

It is of interest to us to learn how Anatomy was taught in England in the 17th Century. Teaching was practically by a series of demonstrations on the human body, by a general survey rather than in detail. The right was vested in the corporate bodies like the Barber-Surgeons; private teaching was discouraged. Subjects for dissection were difficult to procure, commonly the bodies were those of executed criminals. By Act of Parliament the Masters of the Company were granted the right to take yearly the bodies of malefactors for their



BARBER SURGEON'S HALL,
MONKWELL STREET.

Published Sep: 29th 1800. by John Manson. N^o 6 Pall Mall.

“further and better knowledge, instruction, insight, learning and experience in the science and faculty of Surgery.” A single body was dissected to show the muscles, another to show the bones, another to show the parts within the head, chest and abdomen. Not always was the entire body demonstrated by a single lecturer. There were no means of preserving the bodies. Each course lasted three days providing twice a week a lecture in the morning and a lecture in the afternoon on Wednesdays and Fridays, on the art of surgery and how to dissect, the topics so arranged as to recur in cycles, year by year, extending to five or six years.

The ‘Demonstrations,’ called ‘Public Anatomies,’ usually took place four times a year. With the permission of the Company ‘Private Anatomies’ might be held whenever a surgeon wished to dissect an interesting subject, and especially when a felon had been executed. The dissections were generally held in the Hall of the Company, the surgeon inviting his friends and pupils; while others attended as guests of the Company. The best teachers were sought after, whose appointment was for life. William Harvey, lecturing from 1615 until 1658, relinquished his place to Scarborough. The teachers were paid liberally, and two demonstrators were appointed to assist them. At first the cost of the lecturers and demonstrators was borne by the Company, but, after a time, benefactors came forward and, at their death, bequeathed funds for the purpose. The ‘Lumleian Lecture’ was a surgery lecture founded in 1581, at a cost of £ 40 a year, by the efforts of Lord Lumley. The benefaction was proffered to the Barber Surgeons yet either was not acceptable or was not acted upon, but was later established at the College of Physicians.

The Anatomical Lecture was conducted with much ceremony and attended with great dignity and formality; the Lecturer counted as an individual of importance in the City. The Stewards and other assistants were given instruction in maintaining the strictest details. The Demonstrator had all the parts prepared, and the Master, as he read the description, pointed them out with his special wand, as they were shown to the spectators. These details were observed in the painting of the portrait of Scarborough and his demonstrator Edward Arris which hung for years in the Surgeons’ Hall. When the Hall was destroyed the painting was removed to the Royal College of

Surgeons. (I have been informed privately that the painting has been removed to a place of safety).

After the morning lecture, The Doctor and the Company dined. After being plentifully regaled, they proceeded as before until the end of the third day. The courses were regarded as quite exhausting, and, after each lecture, unless some more substantial refreshment was provided, it was a further custom to present the audience with wine and spices. At the close of the lectures the Doctor was presented with the sum of ten pounds and the Masters and assistants given appropriate stipends.

The Demonstrators, for the three days succeeding the formal lecture, were allowed to read to their own pupils. The remains of the body were then decently interred at the expense of the Masters.

These methods were similar to the custom pertaining to the study of Anatomy throughout Europe.

In the records of the Company of Barbers and Surgeons on Monkwell Street, concerning the Anatomical and Surgical Lectures, it is noted:

8 Octo' 1649. This Court taking into consideration several worthy physicians of whom one might be elected reader of the Anatomical Lectures at the public dissections of this Co.: do think it fit that Dr. Scarborough be elected thereunto, who being desired to come to this Court appeared during the sitting thereof and declared himself willing to perform the same and rendered thanks to the Co. for their good opinion of him. Tuesday's lecture again revived.
18 Octo. 1649—Dr. Scarborough elected Anatomical reader.

Pepys, in his Diary, made several references to Dr. Scarborough on February 27, 1682-1683:

Pepys attended one of the Lectures and he gave a perfectly straightforward account of the proceedings. "Up and at my office— . . . About eleven o'clock Commissioner Bett and I walked to Chyrurgeon's Hall, we being all invited thither and promised to dine there . . . As the Anatomies were a public show. After dinner, Dr. Scarborough took some of his friends and I went with them, to see the body of a lusty fellow, a seaman, that was hanged for a robbery. I did touch the body with my bare hands; it felt cold, but methought it was a very unpleasant sight . . . Thence we went into a private room, where I perceive they prepare bodies, and there were the

kidneys, ureters, etc., upon which he read to-day, and Dr. Scarborough, upon my desire and the company's, did show very clearly the manner of the disease of the stone and the cutting, and all other questions that I could think of." Pepy's interest in this particular lectures lay in the fact that he had himself been cut for stone, a disease which seems to have been hereditary in his mother's family.

Thereafter, back at table, they discussed hanging, how "one Dillon, of a great family, was, after much endeavoring to have saved him, hanged with a silken halter of his own preparing, not for honour only, but it being soft and sleek, it do slip close and kills, that is, strangles presently; whereas a stiff one do not come so close together, and so the part may live the longer before killed. But all the Doctors at table conclude, that there is no pain at all in hanging, for that it do stop the circulation of the blood, and so stops all sense and motion in an instant."

Scarborough became the friend of all the well-known men of his day. In Evelyn's diary, under date of November 5, 1652, we catch a glimpse of him:

Dr. Scarborough was instant with me to give the Tables of Veins and Arteries (which Evelyn had purchased in January 1645 of Leonæus in Padua—and other anatomical series which he had ordered made in April 1642) to the College of Physicians preliminary he would not only read upon them but celebrate my curiosity as being the first who caused them to be completed in that manner and with that cost but I was not so willing yet to part with them as to lend them to the College during their anatomical lectures; which I did accordingly.

1667—Oct. I made the Royal Society a present of the Tables which great curiosity I had caused to be made out of the natural human body. Received the thanks of the Royal Society and they are hanging in the Repository with an inscription.

It is of interest for us to note that Christopher Wren then only a lad of fifteen, once served among Scarborough's demonstrating assistants, and in later years acknowledged that he "had received many ideas and suggestions from that highly gifted man." It may be believed that young Wren learned from Scarborough his method of injecting the blood vessels as a means of transfusion which he demonstrated twenty years later.

Scarborough continued as the Company's lecturer for nineteen

years. He was succeeded as lecturer on the anatomy of the muscles by William Croone (1638-1684) a graduate of Cambridge in 1662. His practice was so lucrative that after his death his widow endowed, from his estate, the "Croonian Lecture" which lecture has been continued ever since.

"Scarborough was the first," Wood recorded, "that introduced geometrical and mechanical speculation into Anatomy, and applied them in all his learned conversation, as more particularly in his famous lectures upon the muscles of the human body for sixteen or seventeen years together in the public theatre at Surgeons' Hall, which were read by him with infinite applause and admiration of all sorts of learned men in the great city."

As a mark of regard for him the Company in 1649 (1651?) ordered his portrait to be painted by Greenbury and hung in the Hall. Pennant, in "London," published 1746, gives this account of it:

He is dressed in the red gown, hood and cap of a doctor in physic, and is in the attitude of speaking; one hand on his breast, the other a little stretched out. On the left is another figure, the demonstrating surgeon, dressed in the livery-gown of the city of London; whose business it was to handle and show the parts of the dissected bodies. Accordingly, he holds up the arm of a dead body, placed on a table, partly covered with a sheet, with the sternum naked, and laid bare, and the pectoral muscles appearing.

Below the portrait was the following inscription:

Haec tibi Scarburgi Arrisius quis spiritus intus
 Corporis humani nobile versat opus.
 Ille Opifex rerum tibi, rerum arcana reclusit,
 Et Numen verbis issuit inesse tuis.
 Ille dator rerum tibi res indulsit opimas,
 Atque animan indultes qui bene donat opes.
 Alter erit quisquis magna haec exempla sequetur,
 Alterutri vestrum nemo secundus erit.

Dr. Walton McDaniel, Librarian of the College of Physicians of Philadelphia, has kindly paraphrased the inscription for me:

To you, Scarborough, Arris discloses these instruments
 Through which the inner mind examines the noble work of the human body.
 That Maker of things has revealed to you the secrets of Nature.
 And has decreed that authority reside in your words.
 That Giver of things has granted to you rich gifts,

And a mind which may well bestow the powers granted.

Quite different will be those who follow these great examples;
No one of you will be second to either.

In 1656, Scarborough (“being a doctor of physique, and of good



practice and knowledge”) succeeded Harvey as Lumleian Lecturer. He attended Harvey in his last illness, in 1657, about which it was rumored that at the old man’s request he had given him his quietus in a draught of opium. In 1658 he was deputed to greet, in a Latin

speech, the Marquis of Dorchester, on his admission to the Fellowship of the College of Physicians.

Scarborough was appointed physician to Charles II. It is likely that he was brought to the notice of Charles by Lord Berkeley, whose physician he probably was also, as, in May, 1660, he accompanied Berkeley in the distinguished company which went over to the Hague to escort Charles back to England and to his throne. Samuel Pepys was present also on that occasion. He has left us a lively account of the King's return from the War.

On the eve of the sailing, Scarborough dined with Pepys: "At supper the three Doctors of Physique again at my cabin; where I put Dr. Scarborough in mind of what I heard him say that children do, in every day's experience look several ways with both their eyes, till custom teaches them otherwise; and that we do now see with but one eye, our eyes looking in parallel lines." And so the decanter went around, and the company in the cabin discussed all manner of things, "coming in sight of land a little before night."

While Scarborough was active in the affairs of his College and held many official posts, he was never President. He has the distinction of being one of the original Fellows of the Royal Society, that "Invisible College" which encouraged the breaking down of old tradition, and afforded a new intellectual stimulus to men's minds so agitated by the events succeeding the Civil Wars.

In 1680, August 15, King Charles knighted him. His service to that King was not the only Court appointment he held: After Charles' death, he became personal physician to James II, and by him Physician to the Tower of London! Also to Prince George of Denmark; to King William III; and to Mary, his Queen. Not only was he attendant upon royalty, but was in wide request throughout the country.

Among his other pursuits, Scarborough was no mean naturalist, especially in Ornithology. A bibliophile of note, he possessed a valuable library of mathematical works and Greek classics which he intended to transfer to King William's Library at St. James' Palace. The project fell through, however, owing to the premature death of Queen Mary in 1694. The Library was disposed of piecemeal in 1698.

In the spring of 1682, Scarborough accompanied the Duke of York on a mission to Scotland, sailing on the "Duke of Gloucester." When in Yarmouth Roads, off the Humber, the "Gloucester" was wrecked, and, although the Duke was saved, many lives were lost. An account of this is given by Pepys who wrote 'though I had abundant invitation to have gone on board the "Duke," I chose rather for room's sake and accommodation to keep my yacht.' It was fortunate that his yacht reached the scene of the wreck before the great ship sank; they were in time 'to take up Sir Charles almost dead and others almost spent from the struggling in the water and cold.'

The wrecking of the "Gloucester" was due, in Pepys' opinion, to a pilot's "obstinate overwinning—in opposition to all contrary opinions of his master, mates, and the Duke, himself."

Scarborough was the King's chief physician in his final illness and subsequently wrote the lengthy Latin reports of his condition during those last days. The King died 6 February 1684/5. An autopsy was performed the next day, of which Scarborough, who headed the list of the distinguished group that witnessed or assisted at it, gave in Latin a report of the illness and of the examination of the body. The account was written probably at the request of King James, whose physician he then was also, to refute the rumor that the King had been poisoned. The only known English translation of that report is in the possession of the College of Physicians of Philadelphia, having been presented to the College by Dr. Krumbhaar in 1938.

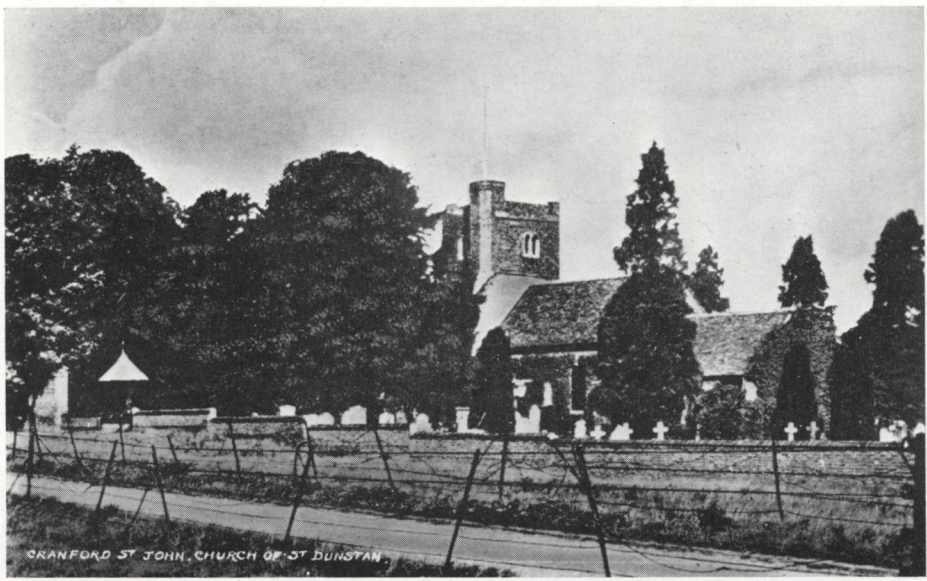
From 1685 to 1687 Scarborough was a member of Parliament from Camelford, in Cornwall, but his parliamentary duties were not so exacting as to withdraw him from the pursuits of his profession. He had a country house at Cranford, twelve miles from London, to which he retired for rest after the busy life in St. Martin's-in-the-Fields. He did not retire from Practice until 1691. On Feb. 26, 1693, he "By no violent Distemper but by a gentle and Easy Decay Departed this life in the Seventy-ninth year of his age." He was buried in St. Dunstan's Church, Cranford in Middlesex. A white marble plaque on the north wall of the chancel bearing a Latin inscription, the English of which, in part, opens this brief account, and, to his "Pious Memory it was set up and Dedicated by the Lady Scarborough Relict to Sir Charles." The entablement is surmounted by two cherubs holding his coat of arms, "gules-three castles."

In the body of his late sacred Ma^{ty}. of happy and-
 blessed Memory open'd by his Chyrurgeons this day -
 being the 7th of February 1684. were observed -
 these things following.

1. In the outward parts of y^e Brain the Vessels fuller of
 Blood then ordinarily they are found.
2. The Ventricles of the Brain full of Matter; & in the
 whole substance of it a greater quantity of the like se-
 rous liquor then is usuall.
3. In the Breast the Lungs on the right side every where
 adhering to the Ribs; the other side free as naturally
 it ought to be.
4. The substance of the Lungs perfectly sound, but full
 of Blood
5. The Heart large & very firme as it ought to be.
6. In the lower Belly nothing amisse, on ly the liver of a
 colour darker then ordinary, & full of Blood, as were
 alsoe the Kidneys & spleen.

Ch. Scarborough. Tho. Witherley. Walb. Charlton E. Dickinson
 Esq. Barwick. Tho. Mutton. Robt. Brady. Ferd.
 Mender. Wal. Needham. Ed. Browne. Th. Norton
 Esq. Lower. Ch. Traiser. Edm. King. Jos. Le Jeune
 Christianus Hard. Martin Lister.
 Esq. Lile. Jos. Pearce. & Amé. Tho. Hobbs.

In my researches thus far I have not found any reference to Scarborough's actual attendance on the sick, or pronouncements on disease. The only works which survive this genial man of many parts include the "Syllabus Musculorum" which served as an anatomy text-book for many years; a treatise on Trigonometry; a compendium of Lily's Grammar; an elegy on Abraham Cowley. In my search for a copy of the Syllabus I was rewarded by a communi-



cation from Dr. John Fulton at the Historical Library, who has given me permission to photostat the title and some other pages, as well as to make an entire microfilm of the copy from his own collection which he had donated to the Yale Medical Library.

No definite volume seems to have been issued; what does appear consists of pages 103 to 119 of "Myotonia" a tiny work by William Molins, "Mr in Chyrurgery," London, 1680. Molins, a lecturer on Anatomy at Barber-Surgeons' Hall in the middle of the XVII Century, was one of a line in several generations distinguished in surgery. "Myotonia" gives a brief description of the muscles of the human



Licensed, June 17. 1676.

Roger L' Estrange.

**M T O T O M I A ;
OR THE
ANATOMICAL
Administration
Of all the
MUSCLES**

**Of an Humane
B O D Y ,**
As they arise in *Dissection.*

As also an Analitical TABLE, reducing
each Muscle to its Use and Part.

Reviv'd with Additions,
By *WILLIAM MOLINS*
Mr. in Chyrurgery.

And Publish'd for the general goodd of all
Practitioners in the said *ART.*

Whereunto is added
Sir *CHARLES SCARBOROUGH's*
Syllabus Musculorum.

London : Printed. and are to be Sold by *W. Rogers*,
at the *Sun* over-against *St. Dunstan's Church*
in *Fleet-street.* 1 6 8 0.

[103.]
**SYLLABUS
 MUSCULORUM**

Corporis Humani eo ordine dispositus: quo à Carolo Scarburgio, Med. D. & Anatomes Professore Ordinario in uno, eodemq: cadavere administrari, & publicè exhiberi solebant in ejus de Musculis Prælectionibus anniversariis triduum habitis in Theatro Anatomico Chirurgorum Londinensium.

**MUSCULI TRUNCI
 & Capitis in Supino Corpore.**

Prælectio Prima

Matutina,

Musculi	{	Obliquus	{	Descendens	
Abdominis		Reclus		Ascendens	
Compressores		Pyramidalis			
		Transversus			
			{	+	Mus-

[102.]

The great
 Toes { Bended by *Flexor*.
 { Extended by *Tensor*.
 { Obliquely moved by *Abductor*.

The first Joints of the Toes are kept together by *Transversalis Placcentini* *sive Minor Adactor*.

The Skin { of the Sole of the Foot is moved by *Plantaris*.
 { of the Palm of the Hand by { *Palmaris Longus*.
 { *Caro Musculosa Quadrata* *sive Palmaris Brevi*.

S.Y.L.

[104]

Musculi { Testium } Cremasteres
 { Scroti } Dartos

Prælectio Secunda Pomeridiana.

*Musculi Faciei, tum anteri-
 ores Capitis.*

Musculi { Frontalis, sen Erector
 Superciliorum } Corrugator

Musculi { Orbicularis, sen Clausor
 Palpebrarum } Ciliaris
 Elevator Palpebræ

Musculi { Obliquus } Major cum
 { Elevator } Trochleâ.
 { Depressor } Minor
 { Adductor } Oculi
 { Abductor }

Mus.

[105]

Musculi { Elevator } Alæ Nasi
 Nasi { Dilator }
 { Constrictor }

Musculi { Elevator } Labri Superi-
 { Depressor } oris.
 Labiorum { Elevator } Labri inferi-
 { Depressor } oris.
 { Zygomaticus, sen Distortor }
 { Sphincter Labiorum } oris.

Musculi { Bucco, sen Constrictor
 Genarum } Quadratus

Musculi { Elevator }
 Auriculæ { Depressor } Auriculæ
 { Adductor }
 { Abductor }

Musculi { Externus
 Membranzæ Tympani } Tenfor
 Auris { Internus }

Musculi

body, together with tables specifying the location and actions of the part. Scarborough's "Syllabus" consists simply of a framework of captions of the muscular parts of the body to serve as headings for a lecture. The Lectures are arranged in a series of morning topics, and those for the afternoon, on three successive days. "Praelectio Sexta Pomeridiana," relates to "Musculi Totius Pedis." The cadaver is described as it lies—"Supino" or "Capitis in prono Corpore."

The tiny book ends with "An Alphabetical Table of the Names of the Muscles with the Page of each Muscle treated on" in Molins' division.

In 1705, Scarborough's son edited a posthumous English translation of Euclid's Elements.

Scarborough noted among his friends and associates, as already stated, many well-known men, besides Harvey and the great Diarist, he was intimate with the poets Waller and Cowley. Among his contemporaries were Francis Glisson, Robert Boyle, the chemist, Robert Hooke, Richard Lower, Sydenham, and Sir Thomas Browne, as well as John Locke. He liked to visit Hobbes and took great delight in conversing with him.

The medical man can find much to interest him in a contemplation of social matters affecting citizens of London during the reign of the Stuarts, and especially of the effects on the Restoration period of the newly discovered sciences.

Society during all these years was sharply divided into three distinct classes—the Court; the middle class composed chiefly of Puritans and Protectors; and, the miserable poor, whose poverty was rarely the subject for relief by either of the other classes. Quite naturally, Medicine was involved in the care of each class, but practitioners of the one sought no contacts with the others.

Before the Civil Wars, the physicians of London pursuing the Galenical traditions were a limited class, but through the results of explorations in distant countries, tending to correct the prevailing false notions of the world's geography and the inhabitants thereof, by the application of the facts of the New Learning their strength was renewed. Despite Harvey's account of the circulation of the blood, the classical school held on firmly. They supported their unopened minds by a formality of manner and in all subjects a show

of learning based upon assumptions not verified by the study of the human body and of nature. The creation of the College of Physicians by Linacre tended to perpetuate this state of things. "Fellows" were only Oxford or Cambridge men who had received at neither University any medical education or instruction.

Practice was in a chaotic state. In addition to the "regulars," fellows of the College, there were those who had become enthusiastic over the ideas set forth by Paracelsus which, after permeating the Continent had spread and infected the studious minded across the Channel, who, in turn, ceasing to 'exsanguinate their patients or drowning them in galenical potions,' made exorbitant claims for the virtues of mineral substances advocated by Paracelsus. Because of these excesses they became classed as 'Chemical physicians,' and promptly were ostracized by the College of Physicians, who denominated them as 'Quacks,' which word is an abbreviation of 'Quack-salver,' the English for 'Quicksilber,' the German for Mercury.

All previously accepted science was vitiated during the Civil Wars and the Commonwealth by a great upheaval of all thought, traditional opinion disregarded and unorthodoxy encouraged. Work on chemical subjects began to appear supporting the pretensions of the Quacks who throve at the expense of the regulars. Through the invention of appliance the increasing verification by laboratory study of those pretensions animated the growing scientific spirit, and the minds of serious physicians were so filled that they began to entertain great expectations that philosophers might, when the Restoration of the monarchy was accomplished, stabilize the prevailing unrest. Alas! this very growth of the scientific spirit encouraged by the creation of the Royal Society only aroused the distrust of all traditional usages. King Charles the Second, although the founder and patron of the Society, was himself a fomentor of the unrest. His insistence that only Fellows of the College of Physicians, Universities' men, should be the accredited physicians, kept many able and already distinguished practitioners in subordinate positions for years. Such exclusiveness tended to engender bigotry which, in turn, produced stagnation of the regular profession. By his encouragement of "Quackery" together with his sponsoring the College, it is not unnatural that the King's attitude quite forcefully, though perhaps

unwittingly, caused a lowering of the dignity of the profession. Moreover, all this, and the King's interest in unworthy and immoral persons did much to set the citizens against the regular profession. Astrologers abounded, cast horoscopes, and pretended to treat diseases by revelations emanating from the skies. In spite of laws enacted against them, quacks and empirics flourished. Moreover, regular doctors had their practice cut into by the surgeons and the apothecaries. Surgeons were not allowed to prescribe for internal maladies, and apothecaries were forbidden to do more than compound the prescriptions submitted to them by physicians, but they, in turn, did not hesitate to offer the prescriptions which, sent to them, they had no compunction to sell over and over again.

Physicians and surgeons were distinct both in practice and in position. The physician had no opportunity of learning surgery, and likewise, the physician had only an imperfect, if any knowledge of the science of the apothecary. In opposition to the licensed practitioner were the chemical quack, royal favorites, the prescribing apothecary, astrologers, base empirics, midwives and old women. Such a motley crew arose to compete with all honest endeavors put forth to heal the sick and to add to the sum of medical knowledge. The regular doctor whose learning was greater than his practical knowledge often veiled his ignorance by pedantic language and pompous manner. A notion of the doctors of that Century may be imagined from the caricatures and broadsides and books of that period. It was fortunate, and sad too, that while the young physicians were beginning to spend a short time in their probation period at one or other of the London Hospitals, older men, alas! unless they had studied abroad, had had no opportunity to attend hospitals.

My failure to find reference to Scarborough's course as a physician attending the sick is most disappointing. His time was the most favorable of all for exact clinical delineation of the known epidemics that visited London. He was at his prime when the "Great Plague" appeared, the last of that dread malady. Between 1625 and 1647 London was never free, and, in some years a large mortality was recorded, yet it is remarkable that for sixteen years prior to 1664, London was comparatively exempt. The plague was not, therefore, a new disease, like the cholera of modern times, but was almost a

constant and well-known domestic foe. Can it be that like Sydenham Scarborough fled the City taking his family to the country till the scourge had lessened or was over?

In the biographies obtainable I found no reference to a publication on the Plague by Scarborough, but Miss Brinton of the Yale Medical Library has informed me that she found in the Royal College of Physicians list the title "A Practical method as used for the cure of the plague in London in 1665, London 1722." On inquiry I was informed by Mr. Tubbs of the Royal College Library that he was unable to find any information concerning the reference as their salvaged books have been stored away and all records are unavailable.

It is important for us to note in the medical history of England that during the "Plague" there were also many cases of "Malignant" fever, such as what we now know to have been typhus fever, and that while the King and the Army were quartered at Oxford, in the year 1643, large numbers died of that infection also as well as from the plague.

The Great Plague of 1665 was exceedingly virulent in the west end of London, especially in St. Martin's and St. Giles' parishes; it was estimated that one-fifth of the population of London perished in that year. During the winter the disease was quiet, but by May it had begun to spread with alarming rapidity, and by September as many as 7,000 cases a week occurred. After it began to decline the rich people began to return and those who in June could leave their business. Pepys, on January 22, 1666, gives us a rambling yet pointed account, and asks whether all physicians had fled the country? Where could Scarborough have gone? We may grant that most of his patients must have left the City and that he should care for his family. So marked was the line which separated and confined the physician of the rich from him whose patients were the poor. The disease affected the lower classes more than the wealthy—so that it has often been called the "poor man's plague." It is recorded that the medical attendants on the poor remained, to their honor, and so did the surgeons and the apothecaries, and of their service we do have records. It was not at all unlikely that Scarborough had no plague patients. Regular or College physicians practiced only among the wealthy.

Again, I would ask, where was Scarborough in all these trying months? Certainly he must have felt it was his duty to remain to help sufferers who stood in so great need of medical help. Yet, it was only too true that had the West End physicians remained they would have found themselves almost in solitude among empty houses. It may be believed that the regular patients of the physicians even though they remained in town were but little affected. It is likely, therefore, that Scarborough saw very little of the disease.

As to his attendance on the Kings, contemporary diarists have left more extensive accounts of their illnesses, for obvious reasons, than have their attending physicians. To-day one must rely largely on such gossip accounts from which one may surmise what were the sufferings of royalty.

To the end of his days Charles the Second must have required a physician's services frequently, because he lived a hard life from his youth up. His habits were sufficient to generate what was called "gout." The privations when he was in hiding and living in disguise, and the licentiousness of his course after his restoration, must have drained his system of all its strength. He admitted the paternity of fifty-three illegitimate children. In 1678 he had convulsions which presumably were dependent upon the virulent ague so prevalent at that period in England. His symptoms at the end were such as we are justified in believing to have been chronic nephritis, and uremia finally carried him off at the early age of 54 years.

While Duke of York, James became greatly attached to Scarborough and, as we have already learned, Scarborough accompanied him on his travels.

When King, and during his exile, James was an exemplary husband and father. In his early manhood he became infected with syphilis received from his mistress Anne, afterwards Countess of Southesk. Numerous births were ascribed to him, both before and after marriage, but few survived birth or early infancy. His was a highly emotional nature and, when under strain, especially when visiting Salisbury, in 1688, he was seized with violent epistaxis, he feared death was imminent.

James was deeply attached to Mary of Modena, born in 1658. She accompanied him in his exile in France, but suffered many years from



To Dr. Scarbrough.

I.

HOW long, alas! has our mad Nation been
 Of Epidemick War the Tragick Scene,
 When slaughter all the while
 Seem'd like its Sea, embracing round the Isle,
 With Tempest, and red waves, Noise, and Affright?
 Albion no more, nor to be nam'd from white!
 What Province, or what City did it spare?
 It, like a Plague, infected all the Air.
 Sure the unpeopled Land
 Would now untill'd, desert and naked stand,
 Had Gods All-mighty hand
 At the same time let loose Diseases rage
 Their Civil Wars in Man to wage.
 But Thou by Heaven wert sent
 This Desolation, to prevent,
 A Medicine and a Counter-poyson to the Age,
 Scarce could the Sword dispatch more to the Grave,
 Than Thou didst save;
 By wondrous Art, and by successful care
 The Ruines of a Civil War thou dost alone repair.

2.

- 1 The Inundations of all Liquid pain,
 And Deluge Dropsie thou-doest drain.
 Feavers so hot, that one would say
 Thou mightst as soon Hell-Fires allay
 (The Damn'd scarce more incurable than They)
- 2 Thou dost so temper, that we find
 Like Gold the Body but refin'd;
 No unhealthful drops behind.
 The subtle Ague, that for sureness sake
 Takes its own times th' assault to make,
 And at each battery the whole Fort does shake,
 When thy strong Guards, and works it spies,
 Trembles for it self, and flies.
 The cruel Stone that restless pain
 That's sometimes roll'd away in vain,
- 3 But still, like Sisyphus his stone, returns again,
 Thou break'st and meltest by learn'd Juices force,
 (A greater work, though short the way appear,
 Than Hannibals by Vinegar)
- 4 Oppressed Natures necessary course
 It stops in vain, like Moses, Thou
 Strik'st but the Rock, and straight the Waters freely flow.

A a

The

3.

The *Indian Son* of *Lust*, (that foul *Disease*
Which did on this his *new found World*, but lately *settle*;
Yet since a *Tyranny* has planted here,
As wide and cruel as the *Spaniard* there)
Is so quite rooted out by Thee,
That thy *Patients* seem to be
Restor'd not to health only, but *Virginities*.
The *Plague* it self, that proud *Imperial Ill*,
Which destroys *Towns*, and does whole *Armies* kill,
If thou but succour the *besieged Heart*,
Calls all its *poysons* forth, and does depart,
As if it fear'd no less thy *Art*,
Than *Aarons Incense*, or than *Phineas dart*.
What need there here repeated be by me
The vast and barbarous *Lexicon*
Of mans *Infirmities*?
At thy strong charms it must be gon
Though a *Disease*, as well as *Devil*, were called *Legion*.

4.

From creeping *Moss* to soaring *Cedar* thou
Dost all the powers and several *Portions* know,
Which *Father-Sun*, and *Mother-Earth* below
On their green *Infants* here bestow.
Canst all those *Magick Virtues* from them draw,
That keep *Disease*, and *Death* in aw.
Who whilst thy wondrous skill in *Plants* they see,
Fear lest the *Tree of Life* should be found out by Thee.
And Thy well-travell'd knowledge too does give
No less account of th' *Empire Sensitive*,
Chiefly of *Man*, whose *Body* is
That active *Souls Metropolis*.
As the great Artift in his *Sphere of Glass*
Saw the whole *Scene* of Heavenly *Motions* pass,
So thou knowst all so well that's done within,
As if some *living Crystal Man* thou'dst seen.

5.

Nor does this *Science* make thy *Crown* alone,
But whole *Apollo* is thine own.
His gentler *Arts* belov'd in vain by *Mee*,
Are wedded and enjoy'd by Thee.
Thou'rt by this noble Mixture free
From the *Physicians* frequent *Maladie*,
Fantastick Incivilities.
There are who all their *Patients* chagrin have,
As if they took each morn worse *potions* than they gave.
And

- And this great race of *Learning* thou hast run,
 Ere that of *Life* be half yet done.
 Thou see'st thy self still fresh and strong,
 And like *t'enjoy* thy *Conquests* long.
 2 The first fam'd *Aphorism* thy great *Master* spoke,
 Did he live now he would revoke,
 And better things of Man report,
 For thou do'st make *Life* long, and *Art* but short.

6.

- Ah, learned *friend*, it grieves me, when I think
 That *Thou* with all thy *Art* must dy
 As certainly as *I*.
 1 And all thy noble *Reparation* sink
 Into the sure-wrought *Mine* of treacherous *Mortality*,
 Like *Archimedes*, honourably in vain,
 2 Thou holdst out *Towns* that must at last be *ta'ne*,
 And *Thou* thy self their great *Defender* slain.
 Let's even *compound*, and for the *Present* Live,
 'Tis all the *Ready Money* *Fate* can give ;
 Unbend sometimes thy restless care,
 And let thy *Friends* so happy be
 T' enjoy at once their *Health* and *Thee*.
 Some hours at least to thine own pleasures spare.
 Since the whole *stock* may soon exhausted be,
 Bestow't not all in *Charitie*.
 Let *Nature*, and let *Art* do what they please,
 When all's done, *Life* is an incurable *Disease*.

NOTES.

1.

1. *Gouts*, and such kind of *Diseases* proceeding from *maignie*, and affecting one or some parts of the Body, whereas the *Dropsie* swells the whole. *inundation* signifies a less overflowing than *Deluge*.

2. *Find, Refad*: These kind of Rhimes the *French* delight in, and call *Rich Rhimes*; but I do not allow of them in *English*, nor would use them at all in any other but this free kind of *Poetry*, and here too very sparingly, hardly at all without a *third Rhime* to answer to both; as in the ninth staff of the *Nemean Ode*, *Delight*, *Light*, *Affright*. In the third staff to *Mr. Hobs*, *Ly*, *Fertility*, *Poverty*. They are very frequent in *Chaucer*, and our old *Poets*, but that is not good authority for us now. There can be no *Musick* with only one *Note*.

3. The Fable of *Sisyphus* is so known, that it deserves not to be repeated. He was in his life a most famous *Coxswain* and *Robber*. *Ovid. Metam. 13.*

*Quid sanguine cretas
 Sisyphio, fortis ac fraude similis illi?*

For which he was slain by *Theseus*, and condemned in Hell eternally to thrust a great rolling stone up an Hill, which still fell down again upon him, alluding perhaps to the ill success of all his subtilties and wicked enterprizes, in which he laboured incessantly to no purpose.

A a 2

Hasnaba!

Cancer of the Breast, dying in 1718. His daughter Mary, wife of William III, born in 1662, was never robust and succumbed to small pox in 1694.

William, the third, born in 1650, an unhealthy being all his days, asthmatical in boyhood, and dropsical later, refused to reside at Whitehall, fearing that it was an unsanitary place. He was a difficult patient to manage as he would not follow any physician's prescription, nor take advice as to change of habits. He probably was tubercular, which had affected the bones of his right arm, and without doubt he was afflicted by chronic pulmonary disease. It is well known that although a good horseman he died from the effects of injuries to his bones when thrown by his stumbling horse. He was a secret drinker, and, physically, altogether an unpleasant mortal, dying in 1712.

Anne must have been known to Scarborough for she was born in 1665. She relied on the advice of her favorites and on the charlatanry of the quacks who flourished in her days. Her symptoms were directed to her pelvic organs, which had been diagnosed as "Oöphoritis." She was too fond of alcohol and commonly was under its influence up to her death in 1714.

Anthony Wood consulted him on several occasions, and the poet Edmund Waller, who was afflicted with fatal dropsy, relied upon him. Cowley's association with Scarborough was more friendship than medically. Sir Charles had supported him when, for a somewhat political crime he was put in gaol, by obtaining his freedom and paying his debts. In gratitude Cowley, in one edition of his poems inserted a portrait of Scarborough, and published this 'Pindarique Ode' in praise of his Patron, which we may accept as the apotheosis of "Among doctors, an English Hippocrates."

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And, several private communications from friends in England have been of great help to me. Especially would I note the Rev. Maurice Child, Rector of St. Dunstan's Church, Cranford, who also sent photographs of the chancel where Scarborough was buried and of the entablature on the wall.