

WILLIAM HARVEY

1578-1657

*An exhibition of books and manuscripts
illustrating his life and work*



LONDON
ROYAL COLLEGE OF PHYSICIANS

1957



Doctor William
Harvey.

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FOREWORD

In this tercentenary exhibition the chief emphasis has been placed on the life of William Harvey, and in particular on his association with the College. Considerations of space have precluded the showing of books dealing in any way with the history of the discovery of the circulation, and the various editions of Harvey's works. The catalogue has been prepared by the Assistant Librarian, Mr. L. M. Payne, who was assisted in the planning of the exhibition by Miss O. M. Lloyd.

Opportunity has been taken to refer in the catalogue to three new contributions to the study of Harvey's life and work. Professor K. J. Franklin has made a new translation of the *De motu cordis* for the College and publication of this translation has been timed to coincide with the tercentenary commemoration. In addition the College had asked Dr. G. Whitteridge to undertake a transcription, translation and annotation of the second volume of Harvey's notes in the British Museum with a view to publication at the same time. Through her work on the manuscript Dr. Whitteridge has discovered the text of the treatise *De Motu locali Animalium* to which Harvey refers in his *De motu cordis* but whose existence has been hitherto unknown. It has not been found possible to publish the whole of the second volume of notes; but it is hoped that this treatise, which forms the latter part of the volume, will be published by the end of the year. While making plans for this exhibition Mr. Payne discovered in the Bodleian Library a Harveian Oration of the 17th Century, lacking the first leaf. Another Harveian Oration may not appear to be of great interest, but Mr. Payne has shown (*J. Hist. Med.*, vol. 12, April 1957) that the oration was delivered by Sir Charles Scarburgh, and it therefore assumes a greater significance as being the only oration known to have been given by a friend of William Harvey and to contain personal recollections.

The frontispiece is from the Rolls Park portrait of William Harvey and is published by permission of Mr. Andrew Lloyd.

E. C. DODDS

WILLIAM HARVEY

1578 - 1657

INTRODUCTION

When the College of Physicians was founded in 1518 at the instigation of Thomas Linacre its primary function was the repression and punishment of empirics. No regular attempt at education was made until John Caius became President, an office he held on nine occasions between 1555 and 1572. He had been elected a Fellow of the College in 1547 and it was about this time that he made what some have considered his greatest contribution to the cause of scientific progress in medicine, in the form of lectures and demonstrations in anatomy at the hall of the Barber-Surgeons. The surgeons, hitherto separate from the barbers, had been incorporated as one Company in 1540, when an Act was passed granting them, each year, bodies of four criminals; these, however, remained unclaimed, owing to the lack of surgeons to dissect the bodies. This probably explains why Caius lectured in the hall of the Surgeons rather than at the College of Physicians, where there was neither the place nor the facilities for dissection. The position was to some extent remedied by the grant of a Charter of Anatomies by Elizabeth in 1565, a charter that was obtained almost certainly as a result of the efforts of John Caius. From this time dates the anatomy lecture, which each Fellow was required to give in turn. The object of these lectures undoubtedly was to promote the study and maintain an adequate knowledge of anatomy in all persons who practised physic under the sanction of the College. Candidates and Licentiates were regularly summoned to attend the lectures and were liable to be fined if they omitted to do so. Fellows who failed to deliver the lectures, when required, were also liable to fine.

LUMLEIAN LECTURES

1. LUMLEIAN LECTURES

Letters Patent under the Great Seal granted by Elizabeth to Lord Lumley and Dr. Richard Caldwell to settle lands upon the College for the establishment of a Surgical Lecture, 30th June 1581. (MS.).

It was some years later in 1582 that the Lumleian Lectures were founded by Richard Caldwell, a former President of the College, and Lord Lumley. Three years earlier Dr. Caldwell had tried to establish a series of lectures in surgery at the Barber-Surgeons, but his offer of an annuity of £10 for the purpose was for some reason not taken up. It may have been that circumstances had not changed since Dr. Caius' day. The College of Physicians was hardly more happily placed, and in order to provide more ample rooms "for the better celebration of this most solemn lecture" approved the expenditure of £100 and more—a sum it could then ill afford.

2. LORD LUMLEY

Portrait of Lord Lumley.

It is not clear how Lord Lumley (1534–1609) came to be associated with Dr. Caldwell in the foundation of these lectures, subsequently made memorable by Harvey's discovery. Lord Lumley was, it is true, a member of the Elizabethan Society of Antiquaries and interested in the arts; he had formed a fine collection of portraits, and was himself a not unskilful painter. The recent publication of the 1609 catalogue of the Lumley library throws more light on his scientific interests. In the formation of his library he was assisted by his brother-in-law, Humphry Lloyd, private physician to Lord Arundel, whose library Lumley ultimately inherited. Under Lloyd's guidance the Lumley library more than trebled its size, so that in 1590, according to Professor Jayne, "there was no library in England better equipped for the study of any of the sciences".

3. CHARLES GOODALL

A Collection of College Affaires left by Dr. Goodall to the College of Physitians, London. c. 1680-1700. (MS.).

This manuscript contains copies of the Statutes of the Lumleian Lectures and the agreement establishing them. In the latter it seems to have been taken for granted that the first lecturer should be Richard Forster. At any rate whoever was appointed was expected to spend two years travelling in France, Germany and Italy, "to the intent that he may hear the best and most learned and expert surgeons read and see their practices; whereby he may be the better able to execute the said place of reading in the said College of Physicians in London at his return into England". This Richard Forster held the appointment until he became President of the College. It was said that his eloquence was of sufficient power to allure men to his school, and his method, perspicuity and plainness in teaching such that there was "no man so simple and grosswitted but that he may seem to be capable of the doctrine which he delivereth"; nevertheless as early as July 1584 (the first lecture was read on 6th May) there is a complaint about the poor attendance at these lectures.

4. HORATIUS MORUS

Tabulae universam chirurgiam miro ordine complectentes, ex eruditioribus medicis collectae. London, 1584.

This lack of support may have been due to the ambitious scheme originally adopted, which was designed to provide a course of instruction lasting for six years, the lectures being delivered twice a week throughout the year, on Wednesdays and Fridays. It was provided that the Reader should "read three quarters of an hour in Latin and the other quarter in English wherein it shall be plainly declared for those who do not understand Latin what was said in Latin". Set books were prescribed and among those for the first year was this work of Morus. It was first published at Venice in 1572, and in order to make the book more easily available Dr. Forster had an edition in Latin published in the first year of his lectures, and Dr. Caldwell, although then almost 80, undertook an English translation. He died, however, in that same year and, according to the dedication, made curiously to the Company of Surgeons, the translation was revised and the book seen through the press by some unnamed friends.

5. WILLIAM HARVEY

Praelectiones anatomiae universalis. London, 1886.

The lectures were, however, found to be too frequent, the course too lengthy, and the demands they made on the time of men no longer *in statu pupillari* far too great. Notwithstanding many efforts on the part of the College to secure an adequate attendance, to the extent of inflicting a fine, it had failed to do so, and by the time of Harvey the lectures were given on three days only in each year. William Dunn became lecturer in 1602 and Thomas Davies lecturer in 1607; when the latter died in August 1615, William Harvey took his place and commenced his lectures in April of the following year. Two manuscripts of these survive in the Sloane Collection in the British Museum. One of them was transcribed and printed at the instigation of the College in 1886, and work on the other is now in progress (*see Foreword*).

6. WILLIAM HARVEY

A Whalebone rod, seventeen inches long, banded and tipped with silver, said to have been used by Harvey in his Lumleian Lectures.

“The lectures show Harvey to us at his books, seeing his patients in their beds, examining them post-mortem, talking with other physicians, listening to the phrases of the people and watching their sports; and give a picture of him delivering his lectures with a body dissected on the table before him and a demonstrator who lifted up and exposed this part or that, at his bidding.” At the beginning of these lectures he lays down certain rules for the teaching of anatomy, but makes no reference to the use of anatomical tables.

7. ANATOMICAL TABLES

There are on the gallery round the main library a series of anatomical tables which were presented to the College by the Earl of Winchelsea in 1823; they were formerly supposed to have been those prepared and used by Harvey in his lectures. They had long been preserved at Burley-on-the-Hill, the seat of the Earl of Winchelsea, one of whose ancestors married a niece of Harvey. It has since been shown that it is much more likely that they were the property of Sir John Finch, who was at one time a Professor of Anatomy at Pisa, and seems to have had for an anatomical pupil one Marchetti, who made “tables of veins, nerves, and arteries, five times more exact than are described in any author”.

John Evelyn in his *Diary* also refers to some tables which Sir Charles Scarborough had seen and was anxious that Evelyn should present to the College. He only agreed to lend them for a short time for Scarborough's use in his lectures, and ultimately presented them to the Royal Society. They are now to be seen at the Royal College of Surgeons. Evelyn had purchased these tables at Padua in 1646 and had them transported to England. They were then "the first of that kind . . . ever seene in our Country, & for ought I know in the World, though afterwards there were others". The fact that Scarborough succeeded Harvey as Lumleian Lecturer in 1656 and refers to these tables as unique makes it unlikely that Harvey had used anything of the kind; otherwise his friend Scarborough must surely have seen them and would not then have regarded Evelyn's as unique.

PADUA

8. HIERONYMUS FABRICIUS

De venarum ostioliis. Padua, 1603.

It is not known at what time in his course of lectures Harvey announced his discovery of the circulation, but we can at least quote the testimony of Robert Boyle, who asked Harvey "what were the things that induc'd him to think of a Circulation of the Blood? He answer'd me, that when he took notice that the Valves in the Veins of so many several Parts of the Body, were so Plac'd that they gave free passage to the Blood Towards the Heart, but oppos'd the passage of the Venal Blood the Contrary way: He was invited to imagine, that so Provident a Cause as Nature had not so Plac'd so many Valves without Design: and no Design seem'd more probable, than That, since the Blood could not well, because of the interposing Valves, be Sent by the Veins to the Limbs; it should be Sent through the Arteries, and Return through the Veins, whose Valves did not oppose its course that way". About these valves Harvey had heard while studying at Padua under Fabricius.

9. JAN JANSSON

Illustriorum Italiae urbium tabulae. Amsterdam,
c. 1650-60?

When Harvey left King's School, Canterbury, where he had remained for five years, he became a student at Caius College, Cambridge, in May 1593, and graduated B.A. in 1597. For some

time it was assumed that Harvey went to Padua the following year. Padua was a student university, that is to say one under the control of the undergraduates. In 1592 there were at Padua two universities, that of the jurists and that of the humanists—the Universitas juristarum and the Universitas artistarum. The former was the more important, both in numbers and in the rank of its students. The latter was the poorer and consisted of the faculties of divinity, medicine and philosophy. In each university the students were enrolled according to their nationality into a series of “nations”, and each “nation” had the power of electing one, and in some cases two, representatives, conciliarii, who formed with the Rectors the executive of the university.

10. WILLIAM HARVEY

Coloured drawing of his stemma.

When D’Arcy Power was preparing his biography of Harvey he had a search made at Padua in the hope of discovering some record of Harvey’s residence at the university. It was already known from entries in the register that a certain “D. Gulielmus Ameius Anglus”, who was the first in the list of English students in the Jurist University for the years 1600–1 and 1601–2, had been elected a member of the council of the English nation on 1st August 1600 and in the two following years. The discovery in March 1893 of Harvey’s Stemma as a councillor of the English nation for the year 1600 suggested that Ameius and Harvey were one and the same, and closer study of the register showed that the original name was Arveius and not Ameius. Stemmata are tablets erected in the university cloisters or in the hall to commemorate the residence in Padua of many professors, doctors and students. They are sometimes armorial and sometimes symbolical. Harvey’s Stemma was found in the courtyard in the lower cloisters. This coloured drawing was made for the College soon after the Stemma was discovered.

11. WILLIAM HARVEY

Diploma of Doctor of Medicine granted by the University of Padua in 1602.

The gap between the years 1598 and 1600 in Harvey’s life was not bridged until Sir Thomas Barlow in his Harveian Oration, 1916, published the results of some correspondence with Dr. Venn of Cambridge, which showed that Harvey did not leave Cambridge before 1599.

This Diploma of William Harvey found its way to the College on 7th July 1766 when the College had published the collected works of William Harvey. The then headmaster of King's School, Canterbury, allowed himself to be persuaded by the then President of the College, Sir William Browne, to place it among the "sacred treasures of the College safe and sound forever".

Diplomas in the form of a small quarto book with the special style and decoration that this has, seem to have been peculiar to Venice and the universities of Northern Italy. The diploma being an individual possession, no two specimens are precisely alike. The amount of decoration may have even depended on how much the new Doctor was prepared to spend. In general the page opposite the beginning of the document contained a panel in the centre of which was to be found either the portrait of the Doctor, or his arms, or the arms of the university, or an armorial device, or as here a sacred inscription. The diploma has no portrait or arms for at that time Harvey had no family arms. The Stemma already referred to appears at the top of the page. The three little landscapes in the middle may have no significance, being merely decorative. The diploma was confirmed by the seal of the Universitas artistarum, and of Count Sigismund as Count Palatine; apparently the Emperor, presumably with the concurrence of the University, granted to Counts Palatine the right to create Masters and Doctors. The document is closed with a list of witnesses among whom may be noted Simeon Fox, who later became President of the College, and Matthew Lister, who became physician to Charles I. Among the signatures on the last leaf, two at least are of special interest, those of Fabricius of Aquapendente and of Casserius Placentinus.

THE COLLEGE OF PHYSICIANS

12. ROYAL COLLEGE OF PHYSICIANS

Annals, vol. 2, 1581-1608. (MS.).

When Harvey left Padua he returned to England and, being incorporated M.D. at Cambridge in 1602, lost very little time in applying for admission to the College of Physicians. His first appearance at the College was on 4th May 1603. Although his replies to all questions were entirely satisfactory, he was not immediately allowed to proceed with his other examinations, but was nevertheless given permission to practise. Meanwhile with the support of Lancelot Browne, physician to the Queen, Harvey sought

the post of physician to the Tower. He was not successful, however, for Matthew Gwinne was appointed to that post. Harvey next appeared for examination at the College in April 1604 and after further appearances he was finally admitted a Candidate in October; in the following month he married Elizabeth, the daughter of Lancelot Browne. Harvey was elected a Fellow of the College in 1607.

13. ROYAL COLLEGE OF PHYSICIANS

Annals, vol. 3, 1608-47. (MS.).

Thus began an active association with the College which continued throughout his whole life. Besides fulfilling the obligations of Lumleian Lecturer, Harvey gave the ordinary anatomy lectures previously referred to in 1629, and in the same year served on a committee appointed to investigate the annoyance caused by the manufacture of alum in the neighbourhood of St. Catherine's in the City. He held many of the offices open to him as a Fellow of the College and was one of those present when James Primrose was admitted a Licentiate, and actually signed his licence to practise. In the following year Primrose published his *Exercitationes et animadversiones in librum de motu cordis et circulatione sanguinis*.

14. ROYAL COLLEGE OF PHYSICIANS

Drawing showing probable appearance of second College House.

In 1654 Harvey declined to become President of the College on account of his age. This honour had doubtless been offered to him in view of the fact that he had recently had built at his own expense an extension to the College to accommodate the growing library, to which Harvey himself added a number of his own books. No illustration of the second College House or of the new addition survives, but this 19th century drawing has been based on a contemporary document in which details of the buildings are given.

15. CHRISTOPHER MERRETT

Portrait in water colour by G. P. Harding.

When the Harveian library was opened Christopher Merrett, a friend of Harvey, was living in the College House in Amen Corner. He had just been granted a 21 years' lease at an annual rent of £20.

All agreed that he was a suitable person for the post of library keeper, not only because of his residence on the spot, but because of his general scientific attainments. He was accordingly nominated to the post by Dr. Harvey. His services in connection with the opening of the library were very soon recognised, for in June 1654 it was resolved that from the 26th of that month, for his pains in looking after the new library, Merrett should be “ discharged from paying any rent for his dwelling house, from all quit-rent also, and taxations for the College, till such time as provision be made for him by some other equivalent way ”. Meanwhile he had to keep the house in repair and observe such statutes as should be made concerning the library.

16. WILLIAM HARVEY

Harvey Trust Deed, 21st June 1656. (MS.).

Harvey last attended the College on 30th September 1656. On that day he had been elected Consiliarius for the third time, but provision was made “ that if Dr. Harvey should happen to be absent at any time because of ill health Dr. Prujean should take his place ”. Harvey himself must have been aware of his declining strength, for two months earlier he had resigned the office of Lumleian Lecturer and at the same time announced a further gift to the College.

On 24th July 1656 he entertained all the Fellows together with some friends to a magnificent banquet and formally handed over the deeds of his patrimonial estate of Burmarsh in Kent. In making this gift Harvey made provision for the library keeper and intended that there should be instituted an annual feast at which a Latin oration should be spoken “ to commemorate the benefactors of the College and to exhort the Fellows to study and search out the secrets of nature by way of experiment, and also, for the honour of the profession, to continue in love and affection among themselves ”. The proceedings were brought to an end by eloquent and vigorous speeches by the President (Dr. Alston), Dr. Emily and Dr. Scarburgh.

17. SIR GEORGE ENT

Apologia pro circuitione sanguinis . . . [and]
Orationes Entianae. 17th century. (MS.).

The first Harveian Orator was the Dr. Emily already mentioned. He seems to have introduced politics into what should have been a purely domestic event and was rebuked four days later at an

Extraordinary Comitia for “ having complained more bitterly than was proper against military matters, and also for having disparaged the present rule of the Commonwealth ”. Little is known of Emily beyond the fact that he graduated at Leyden in 1640 and was physician to St. Thomas’s Hospital. The earliest extant oration is the second, delivered by Edmund Wilson, who graduated at Padua. Like many of those that were to follow, its character is that of a commemorative address. It has been stated that the Orator contradicted the rumour then gaining credence in some quarters that Harvey “ to escape the pangs of dying had hastened his own end by an opiate ”. In fact Wilson makes no reference to this rumour, merely giving an account of Harvey’s death. Harvey’s injunction to deliver an annual oration has been fulfilled faithfully, although events over which the College has had no control have resulted in some interruptions. There were no orations between 1665 and 1679, for example. In the three hundredth year of its institution Dr. J. C. Bramwell delivered the 252nd oration; this figure includes two previously unrecorded, those of Sir Charles Scarborough, 1662, and Christopher Terne, 1663.

18. GABRIELE FALLOPPIO

Opera quae adhuc extant omnia in unum congesta.
Frankfurt, 1584.

Unhappily the College was unable to enjoy the use of the Harveian library and the books it contained for very long. In the Great Fire, which swept over the City of London in 1666, the College House was destroyed. The College library, which then comprised 2,000 books, perished with it, in spite of the efforts of Christopher Merrett and the Bedell, who could only carry just over a hundred volumes to safety. The only book among these which can be said for certain to have belonged to Harvey is this copy of the works of Falloppio, which originally belonged to Lancelot Browne, Harvey’s father-in-law, and contains annotations in his hand together with marginal notes of Harvey with his well-known **WH** monogram and Greek delta. There is also in the College Leonhart Fuchs’ *De historia stirpium* (Lyons, 1551), which may have belonged to Harvey, although the inscription *Gul: Harveus possidet hunc* is totally unlike the characteristic writing of his lecture notes. The British Museum possesses Goulston’s edition of Galen’s *Opuscula varia* (London, 1640), with notes in Harvey’s hand, while in the Waller library at Uppsala University is a copy of Sylvius’ (Jacques Dubois) *De febribus commentarius* (Venice, 1555), with Harvey’s

signature and annotations by Fabricius. In private hands are to be found a copy of Harvey's *De generatione* (London, 1651), with his monogram and manuscript notes on Aristotle, and a copy of Cicero's works with an inscription again in an uncharacteristic hand, *Quisquis in hunc librum sua lumina pertegit umquam. Subscriptum nomen perlegat ille meum. William Harvey.*

HOSPITAL PHYSICIAN

19. SIR JAMES PAGET

Records of Harvey . . . from the Journals of the Royal Hospital of St. Bartholomew. London, 1846.

Soon after his election as a Fellow of the College Harvey sought to attach himself to St. Bartholomew's Hospital (a print of the Hospital in the early 18th century is shown), and with the support of the King and of the President and other Fellows of the College was promised the appointment of physician when Dr. Wilkinson retired or died. This was early in 1609. Dr. Wilkinson died in August, and Harvey's official appointment dates from October of that year. With his appointment went an official residence; as none was vacant or became vacant until 1626, he elected to accept an increase in his stipend from £25 *os. od.* to £33 *6s. 8d.* in lieu of the house. As demands on his time increased, his attendance at the Hospital grew less but in 1633 he did find time to lay before the Governors sixteen regulations as to the treatment and admission of patients. The last payment made to Harvey was in 1643; he was succeeded in 1644 by Dr. John Clarke who had been his assistant for ten years, and was to become President of the College in the following year.

ROYAL PHYSICIAN

20. WILLIAM HARVEY

Grant of the office of Physician to Charles I with an annuity of £100. [1639]. (MS.).

Harvey also served on the committee responsible for the preparation of the first *Pharmacopœia Londinensis* (London, 1618), and in the list of Fellows at the beginning of this work he is described as Royal

Physician. He had been appointed physician extraordinary to James I on 3rd February 1618, and promised the post of a physician in ordinary as soon as one became vacant—a promise redeemed by his son Charles I in 1631. There are several documents in the College regarding Harvey's association with the Court in addition to the one shown. They include letters patent regarding annuities granted to him of £50 in 1631, £300 in 1637 "in consideration of good and faithful services done and to be done", £200 and £100 in September 1640, as well as an annuity of £100 in the document shown here. There is also another document granting a general pardon to Harvey, 10th February 1626. This general pardon covers everything that might bring Dr. Harvey into conflict with the law, if it were revealed subsequent to the date of the pardon, everything that is, which might have been committed during the previous reign and with certain exceptions. The purpose of this pardon appears to have been to ensure the blamelessness of a Royal servant.

TRAVELS ABROAD

21. WILLIAM HARVEY

Eleven letters to Lord Feilding, 9th June to 15th November 1636. (MS.).

In 1629 Harvey sought to resign his office as Treasurer of the College which he had assumed in the previous year, and also obtained leave of absence from his Hospital in order to accompany the Duke of Lennox on his journey through France and Italy. A letter preserved in the Bodleian Library and published for the first time by J. H. Aveling in his *Memorials of Harvey* (London, 1878) must have been written by Harvey while on his travels, for in it he expresses concern at a rumour that his place as physician to the household had been taken by a Dr. Moëslar; his fears were, however, unfounded.

In 1911 there were discovered among the manuscripts of the Earl of Denbigh these eleven letters addressed by Harvey to Basil Feilding, afterwards the second Earl of Denbigh. They were written after Harvey had left England in 1636 in the entourage of the second Earl of Arundel, who had been sent to Vienna by Charles I as Ambassador Extraordinary to the Emperor Ferdinand II. Harvey quitted the mission at Ratisbon, travelled to Italy, and rejoined the mission later in the same year, returning with it to London in

December. The letters were bought by Sir Thomas Barlow and presented to the College in 1912, and transcribed by G. W. Webb, an assistant in the Cambridge University Library. The accompanying map by D'Arcy Power shows the course of Harvey's travels.

AT OXFORD

22. DAVID LOGGAN

Oxonia illustrata. Oxford, 1675.

Harvey's association with Oxford was a brief one and began when he followed the King there after the battle of Edgehill in 1642. Aubrey recalls how Harvey several times visited the rooms of George Bathurst, B.D., in Trinity College where the latter "had a hen to hatch eggs . . . which they opened to see the progress and way of generation". It may have been by the help and advice of Bathurst that Harvey was incorporated Doctor of Physic at Oxford in 1642. In 1645 he was elected Warden of Merton College in succession to Sir Nathaniel Brent, but his tenure of that office was brief, for the City was invested by the Parliamentary troops and surrendered on 24th June 1646. After this Harvey must have retired from the Wardenship, and Brent must have resumed office, though no minute of either event is preserved in the College register. It is from this time that one may date the friendship of Harvey and Scarborough, who had been attracted to Oxford after having been ejected from his Fellowship at Caius on account of his Royalist tendencies.

SOME CASES

23. BALDWIN HAMEY

A Volume of correspondence, etc., relating to Dr. Baldwin Hamey, collected by his nephew Ralph Palmer and presented to the College in 1700. 17th century. (MS.).

During the Civil War Harvey's house in Whitehall was plundered and many of his papers and manuscripts scattered. The fullest list of subjects covered by these papers is given in Sir Charles Scarborough's Harveian Oration. References to Harvey's clinical practice are comparatively few and the only letter from his

professional correspondence to survive is contained in this collection; it is concerned with directions for treating a lady "affected with a choleric passion of a hot and bilious nature" by blood-letting and purging. It was first published in Willis's *William Harvey* (London, 1878), with an English translation.

24. JOHN BETTS

De ortu et natura sanguinis. London, 1669.

It is possible that Harvey was first introduced to the Earl of Arundel about 1634 when the latter caused an old man said to be over 150 years old to be brought up from Shropshire as a curiosity to show the King. But the change of air and richer food hastened the old man's death, which occurred on 14th November 1635. A post-mortem examination was conducted by command of the King two days later. Harvey's notes of the autopsy came into the possession of his nephew Michael Harvey; he presented them to Dr. Betts who published them many years later as an appendix to his *De ortu et natura sanguinis*.

25. SIR KENELM DIGBY

Two treatises; in the one of which the nature of bodies; in the other, the nature of man's soule is looked into. London, 1665.

Most of Harvey's clinical observations are contained in his *De generatione*, but attention has recently been drawn (*St. Bart's Hosp. J.*, vol. 60, June 1956) to two cases recorded in the works of Boyle and Digby. The latter, which is shown here, concerns "a seruant in the colledge of Physitians in London, whom the learned Haruey (one of his Masters) hath told me, was exceeding strong to labour, and very able to carry any necessary burthen, and to remoue thinges dexterously, according to the occasion: and yet he was so voyde of feeling that he vsed to grind his handes against the walles, and against course lumber, when he was employed to rummage any; in so much, that they would runne with bloud, through grating of the skinne, without his feeling of what occasioned it".

IN RETIREMENT

26. WILLIAM HEBERDEN

A Note on the habits of Dr. William Harvey communicated to him by Dr. Harvey's great-niece, 29 May 1761. (MS.).

The surrender of Oxford marks the period of Harvey's severance from the Court and also the year in which his wife died. Not long before this, he had lost his twin brothers, Matthew and Michael and his second brother John. It is not, therefore, surprising that he elected, at the age of 68 and as a martyr to gout, to retire from public life and spend the closing years of his life either in London or in the country at the house of one of his brothers, Eliab or Daniel. Eliab had a house at Roehampton and these reminiscences of a great-niece refer to some of Harvey's eccentricities and to his residence at Roehampton.

WORKS

27. WILLIAM HARVEY

Exercitationes de generatione animalium. London, 1651.

28. Anatomical exercitations concerning the generation of living creatures. London, 1653.

This was the man that Dr. George Ent found when he visited Harvey in the Christmas of 1650. At first weary and tired, he later became more cheerful when the conversation turned to his papers on the generation of animals on which he had been working for a quarter of a century; he was, however, disinclined to prepare them for publication. "You know full well," he said, "what a storm my former lucubrations raised. Much better is it oftentimes to grow wise at home and in private, than by publishing what you have amassed with infinite labour, to stir up tempests that may rob you of peace and quiet for the rest of your days." It has been suggested that Harvey's hesitation may also have been due to the fact that he felt the proposed work would contain nothing final and conclusive and consequently would stand in strong contrast to his *De motu cordis*. At last Ent prevailed and Harvey agreed to entrust him with the book on his promise to see it through the press.

This did not mean that the work was unrevised, for in a letter to Paul Slegel of Hamburg, dated 26th March 1651, he writes "intent upon my work on the generation of animals which, but just come forth, I send to you, I have not had leisure . . ." Similarly in another letter to John Nardi, he refers to the "labour of putting to press my work on the generation of animals". The frontispiece of the Latin edition derives special interest from the words *ex ovo omnia*, a conception which Harvey is continually expounding but which he never puts into epigrammatic form in his text, so that the saying *Omne vivum ex ovo*, often attributed to him, is only obliquely his.

The first and (apart from Willis) only translation appeared in 1653. The name of the translator is not known but it has been suggested that it may have been the work of Ent himself or alternatively that of Martin Llewellyn, whose poem addressed to Harvey appears at the beginning of the book.

29. JEAN CLAUDE DE LA COURVÉE

De nutritione foetus in utero paradoxa. Dantzig, 1655.

Unlike the *De motu cordis*, the *De generatione animalium* has attracted comparatively little attention. In recent times A. W. Meyer has published an analysis of the work (Stanford University Press, 1936) and J. Needham has devoted twenty pages to it in his *History of Embryology* (Cambridge, 1934). Soon after publication it was referred to by Sir Thomas Browne in the third edition of his *Pseudodoxia epidemica* (London, 1658) where he speaks of "that ocular philosopher and singular discloser of truth Dr. Harvey in that excellent discourse of generation . . .", while Alexander Ross writes critically in the second edition of his *Arcana microcosmi* (London, 1652). A less well known notice is to be found in this book by a physician to the Queen of Poland, J. C. de la Courvée, who died in 1664. In 1655 he performed the first successful symphysiotomy and published this book which in general supports Harvey's views on generation, but is critical of certain aspects.

30. WILLIAM HARVEY

De motu cordis. Frankfurt, 1628.

There is no story attached to the publication of Harvey's most famous work although among the many writers of books and articles it inspired will be found those who have attempted to discover one. Speculation is rife as to when Harvey first discovered the circulation, why he appears to have waited so long before publishing his book, and, when he published, why he chose Frankfurt, a place so far

distant that it was impossible for him to see the proofs of his work.

Dr. Weil in an article in *The Library*, vol. 24, 1944, has disclosed much information about William Fitzer, publisher of the *De motu cordis*, and has suggested that Harvey's friendship with Robert Fludd may have been a contributory factor in his choice of Frankfurt; for Fitzer had also published some of Fludd's works there, including the *Medicina catholica*, which has the same publisher's device as the *De motu cordis*.

No satisfactory answer has been given to the question when the discovery was first made. Reference has already been made to Fabricius's work on the veins and its influence on Harvey's thought. Sir Humphry Rolleston has drawn attention (*Essays on the history of medicine presented to Karl Sudhoff*. London, 1924) to a manuscript of Henry Power in the British Museum bearing the title *Circulatio sanguinis harveiana inventa ab authore A.D. 1614*; while in the second part of his dedicatory epistle to John Argent, President of the College, Harvey speaks of having demonstrated the circulation for nine years and more.

31. ROBERT FLUDD

Pulsus seu nova et arcana pulsuum historia . . .
Frankfurt, 1631.

In view of what has already been said about Harvey's friendship with Fludd it is perhaps not surprising that what is probably the first favourable notice in print of the *De motu* appears in his *Pulsus*. Fludd was a Rosicrucian and a physician, and though some writers have been critical of the mystical language he employed and have imputed a similar approach in his treatment of patients, it has nevertheless been pointed out that in his demonstrative experiments for the purpose of explaining the symptoms of disease he appears to have been the first physician to adopt Baconian methods of investigation.

32 WILLIAM HARVEY

De motu cordis . . . anatomica exercitatio. Cum
refutationibus A. Parisani et J. Primirosii. Leyden,
1639.

33. HERMANN CONRING

De sanguinis generatione. Leyden, 1646.

H. P. Bayon surveys contemporary opinion on Harvey's views in *Annals of Science*, vol. 3, 1938-39. Space precludes the showing of

many of the books to which he refers. Mention must, however, be made of James Primrose, who published his criticisms in 1630, which were also incorporated in the third edition of the *De motu cordis*. With this book is shown a work by Hermann Conring in which he defends Harvey's doctrine against Primrose. The first German physician to support it, he was Professor of Natural Philosophy, and later of Medicine at Helmstadt, and had at one time been physician to Queen Christina of Sweden. He had repeated Harvey's experiments on dogs and confirmed the truth of the circulation in eight dissertations which were collected together and first published in 1643, and again in 1646.

A lesser known work and one recently added to the library is this anonymous treatise *Discours sceptique sur le passage du chyle et sur le mouvement du coeur* (Leyden, 1648), which describes a circle of physicians discussing the problems of Aselli and Harvey and their opponents.

34. JEAN RIOLAN

Opuscula anatomica nova . . . Instauratio magna physicae et medicinae per novam doctrinam de motu circulatorio sanguinis in corde. London, 1649.

35. WILLIAM HARVEY

Exercitatio anatomica de circulatione sanguinis. Cambridge, 1649.

Harvey himself maintained complete silence in the face of criticism, misrepresentation and abuse. It was not until 1649 that he chose to publish a small book containing two essays addressed to John Riolan, the younger, Professor of Anatomy at Paris and one of the most famous anatomists of his time. The books representing Riolan's views and Harvey's reply are shown here.

Harvey's attitude amidst all this criticism is exemplified in his words quoted in Scarburgh's Harveian Oration, "I will not be the author or sponsor of any new controversial doctrine. Let my thoughts perish if they are worthless, my experiments if they are erroneous, or if I have not properly understood them. I am satisfied with my industry. It is not in my nature to upset the established order. If I am wrong (for after all I am but a man), let what I have written turn sour with neglect, but if I am right sometime at least the human race will not disdain the truth."

36. WILLIAM HARVEY

The Anatomical exercises . . . concerning the motion of the heart and blood. London, 1653.

37. I Oktriće krunog optoka; priredio L. Glesinger. (*Croatian*). Zagreb, 1949.

38. Harvey's *De motu cordis*: a new translation by K. J. Franklin. Oxford, 1957.

The first English translation did not appear for many years (1653) in fact it had been preceded by a Dutch translation published in 1650, which contained a poem on the death of the author seven years before he died. Translations into German, French, Russian, Spanish and Danish have all been made, but many years later. More recently a translation has been made into Croatian, but so far no Italian version has appeared.

The tercentenary of Harvey's birth was marked by a new translation into English by Chauncey D. Leake and the tercentenary of his death is being marked by a translation made for the College by Professor K. J. Franklin.

39. WILLIAM HARVEY

Opera omnia a Collegio Medicorum Londinensi edita. London, 1766.

The Latin text published with Professor Franklin's translation is taken from the edition of Harvey's works published by the College in 1766. The work was undertaken by a committee consisting of the President, Dr. Lawrence, Dr. Heberden, Dr. Pitcairn, Dr. Askew, Dr. Akenside, Sir Clifton Wintringham, Dr. Pringle, "and any other of the Fellows that shall please to attend". Dr. Akenside, as well-known for his poetry as for his medical writings, wrote the preface and saw the volume through the press, and Dr. Lawrence, friend and physician of Dr. Johnson, wrote a life of Harvey for which he was voted £100 by the College. The lists of emendations made in the first editions of the *De motu cordis* and the *De circulatione sanguinis* bear witness to the care with which the text was prepared. The Bedell, Mr. Barker, was finally asked to make an index, and was given £21 as "a present for his trouble". A copy of this edition was given to each Fellow, Candidate and Licentiate, and also to Mr. Beauvoir, Headmaster of King's School, Canterbury. This was in March 1766 (*see also no. 11*).

Two copies of this edition are shown. One is an interleaved copy originally presented in 1829 to Mr. Hunter, the Bedell of the College, for faithful service; coming into the possession of Sir Wilmot Herringham it was used by him to record the variant readings in a number of editions of the *De motu cordis* in the College library.

A NOTE ON THE PORTRAITURE OF WILLIAM HARVEY

The portrait in the collected works was engraved by J. Hall from the well known painting which hangs in the library, formerly attributed to Cornelius Janssen. It was one of the two portraits saved from the Great Fire in 1666. The other was of Simeon Fox. The statue which the College caused to be erected in Harvey's honour in 1652 also perished in the Fire. The marble bust by Peter Scheemakers at the head of the staircase was presented in 1739 by Richard Mead and probably commissioned by him not long before. Two plaster casts similar to this will also be found, one in the hall and another in the Harveian Librarian's room. The three statues in stone in the portico are of Thomas Linacre, Thomas Sydenham and William Harvey, and were executed by Henry Weekes, R.A., being commissioned and paid for by subscription of the Fellows in 1876.

The portraits of the Harvey family in the hall are from Rolls Park, and originally comprised pictures of Thomas and his seven sons. Those of Eliab and Matthew Harvey are missing. The portrait of Eliab having been removed by Captain Richard Lloyd, a lineal descendant through Admiral Sir Eliab Harvey, is now in private possession in America.

The Rolls Park estate near Chigwell, fifteen miles to the east of London, was acquired by Eliab Harvey early in the seventeenth century, and the house was greatly added to and altered in the eighteenth century. It was restored at great expense in 1921, but was in military occupation during the second world war and is now more or less derelict. The portraits of Harvey and his brothers were set in plaster frames surrounding a portrait on a panel of their father, Thomas Harvey, dated 1614. This setting, together with the other plaster decorations of the room, appears to have been executed in the late eighteenth century, though there is no reason to doubt that the pictures are all contemporary paintings. They were re-discovered by Sir Geoffrey Keynes and removed to the

National Portrait Gallery in February 1949; after cleaning they were lent to the College by their owner Mr. Andrew Lloyd.

William Harvey is shown as a man of about 45 with dark hair, a heavy moustache and a small peaked beard (*see frontispiece*).

The other portrait, of Mary Harvey, who died in 1622, is probably of a cousin. Harvey had two sisters, but their names were Sarah and Amy.

A NOTE ON GENEALOGY

A genealogy of the Harvey family was published by W. J. Harvey in 1889. It was a small pamphlet (18 pp.) which did not extend much beyond the 18th century. A much more detailed investigation has been carried out by Dr. R. St. A. Heathcote, F.R.C.P., formerly Professor of Pharmacology in the Welsh National School of Medicine. His interest in the genealogy of Harvey may have been prompted by the discovery that he was descended from Daniel, younger brother of William Harvey, and Mary, sister of Sir Thomas Millington, sometime President of the College. Dr. Heathcote's death in 1951 prevented him from completing his self-imposed task of investigating the descendants of the Harvey family from the end of the 16th century to the present day. Nevertheless certain well defined groups may be discerned in his papers which were presented to the College by his son in 1952.

Among some 20,000 names only two representatives of the medical profession have so far been noted. One is Sir William Duncan, Bart., F.R.C.P. (*d.* 1774), physician-in-ordinary to George III, and the other Frederick Howard Marsh, F.R.C.S. (1839-1915), house-surgeon to the Hospital for Sick Children in Great Ormond Street; here he slept in an attic which was only separated from the scarlet fever ward by a narrow passage. Marsh married in 1870 Jane Perceval, granddaughter of Spencer Perceval, the Prime Minister who was murdered by Bellingham at the House of Commons in 1812.