

HEMPSTEAD CHURCH, ESSEX.

The grave of Dr. William Harvey.

An article from the Quiver of 1871.

HEMPSTEAD CHURCH, ESSEX.

The grave of Dr. William Harvey.

WE shall not be accused of exaggeration in saying that, probably not one in a hundred of our readers know anything of Hempstead Church. We call upon our friends to bear in mind that we are treating of Hempstead Church in Essex and not of Hemel Hempstead in Hertfordshire. The places are so often confounded that the caution is by no means needless.

Essex Hempstead is a simple agricultural village, far from the great highways of modern life, with its nearest post-town, Saffron Walden, six miles distant, and ranking only as a chapelry of Great Sampford. It may, indeed, humbly remind "the general public" that the compilers of Domesday Book deemed the place worthy of an entry in their ancient record, also that the old Hall could number among its possessors the De Clares, De Veres, De Watevils, Langhams, Cottons, and Harveys. The general public might respectfully listen to such details, & but not one in ten thousand would, thereby, be induced to visit Hempstead. Even Mr. Buckler omits this church from his book, "The Churches of Essex". Among the twenty-two ecclesiastical structures described and delineated in his work, the name of Hempstead is not found. Then what claim has the place to any notice? It is the burial-place of a famous Englishman, whose name is honoured in every civilised land, and whose great discovery has a personal history for every human being. Thousands may care little for the questions, whether there be mountains in the moon or satellites revolving round the planet Jupiter, but the discovery or proof of the circulation of the blood is too intimately connected with health and disease to allow the name of Harvey to perish. It is the one peculiar honour of Hempstead Church that it contains the dust of this famous revolutioniser of medical science. Some may regret that the tomb of such a man is not in the church-yard, to be seen by all who pass to morning and evening prayer. The visitor who would stand by the singularly-shaped leaden coffin of the great anatomist must descend into the vault of the Harvey family, beneath the monument chapel on the north side of the church. (The building forming a sort of north aisle to the chancel, and having five small pointed windows, is the Harvey Chapel.) The coffin is formed so as to resemble the shape of a human body; a peculiarity which belongs to other "narrow cells" in the same vault. Thus closely covered on all sides by its leaden case, the body is probably but little changed, and may still retain the features so well known to both English and foreign physicians of his own times. The bust, epitaph, and monument are not in the burial vault, but in the chapel above. The bust deserves especial attention, as it is thought to have been sculptured from a cast taken from the doctor's face, immediately after death. As near, therefore, as impassive marble can represent the energies of life, we may regard this bust as setting before us the very features of Harvey. The epitaph is, of course, in Latin, and does not affect any sublime brevity, though some may consider twenty-six lines not too many for a man

2.

like Harvey. Some may deem the language exaggerated when it declares that Harvey "procured health for the world"; but all will assent when immortal fame is claimed for the great discoverer. A pardonable emphasis is laid on the statement that Harvey was physician to two kings, "there most SEPENE MAJESTIES James and Charles; and the fact that Harvey died childless is recorded with something like melancholy pathos.

As the church owes all its fame to the great man buried therein, we shall not be expected to detain the reader by dwelling on minute architectural details, or by disquisitions on the antiquity of the pile ---- our remaining space^{may} be most suitably appropriated to a short account of Harvey, and of his great discovery.

WILLIAM HARVEY was born at Folkestone, Kent, on the first of April 1578. His mother Joan, of the Halke family, is buried in Folkstone church, where an epitaph duly records the fact that she was "the mother of seven sons and two daughters", and sums up her virtues in the words, " a godly, harmless woman".

Harvey received his early education in the ancient grammar-school of Canterbury, and entered Caius college, Cambridge, in his fourteenth year, about thirty years after the learned court-physician, Dr. Caius, had refounded old Gonville Hall. The learned doctor might reasonably expect that many a skilful physician would often pass under his ~~ex~~ college gates, of "humility, virtue, and honour;" but that one of its future fellows would eclipse even the fame of the great father of medicine, Hippocrates, Celsus, and Galen, would have been thought an arrogant or visionary expectation. Dr. Caius did indeed, provide means for the thorough study of anatomy, by obtaining a licence from Queen Elizabeth for his college to receive the bodies of two executed criminals yearly, for the purpose of dissection without paying for the same.

Although Honest-hearted Fuller declares that Dr. Caius "bequeathed a medicinal genius" to the college, which he calls " a little Montpellier," and enumerates twenty seven ^{physicians} ~~positions~~ of his own time who had been educated there, yet it was not at Cambridge but at the University of Padua that Harvey obtained the clue to his great discovery, from the learned and famous Fabricius. He took the degree of M.D. at Padua, returned to England, became a fellow of the College of Physicians, and physician to St. Bartholomew's Hospital; but not until about thirteen years after he had listened to the lectures of Fabricius, did Harvey venture to propound his discovery in the hall of the ancient London hospital.

Perhaps at this point some readers may feel entitled to ask what was the exact nature of the discovery made by Harvey, and by what means was he led to see what had been hidden from so many thousands for long ages. If the reader were to examin a vein of the human body, he would see valves placed at certain intervals along the course of the vessel. These valves are so formed as to allow the blood in the veins to flow in one direction only, towards the heart. When from any shock to the system, the blood tends to flow in a

direction from the heart the valves instantly close, and stop this backward motion of the fluid. Further observations show that the arteries are fitted to carry the blood in one direction only- from the heart. It may seem that the mere knowledge of such structures in the veins and arteries must have suggested the truth to the dullest mind. Some notion of a circulation was, indeed, held by the old anatomists, but so imperfect and so mixed with error as to be almost useless to guide men's investigations. The veins were supposed to distribute the blood over the body from the heart, the arteries were thought to be filled with ~~ax~~ air or "vital spirits", while "vapours" were imagined to be sent to the lungs from the left side of the heart.

The true cause of the English physician's success was his reverence for facts and disregard of brilliant theorising. A long series of ~~dissections~~ dissections enabled him to demonstrate where others had but guessed. The conviction that "nothing is made in vain" led him to feel that the peculiar arrangement of the valves in the vessels must have been designed to aid in a circulation of the blood. At last, after multiplied observations, after many years of questionings, fears, and hopes, he felt sure that the the truth had been found, and published the result to the world in the year 1628. The work was entitled "An Anatomical Treatise on the Motion of the Heart and Blood in Animals." (*Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus*) The work ^{was} given to the world at Frankfort, whence it could be rapidly circulated over Europe. If the saying, "A great book is a great evil," be true, then the famous work of Harvey ~~was~~ is most assuredly free from such a censure. It is in size but a pamphlet, containing two dedications and seventeen short chapters. The first dedication is to Charles the first., and the second to the College of Physicians. The book was in Latin; for bold indeed must the man have been who would then have dared to discuss scientific subjects in "the vulgar tongue."

Some readers will naturally ask, how was the work received, and how was its author treated? It has been said that no physician above the age of forty embraced the doctrines of Harvey; and assertion easily made, but not easily proved. There is, however, evidence of a sharp opposition from two quarters - from learned professors and from the general public. The famous Riolan, called by his admirers "the prince of anatomists," led the assault on the Continent, and influenced many to whom the arguments of the court-physician of Mary of Medici would seem words of power. Dr. Primerose, of London, fought valiantly for the opinions of the ancients, and others followed with more of vulgar passion than of learning. The higher class of opponents treated Harvey with respect, but there were minds who gave slanders instead of arguments, and vituperation in place of wit. From some of these must have come the insolent and stupid statement, that the opinions of such a doctor were "not worth three-pence". Harvey was at all times ready to answer reasonable objections but could not avoid expressing the wish that men would not stoop to "scurrilous language, calumnies, and reproaches." There is, however, abundant proof that Harvey's discovery brought him due honour even in his own country. He was the trusted physician of Charles I, who appointed him warden of Merton College, Oxford; the College of

Physicians raised a statue to his honour in 1652, and described him as "an immortal man". Two years later this learned body elected Harvey their president, and thus proved to Europe that the discovery of the English physician was rightly estimated by the heads of his own profession. The extent to which the king placed confidence in Harvey was shown by entrusting him with the charge of the two young princes, Charles and James. It thus came to pass that the court-physician became a court-politician, and shared in the fortunes of the king during the great civil war. He was present at the battle of Edgehill, when the religious quietude of an English Sunday was broken by the roar of artillery. The doctor seems to have had no vocation for military manoeuvres, for, having placed himself and the two princes behind a sheltering bank, he passed his time in reading, while parliamentarian and royalist were furiously engaged in the first great death-struggle of that memorable contest. Harvey's politics produced a loss to science. The excited Londoners of that time may have been unable to appreciate the value of his anatomical discoveries, but they bitterly resented his adherence to the King's side. When the mob attacked Whitehall Pallace, Harvey's rooms there were plundered and many of his valuable manuscripts destroyed. But this popular outbreak was directed against the politician, and not against the scientific discoverer.

We have already intimated that the great discovery of the English doctor was not universally received; but some who admitted the truth of his doctrines, attempted to deprive him of the honour due to an original teacher, by asserting that all the important facts had been known long before. According to these gentlemen, Harvey was not a discoverer, but only an ~~ingenious expander~~ *ingenious expounder* of other men's ideas.

The names of no less than eight persons ~~xxx~~ were proclaimed as the discoverers of the circulation of the blood. Vanderlinden, in 1664 declared that the doctrine was contained in the work of the Greek physician, Hippocrates, two thousand years before the time of Harvey; others claimed the knowledge of the great fact for Nemesius, an obscure Syrian bishop of the fourth century; although Nemesius himself believed the arteries and left side of the heart were filled with a "fine air-like substance. Some men affirmed that Pietro Sarpi, otherwise called Father Paul, knew all about the circulation of the blood, and communicated his views to Fabricius, from whom Harvey learned them. Fabricius, Coesalpinus, Columbo, and even the Spanish physician Servetus, so cruelly burnt at the stake through the bigotry of Calvin, were all credited by different parties with the honour of the discovery. Even when these names were put aside, and Harvey's claims stood unquestioned, attempts were made to represent the discovery as a very small matter indeed, and one which could have been made by any ~~xx~~ anatomist of good common sense.

Even Dr. William Hunter, in one of his lectures, ventured to assert that "three quarters of the discovery" had been made before the time of Harvey, of whom he rather condescendingly speaks "as a very fortunate and respectable man" adding, by way of a sting, the remark, that "none of his writings show him to have been a man

of uncommon abilities".

Some readers may ask the meaning of Dr. Hunter's expression, "three quarters of the discovery." He doubtless, in this misleading phrase, alluded to what is called "the minor circulation," or that through the lungs only, which was known to many in early times. Harvey's great work was the tracing the blood through the heart, and explaining the action of that complex vital organ. If only "common abilities" had been required for this, it is surprising that such a man as the renowned Fabricius failed to see the hidden truth.

Long-continued and watchful observation of vital phenomena seems to have been the special power of Harvey. If this quality be an endowment of "ordinary ability", then, perhaps, he can claim no higher mental rank than that so graciously assigned him by Dr. William Hunter. The mode in which the first development and subsequent growth of the chick in the egg are traced from day to day, well illustrates this peculiarity of Harvey's genius. His researches on the subject were incessant; laying hens were kept in his rooms at Oxford, that the date of each egg might be ascertained. Blackbirds, thrushes, and other small birds could not live happily in his neighbourhood, being constantly trapped or shot to provide subjects for dissection. Not even his wife's learned and wonderful parrot escaped; immediately on its death the lamented pet was given up to the scientific knife, in order to settle a nice point in physiology. Deer killed in Windsor Park were often given up to Harvey for dissection, and the reader may see some results of these wide and varied observations in the famous work on "The Production and Development of Animal Life." "(Exercitationes de Generatione Animalium)" "Subjects" for dissection were not always accessible to a zealous anatomist in those times, and it was therefore with a pardonable professional joy that Harvey received directions, in 1635, to make a post-mortem examination of the body of the once celebrated "Old Parr". This modern rival of the antediluvians was said to be 153 years old, and, judging from the doctor's examination, there seemed no reason against his living for as many years more, if London would but have left him to the quietude of his country home. Readers who are curious in such matters, may read Harvey's Latin report of the examination contained in the quarto edition of his works published by the College of Physicians.

The College had substantial reasons for remembering this famous member of their body. The hall, library, and museum in Warwick Lane were built by him, a considerable estate was appropriated for the support of the institution, and an annual oration established in commemoration of benefactors. The physicians have abandoned Newgate Market; the hall raised by Harvey is now a warehouse, but the new College in Pall Mall will not forget the great doctor whose discoveries prepared the way for a long line of illustrious successors.

Harvey seems to have passed the latter part of his life in his house at Lambeth, then almost a rural suburb of London. Hempstead was far too remote from the literary and scientific life of England to become his settled residence. It may have been well suited for an occasional autumnal retreat, or Christmas merry-making, but the

metropolis, Cambridge, and Oxford were the homes in which the scientific physician could then most easily meet poets, scholars, and philosophers. Harvey was not a man of one idea, nor the mere associate of doctors. Amongst his friends were the political and metaphysical Hobbes; Dryden the great master of English; the learned and poetical Cowley, and the honest searcher after truth, Robert Boyle. There was also the society of those scientific men who were then endeavouring to give a higher and more philosophical aim to English intellectuals. Amongst these we find the able defender of (page torn) discovery, the once famous Dr. John Wallis, renowned both as a mathematician and logician; Sir Christopher Wren, then admired for his devotion to science, afterwards renowned as the architect of restored London; Evelyn, the author of "Silva" who often left his loved retirement at Sayes Court, Deptford, to join the scientific meeting at Gresham College; and last, but by no means least, the ingenious Dr. Wilkins, brother-in-law of Cromwell and Bishop of Chester, whose notions of a peopled world in the moon, and of a machine to enable men to fly through the air were derided by the wits and argued against by the philosophers.

Harvey's

Amid such companions, Harvey reached his eightieth year, full of honours, and witnessing the triumphant progress of his physiological theories. One fear that he should become blind, seems to have oppressed him. The dreaded evil appears to have really happened, just before the close of life. On the morning of what proved to be his last day, he was surprised to find, on waking, that his room was dark, instead of being bright with the rays of a June sun. The servant was summoned. "Are the shutters open?" was the question put. Yes they were all open. Harvey at once felt that for him there was no more light. What is said to have then happened is rather difficult to be understood. Harvey asked for a particular bottle which stood on a shelf in his room; he took a drink from it, and died in three hours after. Some hinted that the aged physician had poisoned himself; others more reasonably suggested that, under the excitement caused by his sudden and great privation, so large an opiate draught was taken as to cause death. Thus died the man whose name will ever be associated with the perfecting and demonstration of one of the greatest physiological discoveries.

The physicians of London gave a public proof of the esteem in which they held their eminent collegian, by not only joining the funeral procession, but by following the hearse for some miles along the road to Hempstead. Some may regret that so renowned a man was not buried in St. Paul's or Westminster Abbey; but it is well that so many of "England's worthies" should sleep the long sleep near their native homes, and that every district should thus have in its midst the stimulating memorials of the great and the wise-hearted. Hempstead Church has not been the centre of great political or ecclesiastical events; no antiquarian has found in it a volume of architectural symbolism, but it can claim the peculiar honour of holding in its keeping the body of William Harvey, the prince of English physicians.

W.D.