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## A PATRONAL FESTIVAL FOR THOMAS WILLIS (1621-1675)

WITH REMARKS BY SIR WILLIAM OSLER, BART., F.R.S.

By HENRY VIETS, M.D.

NEWTON, MASS.

YEARLY festival in honour of a medical worthy is certainly an occasion of note, especially if it has been held annually for one hundred and eighty three years, and is still observed in England, in spite of the War. Last fall, news came to Oxford, England, from the little village of Fenny Stratford, Buckinghamshire, that the exercises in

it to St. Martin. It was so dedicated because Thomas Willis had lived in St. Martin's Lane, London, had died on St. Martin's Day and had acquired his wealth and fame as a seventeenth century practitioner in the Royal Parish of St. Martin's-in-the-Fields. The fortune fell to his grandson. During the life of Browne Willis, a festival was held annually in honor of his grand-

father. When he died he left the following note:

". . . and I do make it my request . . . that they will with all due solemnity ever keep up and see to the annual celebration of S. Martin's Festival . . . in the Church of Fenny Stratford, in the manner as I have solemnized it annually . . . for 26 years, in all which time I have been constantly present and heard a sermon."



St. Martin's Church, Fenny Stratford, Buckinghamshire, England. Built in 1731 in honor of Thomas Willis by his grandson.

honor of Thomas Willis would be held as usual on November fourteenth and that Sir William Osler would deliver the "oration" of the day. I was fortunately able to attend this exercise and I am sure that a short account of the proceeding would be of interest to some of the readers of the Annals of Medical History.

The festival had its beginnings in 1734, three years after Browne Willis had built a little parish church in his home village, in memory of his grandfather, and dedicated He also left for an endowment fund two old houses near the church. The cottages were pulled down a few years ago, being no longer fit for occupancy, and the money was invested in a war loan.

The festival itself, as celebrated last year, has some interesting features, not the least of which are the "Fenny Poppers." The poppers consist of six small iron mugs which are filled with powder, placed in a field and fired off, like a cannon, by a fuse. The original poppers of Browne Willis's time have been broken, but some thirty years ago six

St. Martin's Parish,

FENNY STRATFORD.

new ones were made, modeled after the old ones and these are fired off yearly by the church wardens in strict accordance with Browne Willis's wishes. Another feature is the church service which this year was held in the little brick church late in the afternoon of November 14, 1916.

The church stands on high ground at the cross roads of the town, one of which is

Watling Street, the old Roman road. The north side is the oldest part, built in 1726. Just inside the door, the Fenny Poppers are kept. Inside the chapel, most of the interest falls on the north aisle. The ceiling is exceptionally fine, being decorated in colors with forty armorial shields, with a "cave" around it of twenty-six more, the crests of all the donors of ten pounds or more to the original building fund. These are beautifully executed and have recently been retouched under the skillful direction of Dr. William Bradbrook, a local antiquarian with the best interests of medical history at heart. The ceiling to-day is one

of the best preserved armorial ceilings in England. The tomb of Browne Willis stands at the further end of the north aisle. In a small room beside the altar is hung an engraving of Doctor Thomas Willis, dated 1742, under which Browne Willis has written—

In Honour to thy memory, blessed shade, Was the foundation of this Chapell laid. Purchased by thee, thy son and I, their heir Owe these three mannours to thy art and care. For this, may all thy race, thanks ever pay, And yearly celebrate St. Martin's Day.

The Bishop of Buckingham preached a short sermon. Some sixty good church members were there with twenty medical men from Fenny Stratford and the surrounding country. It was an impressive service. The bishop had an appropriate text, "The old is good," and one felt that under the guidance of the Church, such an annual festival spirit would never relinquish.

After the service, we wandered across the street to a comfortable old English tavern and about thirty sat down to a jolly dinner. Later, in the town hall, coffee was served by the ladies of the parish. There was an exhibition of a number of old engravings of the church, some old books and other objects of interest.

When Sir William Osler was called upon to speak the hall was crowded with the villagers from miles around. His presence in Fenny Stratford was a red letter day for this little country town. Sir William Osler was at his best in his talk on "Willis the Anatomist," not a bit of which was lost on

these simple country folks and honest practitioners. The spirit of medical history is dear to the heart of many English physicians and most of them pride themselves on being antiquarians. As Sir William Osler's talk was not written, I can only give it as it appeared in the local paper.

## PATRONAL FESTIVAL (183rd Year, or thereabouts) HELD Tuesday, 14 November, 1916. BROWNE WILLIS, D.C.L., F.S.A. BROWNE WILLIS, D.C.L., F.S.A. BROWNE WILLIS, D.C.L., F.S.A. E. R. FIRMINGER, M.A., Vicar. W. E. COOKE, E. R. RAMSBOTHAM, Churchwardens.

## REMARKS OF SIR WILLIAM OSLER

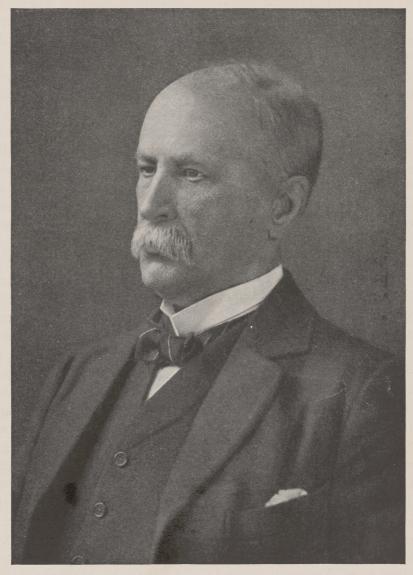
"As Fenny Stratfordians, you do well to cherish the memory of the distinguished family to which the parish is so much beholden. It is not always easy to find enthusiasm for an annual festival, but St. Martin of Tours is a jovial host whose name is associated with all sorts of good living and better company. That the annual dinner preceded and did not follow the oration suggests a wise provision on the part of the Saint to whom a personal reference stirs my blood when I think of some far-away ancestor whose hostelrie was so good and whose hospitality, I hope, was so free that his guests, in gratitude, called him by the name of his house; the name from which my own name is obviously derived. It is fitting that the Regius Professor of Medicine at Oxford should come here to honour a family to which Thomas Willis, the anatomist, grandfather of their founder, belonged. This is the first time, I believe, in the many years you have held the festival, that my chair, the University and the College to which Willis belonged, have been honoured in this way. Another reason for my presence is that I happened to be curator of the Bodleian Library to which Browne Willis was a very generous donor. Then, I have the great pleasure to be the friend of Dr. Bradbrook, your townsman, who has done so much to keep alive the memory of Browne Willis. This evening I wish to speak of Willis, senior, the physician, whom you all know in the profession, and of his circle at Oxford. Thomas Willis took his M.B. in 1646, and began his practice in a house, still existing, known as Beam Hall. He had a special interest in the Church of England, and during the Cromwellian occupation of the city, the services of the Church were held twice a day in his house. One of the most famous pictures hanging in the hall in Christ Church shows John Fell, John Dolben and Richard Allestree with a copy of the Liturgy open before them. That picture may have been taken in Willis's house opposite Merton, where

these three men, all great friends, were in the habit of attending the service of the Church of England twice daily. Willis married for his first wife a sister of John Fell, the Dean of Christ Church. Browne Willis's devotion to the Church was natural—his grandfather had it before him. To Willis's special circle in Oxford belonged a most interesting group in the history of science in England.

The awakening of science in England had begun in the early part of the 17th century, and perhaps the first scientific work of first rank to be published in Great Britain, was Gilbert's De Magneto (1600). Harvey's memorable work on the 'Circulation of the Blood' appeared in 1628. Harvey was himself at Oxford during the period in which Willis was an undergraduate. Whether they ever met or not is not known, but whilst there he met a group of men whose lives and works as the founders of the Royal Society have had the greatest influence of any single group of men on the development of science in this country. Wallis himself told the story of the Society's meetings, first in London and then in Oxford. Most of the scientific subjects they discussed had been set on foot really within the previous thirty years, chiefly by the remarkable observations of Galileo. These men, who had an important influence on the subsequent development of science in this country, deserve to be held in remembrance. Seth Ward, who was subsequently Bishop of Exeter and of Salisbury, was the centre around whom the majority of these scientific men revolved. He was 'a profound statesman, but a very indifferent clergyman.' Wallis, who was also a Cambridge man, was, more than any single man, the living spirit in the formation of the Royal Society. He was a great mathematician, and, in a most astonishing mathematical dream, extracted the figure root from

e eight groups of figures—and it was correct. He became Professor of Geometry at Oxford, and his reputation as a mathematician extended throughout Europe.

and became so much interested in the studies that were in progress with Willis, Boyle and others that at first he studied medicine; and it is a remarkable fact



SIR WILLIAM OSLER

Another man who had quite a great influence was Wilkins, Warden of Wadham, a very ingenious man with a good mechanical head, who was afterwards Bishop of Chester. In Wadham College is still shown the early meeting room of the Royal Society in Oxford. Perhaps the best remembered genius of the group is Christopher Wren, who was an undergraduate at Wadham College in 1649,

that the distinguished architect was the first in England, probably in Europe, to invent a method for the transfusion of blood from one human being to another, or from one animal to another. He is also remembered as the first man who made drawings from the microscope. He also did many of the drawings for Willis's works. Another remarkable member of the group was the Hon. Robert Boyle,

son of the Earl of Cork. He was a great exponent of the experimental method, and every elementary student of physics still knows him through Boyle's law. It is astonishing when one thinks how much Boyle did, how little was the impression he made. It was probably due to the fact that he was rather a rough experimenter; he had a better mind than hands. Coördination of head and hand are necessary for a great experimenter. But he did a great work in stimulating research and a good deal of the reputation of English science on the continent was due to him. Another extraordinary character in the group was that genius, Sir William Petty, who made the Down Survey in Ireland, and was the founder of the science of political economy. He went to sea at eight or nine years of age, and while being nursed in France for a broken leg he began a career of moneymaking. He went to Paris with no other capital than his native wit, became a doctor, and came to Oxford at the time one of my predecessors had the fortunate habit of fainting whenever he saw a dead body, so it was impossible for him to do dissection. Petty was made Professor of Anatomy, and joined this circle of Boyle's, and was a most invaluable member of it. He became wellknown throughout the country as the resusciattor of Ann Green, a young woman who was 'hanged by the neck until she was dead,' and then handed over as a perquisite to the Professor of Anatomy, who claimed the bodies of all criminals for dissection. In spite of the fact that the relatives had tugged at the rope, before the body was cut down and had jumped on her to make sure she was dead, Petty resuscitated her, and she lived for many vears and became a very respectable member of the community. It was a great loss to Oxford when Petty went to Ireland; he is of interest to the present generation as the founder of the Lansdowne family. Other remarkable men of the circle were Sydenham and John Locke, the author of the 'Essay on the Human Understanding,' which even an ordinary woman can read. There is no one in the room who would not be improved by a careful study of this book over a period of several years. The last man of the circle is Lower, who did a good deal of work for Willis, whose name is remembered by the smallest single fragment in the human body. It is astonishing on how small a cork a man will float down the ages. He did, however, a great deal of good work, especially in the dissection of the brain. These were Willis's friends during the years he was a practitioner in Oxford.

Willis did two things; he made himself a good scientific man as far as the science of that day went, and he made himself a first class practitioner, and those two sides of the man are presented in his works. It is not possible in a mixed audience to go into the character of his work, but there are one or two things that will interest you. The first of his collected works was a 'Study of Fermentation.' From time immemorial, it had been one of the great mysteries how certain bodies undergo the extraordinary change known as fermentation, and why at the end of the fermentation there was such a good change in the liquid. Willis studied this mystery and made it still greater in the pages he devoted to it. But he grasped one very important thing, the analogy between a fever and fermentation. He made the very interesting observation that there is no difference between the vintner and the physician; when the vat becomes too full in fermentation the vintner draws off some of the liquid, and he said: 'What is that but what we do with blood fermenting in a fever?' That was a good reason for phlebotomy. It was not until 1857 that the problem of fermentation was solved by Louis Pasteur, who showed that fermentation is not a pure chemical process, but due to changes owing to the growth of living bodies in the fluid. That is the greatest single discovery as far as the welfare of humanity

showed that if one took the tiniest little drop on the point of a needle from a fermenting fluid and put it into a sugary solution it would create fermentation; and, in just the same way, the tiniest drop of blood from an animal suffering from



THOMAS WILLIS (1621-1675)

is concerned, and it has had the farthest reaching influence of any single discovery of the century. It revived the parallel which had been drawn 300 years before between fermentation and fever. Fracastorius had called attention to it in the 16th century, and Boyle had said that the man who would solve the problem of fermentation would solve the problem of infectious fevers. Pasteur solved both. He

anthrax would cause identical changes to occur in the blood of another animal; there would be a multiplication of the germs, a change in the fluid, and at the end of the fever produced by the anthrax one could not induce the fever again by inoculation. That was the foundation of our modern treatment of infectious disease and the antiseptic treatment of wounds.

Besides this subject of fermentation,

Willis also dealt with intermittent fevers and enteric or typhoid fever. He was one of the first to describe an epidemic in 1643 in the army of Essex besieging Reading. He reported also on an epidemic in 1661. It is interesting to see what he prescribed for typhoid. One would not care to have typhoid fever and to be treated by Willis. The patient would be lucky if he were not bled, dosed with all the available purges in the Pharmacopæia, sweated, given two or three active vomits and blistered on the calves of the legs, the abdomen, and probably the back. These were five articles of the treatment of fever that the public at present is spared. Willis was one of the first to describe typhoid fever in epidemic form, and one of the first to give an accurate description of child-bed fever. He was the first to give an accurate account of the disease known as diabetes, and he recognised the saccharine or sugar variety from the ordinary form. He is better remembered to-day by his big work on the brain. He did a really fine piece of study on the human brain, and it was the best book of its date on the nervous system, not only in the description of the anatomy of the brain, but of the anatomy of the nerves, in which he was greatly helped by Lower's sections and Wren's drawings. His classification of the nerves of the brain remained in England until my own generation. Willis is remembered particularly by the description of certain blood vessels at the base of the brain known as the circle of Willis. A great part of Willis's book is taken up with a 'Pharmaceutica rationale.' It is as dead as Willis. It gives me a shudder to

think of the constitutions our ancestors had, and of how they withstood the assaults of the apothecary.

It is really a wonderful age to live in, more for what the human body misses than for what we have. When I look through the list of drugs that were given and the prescriptions that were then followed, I feel that the public has to thank the profession for having got rid of so many nauseous and horrid drugs. We still have a fair number, not that the profession likes to give, but the public will have them. In some of Willis' prescriptions, there were ten to fifteen different ingredients—each worse than the other—besides vomits, purges, sweatings, diuretics, cordials and opiates. Sydenham and Willis probably owed much of their reputation to their knowledge of how to use opium. Willis wrote, amongst other things, two discourses on the soul of brutes, which would be a very good exercise for any medical student or doctor. Altogether, Willis is an interesting character to contemplate. I have known him for a good while and I have known him far better since I had vour kind invitation and have had to read Willis's large book through, from which I got a great deal of information I did not want, and have refrained from giving to you. I have only picked out a few parts here and there, but it has been a pleasant task, and I feel a good deal better for it. Willis was a great and a good man, and the 15th Psalm the Chairman has read at the service is most appropriate. It just suited him. There are many good descriptions of the upright, righteous man, but none better than that in the 15th Psalm, which fits Willis to a 't."