

THE CHAMBERLENS AND THE OBSTETRICAL FORCEPS.

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(With three illustrations.)

THERE is no doubt that the Arabian surgeons used forceps to deliver the fetal head in difficult labors, as Avicenna mentions them; also Albucasis, who died in 1112, gives drawings of crude forceps used in his time. Their inner surfaces were, however, provided with teeth which were intended to penetrate the head and it is evident they were used only as cranioclasts on the dead child.

The probability is that forceps for the delivery of the living child did not exist in remote times, but to whatever extent of perfection they may have reached, all knowledge of them had been lost for centuries and their reinvention would in reality be a discovery.

Rueff in 1554 published a book on midwifery which was translated into English under the title of "The Expert Midwife." By some he has been conceded the discovery of the midwifery forceps. He was, however, an obstetrician of no exceptional ability. His book is far inferior to that of Rhodion which preceded it. It is full of much useless and harmful matter, and Rueff's name would be now scarcely known were it not for his description of the method of extracting dead children and the instruments advised for the method, namely, the duck-bill forceps, tooth forceps, and the long smooth forceps. It is to the mention of the last named that he owes his notoriety. There is a representation in his book of this instrument, and as Mulder observes it is like a lithotomy forceps, and he states, "it could have been no more his intention to grasp the fetal head with this instrument than with tooth forceps,

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both of which could only be used to grasp portions of the broken up fetal skull."

Curiously enough, Heister recommends stone forceps for extracting a dead fetus and writes that the large forceps for extracting stones are much better than the hook or any other instrument.

According to Aveling and to all investigators it is irresistably proven that the invention of the midwifery forceps belongs to the Chamberlin family, to which generation of this interesting family of famous obstetricians is the only question left to solve. The discovery was a family secret, handed down from father to son and their mysterious manner of delivering difficult cases brought success and fame to each early in life.

The Chamberlins have been much censured by writers for withholding a secret, which would and has meant so much to the saving of human life, but as Aveling states, "It is not fair to judge members of our profession, who lived over two hundred years ago, by the code of ethics which medical men now accept, and at the age in which the forceps was invented the profession delighted in mystery."

Still, in 1723, Palfyn, a physician of Ghent, exhibited before the Paris Academy of Medicine, a forceps which he designated as *mains de fer*. It was crude in shape and did not articulate, and in the discussion following its presentation De la Motte stated that it would be impossible to apply it to the living woman, but added that if by chance anyone should happen to invent an instrument which could be so used and keep it secret for his own profit, he deserved to be exposed upon a barren rock and have his vitals plucked out by vultures; he little knew that at the time he spoke such an instrument had been in the hands of the Chamberlen family for nearly a hundred years.

The founder of the family was William Chamberlen, a French Huguenot, who in 1569 was living in Paris with his wife, Genevieve. They were suffering all the hardships and cruelties to which those of that faith were exposed, so when at this date fresh persecutions were ordered they determined to seek shelter in England. From the admirably kept register of the Church of St. Julia, where it was the custom upon the arrival of refugees to enter their first reception of the Lord's supper in the book it is learned that Southampton was the destination chosen. The following entry occurs in French. "Ensuyt les noms de ceux qui ont fait professio de leur foy et admis a la Cène."

The family consisted of father, mother, and three children, Peter, Simon and Jane, while the register shows that another son, James, was born the year of their arrival, and three years later another son, Peter. It is this fact, that there were two brothers named Peter living at the same time, and a son of the younger one of these called Peter, and later two Hugh Chamberlens that has so confused biographers.

There is no positive proof that William, the father, was a doctor; but the following are four reasons given by Aveling for believing he was: First, in France at this time Protestant physicians were not allowed to exercise their profession under the claim that they did not advise their patients when the moment was come for taking the Sacraments. Second, it appears also that at Southampton medical men of the French Church were comparatively numerous. Third, two of William's sons were surgeons, and fourth, Dr. Peter, son of Peter the younger, speaks of having been "nursed up from the cradle to all the parts of Physick, and that in the Ascelipiad families."

In a deposition concerning the birth of the younger Peter, 1596, the words "late William Chamberlaine," appear but when and where the father died no record has been found.

As has been said, Peter Chamberlen, the elder, was born in Paris and came to England with his father and mother and was at Southampton in 1572, at which time he was old enough to attest to the birth and baptism of his brother, Peter the younger.

In 1598, February 13, there is the following entry in the "Annals of the Barber Surgeon's Company:" "Peter Chamberlen hath the next Court given him to bring in his arrearages of his debts for his admission," so it is evident that before 1598 his hood had been put on his shoulders and he had been admitted into the livery. In 1607, March 2, there appears the entry: "This date it is ordered that Peter Chamberlen the olde, is granted lysence of absence from ye lectures provided he paye to the Maisters of the Company II s VI d quarterly for the same, the first payments to begin at midsummer next." And so it may be presumed that Peter the elder was already in good practice and could use his time more profitably in attending to professional duties.

It is remembered that at this period, though physicians might practice surgery, surgeons might not practice physic, and frequent complaints are to be found in the Annals of the Royal College of Physicians of the elder Peter's not confining himself to

the practice of surgery and in consequence being censured and fined. In 1612 he was again before the College "being demanded if he gave not phisicke to one Mrs. Miller in my Lo. Mayor's house he gave her a drinke for three days to dry up a moisture which he supposed came from her backe; the drink he made himselfe." It was composed of salsae, sassafras, and betonie. He conceaved they wear the whits because he sawe yellow staynings uppon the clothe." It was unanimously agreed that he had given the medicine wrongly, and his practice condemned. Accordingly on the thirteenth of November a warrant was signed for his apprehension and removal to Newgate prison.

Peter the elder did not submit passively to his imprisonment, but brought the whole of his large influence to bear. The Lord Mayor at his request, and probably influenced by Thomas Chamberlen, Mastor of the powerful Mercers' Company and cousin of the prisoner, interceded for him. A demand was made by the judges of the kingdom that he be discharged, but this demand the College could and did deny, Peter being committed for Mal Praxis. Lastly, the Archbishop of Canterbury, at the mandate of the Queen, prevailed with the president and censors and the prisoner was released.

The College did not like this interference, and the Archbishop was interviewed by the President and Censors. He received them pleasantly and declared that he would hereafter vigorously resist any assault upon the privileges of the College.

In XII James I., 1614, among the physicians, surgeons, and apothecaries receiving fees and annuities, payable out of his Majesty's exchequer, occurs the name of Peter Chamberlen, surgeon to the Queen, £. 40. In Peter's will also occurs "My diamonde ring which I had of Queene Anne." So it was doubtless due to Peter's attending the Queen in her confinements that she used her influence in endeavoring to obtain his release from prison.

The Court and Times of Charles I. show he was also surgeon to Henrietta, wife of Charles I. The following interesting note occurs.

"The Queen mis-carried of her first child. She had neither mid-wife nor physician about her, only the poor town mid-wife of Greenwich was sent for who swooned with fear as soon as she was brought into the Queen's chamber, so she was forced presently to be carried out; and Chamberleyne the surgeon was he alone that did the part of a mid-wife. This took place in 1628."

The probability is that Peter the elder lived to be about sev-

enty to eighty years of age. Little is known of his wife, other than that her name was Anne. He left one child, Esther. His estate was for that period of time a large one.

Although there are in the Southampton Register records of the birth of Jacques and Jaune, a brother and sister, no trace of the birth of Peter the younger is to be found. Fortunately there appears in the "Annals of the Barber Surgeons" a deposition in which one Robert Flewery, Martha Molin and Peter Chamberlen the elder testify that they were present at the baptism of Peter Chamberlen the younger, and that he was born at Southampton, on a Sunday about 5 o'clock in the morning, the eighteenth of February, 1572.

The reason for this record was that the Barber Surgeons had ordered "that from henceforth no alien or stranger born out of his Majesty's dominions shall be capable or eligible to bear or take upon him any place or places of office of a Master or Governor of the Company," and the date of this registration, which is 1596, corresponds with the probable date of the admission of Peter the younger to the company.

Like Peter the elder, Peter the younger was in constant conflict with the College of Physicians. There were many accusations against which he could give no satisfactory explanations, and he was often fined. Peter sought to put an end to these prosecutions by appearing before the College for examination, which he did for the first time in 1610. He does not, however, seem to have proceeded further, and there are records of several other summons after this date; once for insolent language to a Dr. Fludd and other members of the College, and often for malpractice. On one of these occasions the Censors claimed he did not know what differences there were in the pulse and called it palpitation.

In 1616 a meeting was held at the College of Physicians of London to deliberate about letters patent for the incorporation of midwives, at this meeting Peter the younger appears to have been present for in endeavoring to incorporate the midwives; his project was opposed by the College and a note shows that the following question was put to him, "whether, if a difficulty in a case of labor were propounded to any member of the College, he would not answer and judge more correctly than any obstetric surgeon whatever, in spite of his boast that he and his brother, and none others, excelled in these subjects." This query appears to have been suggested by a feeling of annoyance at the assump-

tion of superior skill by the brothers, and certainly proves that they were in possession of some secret method of practice, which they believed enabled them to treat difficult labors in an exceptionally advantageous way. Aveling asks if there can be



Aveling says: "This portrait is taken from a well-known engraving beneath which is "Paul Chamberlen, M. D., 1658." It is really the likeness of Dr. Peter Chamberlen, for at this date Paul was only twenty-three years old, while the former was fifty-seven, which age corresponds precisely with the features represented above.

any doubt what this secret method was. We learn that Peter the elder was also interested in this project, one which was in all probability a selfish one as will be shown by the accusations against Dr. Peter, Peter the younger's son who attempted to ac-

compish the same purpose later on. In regard to the incorporation a petition was sent to his Majesty, but was referred by him through his lords to the College of Physicians who, though they granted that means should be taken to better the skill of the midwife, they saw no reason why they should be incorporated, and the project was abandoned.

Peter the younger married Sara de Laune, a sister of the wealthy apothecary, Gideon de Laune, whose bust is in the Apothecaries Hall. She had a large family. Peter, who is known as Dr. Peter, was the eldest; there were also Marguerite, Sarah, William, Ane, Nathaniel, Henry, and Robert.

The record in the French Church, Threadneedle Street, shows that Dr. Peter Chamberlen was born in the parish of St. Anne, Blackfriars, on the eighth of May, 1601.

It is evident that Peter the younger was determined his son should be well endowed with medical diplomas, the want of which had been a constant source of annoyance to him; accordingly Dr. Peter was sent to Merchant Taylors School, and from there, when only fourteen years old, went to Cambridge, being admitted to Emanuel College. Afterward he went to Heidelberg and Padua and at the latter university received the degree of Doctor of Medicine in 1619, when only eighteen years of age. He was incorporated on that degree at Oxford in 1620, and at Cambridge in 1621.

His diploma from Padua, where he was under Roderico Fonseca, being found ample, he was approved by the College of Physicians on September 16, 1621, for the first examination. On February 8 he appeared for the second time and was approved, and on March 22, was examined the third time when he was recommended to wait and try again with good expectation of success. He did not appear again until July 26, 1626, when he was once more examined, approved, and thereupon elected and sworn.

Two years later Dr. Peter became a fellow of the College by a majority of votes, but it was ordered that "he be gravely admonished for his dress, and no longer follow the frivolous fashion of the youth at Court, and that he be not admitted until he conforms to the custom of the College and adopts the descent and sober dress of its members."

Dr. Peter Chamberlen quickly acquired considerable fame, not only at home but abroad. In 1642 he was appointed by the Barber Surgeons a yearly demonstrator in anatomy and a silver tankard was presented to him with the arms of the Com-

pany engraved on it. In "the Ladies Parliment" by Henry Nevill, 1647, is found the following order of the house: "2. Ordered further that Dr. Hinton (who attended the queen at Exter, where she gave birth to the Princess Henrietta) and Dr. Chamberlen be likewise assistants, that with greater secrecy and ease their Ladyships may be helped out with their most troublesome and pressing affairs." By this time Chamberlen had been appointed Physician Extraordinary to the king and Dr. Munk states that his reputation must have been considerable, for the Czar of Russia wrote with his own hand a letter to Charles I. begging him to allow the doctor to enter his service, understanding that he was willing to do so. Great preparations were made at Archangels, which was then the way from London to Moscow, but a letter from the King arrived excusing his refusal, upon the grounds that as a native Russian Dr. Elmston had studied medicine in England and had returned to his own country, so was capable of filling the office of body physician to the Czar.

At a meeting of the College held the twenty-eighth of August, 1634, at which Dr. Peter was present, Mrs. Hester Shawe and Mrs. Whipp, midwives, presented a petition regarding the incorporation of midwives. The petition is long as is the one following it sent to the Lords. From them it seems Dr Peter Chamberlen had endeavored to incorporate the midwives; have them subservient to him and call on him alone in difficult cases. A few of the paragraphs are interesting, and give an idea of the condition.

"The Humble petition of divers ancient Midwife's, in the city of London, Sheweth. That through the molestation of a Dr. Chamberlane by appointing them to meet at his house once every month without authority, and with intention, as they suppose, to bring about a project of his to have the sole licensing of them or approving of all such as shall hereafter be licensed out of an opinion of himself, and his own ability in the art of midwifery, implying a necessity of using him and no other both in those cases and in all other occasions that shall happen to women with child, presuming that he hath more exact skill than all the grave and learned physicians in the Kingdom in those cases for he threatneth that he shall not repair unto such women as are distressed whose midwives have refused to conform themselves to him."

And later occurs, "Dr. Chamberlane doth often refuse to come to the poor, they not being able to pay him according to his

demands, and for the rich he denies them his help until he hath first bargained for great reward which besides that, they are in themselves dishonest, covetous and unconscionable courses."

The petitions were referred by his Majesty to the Lord Archbishop of Canterbury and his Grace Lord Bishop of London under whose jurisdiction was the granting of licences in midwifery to men and who acted as Censors over those who practised it. They stated that Dr. Chamberlen practised the art of midwifery as a physician and had no more to do with it than other of the Physicians of the College—"whose judgments no doubt are as good as his in any accidents that may befall or concerne women with childe unless it be in the very act of delivrie of unnatural and dangerous births, to effect which there is necessity of using instruments of iron, being indeed more properly the work of a surgeon than a physition; so with manuell practice the said Dr. hath applied himself more than others by reason few or none can brook the practice thereof . . . and, further, Dr. Chamberlane's work and the work belonging to midwives are contrary one to the other for he delivers none without the use of instruments by extraordinary violence in desperate occasions, which women never practised nor desyred for they have neither parts nor hands for that act." And so it goes on to where he is even accused of "many crymes in his practize," and ready to be proved against him.

The opposition to Dr. Chamberlen's scheme for incorporating the midwives of London aroused in him the strongest feeling and drew from his pen a reply to the accusations. It was called "a Voice in Rhama, or The Cry of Women and Children." It is a long utterance in defence of a plan which had moved his pious father to present to King James "a design (I thought) so full of pietie that no man would—so full of innocence that no man could—so full of importance and generall concernment that no man durst have opposed."

One important passage follows. "Then fame begot me envie and secret enemies, which mightily increased when my father added to me the knowledge of deliveries and cures of women." These lines are the strongest corroborative evidence that the secret of the midwifery forceps had been communicated to Dr. Peter Chamberlene by his father.

Dr. Peter's next venture was to try to obtain a monopoly on baths and bath stoves. He petitioned Parliament to assist him in carrying out the scheme, and obtained from the Lords an

ordinance granting him the sole making of baths and bath stoves for fourteen years. This ordinance was sent to the House of Commons for concurrence. They were medical baths, which Dr. Peter says "are no foolish novelties, but have been (formerly) the profuse magnificence of mighty Cæsars. They are not confined to hot nor cold countries, since they abound both in Turkie, Persia, Germany, Hungary, Denmark, Swedeland, Poland, and Moscovia, whose strong, great-bodied, healthful people, beautiful children and easie births give no small testimony to the use of bathes."

The approval of the College was sought but they vetoed the project, whereupon Dr. Peter came back with a long argument in which he stated with other reasons that, seventhly, "I do verily believe and daire adventure my life and estate upon it, that I can (by God's blessing) more safely, certainly, suddenly and with more ease cure many (if not all curable) diseases with them than all our College; yea, than all physitians in the world can do without them." However, the project fell through and we find him next petitioning Parliament with a project the idea of which was through bettering the conditions of the poor, paying of debts, etc., so that "the great burthens and molestations of his honour would be eased, the mouths of enemies be stopped, the taxes and groanings of the people removed, the peace of the nation established;" in fact, had the petition gone through, England would have been a Utopia.

Dr. Peter Chamberlen was deeply religious and during the whole of the Commonwealth he was swayed by religious fanaticism and his mind and time so filled that he had little leisure to indulge in making further projects.

From 1649 on there were a great many papers by him on different religious subjects. "Sprinkling in Baptism," "The Imposition of Hands," "The Shipwreck of False Churches," etc. Through some of his papers there is little doubt that he rendered himself very unpopular by the obtrusive and inconsiderate way in which he endeavored to promulgate his opinions. The following entitled "A Dose for Chamberlain and a Pill for the Doctor," being an answer to two scurrilous pamphlets written against the author of "The Asses' Complaint" is an example of the public feeling.

"Now what sayes Chamberlain that Pamphlet monger
 What dost thou tell the silly asse of hunger
 Should he like thee turn parish clerk and Cozen
 Poor souls, and sell his prayers six pence a dozen

Dine upon Midwives fees, and grease his chaps
 With gossips charity and female scraps.
 "But stay what means the Doctor, has he left
 His legal murther and his veniale theft
 His plotting with his druggest and the nurse
 Not for to purge the body but the purse
 And turned a satyrist, Ide thought the man
 Had been confined unto a clos-stole pan
 But tis a mad world, when hell breaks loose and he
 That is a quack talks divinity
 Then leave your scribbling sirrah and send your verses
 Unto your patients to wipe their a—
 Heaven keep this City from quacksalving knaves
 That send sound men to their untimely graves."

In 1666 Dr. Peter Chamberlain was in Holland, and while there threw all his enthusiasm and energy into a new project from which he expected extraordinary results and in order to secure the advantages for himself and family, applied to many countries for patents. He wrote to his son, Hugh, to secure the patent in England. The state papers show Hugh's attempt to carry out these instructions.

"Upon the Peticon of Hugh Chamberlaine, M. D., who desires to have a patent for exercising ye invencon of making ships to saile within two points by the helpe of the winde, etc."

Hugh failed in this attempt so his father came to London in person. He had already obtained patents in France, Venice, and the United Netherlande and though "learned mathematicians and expert seamen" believed it impossible, by such arguments as "It stands not with the wisdom of Parliament to refuse a thing so beneficial, for want of a model or demonstration," and others equally convincing, the patent was granted. Whereupon Dr. Peter immediately conceived the idea that all kinds of land vehicles might be propelled by wind and sail and so obtained patents on these.

It is needless to add that this, like the rest of Dr. Peter's projects failed to secure the material assistance and confidence of the public, and even he speedily abandoned the wild scheme.

His next grant from the king (1668) was "a new art or way of writing and printing true English, whereby better to represent to the eye what the sound doth to the ear than what is now practised." This was phonetic writing, for which a grant was given for fourteen years.

His eccentric life and writings had rendered Dr. Peter, liable to remarks to which his exceedingly sensitive nature could not resist a reply. It was called "Answers to Reports of Being Mad, Lost, and a Jew." The report of Dr. Peter's being a Jew no doubt arose from his keeping the Jewish Sabbath. In this defense, the simplified spelling does not seem to occur.

At the close of his long life, Dr. Peter conceived one last great project, more difficult to carry out than any he had yet attempted. The reconciliation of the churches. He writes to Archbishop Sheldon, "in plain English (my lord) who more fit and capable than your grace to invite the pope, cardinals and all the heads of the Jesuits, Sorbonists, Jansonists, Augustins, Dominicans and Franciscans, together with the Chief of the Lutherans, Calvinists, Socinians, Armenians and whoever else are of Paul, Apollo or Cephas to meet in Post Paper and Conspire."

Dr. Peter Chamberlen died in his eighty-second year at Woodham, Mortimer Hall near Maldon, Essex, in 1683. He had been physician in ordinary to three kings and queens of England; namely, King James and Queen Anne, King Charles I., Queen Mary, King Charles II., and Queen Katherine. He had two wives. The first, Jane Middleton, from whom he had eleven sons and two daughters and a second wife, Ann Harrison, from whom he had three sons and two daughters.

On his tomb in Woodham, Mortimer, churchyard occurs an epitaph in verse ordered by the doctor himself. The first two lines are as follows: They at least show that his opinion of himself was a good one.

"To tell his learning and his life to men
Enough is said, by Here lyes Chamberlen."

Though no record has been found of his birth, Hugh Chamberlan, Senior, was probably born in the parish of St. Anne, Blackfriars, about the year 1630. Though he is constantly called Dr. Hugh Chamberlen, no evidence can be discovered of his having taken a degree.

On the 28th of May, 1663, Hugh was married by license at St. Pauls' Covert Garden, to Dorothy, daughter of Colonel John Brett and in 1666 we learn from a paper in the Record office that he was interested in freeing the City of the plague.

The most important event in the medical biography of Hugh Chamberlen, Senior, is the evidence found described by Mauriceau, in his "Observations sur la Grossesse et l'Accouchement."

Mauriceau happened to have, when Chamberlen was in Paris, a rhachitic dwarf in labor, whom he was unable to deliver. The pelvis was so small that he could not even introduce his hand to do a version and extraction the only other method of obtaining a living child at that time besides Cesarean section, which he had considered, but given up because he knew it would mean death to the mother.

Chamberlen's reputation was known to Mauriceau and he was asked to see the patient. Chamberlen agreed to deliver the woman in a quarter of an hour, but after trying strenuously for three hours and seeing that she was going to die, gave up, saying it would be impossible for anyone to deliver her. Chamberlen attempted to sell Mauriceau the family secret for 10,000 livres, and though the secret was not purchased, the two parted as friends and Chamberlen agreed to translate Mauriceau's book on obstetrics into English. For many years the work continued to be the most popular text-book with all who practised midwifery. The first edition appeared in 1672 and contains a preface by the translator among many of the remarkable statements in which is the following important one.

"In the seventeenth chapter of the second book, my author justifies the fastening hooks in the head of a child that comes right, and yet because of some difficulty of disproportion cannot pass; which I confess has been, and is yet the practice of the most expert artists in midwifery, not only in England, but throughout Europe; and has much caused the report, that where a man comes, one or both must necessarily die; and is the reason of forbearing to send, till the child is dead, or the mother dying. But I can neither approve of that practice, nor those delays; because my father, brothers, and myself (though none else in Europe as I know) have, by God's blessing and our industry, attained to, and long practised a way to deliver women in this case, without any prejudice to them or their infants."

Hugh had now obtained considerable medical reputation, and his father anxious to procure for him royal patronage, presented to the King a petition in which he humbly prayed that his eldest son might be admitted in ordinary, to supply the defects of his aged attendance; which grant was made in 1672-3 and Dr. Hugh Chamberlain made one of his Majesty's Physicians in Ordinary in Reversion after the decease of Sir John Hinton, who at present enjoyed this title. The appointment came through Hinton's death in 1673.

In 1685 Hugh Chamberlen, Senior, published a small medical work entitled "Manuale Medicum or a Small Treatise of the Art of Physick in General and of Vomits, and the Jesuits Powder in Particular." In it all diseases were treated by evacuation; bleeding, sweating, purging, and vomiting—of the last he writes, "Even as the womb in labour, with collects strength from all parts, contracts itself closely to the upper parts whereby it may bring forth the birth; so also the stomach tyred with the injury of things offensive, by compressing the bottom is by force wholly moved upward, throwing out all that is offensive by vomit."

The tone of the book was evidently not intended to secure the good will of physicians, and as a consequence, or it may be a coincidence as Aveling says, the College took action against him. Hugh Chamberlain had treated a Mrs. Phoebe Willmer "who was six months gone with child and had a paine in her right side under her short ribb and had difficulty in breathing. In the space of nine days he had given her four vomits, four purges and caused her to be bled three times to the quantity of 8 ounces each time; then gave her something to raise a spitting, after which swellings and ulcers in her mouth followed; about three or four days after taking this, she miscarried, and it was attended with loosenesse and she continued languishing till she dyed." It seems he also refused to have anyone in consultation. For being found guilty of the offense of mal praxis, in high degree, Hugh was fined ten pounds and committed to the goal of Newgate, there to remain till he should be thence discharged by due course of law.

"Afterward the Beadle was called in and ye said warrant for his committment to Newgate sealed by the four Censors delivered by the Beadle to a Constabel. Whereupon Mr. Chamberlain coming into the Censor roome to know if he were a prisoner to whom the Vice-President answered that he was committed till he paid the fyne sett upon him wch was ten pound. He presently pulled gold out of his pocket and would have had the board receive it. But they refused so to do and told him, he must pay it to the Beadle who would hand it to the treasurer or might give bond, wch latter upon second thoughts he made choyce of and accordingly did give bond of 20 lb. to pay 10 lb. to the treasurer within one month after."

It is a letter from Dr. Hugh Chamberlen, Senior, to the Princess Sophia which has always been quoted as a most important evi-

dence that the pretender to the Crown was not a supposititious child. Chamberlen was sent for to attend the labor but was at Chatham and arrived an hour too late. More to the particulars of the birth, he could not offer, but did subjoin a few probable circumstances. "He was told by the Duchess of Monmouth at a time wholly occasioned by chance, and by one then not obliged by the Court," that she saw her Majesty shifted and her belly was very large. Chamberlen took this to be genuine and never questioned it, and goes on further to say, "I am certain no such thing as the bringing a strange child in a warming pan could be practised without my seeing it; attending constantly in and about all the avenues of the Chamber."

In 1692 Hugh Chamberlen, Senior, attended another royal personage, the Princess Anne of Denmark, when a son was born which immediately died. "He had a hundred guineas for his pains." When the Ex-King was at St. Germain, Dr. Hugh, Senior, was sent for to assist at his Queen's delivery, but a pass was denied him, and Mary Louisa entered this world without his assistance.

In 1694, Hugh Chamberlen, Senior, published a second medical work, "A Few Queries relating to the Practise of Physick." He doubtless had the action of the College against him in mind when he penned the 65th query. "Whether women with child and in child-bed may not safely, when the disease requires, both vomit, bleed and purge, provided it be with due caution."

He next published "A proposal for the better securing of health." In it he advised that a yearly sum be assessed upon each house, according to the means of the individuals, that the rich as well as the poor should be advised and visited by approved and skilful surgeons. He stated that the pox, midwifery, and cutting for the stone should have an additional allowance settled "because the pox may not be hereby encouraged, and deliveries require mighty pains, and unseasonable hours, and the stone is not only a particular dexterity, but requires much attendance."

We now come to a proposal, which shows Hugh Chamberlen, Senior, in a new and a bad light, but as regards the circumstances of the family secret the result was important. The proposal was the formation of a Land Bank, one for which it would be the special buisness to advance money on the security of land.

For ten years Chamberlen devoted himself to this project and must have lived in a perpetual state of excitement and had constantly to answer to the attacks of rivals. These disputes did not

always end peacefully, as the following quotation from Sanford shows: "1698, Thursday 24, February; Tuesday last Mr. Shugsby who belonged to Dr. Chamberlain's Land Bank killed one Captain Watts at the Horn and Horse-Shoe Tavern in Chancery Lane."

In December, 1693, after some of the more crude ideas of the proposal had been changed, Chamberlen laid his plan in all its naked absurdity before the Commons and petitioned to be heard. The whig leaders saw that the scheme was a delusion and must fail, but they had against them not only the whole Tory party but also their masters and many followers. The necessities of the state were pressing and the offers of the projectors were tempting, the bank would advance two million and a half at 7 per cent. The bill passed both Houses and on the twenty-seventh of April received royal assent.

The Land Bank soon failed, and if we are to accept the testimony of some writers, Hugh Chamberlen, Senior, did not leave the business with clean hands, while the poem by an anonymous writer gives a more damaging account of the famous doctor. It is in part as follows:

Hue and cry after a Man-Midwife, Who has lately
delivered the Land-Bank of their money.

If in any good person in Country or Town,
Either Courtier, or Citizen, Sharper, or Clown,
Gives Tidings or Tale of a famous Projector,
Whom great-bellied Ladies have might respect for,
Shall at the Land-Bank be as nobly rewarded,
As by the Trustees it can well be afforded.
He's a little old Man, very pale of Complexion,
Into many deep things makes a narrow inspection,
Among his profession he's famed as a Topper,
By some called a Midwife, by others a Groper.
From his office in Queen St. he lately has started,
And left his Society half broken-hearted,
Thus show'd them a trick one would think was beneath him
And run with their Stock, marry Devil go with him:
But yet he was so civil unto the Trustees,
Tho' he's taken the chest, he has left 'em the Keys,
Of Iron 'twas made, and secured with Chains,
Being Lock'd with abundance of Cunning and Pains;
Which mingles their Sorrow with some little Pleasure,
To think how 'twill plague him to come at the treasure,
By common report into Holland he's fled;

If so, the Land Bank is brought finely to Bed:
 For if to the old place of refuge he's run,
 Adzooks you're all Cozened as sure as a Gun
 And you that are chous'd for your money may morn,
 For Holland, like Hell, never makes a Return,
 If the Coin was inclosed (like the soil in a Gizzard)
 In an Adamant Coffe, lock'd up by a Wizard,
 They'll shew him a way, by some Power infernal,
 To break up the Shell and to take out the Kernel.
 To give you his Character truly Compleat,
 He's Doctor, Projector, Man-Midwife and C(heat)

There seems to be some doubt as to Hughs, Senior, leaving immediately for Holland, for though all trace of him is lost in England in 1700 he was urging the adoption of a Land Bank in Scotland, where it is probable he lived for a time. One of his last projects, strange to say, has been the only one destined to be realized; namely, the union of the Kingdoms of England and Scotland. It is not known whether he lived to see the consummation of the union, but the concise and logical way in which he placed before the public its advantages must have had influence. His proposal for the election of representative peers and compulsory education are proofs of his astuteness and far-seeing policy.

When and where Hugh Chamberlen, Senior, died is not known, but it is known that for a time he practised in Amsterdam and while there sold the family secret to Roonhuysen, and that shortly afterward the Medico-Pharmaceutical College of Amsterdam was given the sole privilege of licensing physicians to practise in Holland, to each of whom under pledge of secrecy, Chamberlen's invention was sold for a large sum. This condition continued for some years, until Vischer and Vander Poll purchased the secret in order to make it public, when it was found the device consisted of only one blade of the forceps. Whether this was all Chamberlen sold to Roonhuysen or whether the College swindled the purchasers of the secret is not known.

Dr. Paul Chamberlen was the second son of Dr. Peter Chamberlen. Nothing is known of his early life or from what university he graduated. He practised in London as a man midwife and we know from his brother, Hugh, that he was in possession of the family secret. Emulating his brother as a financier, he too had a way by which "The Government may be suppl'd at all times with whatsoever sums of money they shall have occasion for without interest."

In medicine he was a quack and is best known through his invention of the "Celebrated Anodyne Necklace." It was used by children to ease the breeding and cutting of their teeth and to ease the pain of women in labor. The necklace was worn as any other while a drop of liquid coral, which came put up with each necklace was run gently to and fro over the gums.

The advertisement from the "Daily Journal" states that, "it was to be had up one pair of stairs, at the sign of the anodyne necklace, just by the Rose Tavern without Temple Bar." Its price was five shillings or 48s a dozen; and further on "the necklace is a proper thing not only for a new year's gift for god-fathers



Woodham, Mortimer Hall, the home of Dr. Peter Chamberlen, where the forceps were found. (From "The Chamberlens," Aveling.)

god-mothers, relations, friends, and acquaintance, to give to children and others, but even for a present for anyone to give their friends at any time of the year."

Dr. John Chamberlen was the fourth son of Dr. Peter and also practised midwifery. His house was in Essex Street. Little of importance is known of his life, not where he graduated in medicine.

Hugh Chamberlen, Junior, was the eldest son of Hugh, Senior, and was born in 1664. He was educated at Trinity College, Cambridge, and graduated A. M. per Literas Regias in 1683. In 1689 he was created Doctor of Medicine at Cambridge (Comitiis Regiis).

As compared with that of his father and grandfather's, Hugh's, Junior, life was calm and uneventful. He lived in King Street, Covert Garden, then the most fashionable part of London, and was established not only as a popular obstetrician, but as a trustworthy physician.

Among his patients and friends none had a higher esteem for him than John Sheffield, Duke of Buckingham, and his Duchess. After the death of the Duke, Hugh Chamberlen, Junior, lived on



The four pairs of forceps found at Woodham, Mortimer Hall.

the most intimate terms with Catherine, Dutchess of Buckingham, and it is known also that he died at Buckingham house. The Country Journal or the Craftsman gives the following notice:

Saturday, June 22, 1728.

“The eminent physician and man-midwife, Dr. Hugh Chamberlen who died on Monday night was grandson of the famous Dr. Peter Chamberlen, who with his father and uncles were physicians to King James I., King Charles I., King Charles II., King James II., and King William, to their respective queens and to Queen Anne. He was the last of that ancient family who practised the art of midwifery in the Kingdom except Dr. Walker in Great

Suffolk Street who is a grandson to the forementioned Dr. Peter Chamberlen."

During the latter years of Hugh s, Junior, life he allowed the family secret to leak out and it came into general employment in England. The instrument was used by Drinkwater, who died in 1728, and was well known to Chapman and Giffard. The former, writing in 1733, says: "The secret mentioned by Dr. Chamberlen was the use of the forceps now well known by all the principal men of the profession, both in town and country."

In Westminster Abbey is a magnificent cenotaph erected, doubtless at the suggestion of his mother, by her youthful son Edmund, Duke of Buckingham. It is placed in the north aisle of the choir and is a very handsome composition of white and variegated marbles.

In 1813 what were probably the original forceps invented were found upon the estate of Dr. Peter Chamberlen, Woodham, Mortimer Hall, by Mrs. Kemball, the wife of a rich brewer who in 1715 had purchased the place and bequeathed it to the Wine Cooper's Company.

A letter from Dr. May of Waldon to Dr. Robert Lee, written in 1861, gives an interesting account of this find. "The following account of the discovery of Dr. Chamberlen's instruments in June, 1813, I have received from Mrs. Codd, now a resident in Maldon, who was, at the date mentioned, and for several years previous, resident at Woodham, Mortimer Hall, her husband being the occupant of the place. Mrs. Kemball, the mother of Mrs. Codd, being on a visit to her daughter in the year mentioned, happened to go into a closet above the entrance porch. She was struck with the appearance of a cork, or a small disc of wood—Mrs. Codd forgets which—in the floor; a second one was then noticed on a level with the boards. On investigation these were found to cover each a screw head. On pursuing the enquiry, a trap-door with small sunken hinges, was noticed; on elevating this a cavity between the floor and ceiling was brought to view. This contained some boxes in which were two or three pairs of the midwifery forceps, several coins, a medallion of Charles I. or II., a miniature of the Doctor damaged by time, a tooth wrapped in paper, written on, 'My husband's last tooth,' some little antique plate, a pair of lady's long yellow kid gloves, in excellent preservation; a small testament, date 1645. These three latter articles I have seen in Mrs. Codd's possession. The space under the floor is about 5 1/2 feet square and about 12 inches in depth. There are two pieces

of iron projecting from under the boards, with holes in them for the reception of the screws in the trap. This remains now in the same condition as it was when discovered forty-eight years ago. The concealment was evidently made subsequent to the death of Dr. Chamberlen, which occurred in 1684, as the testament above alluded to bears a manuscript date of 1695. The instruments were taken possession of by Mr. Carwardine, a friend of the family, then a practising surgeon, now retired, and residing at Earl's Colne Priory, in this country. That gentleman took them to London, and presented some of them either to the Medical and Chirurgical Society or one of the Hospitals."

The description of the forceps is copied from Aveling.

No. 1.—A very rudly constructed forceps, one-half 12 1/2 inches, the other 13 inches long; the length of blade to joint in both 8 inches; One handle is 4 1/2 inches and the other 4 inches long, and both terminate in blunt hooks bent outward. The two portions of the instrument are united by means of a rivet, which can be unscrewed. Its head has not the usual notch in it, but is made oval. The apices of blades, when the instrument is closed, touch one another. This was doubtless the first midwifery forceps constructed by the Chamberlens, and from which sprung all the various forms now in use.

No. 2.—Forceps, 12 inches long; the length of blade to joint 9 1/2 inches; the length of fenestrum in one blade 8 1/2 inches, in the other 5 1/2 inches; the breadth of fenestrum in the former 1/4 inches, in the latter 1 1/8 inches. The handles are 3 1/4 inches long, and looped large enough to admit two fingers on one side and the thumb on the other. The two portions of the instrument are united by means of a braided cord having a knot at one end and a tag at the other. This is passed through the apertures usually occupied by a rivet, and enables the operator to unite or disunite the two portions of the instrument.

No. 3.—Forceps, 12 inches long, similar in construction to the last, except that the fenestra are of equal size—6 inches long and 1 inch wide.

No. 4.—Powerful forceps, 13 inches long; the length of blade to joint 8 inches; the length of fenestrum 5 inches, and breadth 1 inch. The handles are looped and 5 inches in length. The two portions of the instrument may be united by means of a rivet fixed in one-half, and fitting loosely into a perforation in the other. The divergence of the apices when the instrument is closed is 1 1/4 inch.

It has been the generally recent opinion that Dr. Peter Chamberlen invented the obstetrical forceps, but Aveling who has gone into the subject thoroughly and Sanger and Budin who have also investigated the history of the instruments have come to the conclusion that one of the brothers, probably Peter Chamberlen the elder, was the originator. Aveling asks if it is likely that Peter the elder and Peter the younger would have reached the eminence they undoubtedly attained had they not been in possession of superior skill in their profession. Everything was against their success. As foreigners they were suspected and hated, and as refugees they were dispirited and poor. Skill, industry and energy could alone have enabled them to surmount the difficulties which everywhere presented themselves; yet in spite of all these disadvantages, Peter Chamberlen, the elder, was selected to attend the Queen in her confinements, and both brothers secured powerful friends, raised themselves to honorable positions, and amassed considerable wealth. You will remember that at the time of the attempted incorporation of the midwives, Peter the younger boasted of his and his brother's superior skill in difficult labors.

As to which brother, a line in the introduction to Smellie's Midwifery, Aveling says came like a flash of light in hopeless darkness and clears up the mystery as well as it is ever likely to be. In speaking of the instruments used by the Chamberlens he adds—"and said to be contrived by the uncle," "The uncle" can mean no other than Peter Chamberlen, Senior, for Dr. Peter Chamberlen had no brothers practising obstetrics.

Peter, Senior, was born, as has been said, in Paris, from whence,, when a youth, he fled with his father to England. As was the case with many of his brother Huguenot refugees, he rewarded the country for its shelter, by bestowing upon it the priceless and beneficent bounty of his skill and genius.

1405 GLENARM PLACE.