

JOHN BRAXTON HICKS, M.D., F.R.C.P., F.R.S.,  
*London, England.*

BY PAUL F. MUNDE, M.D., LL.D.,  
*New York.*

JOHN BRAXTON HICKS, an Honorary Fellow of this Society, was born at Rye, Sussex, England, on February 23, 1823, and died at his country place, "The Brackens," Lymington, Hants, on August 28, 1897. He retired from active practice three years before.

Dr. Hicks came of an old English family. One of his ancestors was knighted on the field of Crécy, and permission was given him to wear the "fleur-de-lis" in his coat-of-arms for all time.

The name of Braxton Hicks has been a household word in the medical profession for over thirty years. The author of numerous articles, chiefly on obstetrical and gynecological subjects (a list of his published writings comprises seventy distinct papers and communications), he still found time, with a large practice and active hospital and educational work, to devote attention to other researches, botanical, entomological, architectural, and artistic. Besides, twenty-three articles were contributed by him to the *Journal of the Linnæan Society* and the *Journal of Microscopical Science*. If space would allow

me to mention the titles of only a few of these ninety-three medical and scientific contributions, the immense variety of knowledge and versatility possessed by Dr. Hicks would be readily understood and appreciated. For his botanical researches he was made an F.R.S.

But it was chiefly for his essay on "Combined External and Internal Version" that he became famous. This method, known everywhere as "Braxton Hicks's method," revolutionized the practice of operative obstetrics in that particular, and was universally adopted. His papers on "Intermittent Contractions of the Uterus During Pregnancy," as an aid to diagnosis of that condition; on "Inquiry into Powerless Labors," on "The Glandular Nature of the Proliferous Diseases of the Ovary," on "The Cephalotribe," on the "Anatomy of the Human Placenta," on "Forty-one Cases of Uterine Polypi," etc., added to his reputation, and show the broad scope of his researches.

Dr. Hicks was one of the pioneers of British work in obstetrics and gynecology. Although graduated as long ago as 1847, when gynecology was in its infancy as a separate branch of medicine, he kept steadily abreast of the advances in that specialty, and up to the day of his death was well informed on everything new in obstetrics and gynecology, whether at home or abroad. While not operating much, especially in his later years, I find among his papers several reports of cases of ectopic pregnancy successfully treated by him by laparotomy. Having been Obstetric Physician to Guy's Hospital for many years (1859-1882), he was, in 1882, appointed Consulting Obstetric Physician.

In 1883, at the age of sixty, he gave up his connection with Guy's Hospital, where he had taught obstetrics for twenty-three years. This was a severe blow to him, who still felt in the full possession of his powers, but the rules of the Hospital compelled it. However, he still kept up an active practice, and in a measure compensated for the loss of Guy's by teaching at St. Mary's Hospital. In 1894, in his

seventy-second year, he retired from practice to his country seat in the little, quaint old town of Lymington, opposite Newport, on the Isle of Wight. There I had the pleasure of making a delightful visit in 1886, and he and I crossed to the Isle and spent a never-to-be-forgotten day wandering over the breezy downs.

Dr. Hicks was President of the London Obstetrical Society in 1871; in 1896 he was elected an Honorary Fellow of the Royal Society, and he received the same honor from this Society in 1881, and from the Obstetrical Societies of Edinburgh, Berlin, and Philadelphia.

One of his pet hobbies was the collection of Wedgewood-ware, of which he possessed many valuable specimens, notably several magnificent mantels. He also accumulated numerous rare old engravings.

Personally, Dr. Hicks was one of the most lovable of men. It seemed impossible that he could make or have an enemy. Frank, hearty, jovial, enthusiastic in his work and for his friends; guileless, generous to a fault—surely, what qualities more must a man possess to be popular and beloved? And he had them all.

Although comparatively a stranger to him, having met him but once at a meeting of the London Obstetrical Society in 1872, he invited me to be his guest during the International Medical Congress in London in 1881. He met me at the station, and with his good wife made me at once feel the full influence of true English hospitality; treated me, in fact, as a member of the family. On several subsequent occasions I was his guest (*volens volens*, he would take no refusal) at his comfortable home in George Street, Hanover Square, and also at Lymington, and learned to love him dearly. His unexpected death was to me a severe blow, and deprived me of a friend whom I can never replace. I shall miss the kindly Christmas greetings, which since 1881 never failed to reach us from Dr. and Mrs. Hicks, showing that they kept us in loving remembrance. His last letter to me was an accept-

ance of my request that he write an obituary notice of Sir Spencer Wells, which appeared in the last volume of our TRANSACTIONS. I little thought that he would so soon follow.

Although retired from active work, the loss of a man who did so much for humanity and for the advancement of science as did Dr. Hicks, is always an irreparable calamity. Those who knew him personally will mourn him as a friend; those to whom he was known only through his writings will feel that another original thinker and worker has passed away.



I am yours faithfully,  
Wrayton Hick,

## JOHN BRAXTON HICKS.

In endeavouring to give an adequate account of the life and work of Dr. Braxton Hicks in the short time at my disposal, I feel I have before me a difficult task. He was one of the founders, and for many years one of the most active supporters of our Society, a past President, a recently elected Honorary Fellow, and a contributor of no fewer than forty papers to its 'Transactions;' on these grounds alone it would be fitting that the annual address should contain as full an account as possible of his personality and his career. But when it is also remembered that the science and art of obstetric medicine owe to him several of the most important advances of recent years, and that his name has taken a permanent place amongst those of the most distinguished British obstetricians, there is still more abundant reason why our records should contain a more than usually full appreciation of the man himself as well as of the work of his life.

John Braxton Hicks was born at Rye, in Sussex, in the year 1823. He was the second son of Mr. Edward Hicks, of Lymington, who was at one time a banker, and for many years held the position of chairman of the bench of county magistrates. From the age of twelve to fifteen Braxton Hicks was educated as a private pupil of the Rev. J. O. Zillwood, of Compton Rectory, near Winchester. He became apprenticed to a medical practitioner in the town where he lived in 1842, and at the age of eighteen he entered as a medical student at Guy's Hospital. He was a favourite both amongst his teachers and his fellow-students. "I shall never forget," writes an old fellow-student, Dr. Daniel Hooper, "his amiable, cheerful expression, bright, piercing eyes and noble forehead; his alacrity was remarkable; he was always busy—I never saw him idle for one moment—he would hurry

with a very quick step to the lecture theatre, literally run down the steps (a huge volume of Pereira, perhaps, under his arm) to the bottom bench, and there sit motionless and attentive till the lecture was over." He took first prizes in anatomy, materia medica, practical chemistry and botany, and he also won a medal for double sculling given by the hospital boat club. He was very fond of botany, and in the summer vacation collected specimens from the New Forest. In 1844 he passed the first examination for the degree of Bachelor of Medicine at the London University, taking honours in every subject, and carrying off the exhibition and gold medal in materia medica. In 1847 he passed the final M.B. examination, obtaining honours in physiology and comparative anatomy, medicine, and surgery. He soon afterwards received the diplomas of the Royal College of Surgeons and the Apothecaries' Society, and in 1851 took the degree of M.D. at his university. Wishing to marry and to settle in practice, he entered into partnership with the late Mr. W. Moon, of Tottenham, and became a highly respected general practitioner. But in 1859 he was invited by his old hospital to accept the post of assistant obstetric physician, whereupon he relinquished general practice and came to reside in the Borough.

In the same year he passed the examination for the membership of the Royal College of Physicians, of which he was elected a Fellow in 1866.

In 1870 he was appointed senior obstetric physician to Guy's Hospital, and lecturer on obstetrics at the school. These appointments he continued to hold until 1883, when he was elected consulting obstetric physician. Feeling that the age limit at his own hospital had cut short his career as a teacher somewhat prematurely, he acceded in 1888 to a request to become obstetric physician to St. Mary's Hospital in succession to the late Dr. Meadows, the then assistant obstetric physician being considered at the time a little too young for the full responsibility of the senior post.

This appointment Dr. Hicks held for several years, doing his hospital work conscientiously and taking a share of the systematic teaching in the school. But he never forgot that he was a Guy's man, and that his early successes and interests were connected with that hospital. He was for several years examiner in obstetric medicine at the University of London, and held a similar position at the Royal College of Physicians from 1872 to 1878, and again from 1889 to 1893. For many years Dr. Braxton Hicks was physician to the Royal Maternity Charity, and he was also for a time physician to the Royal Hospital for Women and Children in Waterloo Road.

Dr. Braxton Hicks was all his life a devoted student of natural science, and many contributions from his pen appear in the 'Proceedings of the Royal Society,' in the 'Transactions of the Linnean Society,' and in the 'Journal of Microscopical Science.' On the 5th of June, 1862, he was elected a Fellow of the Royal Society. I have been favoured by the clerk of that Society with a copy of his nomination paper, which I here reproduce not only on account of the interest attaching to the names of his proposers, but as showing the precise grounds on which that great distinction was conferred upon him. He is described as residing at No. 6, Wellington Street, London Bridge, and as being the author of the following scientific papers :

"On Certain Sensory Organs in Insects hitherto undescribed," read before the Royal Society, and published in abstract in the 'Proceedings' May 26th, 1859.

"On New Organs of the Antennæ of Insects," and "On Organs on Nervures of Wings," two papers in the 'Transactions of the Linnean Society.'

"On New Organs on the Halteres of Diptera," in the 'Proceedings of the Linnean Society.'

"On a New Species of *Draparnaldia*" and "On Amœboid Conditions of *Volvox globator*," 'Microscop. Journ.,' April, 1860.

"On the Development of the Gonidia of Lichens in



Relation to Unicellular Algae," 'Microscop. Journ.,' Oct., 1860.

"New Sensory Organs in Insects," in the 'Linnean Society's Transactions,' 1860.

"On the Homologies of the Eye and its Parts in Invertebrata," read before the Royal Society, January, 1861.

He is lastly spoken of as part author of a little work published by Van Voorst, and entitled 'Humble Creatures [the Earth worm and House-fly].'

The following names of Fellows of the Society are attached to the document:—W. B. Carpenter, J. Lubbock, G. Busk, E. Lankester, F. Currey, J. J. Bennett, J. Hilton, A. S. Taylor, T. Bell, C. Ansell, and E. W. Brayley.

It will thus be seen that it was mainly his contributions to entomology and botany that obtained for him the coveted blue ribbon of science. His interest in these studies continued to the end of his life, and many other papers relating to them appeared from time to time in the journals and transactions to which they were specially appropriate. To us, however, his work in connection with our own Society and the science of obstetrics must necessarily have the chief interest, and of this I must now speak. He was one of the founders of the Obstetrical Society of London, and took an active interest in it from the first. He twice served on the Council, namely, in 1861 and 1862, and again in 1869. He held the office of Hon. Secretary from 1863 to 1865, was Vice-President from 1866 to 1868, became Treasurer in 1870, occupied the presidential chair during the years 1871 and 1872, and was elected an Honorary Fellow in 1896. To the 'Transactions' of the Society he contributed, as I have already said, no fewer than forty papers. He was a close and accurate clinical observer, and many of his papers which record single cases or groups of cases are models of what such contributions should be. To these I shall not have time further to refer; their titles will be found in the bibliography appended to this address. But

of some of his more important papers I must speak a little more at length.

In the month of July, 1860, there appeared a paper in the 'Lancet' on "A New Method of Version in Abnormal Labour," in which were described "five cases of placenta prævia in illustration of its peculiar applicability to that formidable complication of labour." In the same journal for February 9th, 1861, cases were given of other forms of labour to which the new method had been successfully applied. It was by these papers that Dr. Braxton Hicks first brought before the profession his now celebrated method of version by combined external and internal manipulation. He chose that mode of communicating the method to the profession, in preference to laying it at once before a society, because he considered that the subject was too new for its merits to be then discussed with satisfactory results. When, however, he had had more experience of the method, and had tested and proved its value, he made it the subject of a paper which was read before this Society in November, 1863. In the following year the paper reappeared in a revised form as a thin octavo volume of 72 pages, published by Longmans and Co., with the title "On Combined External and Internal Version." Up to within a very few years of this period the operation of turning, whether the object was to bring down the head, breech, knee, or foot, had involved the introduction of the whole hand into the uterus. Cephalic version was very seldom adopted on account of the difficulty of grasping the head and retaining it at the os uteri; whilst in regard to the other forms of version, foot-turning had almost entirely taken the place of the older method of breech-turning. All these methods, however, required the introduction of the whole hand, and generally part of the arm, within the uterus, a process which added materially to the painfulness and difficulty of the case, not to mention the valuable time often lost whilst waiting until the os and cervix had become sufficiently dilated for the operation to be per-

formed. In a few cases men like Collins, of Dublin, and Dr. Robert Lee, of St. George's, had occasionally shortened this period of delay by pushing the child round with the finger, but the practice was only now and then successful. Dr. Robert Lee had also pointed out that in some cases of transverse presentation it was unnecessary to pass more than two fingers into the os uteri in order to seize the knee, a plan which he named "two-finger turning." Meanwhile several German observers had demonstrated the possibility of turning the child *in utero* from the outside. Braxton Hicks showed how, by the combination of these two methods, each acting upon opposite ends of the fœtus, there was obtainable a certainty and a celerity of which neither plan was capable when employed alone.

In the discussion which followed Dr. Hicks's paper at this Society, Dr. Robert Barnes stated that an admirable memoir, in which the principle of turning by external and internal manipulations was fully described, had been published by Wigand in 1807. Not having any knowledge of Wigand's paper, Dr. Hicks was unable at the time to call this statement in question, but before the paper and discussion were printed he acquainted himself with the precise purport of Wigand's essay, and embodied the result in an appendix. He bore generous testimony to the value of Wigand's suggestions, but he showed that they were by no means identical with his own. Wigand had discovered that pressure upon the exterior would make the fœtus move to a considerable extent, and that by pressing on both poles of the child in opposite directions, he could bring that end which was nearest into the os uteri, but he only employed the inner hand to guide and receive the head or breech into the os. The difference is important, for while, by his method, Wigand was merely able to rectify abnormal presentations, the adoption of Hicks's plan enabled the operator to accomplish version in any manner, whether partial or complete, podalic or cephalic. Wigand never contem-

plated complete version, and he expressly mentioned that his method was not applicable to cases of hæmorrhage, or of prolapse of the funis, or of convulsions ; in other words, the most important cases requiring version could not be treated by the method he suggested. The plan described by Hicks, on the contrary, combined the power of rectifying abnormal presentations with that of performing complete version. It differed from all previous methods in enabling the operator to produce cephalic or podalic version at will, and in being capable of application as soon as the os uteri was sufficiently dilated to admit one or two fingers. The advantages thus gained are obvious. It permits early intervention in such cases as neck, shoulder, and transverse presentations ; it furnishes a new and safe resource in cases of convulsions in which the introduction of the hand is attended with much risk, and in which speedy delivery is desirable ; it diminishes the dangers of turning in those cases of contracted pelvis in which turning is the most appropriate treatment ; and it removes from the operation the risk of producing fatal shock when it is necessary to turn the child under circumstances of extreme depression on the part of the mother. But it is especially in the treatment of placenta prævia that it has proved of the greatest service, both in saving life and in diminishing professional anxiety. When, summoned to a case of severe hæmorrhage from this cause, the medical attendant found the cervix only sufficiently expanded to admit one or two fingers, he had hitherto been compelled to wait for hours whilst endeavouring to dilate the os, or to content himself with plugging the vagina and endeavouring to press the head on to the placenta by exerting pressure on the fundus uteri. "Anything," to use Dr. Hicks's own forcible words, "which gave the practitioner some power of action was to be earnestly welcomed ; anything better than to stand with folded arms, incapable of rendering assistance for hours and even days, every moment of which might be carrying the sinking and suffering patient

nearer to the grave." By the new method, not only would bleeding be arrested, but time could be saved to an extent of which the value can scarcely be over-estimated. As soon as the os uteri would admit two fingers, version could be performed and the os effectually plugged by drawing through it the foot and leg, and exerting such gentle traction as the mere weight of the operator's arm, in retaining hold of the limb, is sufficient to supply. Henceforth the case could be watched with as little anxiety as an ordinary case of breech presentation. Rapid extraction is not only unnecessary, but, as favouring post-partum hæmorrhage, extremely dangerous. Dr. Hicks was very emphatic on this point. "What is the use," he says, "of hastily delivering before the os is well dilated and before the system has time to rally from the effects of flooding and of the version? Many of the deaths following placenta prævia may, I believe, be fairly attributed to too rapid delivery. How much must the collapse be increased and the uterus injured by endeavouring to drag the head through the yet rigid os! Turn, and if you employ the child as a plug, the danger is over. Then wait for the pains, rally the powers in the interval, and let nature, gently assisted, complete the delivery."

Dr. Hicks had to wait many years before he had the satisfaction of finding his suggestions adopted. In spite of his fecundity as a writer, the advertising instinct was wanting in him. Had it been otherwise, he would have been long ago recognised by all the obstetricians of the civilised world as one of the greatest benefactors of lying-in women that this age has produced. When, after the lapse of time, obstetricians did awake to the value of his work, the mortality from placenta prævia at once fell from 30 per cent. to something near 5 per cent.

In the year 1867 Dr. Braxton Hicks made a still more valuable contribution to the literature of obstetrics; I refer to his paper "On the Condition of the Uterus in Obstructed Labour," probably one of the most admirable communications that has ever appeared in our 'Transac-

tions.' The greatest confusion and ambiguity had hitherto existed as to the precise meaning of the terms "cessation of the pains," "powerless labour," and "exhaustion," and the interpretation and significance of the train of symptoms which these terms were used to denote.

There were but two British writers on obstetrics who, up to that time, appear to have observed the real condition of the patient in obstructed labour, viz. Dr. Murphy and Dr. Rigby. These authors had noticed that, when any obstacle prevents the exit of the fœtus, the pains after being suspended for a time returned with a totally different character; they became short and extremely severe, and never entirely passed off in the intervals. These writers had further noticed that if the hand was placed on the abdomen the uterus was felt to be as hard and contracted during an interval as during a pain, and so sensitive that the patient could scarcely bear to be touched. In other words, they had observed that a state of continuous action was substituted for the rhythmical pains. This condition they attributed to inflammation consequent upon the injury done to the soft parts. Dr. Hicks was the first to appreciate the importance of this observation, but he did not accept Murphy and Rigby's explanation. He pointed out that even in a normal labour the demand made on the nervous force by the action of the uterus, the largest involuntary muscle in the body, is so enormous that, if it were not for the replenishing that takes place during the intervals, the constitutional effects would be disastrous. He showed that, if from any cause the length of the ordinary intermissions was curtailed, the powers of the system would soon undergo a serious drain; and that, if matters went further and uterine action became continuous, symptoms of dangerous exhaustion would inevitably supervene. In short, he showed the state of tonic contraction of the uterus and the constitutional phenomena that accompany it to be the result of nervous exhaustion, the true source of danger in all cases of obstructed labour.

He went on to show that there are two distinct classes of cases in which the pains, having once been vigorous, cease to be rhythmical or apparently subside, and that it is of the utmost importance to distinguish between these classes in order to be guided to the proper treatment. "The first and simplest form," he says, "is well known, and is that in which the uterus is simply quiescent, resting passively for a time while the nervous power is being, so to speak, collected; after a time the uterus begins to act, and the labour is accomplished. In this case there is no rise in the pulse; generally, on the contrary, it is weak and feeble; nor are there any untoward symptoms but languor and some faintness. The reflex function is deficient, and its action sluggish, and therefore the demand on the constitution to supply nerve force is proportionately small." Here we have the first clear description of what Scanzoni called, and is now known as, *secondary inertia* of the uterus. "The second form of subsidence of the pains is . . . of the opposite character. The uterus becomes gradually irritated, so that, although some of the pains still occur at irregular intervals, the uterus is really in more action than before, tightly compressing the child, falling into the inequalities of its form, whereby the foetus is prevented from escaping, every indentation of the uterus forming as it were a ledge past which it is difficult to draw the child, or to pass the hand if we desire to turn. When this condition . . . has once been fairly established it is rare that the rhythmical pains ever recur with such force as to expel the foetus; as a rule the continuous action remains, and sooner or later symptoms set in telling one of the necessity for interference." What a graphic picture of tonic contraction of the uterus from obstructed labour! It is to Braxton Hicks that we are indebted for a simple and yet certain means whereby to distinguish between these two classes of cases. In the one we find on placing the hand upon the uterus that the uterine walls are lax and flabby, the foetus being readily felt "within it floating about with

ease." So long as this condition lasts we need feel no anxiety, and there is no occasion for manipulative interference. In the other class we find the uterus continuously hard and firm, and tightly moulded to the form of the foetus, which, contrary to what is found in the former class, cannot be moved about, the whole mass, consisting of the uterus and its contents, being more or less fixed. Under such circumstances we may feel sure that it is worse than useless to postpone assistance. It is impossible to over-estimate the importance of this teaching. There was another matter of equal importance to which Hicks in this paper was the first to call attention, viz. the risk of hæmorrhage from want of response on the part of the uterus if the labour be unduly hastened and the child extracted while the uterine walls are relaxed ; that is, when the case is simply one of secondary inertia. On the other hand, where there is continuous action extraction is the proper and only safe treatment.

I am glad to know that this invaluable paper is likely soon to be reprinted, along with some other of Braxton Hicks's contributions to obstetrics, by the New Sydenham Society. The lessons it enforces have long since become part of our common stock of knowledge, but it is well to be reminded that we owe them to the exceptional powers of observation of a Fellow of our own Society. I had intended had time permitted to give a *résumé* of some other of Braxton Hicks's papers, especially those on the rhythmical contractions of the uterus during pregnancy, to which he was the first to call attention.

In looking through the list of his obstetrical and gynaecological contributions one feels that there must be few subjects on which he has not written something. There are papers on the anatomy of the human placenta, on the behaviour of the pregnant uterus in chorea, on pregnancy associated with ovarian disease, on the induction of premature labour, on face presentation, on hydatidiform degeneration of the chorion, on transfusion, on rupture of the vagina in labour, on rupture of the uterus, on inver-



sion of the uterus, on concealed accidental hæmorrhage, on the cephalotribe (his modification of which instrument became the one almost exclusively employed in this country), on Cæsarean section, on extra-uterine and intramural gestation, on the temperature during parturition and in the puerperal state, on puerperal diseases, on eclampsia, on labour obstructed by abnormal conditions of the fœtus, on prolapsed funis, on labour with twins, on the best mode of delivering the fœtal head after perforation, on acephalous monsters, and on an outbreak of diphtheria in the obstetric wards. Turning to gynæcological subjects we find him writing on retention of menses, on uterine polypi, on proliferous cysts of the ovary, on sloughing fibroid of the uterus, on the treatment of malignant disease, on tension of the abdomen, and many other subjects. His series of lectures on some of the diseases of the female urethra and bladder, published in the 'Lancet' in 1867, still remains the best systematic account of these diseases in our language. He was not a finished writer or an effective speaker. His papers have no charm of style. His sentences are often ill-arranged; his meaning is occasionally obscure. But his papers are always worth reading; for he was a clinical observer of the first rank, and he never wrote merely for the sake of writing. Sure of his ground, and therefore free from hesitation in his statements of *fact*, he was studiously guarded in his expressions of *opinion*, suggestive rather than dogmatic. In some of his essays, and notably in that on obstructed labour, he showed great originality, and that wide grasp of his subject that enables a man to harmonise apparently discordant phenomena, and to construct out of chaotic materials an orderly presentation of facts and a workable hypothesis in explanation of them. If I were asked which of his contributions I consider to deserve the highest place, I should select the two of which I have endeavoured to give a synopsis this evening, namely, those on obstructed labour and on combined version, and I should add for a third the series of papers

on the rhythmical contractions of the uterus during pregnancy. These were all characterised by a rare originality, and are contributions to obstetric knowledge of which the value is likely to be permanent.

It was difficult for those who only knew Braxton Hicks in his later years to realise that this mild-mannered, chatty, beaming little old gentleman was the man whose name was associated with so many advances in the science and art of obstetrics. He was in no sense one of those who either look or talk like a leader of men. But his wide interests, his keen love of nature, and his gentle unassuming manner made him a most interesting companion. He continually displayed a quite unexpected acquaintance with the most out-of-the-way subjects, and his mind was a storehouse of general information. He had read much, and observed much, and thought much. He was a good draughtsman, and drew accurately on stone from the microscope. He was a large collector of Wedgwood and oriental china, and had in his house typical examples of different makers. He was fond of architecture, and indeed of art generally. He was a deeply religious man, and a sincere member of the Church of England. He was always ready to give help to those who needed it, whether in the form of advice or money, or, if necessary, of both; but it was all done so quietly that few knew him for the charitable man he really was. His character had the charm of simplicity. Utterly free himself from all that was base and sordid, he judged others to be the same; hence he never expressed himself unkindly of his fellow men. He died at his residence, the Brackens, Lymington, August 28th, 1897, at the age of seventy-four, from heart failure after a long illness following an attack of influenza. He had retired from the active practice of his profession about three years previously, and had gone back to the home of his childhood, where he settled down to the quiet enjoyment of his garden and his books, and the peaceful pleasures of a country life, and where his friends had vainly hoped for

him "a long and mellow eventide that the night should linger to disturb."

# JOHN BRAXTON HICKS (1823-1897)

*by*

J. H. YOUNG

THE name of Braxton Hicks is familiar to all doctors by reason of the sign of pregnancy—intermittent uterine contractions—which bears his name, but perhaps less well known but of much greater importance are some of his other contributions to the science and art of obstetrics.

John Braxton Hicks was born at Rye, in Sussex, in the year 1823. He was the second son of Mr. Edward Hicks, a banker. From the age of twelve to fifteen, Braxton Hicks was educated as a private pupil of the Rev. J. O. Zelwood, of Compton Rectory near Winchester.

At the age of eighteen he was enrolled as a medical student at Guy's Hospital. He was very popular both amongst his teachers and fellow students.

I shall never forget [wrote a fellow student, Dr. Daniel Hooper] his amiable cheerful expression, bright piercing eyes, and noble forehead: his alacrity was remarkable; he was always busy—I never saw him idle for one moment—he would hurry with a very quick step to the lecture theatre, literally run down the steps (a huge volume of Pereira, perhaps, under his arm) to the bottom bench and there sit motionless and attentive until the lecture was over.

Hicks had a brilliant career as a student and carried off many prizes. In 1844 he passed his first examination for the degree of Bachelor of Medicine at the London University gaining honours in every subject and winning the exhibition and gold medal in materia medica. In 1847 he passed the final M.B. examination, obtaining honours in physiology and comparative anatomy, medicine and surgery. Soon after he obtained the diploma of the Royal College of Surgeons, and in 1851 the degree of M.D. of his own university. Being anxious to marry and settle in practice he entered into partnership with Mr. W. Moon of Tottenham and rapidly became a general practitioner of high standing.

General practice was not to hold him long, however, for in the year 1859, he was invited to become assistant obstetric physician to his old hospital, an offer which he accepted. In the same year he passed the examination for membership of the Royal College of Physicians, being elected a fellow in 1866.

In 1870 he was appointed senior obstetric physician at Guy's Hospital and lecturer in obstetrics at the school. These appointments he held until 1883, when, by reason of the age limit, he retired from these posts and was elected consulting obstetric physician. Feeling that his career as a teacher was being cut short somewhat prematurely, he acceded to the request to become obstetric physician to St. Mary's Hospital in succession to Dr. Meadows. He held this post for several years doing his hospital work conscientiously and taking his full share of teaching. He never forgot that he was a Guy's man. It was when he was

attached to that hospital that he did his best work. For some years, he was examiner in obstetrics at the University of London, holding a similar position at the Royal College of Physicians from 1872 to 1878 and again from 1889 to 1893. For many years, Braxton Hicks was physician to the Royal Maternity Charity, and, for a time, physician to the Royal Hospital for Women in Waterloo Road.

Hicks was one of the founders of the Obstetrical Society of London in the proceedings of which he took a most active interest. He took part in many discussions and no fewer than forty contributions from him appeared in the *Transactions*. He was Honorary Secretary from 1863 to 1865, Vice-President 1866 to 1868, Treasurer in 1870, President 1871 and 1872. He was elected an Honorary Fellow in 1896. He was an Honorary Fellow of the Obstetrical Societies of Berlin, Edinburgh, Philadelphia, and of the American Gynecological Society and a corresponding Fellow of the Gynecological Society of Boston (U.S.A.).

Braxton Hicks was all his life a keen student of natural science and many contributions from his pen appeared in the *Proceedings of the Royal Society*, in the *Transactions of the Linnean Society* and in the *Journal of Microscopic Medicine*. He was elected a Fellow of the Royal Society on 5 June 1862. The papers which he wrote to earn for him this great distinction included articles on the house-fly, sense organs of insects, the eye and its parts in invertebrates, on lichens and algae and on the antennae of insects.

Braxton Hicks retired from active practice in 1894 and died at Lymington on 28 August 1897, at the age of seventy-four from heart failure, after a long illness following an attack of influenza.

Paying tribute to his memory at the London Obstetrical Society, C. J. Cullingworth said that:

it was difficult for those who only knew Braxton Hicks in his later years to realize that this mild mannered, chatty, beaming little old gentleman was the man whose name was associated with so many advances in the science and art of obstetrics. He was in no sense one of those who either look or talk like a leader of men. But his wide interests, his keen love of nature, and his gentle unassuming manner made him a most interesting companion. He continually displayed a quite unexpected acquaintance with the most out-of-the-way subjects, and his mind was a storehouse of general information. He had read much, observed much and thought much. . . . He was always ready to give help to those who needed it, whether in the form of advice or money, or, if necessary both; but it was all done so quietly that few knew him for the charitable man he really was. His character had the charm of simplicity. Utterly free himself from all that was base and sordid, he judged others to be the same; hence he never expressed himself unkindly to his fellow men.

Braxton Hicks was one of the pioneers of British obstetrics and made many contributions to the advance of the art. Including letters, over one hundred-and-thirty contributions from his pen appeared in medical journals. Many of these remain as foundation stones upon which the modern science of obstetrics was carefully built up by his successors and contemporaries. He was not a finished writer; his papers had no charm of style but were all worth reading. He



Fig. 1.  
JOHN BRAXTON HICKS  
(1823-97)

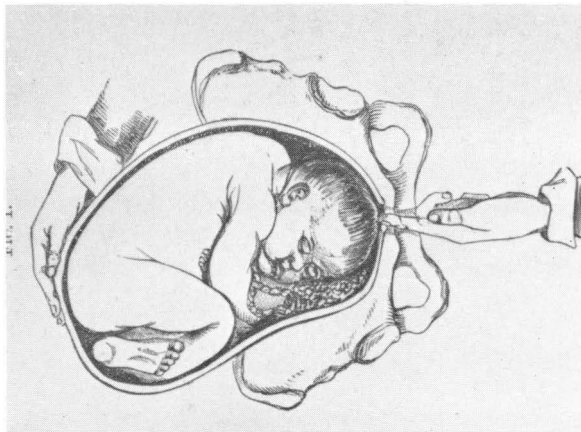
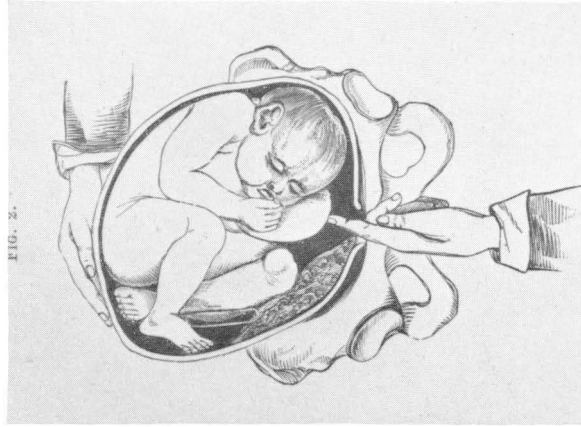
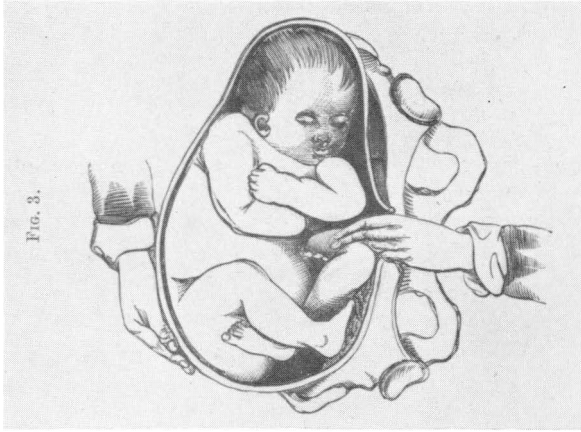


Fig. 2.  
Braxton Hicks's method of version

was a clinical observer of the first rank and never put pen to paper unless he had something of importance to say. In his work, no detail was too small to escape his notice or receive careful attention; nothing was too much trouble to him if it would promote the welfare and comfort of his patients.

Of Braxton Hicks's many contributions to the literature of obstetrics and gynecology, two stand out above all others and are worthy of consideration, at length. In the month of July 1860, there appeared a paper in the *Lancet* on 'A new method of Version in Abnormal Labour' in which were described 'five cases of placenta praevia in illustration of its peculiar adaptability to that formidable complication of labour'. In the following February another paper appeared in the same journal describing the successful application of the new method to other forms of complicated labour. It was by these papers that Dr. Hicks first brought before the notice of the profession his celebrated method of combined internal and external version. He later stated that he chose this method of doing so rather than laying it before the Obstetrical Society of London as it was then a new subject. He felt that its merits could not then be discussed with satisfactory results but having tested and proved its value, he made it the subject of an address given to the Obstetrical Society of London on 4 November 1863. The following year the paper appeared in a revised form as a volume of seventy-two pages with the title *A Combined External and Internal Version*.

Prior to this time, the operation of version whether to bring down a foot, the knee, the breech or the head had meant the introduction of the whole hand into the uterus. Cephalic version was but rarely performed, the difficulty of grasping and retaining the head at the os uteri being very great. Further more it was necessary to wait until the cervix was sufficiently dilated before introducing the hand, and generally part of the arm, into the uterus. Valuable time was therefore often lost before the operation with its attendant pain and suffering, and irritation of the uterus, could be undertaken. A patient with placenta praevia might be moribund from haemorrhage before such a stage was reached.

Wigand in 1807 had pointed out that the child could be turned in shoulder presentation by external manipulation alone. He found that by pressing on opposite poles of the foetus he could bring that end which was nearest, to the os uteri. Further progress was made in Britain when men such as Collins of Dublin and Robert Lee found they were able to shorten the delay, before version could be performed in the old manner, by pushing the child round with the finger. Lee had also pointed out that when the child lay transversely the knee was within a finger's length of the os uteri and could be hooked down without difficulty. Only a few cases were recorded, however, and the practice was attended with much uncertainty. It did not attract the attention of obstetricians generally. Braxton Hicks showed how, by the combination of the two methods, external manipulation and the use of a finger or fingers passed through the os uteri, certainty and despatch replaced doubt and tardiness.

Supposing first the simplest condition, the uterus passive, the membranes



intact, liquor amnii abundant, the presentation determined with certainty, and the os sufficiently expanded to admit one or two fingers, Braxton Hicks first described his method in these words:

Introduce the left hand, with the usual precautions, into the vagina, so as to fairly touch the foetal head even should it recede an inch. (This generally requires the whole hand.) Having passed one or two fingers (if only one let it be the middle finger) within the cervix and resting them on the head, place the right hand on the left side of the breech at the fundus uteri as shown in Fig. 1. Employ gentle pressure and slight impulsive movements on the fundus towards the right side, and simultaneously on the head towards the left iliac fossa. In a very short time it will be found that the head is rising and at the same time the breech is descending. The shoulder is now felt by the hand in place of the head as shown in Fig. 2; it in like manner is pushed to the left and at the same time the breech is depressed to the right iliac fossa. The foetus is now transverse; the knee will be opposite the os, and the membranes being ruptured, it can be seized, as at Fig. 3, and brought into the vagina. . . . Having now the labour at command, the case must be treated according to the circumstances which called for turning.

Pads and an abdominal binder could be applied if thought desirable.

He disclaimed

all intention of unnecessary deprecating an exceedingly valuable and ancient operation—one which has saved numberless lives and one with which at present we cannot dispense. Still, if it can be shown that in a considerable number of cases requiring version, the operation can be accomplished as quickly, or even more so, without the necessity of introducing the hand into the uterus, with the exception of one or two fingers passed a little way into the os, I am sure that such a modification of this more or less hazardous operation will recommend itself without any panegyrics on my part. For in that case it will readily be perceived that we shall avoid:

1. The addition of the hand, and perhaps arm, to the uterine contents and the irritation, present or future, caused by it.
2. Entry of air within the uterine cavity.
3. Liability to rupture of uterus.
4. Much of the pain and distress felt in the ordinary plan.
5. The removal of the coat and baring the arm of the operator; and as a minor consideration—
6. The fatigue and pain endured by the operator while the hand is in utero.

In the discussion which followed Braxton Hicks's paper at the meeting of the Obstetrical Society of London, R. Barnes stated that Wigand in 1807 had published an admirable memoir, largely overlooked except in his own country, in which he fully described turning by external and internal manipulation. At the time of his address Hicks was not aware of this memoir and was unable to question Barnes's assertion. Before the paper was published, however, Hicks acquainted himself with Wigand's memoir, embodying the result in an appendix. He fully admitted the value of Wigand's suggestions but pointed out that they were by no means identical with his own. Wigand made only two allusions to the use of the inside hand, first for exploration and secondly when he instructed that it be used to search for the head and to place it in the most favourable position with regard to the os uteri. He corrected the abnormal position of the foetus by 'outer manipulation alone' and having made out exactly the abnormal condition of the foetus, 'we should then make that part descend which is nearest the mouth of the womb'. His chief practice consisted

*John Braxton Hicks (1823-1897)*

in straightening the child in utero. It was a valuable addition to the obstetric art but its applicability was limited. Further he made no mention of the power of the inner hand to push the child on in the direction of the head. As a result he was unable to effect the most important kind of version, complete podalic version. Wigand's method was taken up by many of his countrymen, notably Esterle, Stoltz, and Martin. The last mentioned laid down the following conditions for its success:

1. Immediate delivery not required.
2. A capacious pelvis.
3. Absence of pains.
4. The child must be alive.

Such conditions could not be granted if the method was to be employed during labour or emergency, the time when the case was usually seen by the obstetrician for the first occasion. Antenatal care was practically unknown and patients were seldom seen before labour had commenced. Indeed Hicks considered such to be 'very impracticable and, to a certain extent, unnecessary'.

Wigand and his followers were therefore unable to utilize his plan in placenta praevia, in coarctation of the pelvic brim, convulsions and many other cases where version was indicated. He expressly stated that his method was contra-indicated in antepartum haemorrhage, convulsions and prolapse of the cord.

Hick's method differed from all others in that he could produce cephalic or podalic version as thought desirable and that it could be done as soon as the cervix would allow the passage of two fingers. It permitted early interference in such cases as shoulder presentation and in cases of convulsions where speedy delivery was indicated and the introduction of the whole hand into the uterus fraught with danger. It diminished the risk in cases of contracted pelvis where version was the method of delivery selected. The shock attendant upon such a manoeuvre was much less when Hicks's method was adopted than when the whole hand was introduced into the uterus.

But it was in the treatment of cases of placenta praevia that Hicks's plan was of greatest service. It saved many lives and relieved much of the anxiety of the medical attendant. Hitherto in such a case if the cervix was not sufficiently dilated to pass the hand into the uterus, resort was had to packing the vagina—a difficult operation to perform effectively—and efforts made to press the head down upon the placenta. Many hours might be occupied in so doing—precious hours lost while the patient as likely as not continued to bleed.

Anything [said Hicks] which gave the practitioner some power of action was to be earnestly welcomed; anything better than to stand with folded arms, incapable of rendering assistance for hours or even days, every moment of which might carry the sinking and suffering patient nearer to the grave.

In every case of 'partial' insertion of the placenta praevia, as soon as a finger could be passed through the cervix, a leg could be brought down. The haemorrhage was at once controlled by the plug-like action of the foetal breech. Ample

traction was then exerted on the limb and then kept up while the os slowly dilated, secale (ergot) being given if necessary. Time was then given for the patient's vital powers to be restored. In extreme cases the worth of this time could not be over-estimated. Hicks was at pains to stress that delivery should not be hurried—he was most emphatic on this point.

What is the use [he said] of hastily delivering before the os is well dilated, and before the system has time to rally from the effects of flooding and of the version? Many of the deaths following placenta praevia may, I believe, be fairly attributed to too rapid delivery. How much must the collapse be increased and the uterus injured by endeavouring to drag the head through the yet rigid os? Turn, and if you employ the child as a plug, the danger is over; wait then for the pains, rally the powers in the interval and let nature, gently assisted, complete the delivery.

He recognized that difficulty might be encountered where the placenta completely covered the cervix. Such cases he thought, however, were very rare in his opinion, and it was but seldom that by detaching a portion of the placenta with a sweep of the finger the membranes could not be reached. Some further dilatation of the cervix by means of a Barnes bag was sometimes of assistance. It was in a case of placenta praevia that Hicks first employed his new method of version.

Many years were to elapse before Hicks had the satisfaction of finding his suggestions adopted. Many of his contemporaries could not or would not see the benefits to be derived from Hicks's suggestions. Had it been otherwise, he would much sooner have been recognized as one of the greatest benefactors of lying-in women that the nineteenth century produced. In the fifth (1867) edition of his obstetric medicine and surgery Francis H. Ramsbotham made no mention of the combined method of version on the treatment of placenta praevia. Discussing transverse presentations, the same writer referred to the correction of these by external manipulation by Wigand, Esterle and others. He continued:

Dr. Braxton Hicks, in London, has also advocated this method of changing the position of the foetus; and he has given some cases in which he also was successful. Dr. B. Hicks possesses a tact in this respect which I have never been able to acquire: and I do not think that the practice will ever be generally adopted by the profession in this country.

Truly the prophet had no honour in his own country! When, after the lapse of time, the value of the new method came to be realized, the mortality from placenta praevia quickly fell from 30 per cent to just over 5 per cent.

In the year 1867, Braxton Hicks made what some authorities consider to be the greatest of his contributions to obstetrics and that which C. J. Cullingworth described as probably one of the most admirable communications that has ever appeared in our *Transactions*. This paper was entitled 'On the Condition of the Uterus in Obstructed Labour: and an enquiry as to what is intended by the terms "cessation of labour pains", "powerless labour" and "exhaustion" '.

Prior to this time, great confusion and uncertainty had existed as to the exact meaning, and significance of, these terms. Braxton Hicks reviewed the opinions of many of the leading obstetricians of his day, thereby amply confirming such

ambiguity. Hall Davies (1865) understood 'powerless labour' to mean 'defective power in the agents of labour'—irregular and feeble uterine action not brought on by prolonged uterine action. Churchill (1867) on the other hand intended 'powerless labour' to mean a uterus worn out by long continued exertion, a condition associated with serious constitutional disturbance. This condition Hodges described as 'exhaustion'. But this term too suffered from a great variety of description, even such as Osborn looking upon it as a rapid weakening of the vital powers and as the precursor of collapse while others such as Davies looked upon the condition as one of uterine inertia from previous over activity of the uterus but not considered as a very serious state. By Blundell and others, the serious systemic disturbance was considered to be due to contusion of the soft parts caused by pressure of the foetal head, while some, whilst recognizing the condition, had no explanation to offer as to its cause. The term 'cessation of labour pains' was discussed with equal vagueness, the significance and interpretation of such not being properly understood.

There were but two British writers on obstetrics who, up to that time, had observed the real condition of the patient in obstructed labour—E. W. Murphy and E. Rigby. The former in his *Lectures on Parturition* (1857) noticed how, when there was any obstruction to the exit of the foetus, the uterine action became temporarily suspended. He went on to describe how the pains then returned, though not so strong as before, but recurring at short intervals, and often causing great distress to the patient. There might be a second cessation of the pains or they might continue with renewed force. In this latter event, the

pains are very short, extremely severe and, in their intervals, the patient still complained of pain and a feeling of soreness.

Now comes a very important point:

If the uterus be examined through the abdomen, you will observe a very perceptible difference in the sensation it communicates. It feels almost as hard and contracted during the interval as during a pain; the patient cannot bear the abdomen to be touched. Besides this alteration in the character of the pain, we have other symptoms, both local and general to guide us.

He then went on to describe the serious constitutional disturbance—rapid pulse, fever, thirst, anxiety, etc.—which followed such a train of events. Such a state of affairs Murphy believed was due to inflammation of the uterus. Similar views were held by Rigby.

Hicks fully recognized the importance of such observations but did not accept the explanations advanced. He pointed out that, even in normal labour, every uterine contraction made a demand on the nervous power of the patient. Therefore, the more frequent and more and more severe the contractions, the greater was the sapping of the patient's vitality. These facts, he believed, were liable to be overlooked. In a natural labour the system was able, in the interval between the pains, to replenish the loss without showing any untoward symptoms, although women varied much in this respect.

If then the above be admitted as facts, it must necessarily follow, that if instead of the ordinary intermissions between the pains, these latter are repeated so closely as to leave scarcely any interval, more especially if this rapidly recurring action be continued over a considerable space of time, we should reasonably anticipate that all the sooner we should find that the powers of the system begin to yield. Still more reasonably should we anticipate the earlier arrival of serious symptoms if, instead of the pains being intermittent, the uterine action became continuous.

Briefly, he showed that the state known as 'tonic contraction' and the systemic disturbance associated with such a condition, were due to nervous exhaustion, wherein lay the great danger of such a circumstance.

He believed that the lower in the pelvis the head became arrested, the more rapidly serious symptoms would develop. He did not agree, however, that, in calculating the demand made upon the nervous system by the uterine exertion, it was right to judge it by the exhaustion produced by the exertion of the voluntary muscle. He pointed out that

we should consider that in a great measure, the process of labour is carried on by the exertion of the largest involuntary muscle in the body, the supply of whose nerve force is directly and principally from the sympathetic system, the great nerve of relation whereby the general vital powers are immediately influenced, and impressions made upon the circulation in a much more rapid manner than by the exercise of voluntary muscles.

Braxton Hicks expressed the view that the consumption of nerve force was the cause of the rise of pulse rate and other symptoms of approaching danger, not the bruising of the soft-parts, although the co-existence of such an occurrence could materially increase the symptoms.

He went on to show that there were two classes of case in which the pains subsided after having been vigorous and that it was of the utmost importance to distinguish between the two as the treatment of each was totally different.

The first and simplest form [he said] is well known and is that in which the uterus is simply quiescent, resting passively for a time while the nervous power is being, so to speak, collected; after a time, the uterus begins to act and labour is accomplished. Now in this case there is no rise of pulse, generally, on the contrary, it is weak and feeble; nor are there any untoward symptoms but languor and possibly some faintness. In these, the reflex function is deficient, and its action sluggish, and therefore, the demand on the constitution to supply nerve force is proportionately small.

Such a state, he declared, could easily be distinguished by observing the lax and flabby state of the uterine wall, the foetus being easily palpable. This was the first clear description of what came to be known as secondary uterine inertia.

The second form of subsidence of the pains is, as already indicated, of the opposite character. The uterus becomes gradually irritated, so that although some of the pains still occur at irregular intervals, the uterus is really in more action than before. Tightly compressing the child, falling into the inequalities of its form whereby the foetus is prevented from escaping, every indentation of the uterus forming as it were, a ledge past which it is difficult to draw the child, or to pass the hand if we desire to turn. When this condition, more frequent than

*John Braxton Hicks (1823-1897)*

generally supposed, and not infrequent in primiparae, has once been fairly established, it is rare that the rhythmical pains ever recur with such force as to expel the foetus; as a rule, the continuous action remains, and sooner or later symptoms set in telling one of the necessity for interference.

To diagnose such a condition, it was seldom, he said, necessary to do more than lay the hand on the abdominal wall and feel the uterus which would be hard and firm, tightly moulded to the foetus which could not be moved about, the whole mass being more or less fixed.

Such was his vivid description of a uterus in a state of tonic contraction. Braxton Hicks was the first to distinguish clearly between the two conditions—one in which there is no undue cause for anxiety and interference not only unnecessary but rather contra-indicated. And on the other hand, one fraught with the gravest danger and calling for urgent interference, before one, or perhaps two, lives are lost.

Hicks also drew attention to one very important point—the danger of haemorrhage if delivery be unduly hastened and the child extracted while the uterus was in a state of relaxation. On the other hand, with a uterine in continuous action, extraction is the right and proper line of treatment.

To review all of Braxton Hicks's many papers on obstetrical subjects would fill a large volume but several others are worthy of more than passing notice. In 1869 he described his modification of the cephalotribe. Caesarean section was still a rare operation in Britain and obstetricians had devoted much time and thought to the perfection of instruments required for delivery after the foetal head had been opened. Originally invented by Baudelocque, the cephalotribe was long employed on the continent before it was used in this country. It consists of two powerful solid blades applied to the head after perforation and approximated by means of a screw so as to crush the cranial bones, after which it may be used for extraction. The peculiar value of this instrument lay in the fact that it crushed the firm base of the skull which was untouched by craniotomy and that it crushed the bones within the scalp, thereby avoiding one of the principle dangers of craniotomy—the wounding of the maternal passages by spicules of bone. Braxton Hicks's instrument was a modification of Simpson's. It stood the test of experience and was in use for many years.

In 1871 Hicks drew the attention of his colleagues to the contractions of the uterus throughout pregnancy—a phenomenon which is still referred to as Braxton Hicks's sign. Other writers had referred to this sign but the contractions which they had observed were the result of excitation whereas those described by Hicks occurred spontaneously. He discussed the point again at the International Medical Congress in London in 1881 and referred to it in one of his very last papers (1894). In this latter he admitted that such a sign might be observed in certain cases of fibroid tumours of the uterus.

In 1869, Hicks used silver wire to close the uterine incision after the performance of Caesarean section. It appeared that the reason which prompted him to employ suture was severe haemorrhage from a large sinus which was severed at the time of the uterine incision. Nevertheless, he succeeded in

preventing extravasation of the uterine contents into the abdominal cavity. The patient died on the fourth day after operation but at the post-mortem examination, the uterine wound was found firmly closed. Hicks was one of the first to employ sutures to close the uterine wound.

Looking through the list of Braxton Hicks's published writings it is evident that there were few subjects on which he did not write something. There are papers on the anatomy of the human placenta, on the behaviour of the pregnant uterus in chorea, on pregnancy associated with ovarian disease, on the induction of premature labour, on hydatidiform degeneration of the chorion, on transfusion, on rupture of the vagina in labour, on rupture and inversion of the uterus, on accidental haemorrhage, on Caesarean section, on extra uterine and intramural gestation, on the temperature during parturition and on the puerperal state, on puerperal diseases, on eclampsia, on labour obstructed by abnormal conditions of the foetus, on prolapsed cord, on labour with twins, on the best mode of delivery the foetal head after perforation, on acephalous monsters and on an outbreak of diphtheria in the obstetric wards. In every one of these he revealed his remarkable powers of observation.

Braxton Hicks will always be remembered as one of the greatest obstetricians and gynecologists which Britain has produced. It is worthy of note that Palmer Findley in his *Priests of Lucina* gives biographies of but three British obstetricians of the nineteenth century. Braxton Hicks was one of these, the other two being Sir James Young Simpson and J. Matthews Duncan.

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