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THE INFLUENCE OF THE FRENCH SCHOOL IN THE SIXTEENTH, SEVENTEENTH, AND EIGHTEENTH CENTURIES UPON THE DEVELOPMENT OF GYNECOLOGY AND OBSTETRICS

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(Y/E gynecologists and obstetricians today owe a great debt to our professional forefathers. The distinguished men who created this Society and who have maintained its reputation have set us an example which it is not easy to follow. They have done a great work in the development of gynecology and obstetrics in this country and Canada. Before their day, however, there were able workers who searched for facts and who strove to develop better methods of dealing with the ills of women. In the hurry of daily work and with the rapid development of knowledge we find it difficult to keep pace with what goes on today and the work of those who have gone before us is easily forgotten. In order that we may take a brief view of the work of a group who have contributed greatly to our science I ask you to come with me for a short time while we mount an imaginary hill from whence we may look backward over a part of the road our predecessors have traveled and to view, if we may, some of the work of the laborers who have built the foundations upon which rest the scientific structure within which we This scholastic edifice is not yet complete. So long as men of

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campaign, that he renounced the use of boiling oil and hot irons for the control of hemorrhage after amputations and from severe wounds. This was because the supply of hot oil failed and he had to have recourse to an emollient application made of egg yolks, oil of roses, and turpentine in its place. The improvement in results he instantly recognized and thereafter, against much opposition from his more statically minded confreres, refused to use them. In 1552, during the siege of Damvilliers, he amputated the leg of a gentleman in the suite of de Rohan, controlling bleeding by ligatures. The ligature had lain dormant since the time of Celsus, who described it in his seventh book. This controversy about boiling oil and the cautery produced for us a remarkable demonstration of his ability as a controversial writer for he was attacked



Fig. 1.—Ambroise Paré. Le Paulmier.

by Etienne Gourmelen who criticized severely his departure from the accepted methods. His reply, entitled an "Apology and Treatise," was not only an account of his travels and the surgical work which he found to do while accomplishing them, but was also a most biting and complete rebuttal, replete with sarcasm, calling attention to his own great practical experience compared with the largely academic knowledge of his opponent. Throughout this work he refers to his critic as "Mon petit maistre" which may be rather freely translated as "my little man." It is due to this attack upon Paré, and to his reply, that we know anything of Gourmelen. He was caught as a fly in liquid amber, and so preserved has come down to us. It was in this book that Paré

said "the operations of surgery are learned by the eye and by the touch." This polemic went on for some time for in 1593 Jean Des Hayes wrote a Latin thesis entitled "An Sistendo Sanguinem Ignis Vel Ligatura?" It was in his first campaign that we first find the expression so often quoted "I dressed him, God healed him." This expression is found in a number of places in his works.

In 1541 appeared his book, great in size as well as in matter. He gave a complete discussion of surgery as it was then known together with many illustrations. The excellence of the latter and the fullness of the index at the end of the book surprise the modern reader. In this work we find his discussion of the generation of man and a chapter on monsters. Some of these, as pictured in his book, might astonish the modern teratologist and seem to have been imagined, as Barry Anson puts it, by a combination of Genesis and genetics. Among the figures shown are some which resemble abnormalities familiar to us all but others bear no resemblance to fetal abnormalities as we know them.

In this work, in Book 25, Chapter XLVIII, appears an account of a woman who had a protrusion from the introitus, seemingly a prolapse. This was treated by an operation which appeared to be a vaginal hysterectomy. The woman died three months later, from a pleurisy as Paré says, and he was able to obtain an autopsy which disclosed the fact that no uterus was present. Apparently the operation must have done away with it. He pictures pessaries, both ball-shaped and in the form of rings. Remedies are given for vaginal and cervical conditions. An illustration appears of a speculum which is mechanically ingenious although less effective for the purpose for which such an instrument is used than those of today.

The cruelty of the hot oil and heated iron used for stopping hemorrhage repelled him, and we may assume that some of the obstetric procedures of his day must have been equally offensive. In 1549 we find his first reference to an obstetric subject. It is contained in a book published in that year and entitled "Brief Anatomic Collection: with the method of setting bones: and of extracting infants, dead as well as alive, from the bodies of their mothers." This was printed in Paris at the sign of The Fat Hen. As he had to leave soon after this was submitted for publication, the errors in the text were corrected with the pen. In this work we find the first reference to podalic version. In 1573 he published a book entitled "Dix Livres de Chirurgie avec le Magasin des Instrumens necessaires a icelle" (10 books of surgery with the necessary instruments). Here we find pictured a few of the hooks and curved knives employed to terminate impossible labors. Forceps were not to appear for another century, and we may well imagine that these implements and the procedures carried out with them may have impelled him to seek a better way of terminating these cases.

While only a small part of his time was devoted to obstetrics, and this necessarily during that portion of his life which was not filled with outside the field of surgery, and while he was a faithful and skillful follower of the teachings of his master, we find no evidence in his career of the bold, restless, scientific pioneer, seeking new truths and eager to try new methods. He took what he had been taught and used it excellently but added nothing to it, except a work on the diseases of the eye. This, however, was not too highly considered by his contemporaries and by later authorities is not regarded as an outstanding piece of work. In obstetrics, he took the operation of version, which he had seen carried out by Paré, and used it to good purpose. It is said that he saved the daughter of Paré by version when she was bleeding seriously.



Fig. 2.-Jacques Guillemeau.

In 1609 he published a book entitled L'Heureux Accouchement des Femmes and in 1621 another entitled De la Grossesse et Accouchement des Femmes, du gouvernement d'icelles, et moyens de subvenir aux accidens qui leur arrivent (The Pregnancy and Delivery of Women, Their Management, and the Means of Dealing with Complications). This last was his best work.

Guillemeau favored version but condemned cesarean section, with which opinion we should probably agree, if we were to work under exactly the conditions of his day. He states that "the worst things which can happen to a woman in labor are hemorrhage and convulsions. If either one occurs, immediate delivery is needed." In speaking of the loss of patients from obstetric accidents he says, "We have seen, to our great regret, death occur because of the stubbornness of relatives and friends, or even by the fear of doctors and surgeons, who

temporized in the hope that bleeding would cease." This may awaken memories in the minds of many of us who have met this sort of thing in our professional careers.



Fig. 3.—The pregnancy and delivery of women. Guillemeau, 1620. (Courtesy of Surgeon General's Library.)

His life resembles that of Paré in that his professional experience began in the Hôtel Dieu where he served as a young man at the outset of his career and in which he, for a time, did military duty. While the inventive genius and initiative of his master were absent, he must still be accorded a place among the real builders of our specialty, for he continued the work of Paré in adding version to the resources of the accoucheur, both by his work as a widely known practitioner and as the author of two authoritative books.

In the seventeeth century appeared a leader and teacher of the art of obstetrics, Mauriceau. He obtained a large early experience in the Hôtel Dieu in Paris. Details concerning his life are difficult to obtain but he seems to have carried on a very large practice in Paris and to have served extensively in the capacity of what we should today term



Fig. 4.-Mauriceau. (Author's collection.)

an obstetric consultant. His basic principle was that an exact knowledge of the anatomy of the reproductive tract and its function must underlie any obstetric teaching. With this statement none of us will disagree. In his own published work, however, we may regret that he did not make use of anatomic investigations of his own rather than follow the old dissectors. Fresh material of his own providing would have been a great addition to his valuable work. In 1668 appeared his book, containing the description of the reproductive anatomy, obstetric technique, management of the puerperium and of the newborn. This book went through a number of editions, the first being in Latin, in which the edition of 1681 was also printed. The edition of 1694 appeared in French and to this was added a large number of case reports. Some

of these had been published before but by the time this edition appeared the number had grown to 700. He exhibited a commendable broadmindedness in these reports for he included a number of cases the outcome of which had not been favorable. These he characterized as things to be avoided, those which were successful being things to imitate.

He condemned cesarean section and made extensive use of version. He illustrates in his book a number of knives and hooks which he used when he was compelled to make use of a destructive operation. Among

MAURICEAU

ARTIUM MAGISTRI,

ET ANTIQUI PRÆPOSITI

MAGISTRORUM CHIRURGORUM

PARISIENSIUM SOCIETATI,

DI

MULIERUM PRÆGNANTIUM, PARTURIENTIUM,

ET

PUERPERARUM MORBIS TRACTATUS

Tradens veram optimamque methodum adjuvandi Mulieres in partu naturali, & medendi culibet partui contra naturam, morbifque infantium recens-natorum: cum accurata deferiptione omnium mulieris partium generationi infervientiums adjunctis multis figuris æri egregie infeulptis.

Opus Chirurgis utilissimum , Olstetricibusque omnibus ad obstitricandi artem persette discendam valde necessarium.

米大学

PARISIIS,

April AUCTOREM, in medio v.z. diéta des Pesis-Champs, fub figno boni Medici-

M. D.C. I. X X X I.

Cum Privilegio Regis, & Approbatione Domini Archistrorum Comitis.

Fig. 5.—First Latin edition of Mauriceau, 1681. (Author's collection.)

his case reports we find, in observation 26, the account of his meeting with Chamberlen and of the latter's vain attempt to deliver a rachitic dwarf who was under Mauriceau's observation. He concludes the report with the observation that the English obstetrician had gone back to London from Paris where there were more skillful accoucheurs than he. This unfortunate patient died of a ruptured uterus the next day and autopsy showed numerous wounds of the uterine wall made by the forceps, which as Mauriceau explains, had to be introduced without the guiding hand as the pelvis was so small. The experience caused him to devise an instrument he called the "tire-tête" by means of which he believed that such cases could in future be managed. The modern

operator, looking at the drawings of the instrument, may perhaps have some doubt as to its efficiency. One may wonder what the effect upon obstetric progress would have been if the case given to Chamberlen had been a more favorable one and had succeeded. If Mauriceau had accepted the instrument, with his commanding position and his great energy, it would have been made known to the medical world far sooner than it was. We cannot commend Chamberlen for trying to sell the forceps, but this operative failure withheld the help it could give to many women for years.

Chamberlen was sufficiently impressed by Mauriceau and his work that he translated his book into English. The English version was published in London in 1716.

He was acquainted with placenta previa and reports a number of cases. He did not recognize the exact state of affairs, however, for he believed that the placenta had become loosened from its normal seat and had preceded the child into the lower part of the uterus.

Although he was an acute observer and a skillful operator, we are told that even Jove may nod, and so we find him denying the work of de Graaf and refusing to believe the existence of the egg in the ovary. He carried his skepticism so far as to deny tubal pregnancy although he saw at least one which he described and illustrated in Book I, Chapter 5. He believed that the swelling in the tube was a hernia of the uterus. I cannot take the time to go into all his explanations of the findings in this ease but he goes into the matter in detail and indicates how he believed the fetus escaped through a tear in the side of the uterus.

His greatest service was in definitely establishing the technique of breech extraction, particularly of the delivery of the aftercoming head. His description of this operation in Chapter 13 of Book II should be read by every obstetrician as it is one of the important contributions to our art. His name alone should be attached to this operation without the addition of those of others who merely "re-discovered" what had already long been known.

As many great men, he also had a few foibles, which we may easily forgive. He seems to have had a rather active appreciation of his own worth, which, the circumstances being what they were, is far less of a fault than if he had been a mediocrity.

In the frontispiece of the edition of 1681, we find, under a small portrait of himself, the words, "Me Sol, non Umbra, regit." His finger points toward the sun. The implication seems to be that he thought some of his contemporaries were less happy than he in their choice of a source of inspiration. In his case reports, too, we occasionally find an expression of the same feeling when he remarks that he did this or that to the great amazement of the midwives and surgeons present.

spirit of observation which contrasts with the writings of many authors who are content to take what has been written by others and to repeat it as their own and thereby prolong error.

We find in the records of his work evidence that he was an excellent clinician. His judgment as to the management of some of the complications of labor would be agreed to by most of our modern teachers. His advice against attempts to hasten labor may well be listened to today and his warning against interference without adequate cause resembles some of those which have been uttered in the past few years. His attitude toward medical literature is shown by his statement that "books would be of more value if they reported what has been seen and done, these things being told with sincerity and good faith."



Fig. 6.—Paul Portal.

Portal differed from Mauriceau in that he was pacific and not given to forceful expression of differences of opinion. He commonly refers to his contemporaries as skillful surgeons and able physicians, and we find no severe criticisms of their work. He did not enjoy a practice made up largely of the wealthy or socially prominent; most of his patients, as Maruitte tells us, being the wives of tailors, shoemakers, grocers, and so on. However, clinical experience is as well, if not better, gathered in the lower ranks of society, and we know that the "fashionable physician" in many large communities today is often not a contributor to the science of medicine.

He genuinely contributed to our specialty. He recognized, as Mauriceau and Paré had not, that the placenta may attach elsewhere than

to the field of operative obstetrics and one which remains with us still and which will probably never be displaced.

The mechanical ingenuity of the man may be demonstrated by the drawings of his three-bladed instrument designed for the extraction of the head left in the uterus after attempts at breech delivery, an accident seemingly more common then than in good clinics today. His sheathed

OBSERVATIONS

SUR

LES CAUSES ET LES ACCIDENS

DE PLUSIEURS

ACCOUCHEMENS

LABORIEUX,

AVEC DES.REMARQUES

Sur ce qui a été proposé ou mis en usage pour les terminer; & de nouveaux moyens pour y parvenir plus aisément.

Par M. A. LEVRET, du Collège & de l'Académie Royale de Chirurgie, Accoucheur de Madame la Dauphine, &c.

Troisiéme Edition, revûe & corrigée.



A PARIS,

Chez P. Alex. Le Prieur, Imprimeur du Collége & de l'Académie Royale de Chirurgie, rue Saint Jacques à l'Olivier.

M. DCC. LXII.

Avec Apprehation & Privilége du Roi.

Fig. 7.—The treatment of difficult labor, Levret, 1762. (Author's collection.)

hook (crochet à gaine), was another device of a mechanical mind. That the two latter instruments have not survived is no criticism of the outstanding value of his addition to the forceps. This improved instrument decreased the number of destructive operations. Time does not permit the discussion of all of his contributions to the art of operative obstetrics, but Siebold's statement that he must be regarded as the founder of a rational teaching of operative obstetrics seems just.

His book, entitled Observations sur les causes et les Accidens de plusieurs Accouchemens laborieux avec des remarques sur ce qui a eighteenth century seems to have possessed an acuter vision than some which we have known since that time. The memory of this affair embittered him until the end of his life. He died in 1810.

He gave much attention to the mechanism of labor and to deformities of the pelvis and devised a "Compas d'epaisseur" which was simply the beginning of the pelvimeter. While he made use of version extensively, he by no means scorned the forceps and devised one of his own which was somewhat longer than that of Levret. He was concerned in establishing definite conditions under which the instrument should be used. The problem of too frequent interference seems to have been present then as now.

PRINCIPES

SUR L'ART

DES ACCOUCHEMENS.

PAR DEMANDES ET REPONSES, EN FAVEUR DES SAGES-FEMMES

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Fig. 8 .- Text Book for Midwives by Baudelocque. (Author's collection.)

He did a great work in the teaching of midwives. Most of these women were sent by their departments, being chosen by the prefects, for instruction so that they might return home and serve their own communities and hospitals. These schools of midwifery were useful institutions in the eighteenth century and the famous women who taught at that time worked in them as head midwives. Madame La Chapelle and Madame Boivin are the chief examples. Unfortunately, the time available will not permit my speaking of them at length.

today are finishing the structure which they, and their co-workers in other lands, began. Most of the great principles have been established but much remains to be done in the perfection of technique and the furthering of knowledge along physiologic, biochemical, and endocrinologic lines. In the progress which has been made in the last half century, the Fellows of this Society have borne a notable part. It is certain that the contributions of the Fellows of the future will solve some of the remaining problems. At a time in which the resources of the Nation and the lives and careers of our young men are being devoted to the struggle against the forces of destruction, we are permitted, because of the age of most of us, to continue the constructive work of medical science. May we so conduct ourselves that not only we may follow well the example set us by some of those who have worked in centuries gone before but that we may maintain our Society in that high place in which our eminent predecessors have left it.

When not otherwise indicated, illustrations are by the courtesy of the Church Library of Northwestern University Medical School.

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