Opening of the Winter Session.

THE PATHWAY OF OBSTETRICS.

Inaugural Address at the University of Edinburgh.

BY

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[Abstract.]

PROFESSOR JOHNSTONE delivered his inaugural lecture, upon the "The pathway of obstetrics," on October 8th, in the music classroom of Edinburgh University. He began by saying that every student who exercised the gift of imagination must feel some peculiar quickening of interest when he approached the study of midwifery, for there was no sentient human heart that failed to respond to the thrill of this everyday miracle. The beginning and ending of things ever made a greater appeal than did the middle, just as sunrise and sunset inspired the poet to greater heights than did the glare of noonday. Birth and death, which formed the apparent beginning and the apparent end of life, excited a peculiar interest and a profound curiosity in everyone, no matter whether they were regarded from the spiritual, the philosophical, or the purely physical point of view. Students would feel that in midwifery they had a study which linked together all their medical and surgical studies in relation to the span of human life and gave them a coherence which elsewhere might be lacking. In this subject were interpreted in terms of medical practice the care of the infant, the prevention of diseases such as rickets, the hygiene of childhood, the proper supervision of the critical period of adolescence, all of which were directed to making the rising generation fit parents for their successors. These phases of practice were, indeed, in a very real sense, the earliest stages of the ante-natal supervision which was the crowning phase of modern obstetrics. Then came the actual obstetric attendance during the dangers of childbirth and the prudent guidance which restored the mother uninjured to her ordinary life, or, it might be, the gynaecological art which was called upon to repair inevitable damage. So this obstetric art went on from one generation to another in a cycle. Midwifery might be spoken of as consisting of a science and an art, the science being the collected knowledge of ascertained facts, while the art was the practical skill guided by that knowledge. In regard to midwifery, they had the curious paradox that while it must in the nature of things have been almost the earliest of all medical arts, yet so far as recorded medical history revealed, its science hardly began to grow until some two hundred years ago.

The Dark Age of Midwifery.

Midwifery was originally in the hands of the female sex, and the "medicine-man," priest, or physician, according to the state of culture reached, was never called in until matters were so grave that all help was practically useless. The effect of this almost exclusively female practice had been very far-reaching, and in the Dark Ages they found that the knowledge of midwifery had been almost totally extinguished. Accordingly, mediaeval midwifery formed a ghastly picture. William Clowes, the most distinguished English surgeon in the reign of Queen Elizabeth, had said that surgery was practised by: "tinkers, tooth-drawers, peddlers, ostlers, carters, horse gelders, and horse leeches, idiots, apple-squires, broom-men, bawds, witches, conjurers, sooth-sayers, and sow-gelders, rogues, rat-catchers, runagates, and proctors of spittle-houses." This was bad, but the worst phase of Renaissance medical practice had been that of obstetrics. In normal labour the woman had an even chance, but in difficult labour she was usually butchered to death if attended by one of the Sairey Gamps of the time or by one of the vagabond surgeons. In 1580 a law had been passed in Germany to prevent shepherds and herdsmen from attending obstetric cases, and the Renaissance pictures showed that the

lying-in rooms were crowded with people bustling in every direction and giving the general impression of all sorts of female fussiness.

In common with all other branches of knowledge, obstetric science had been stimulated by the invention of the printing press, although it did not keep pace with the growth of medical knowledge in general. There had been an actual prejudice against the learning and teaching of midwifery in these early days, and this must have persisted in a blatant form in Scotland as late as the end of the eighteenth century. Professor Hamilton, who occupied the chair at Edinburgh from 1780 to 1800, had spoken of the great service done by Professor Thomas Young, his predecessor, "by dissipating the prejudice which existed against the necessity of instructing midwives. Even they who pretended to the sacred name of philosophers joined in the prejudice. Dame Nature, they said, is the proper midwife, and nobody can be better qualified to attend to her dictates than Dame Ignorance."

Advance of Obstetric Knowledge.

Despite all handicaps, obstetric knowledge had slowly increased during the seventeenth and eighteenth centuries. Increased knowledge had tended to favour the handing over of obstetric cases to the trained male physician, and the increased experience in practical midwifery so gained by the male physician had tended to foster the growth of real science. This had only been achieved after a hundred years of wordy and acrimonious warfare, of which a faint echo could be perceived in the amusing description given in *Tristram Shandy* of the circumstances surrounding Tristram's birth. Much of the credit for overcoming this prejudice belonged to a Lanarkshire Scot, William Smellie, who had gone to London and become the most prominent obstetrician of his day—indeed, one of the most prominent obstetricians of any day.

One special fact which had done much to hasten the transference of obstetric practice from the midwife to the trained obstetric physician was the invention of the midwifery forceps by Peter Chamberlen, a London physician of Huguenot origin, in the end of the sixteenth century. In most cases Nature had ordained that the child should be born head first, but up to his time no method had been discovered of expediting the birth of the child in cases of delayed or obstructed labour which did not lead directly to its death through injury, or involved its being turned in the womb and extracted feet first. The latter operation, podalic version, had been known to the Greek and Arabian physicians, and had been rediscovered by the great French surgeon Ambroise Paré in 1550. Although it was still performed in some cases with the best results, it was a formidable proceeding in comparison to the application to the child's head of the forceps, which was the modern successor to Chamberlen's instrument. The significance of the discovery of the forceps had been, first, that it was an enormously important forward step, and secondly, that it had become manifest that the use of this beneficial instrument could not be entrusted to the hands of an untrained attendant. It had been a reproach, however, of the Chamberlens that the discovery had been kept a secret in their family for four generations, as a means of increasing their professional reputation and as a source of private gain. Consequently, the nature and construction of midwifery forceps had not become generally known until the beginning of the eighteenth century. From this time the science had begun to grow under the cultivation of men like Mauriceau and Deventer, Smellie, Charles White, Fielding Ould, and others.

Scotland, at the beginning of the eighteenth century, had been a very poor country, and the conditions for the development of scientific obstetrics were less favourable than in wealthier England. The great majority of the cases of childbirth were attended by midwives only, who were called "howdies," and these apparently had been devoid of any training in the science of obstetrics, while in

the more remote villages and districts the matrons had earned an honest penny by attending each other in their confinements, very much as the inhabitants eked out their livelihood by taking in each other's washing. As a result, obstetric disasters had been common, and in 1726 the Incorporation of Chirurgeons of Edinburgh had decided that an organized effort to train women for the office of midwives should be made without delay. An important minute of the Town Council of Edinburgh, dated February 9th, 1726, effected the foundation of the first chair of midwifery in the world. The minute ran as follows:

"The Council having considered the petition of Mr. Joseph Gibson, chirurgeon in Edinburgh, with a declaration under the hands of four doctors of medicine, setting forth the usefulness and necessity of instituting a profession of midwifery; as also an extract of an act of the Incorporation of Chirurgeons, shewing their approbation of the qualifications and capacity of Joseph Gibson, one of their number, for teaching the said art and science; they were fully convinced that it would be of great use and advantage to institute this profession; and being well satisfied with the ability and capacity of the said Joseph Gibson to discharge that office, they were of opinion that the Council should nominate and appoint him to be Professor of Midwifery in this city and privileges, with power to him to profess and teach the said art, in as large an extent as it is taught in any city or place where this profession is already instituted; and that he should be vested with the same privileges and immunities that are known to appertain to a professor of midwifery in any other well-regulated city or place; but that it should be expressly provided that he should have no fee or salary from this city out of its patrimony or revenue on account of his said profession. And having likewise considered that many fatal consequences have happened to women in childbirth and to their children through the ignorance and unskilfulness of midwives in this country and city, who enter upon that difficult sphere at their own hand, without the least trial taken of their knowledge of the principles upon which they are to practise that art, and that it would be a good service done to the community to put a stop to such practice, in order to prevent such mischiefs in time coming; they were of opinion that it should be enacted by the Council that no person hereafter should presume to enter on the practice of midwifery within this city and privileges till once they present to the magistrates a certificate under the hands of at least one doctor and one surgeon, who are at the time members of the College of Physicians or Incorporation of Chirurgeons of this city, bearing that they have so much of the knowledge of the grounds and principles of this art as warrants their entering upon the practice of it. . . ."

The City Fathers had not realized what an original step they were taking, for there were, as a matter of fact, no other such appointments in existence. The duties of Joseph Gibson, the first professor of midwifery, had been the teaching, not of medical students, but midwives, thus showing that the practice of midwifery was still at that date predominantly in the hands of midwives. Some thirty years after the foundation of the chair, Professor Thomas Young had given an unofficial course of midwifery for medical students concurrently with the instruction of midwives. He had also been the first to institute clinical teaching of obstetrics in Edinburgh, and he was permitted, at his own expense, by the managers of the infirmary, to fit up an attic room for four lying-in women or as many more as he could accommodate. This had been the origin of what ultimately, after many vicissitudes, developed into the Royal Maternity Hospital, erected in memory of Sir James Simpson. England had lagged far behind Scotland and the Continent, so that it could not boast a university professorship of midwifery, and, what was still more startling, until the Medical Act of 1866 it was unnecessary for the medical student to be qualified in midwifery before being registered as a practitioner. Gynaecology, as a separate branch of surgery, had been non-existent until about the time of Sir James Young Simpson, the sixth and most distinguished occupant of the Edinburgh chair. In 1809, however, thirty years before Simpson was appointed, an epoch-making operation had taken place in the backwoods of Kentucky. Edinburgh had a special godmotherly interest in it inasmuch as Ephraim McDowell, who performed this first ovariectomy, had studied at Edinburgh, and had been profoundly inspired while a student in this city by the great John Bell, who was then one of the most eminent surgeons of the day.

Pioneers of Modern Times.

The additional factors which had been necessary to promote the growth of surgery and gynaecology to their modern dimensions had been provided respectively by Sir James Simpson when he discovered the anaesthetic properties of chloroform in his dining-room at 52, Queen Street, and by Pasteur and Lister in the discovery of bacteria and of the antiseptic method for combating their evil effects in surgery. A profoundly important step had been the discovery of the fact that what was known as puerperal fever was the same as the condition called surgical fever—namely, a condition of bacterial infection occurring in wounded tissues. Many names, such as those of Charles White of Manchester, Gordon of Aberdeen, and Oliver Wendell Holmes, had been associated with the idea of infectivity in puerperal fever, but its nature had been discovered and brought prominently before the notice of the profession by a Hungarian, Semmelweis, whose work had been supplemented by the discoveries of Pasteur and Lister. The lecturer referred to the activity in the chair of Sir Alexander Simpson, nephew of Sir James Simpson, and to Matthews Duncan, Milne Murray, and others of the Edinburgh obstetric school. With regard to Sir Halliday Croom, he said that no one he had ever known had shown such inspiring devotion to the teaching of his students. He mentioned especially the work of the late Dr. John William Ballantyne, who had been lecturer in midwifery to women students during Halliday Croom's tenure of the chair. Ballantyne had not been gifted with the talents which made a successful practitioner, but he had been endowed with what was more rare, the vision of the pioneer. He had founded what was practically a new branch of pathology—namely, ante-natal pathology—and for many years he had ploughed his lonely furrow through the arid wastes of this most obscure and difficult subject. Ultimately it had been given to him to recognize what might now be said to be obvious, but what perhaps for that very reason had not been observed until he pointed it out—namely, the possibility of preventing many of the accidents and complications of labour and of the diseases complicating pregnancy. He had been one of the small band who definitely started the new development of ante-natal supervision and thereby widened the whole conception of midwifery. Nowadays the ante-natal department was one of the most important parts of every maternity hospital, and there was no phase of obstetrics which had been more fruitful in good results in the preservation of both maternal and infant life. As a prophet, Ballantyne had been favoured by being allowed to advance some little distance into the promised land which his vision had described. But death claimed him while as yet the full fruits of his labours were still to come. It was a particular satisfaction that their own Royal Maternity Hospital, which was erected to the memory of Sir James Simpson, in gratitude for the immortal contribution which he had made to medical and obstetrical science, should now have, as a complementary part, a Ballantyne Memorial in an ante-natal department, which might confidently be stated to be second to none in the United Kingdom.

THE FREEDOM OF MEDICINE.

*Introductory Address at the University of Durham
College of Medicine, Newcastle-on-Tyne.*

BY

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[Abridged.]

WHATEVER be the several stages you as individuals have reached in the undergraduate world, it is for all a common experience that your school days have ended; that you have entered as undergraduates in the life of a university; and that you are looking forward to the day when lecturers and examiners shall cease from troubling and, as you fondly imagine, weary graduates shall be at rest. Each of these three stages has, of course, certain features peculiar to itself, but, broadly speaking, it may be said that as you pass from one to the next you move into a widening area of personal freedom. You have now definitely reached the second stage.