The Midwife.

History of Obstetrical Forceps.

Classical authors do not mention instruments used to deliver the head in difficult labours, but that such existed in some form or another is undoubted, since patterns have been discovered amongst ancient Egyptian surgical instruments. It was not till the beginning of the 17th century that one of a family named Chamberlen invented the forceps; they gained a marvellous reputation for skill in difficult deliveries, but the means which they employed were kept a profound secret. Aveling, in "The Chamberlens," gives some interesting details concerning the very selfish and mean-spirited physicians, who heaped up riches by keeping the invention to themselves for more than three generations. The head of the family was a Huguenot, who escaped to England in 1569, before the massacre of St. Bartholomew's. He had, curiously enough, two sons named Peter; both practised as doctors in London. The younger, a quarrelsome and egoistic individual, boasted before the College of Physicians, when called to account for his conduct, that he and his brother and none other excelled in difficult labours. The elder Peter was in all probability the inventor of the forceps.

The younger had a son, also named Peter, likewise an obstetrician, practising in London, wealthy, talented, a good linguist, but, like his forefathers, selfish and bombastic. He wrote his own epitaph:—

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

His son, Hugh, was a sad spendthrift; the idea occurred to him that he might raise funds by selling the secret, up till then jealously guarded. He entered into negotiations with Mauriceau in Paris, and demanded 10,000 dollars, an exorbitant sum; but having failed to deliver a dwarf with contracted pelvis, chosen for him to demonstrate the efficiency of his instrument, his terms were not accepted. His debts drove him to leave England; he took refuge in Amsterdam. Then he had better luck; he sold the secret to the College of Physicians. But alack! the greed for gold was upon them also, and the construction and use of the forceps was only revealed to those of the profession who could pay highly for the knowledge. Thus the secret was still kept from the scientific world until two public-spirited citizens of Amsterdam, qualified men, published it abroad in the middle of the 18th century. In England it was already known, the secret having leaked out. At first it was thought that the honour of the invention belonged to one Palfyn, a surgeon of Ghent, whose instrument consisted of spoon-shaped solid metal blades with wooden handles; but the discovery in 1815 of four pairs of obstetric forceps at Woodham, in Essex, where Peter Chamberlen, junior, had formerly lived, proved conclusively that the Chamberlens were the unworthy pioneers. It is difficult to conceive the possibility of such selfish conduct, when the lives of mothers and infants were being constantly sacrificed for want of such help as is afforded by their forceps. It consisted of two fenestrated blades with cephalic curves and scissor-like handles. In two of the patterns there was a socket joint; in the others the handles were kept together by winding tape round the point of crossing. Viewed in profile the forceps were straight, and therefore not well adapted to the curve of the pelvic canal.

Smellie, in England, and Levret, in France, added the pelvic curve; the former obstetrician also added the straight portion between the blade and handle known as the shank, and invented the double slot lock, known as the English lock. At first he covered the blades with leather, so as to prevent them slipping. A pair of such forceps are to be seen in the museum of the College of Surgeons.

A German, Busch by name, added the cross pieces, or shoulder, which give a firm grip to the operator.

No very marked changes have since been made in what are known as "the long forceps." These are used to-day in median and low forceps operations, but it was found that there was grave disadvantage in applying them to the head at the brim, since the direction of traction is not in the axis of the brim. It is to Tarnier, of Paris, that is owed the important modification of the instrument—the addition of what are known as axis traction rods; these are of curved metal attached to the fenestra by slots, a transverse bar, with ball and socket joint, is applied to the end of the rods, by which traction is made in the axis of the pelvis. The handles are screwed together so as to keep the head gripped. The Simpson, Cullingworth, Milne-Murray, and Porter Matthews' axis traction forceps are English patterns on the same principle. The modern forceps is wholly made of metal, has as few joints and angles as is practicable, and is much lighter than the older patterns.

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