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W^m Smellie

DR. WILLIAM SMELLIE

AND HIS CONTEMPORARIES

*A CONTRIBUTION TO
THE HISTORY OF MIDWIFERY
IN THE EIGHTEENTH CENTURY*

BY

JOHN GLAISTER, M.D.

FELLOW OF THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW; LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF EDINBURGH; DIPLOMATE IN PUBLIC HEALTH, CAMBRIDGE; PROFESSOR OF FORENSIC MEDICINE AND PUBLIC HEALTH, SAINT MUNGO COLLEGE, ETC., GLASGOW

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PREFACE.

THE following pages are the outcome of the scant and intermittent leisure hours of twenty years of a busy professional life. The subject attracted the author's attention when, as a pupil in the Grammar School of Lanark, he had Smellie's Library, bequeathed to the institution, constantly before him. Even a cursory glance into the outstanding facts of Smellie's life revealed in his character much of ingenuity, of wholesome ambition, and of the faculty of patient working; while further investigation into less known incidents of his career, and, finally, a survey of the work he really achieved, seemed to accentuate these qualities, and to reveal a character and career which might fitly be commemorated by a separate memoir.

On completing the task of digging up the facts of Smellie's life and surroundings, the author found that in the course of his excavations he had thrown up a considerable quantity of materials, some of them curious and little known, connected with the state and progress of Obstetrics in the last century both in Britain and France. On considering the matter it appeared to him that instead of casting these materials aside after collecting from them anything directly bearing on

Smellie, he might arrange them so as to form a kind of historical setting to the Memoir. The book is therefore—to change the metaphor—to some extent a blend of biography and history; and the author can only hope that in following out this plan he has not weakened the interest of the reader in the central figure.

The author has been obliged to many kind friends in the preparation of these pages, and to these he now begs to gratefully acknowledge his indebtedness: to his brother, Dr. J. Newbigging Glaister, for his aid in photographing from original sources most of the plates which illustrate the text; to Mr. Hugh Davidson, F.S.A., and Mr. William Annan, town clerk, both of Lanark, for their researches in the old Registers of that town; to Mr. Alexander Duncan, B.A., librarian of the Faculty of Physicians and Surgeons of Glasgow, for his valuable advice during the preparation of the book and his willing assistance in reading the proof-sheets; and to all other friends who, directly or indirectly, contributed to assist.

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ERRATA.

On page 117, line 4 from bottom of page, for "Directory" read "Repository."
In the volume, "M'Lintock," so spelled, should spell "M'Clintock."

DR. WILLIAM SMELLIE AND HIS
CONTEMPORARIES.

CHAPTER I.

LIFE IN LANARK.

WILLIAM SMELLIE, the subject of this biography, was born in the town of Lanark, the county town, in the year 1697. The year of his birth we ascertain from the information given in the inscription on his tombstone in Lanark churchyard. Careful search has been made in the Lanark Register of Baptisms from the year 1688 downwards, but without finding any record referring to Smellie. This is not to be wondered at, however, when we remember that these registers were but imperfectly kept in those early times.

The only person who names a different birthplace is a writer in the *Edinburgh Medical and Surgical Journal* (vol. lix., p. 415), who there states that he was a native of Lesmahagow. How this surmise arose we do not know; but it may possibly have been caused by the fact that some of his legatees belonged to that neighbourhood. Of his parents very little is known. His father, Archibald Smellie, resided in Lanark. This we discover from the same source as the date of his son's birth, viz., the family tombstone. The following is the inscription:—"Here lyes Sara Kennedy, Spouse to Archibald Smellie, in Lanark, who came into this life April 6, 1657, and departed April 20, 1727. Also, the said Archibald Smellie lyes here, who died June 25, 1735, aged 71."¹ His mother, Sara Kennedy, was related to the Kennedys of Auchtyfardle, a small estate in the near neighbourhood of Lesmahagow. This family connection, by his mother's side, may have helped, in addition to

¹ *Vide* also p. 296.

the reason already named, to initiate the notion that Lesmahagow was the place of his birth. His mother's friends were substantial people. In addition to the family of Auchtyfardle in Lanarkshire, there were also the related Kennedys of Romano in Peebleshire. The Auchtyfardle family had a town house in Lanark. It was from the Kennedys that Smellie purchased a part of his estate, and they were legatees named in his will. Of his father's family nothing is known. Smellie was born when his mother was in her fortieth year, and it would appear as if he were the only child of his parents.

Curiously enough, up till now, the place of his birth has been regarded as uncertain. Even M'Lintock concluded that he was born "most probably in the town or immediate neighbourhood of Lanark"; and it would seem that he was not aware of the above inscription. In addition to the recorded fact of his father having been a resident in Lanark, tradition has pointed to that town as the place of his nativity. In the earliest *Statistical Account of Scotland*, and in a *History of Lanark* published in 1828, it is stated that Smellie belonged to Lanark. And if this required further support, the fact that, at his death, he bequeathed his library to the school of Lanark, betokens an old man's fondness for his natal spot. We may therefore conclude that in Lanark Smellie first saw the light.

He was educated in the Grammar School of the town, an institution which, during the century succeeding his birth, became of much importance, since pupils came to it from far and near. We have no information of his boyhood, and nothing, therefore, to narrate of precocity or the early manifestations of genius. He must, however, have had kindly recollections of the time he spent in school, since it was the regard he had for it that prompted him to leave his collection of books to it. We are equally in want of definite information as to how, or where, he received his medical education, but various conjectures have been made from time to time on this question.

In an article entitled "Obstetrical Researches," by Maurice Onslow, M.D., published in the *London Medical Repository* (vol. xv., p. 101), that writer states, "I have heard it said that he was first a surgeon or surgeon's mate, in the navy, but know not whether this was from authority, or merely conjecture."

By carefully comparing the data which are to be found in his treatise and other contemporary evidence, we find that the above statement must be considered as without foundation. At the beginning of the eighteenth century, and for a long period afterwards, the only means of obtaining medical education in Scotland was by apprenticeship to an established practitioner. There is good reason to believe that Smellie, like his contemporaries, entered the profession in this way. Where he was apprenticed there is no positive information on record—whether in Lanark or elsewhere we cannot positively determine. About this time, however, there were two practitioners in the town of Lanark, to either of whom he could have been apprenticed. These were William Inglis, who was in active practice from the end of the seventeenth century up till his death in May, 1727, and Surgeon Walter Carmichael, who, we find from a minute in the Burgh Records, was in practice in 1713. The natural objection which offers itself to this view is that Smellie was hardly likely to begin practice in the same town as his master. This consideration, however, would have less weight in the case of Inglis, because, by this time, Inglis was an old man; indeed, he only lived seven years after Smellie began practice. It is true that Inglis had a son who afterwards became a practitioner in Lanark, but at this time he was only twelve years of age.

We have, however, in the course of our researches been much impressed with the relationship of Smellie to another practitioner in his earlier professional life. This was John Gordon, a practitioner of Glasgow of considerable repute. We are inclined to the view that Smellie, if not a younger contemporary of Gordon, was probably one of his earliest pupils. Whether this be correct or not, the probability is in favour of Smellie having received what medical education he did in Glasgow. The chief points in favour of this view are, first, that to Gordon Smellie owed his knowledge of the blunt hook, an instrument which we find him using in obstetric practice as early as 1727; and, second, that Smellie speaks of Gordon as "my old acquaintance and senior practitioner in the art of midwifery." We are not inclined to strain this particular point very far, since it is open to question whether Smellie meant, in the latter

part of the quoted words, that Gordon stood to him in the relation of master, or simply that Gordon's standing in the profession was of older date than his own.

This connection, however, has been adverted to at greater length in another part of this volume, to which we refer the reader. That Smellie must have spent in Glasgow some of his earlier professional years, probably as an apprentice, seems likely, since many of the relationships which emerge in his life can most feasibly be accounted for in this way.

Smellie commenced practice in Lanark as a general practitioner about the year 1720. Of this fact there is no doubt; we have it established on the testimony of his London pupil, who replied to Douglas's letter to Smellie, and who was furnished with the material wherewith to make the reply by his teacher. He informs us that Smellie, after having practised nineteen years in Scotland, settled in London; and the year of his settlement there we know to have been 1739. Smellie himself informs us in the preface to the second volume of his work that he took notes of cases "between the years 1722 and 1739, while I practised in the country." Further, from the chronological table of his work in Lanark, it will be observed that some of his cases are dated 1722.¹

Lanark at this time was a comparatively small place. It was then, however, as it is now, the county town, and was a place of not a little repute. It was one of the oldest burghs in Scotland, and was the repository of one of the standard weights of Scotland, viz., the stone-weight, the weight for wool. It was the place where the first blow for Scottish liberty was struck, and it was not far distant from the seat of the brave Douglasses. As a place for trading in wool and flax, it was the centre for several counties; consequently within its bounds the trade guilds flourished in their monopolies. Although, at this date, its population only numbered about two thousand souls, it was the centre round which clustered several substantial villages and smaller towns, and a considerable agricultural population. It was not, however, viewed from the standpoint of possible popularity, a very ambitious field of practice.

Smellie's age, when he entered upon practice, was only twenty-three years. Starting in this humble way, among a

¹ *Vide* Appendix.

comparatively poor population, we may be sure that he practised every branch of his art that presented itself to him. Friendly with his professional brethren, he readily lent them what assistance he could offer; willing to learn all he could, he readily accepted what their greater experience was able to provide. There is evidence in his treatise of his doing work in pharmacy, in medicine, and in surgery, as also of his friendly co-operation, and of his gratitude for advice. A very interesting document, a copy of which is still in existence, proves his connection with surgical work. This is in the form of a protested bill, which is recorded in the Register of Protested Bills, kept in the Sheriff Court at Lanark. It is a bill drawn by Smellie upon Mr. James Mair, a landed proprietor in the adjoining parish of Lesmahagow, and is as follows:

“Lanark, 19 June, 1723:—Mr. James Mair pay to me or my order betwixt and Lambas nixt, at the house of Thomas Logan, wryter in Lanark, the sume of Seven Pound sterling money, with Twelve Pound Scots of Penalty in case of faillie, being the agreed wages and fee for my pains in the Amputation and Cure of your leg, performed by me in harvest last. Make thankfull pay^t, and oblige your humble serv^t,

“(Sic subscribitur) WIL. SMELLIE.

“(Directed thus) To Mr. James Mair of Bankhead.

“(Accepted thus) Accepts June 19, 1723.

“(Sic subscribitur) JA. MAIR.”

This is the only bill or account of Smellie which is extant, and it shows that already, in the autumn of 1722, he had gained some reputation.

Like many a rural practitioner, too, before his day and since, he carried in his daily rounds a handy pocket pharmacy. He tells us that “while I practised in the country, I always carried in my pocket some spirit of hartshorn, tincture of castor, and liquid laudanum, in separate bottles.” That he had a fair share of purely medical work we learn from the notes he made of the epidemics which visited his neighbourhood. For instance, we read of an epidemic of choleraic diarrhœa which prevailed in Lanark and its neighbourhood in August, 1734; and of an epidemic of virulent influenza in March, 1729, or, as Smellie calls it, “a pleuritic fever that was epidemical.” This epidemic of influenza came from the

Continent to England in the end of 1728, and rapidly made its way to Scotland. Chambers in his *Domestic Annals of Scotland*, page 554, tells us that "a cold and cough, with fever, laid hold of nearly every person, sometimes in a moment, as they stood on their feet, and in some cases attended with raving." It would appear, however, that Lanark, and the West of Scotland generally, suffered less from this severe type of attack than most other places in Scotland, though, as Wodrow quaintly puts it, "there was no hearing sermon for some time," by reason of it.

Again, from little incidents in more immediate connection with his practice, which he notes in the narrative of his cases, we can connect local events of interest. In one case he tells us of a patient who was seized with flooding and labour "in consequence of being frightened by a fire which happened in the house." Whether this fire was accidental, or was the work of an incendiary, is now a matter of little moment; but, in point of time, it happened when the Upper Ward of Lanarkshire was the scene and centre of an unusual experience. In the end of 1731 this part of the country was thrown into considerable consternation by reason of the fact that certain malicious persons, evidently with a view to blackmail, were sending letters to farmers and others, in which it was threatened, that unless certain sums of money were paid their houses and goods would be fired. We are told by Wodrow, that a certain proprietor of the Upper Ward was ordered to bring fifty guineas "to the cross-boat at Lanark," else his house would be burnt, and that although he kept the appointment, no one appeared for the money.

But while attending to the daily routine of medical and surgical work, which, in his earlier years in Lanark, principally composed his practice, it is evident that the attention of Smellie was very quickly attracted to obstetric work. It is true that at this time there were not many opportunities afforded the general practitioner of gaining experience in the ordinary work of midwifery. In this department the practice was almost, if not entirely, confined to midwives, and the male practitioner was only called when some abnormal phenomenon, or one beyond the experience of the midwife in attendance, had occurred. But that Smellie had an early and deep interest in this branch is evidenced from

the fact that he begins to note down in a case-book those cases of obstetrics and gynaecology which were of more than ordinary interest by reason of their rarity, or which required further consideration at his hands.

At the time of his commencing practice, he was, what we would now call, an "unqualified" practitioner. He had no license to practise from that Body which had the licensing and oversight of practitioners in his county, viz., the Faculty of Physicians and Surgeons of Glasgow. But it must be borne in mind that, at that period, matters were much more loosely managed than now. The exigencies of the time demanded that there should be "practisers" of the healing art of some sort, and the conditions of medical education did not prompt those interested to look too closely into the qualifications of those professing; in short, unlicensed medical practice was very rife at the beginning of the eighteenth century, and for several decades thereafter.

The domestic medical manual was then in existence as now, and the most popular of its kind was that known as *Tippermalloch's Receipts*, its author being one John Moncrieff of Tippermalloch in Strathearn, who was deemed a "worthy and ingenious gentleman," having "extraordinary skill in physic, and successful and beneficial practice therein." This was the time, too, when belief in all manner of charms reigned supreme. And not to speak of Barbreck's Bone, which may still be seen in the museum of the Antiquarian Society in Edinburgh, the application of which was considered a miraculous remedy for madness, was there not in the near neighbourhood of Lanark the famous "Lee Penny," made celebrated to the world afterwards in Sir Walter Scott's novel of *The Talisman*, which was renowned for its potent virtues in the cure of the diseases, not only of animals, but also of man?

Then, as now, the newspapers contained advertisements which extolled the virtues of certain secret medicines. Neither was the quack practitioner unknown at this period. He was then known as the mountebank, or stage-doctor, and his manner of attracting his *clientèle* only differed slightly from that of his modern imitator.

The stage-doctor practised his art on an open stage set up in the market-place of the town, or in a convenient place in a village; and he travelled from town to town. The

expedients then commonly adopted to attract an audience were either a preliminary performance by acrobats or by tight-rope walkers. He instituted lotteries, whereby, for a trifling sum, certain of his auditors might become the fortunate possessors of his miraculous medicines, together with some other article of a different character. The only difference between him and his successor of to-day is, that present-day civilization requires a gilded coach, a brass band of Indian warriors or American cowboys, and some dexterous tooth-pulling, or exhibition of massage, to coax the crowd to part with their money in lieu of the wonderful drugs handed out in return. Man, in this respect, has not changed much in these last two centuries.

It is little wonder then that there was a tolerance granted to the man practising the healing art, who, although he had no diploma or degree, had done something to acquire a practical acquaintance with it.

Smellie was not established many years in Lanark till his practice not only increased in dimensions, but his field of operation increased in area. We commonly find allusion in his notes to patients who lived many miles from the place in which he resided; and we may be sure that the physical discomforts of the rural practitioner of his time were greater far than those of his successor of to-day. Indeed, we are hardly able to realize the position of the country doctor of that time.

Around Lanark, and within moderate distances of it, were Biggar, Lesmahagow, Carnwath, Douglas, Carluke, Hamilton, and other towns, in most of which, judging from his remarks as to distances which he travelled, he had patients. Between these places and Lanark were long stretches of agricultural country, nearly the same as to-day. But the means of locomotion were deplorable. Roads existed only in name. They consisted mainly of footpaths, or narrow tracks for pack-horse traffic. The common carrier was the connecting link between primitiveness and civilization. We may be perfectly sure, therefore, that Smellie had to avail himself largely of the means of progression with which nature endows every man, or to utilize the services of a respectable hack.

Lanark itself, however, was perhaps in a better position than many places, as regards facilities of communication with

more populous centres. In October, 1723, the post-office at Edinburgh announced that after that date, letters could be transmitted to Lanark three times a week; the mail being sent by horse-post first to Glasgow, and then by foot-runner to Lanark, the time taken being about twenty hours, and the distance from Glasgow to Lanark twenty-five miles.

The lot of the common people of that neighbourhood was by no means a luxurious one. An English traveller who visited this district in the beginning of the eighteenth century, informs us that in Lesmahagow he found the staple food of the people to consist of cakes composed of a mixture of pease and barley—the familiar bannock o' barley meal. They ate no meat, drank only water, and walked about barefooted all the year round. Although they were poor, he adds, they were “fresh and lusty, and did not seem to be under any uneasiness with their way of living.”

He further tells us that in the rural villages round Lanark the houses were made of earth or loose stones, the roofs constructed of turf or thatched with straw, and the floors formed of beaten earth. They were but one storey high, the fire-place was in the middle of the apartment, and the smoke found escape by means of a hole in the roof. Being in the district which plentifully provided Covenanters, this traveller naturally notes the state of the religious zeal of the people. He went to church in the village of Crawfordjohn—about fifteen miles from Lanark—on Sunday. He found it “mightily crowded.” The service began about nine A.M., continued till mid-day, when there was an interval during which the congregation refreshed themselves at the “minsh-house,” *i.e.*, the ale-house, or in the grave-yard. At the end of an hour the service recommenced, and it finished between four and five o'clock of the afternoon. Like some others of the better class of the congregation, the traveller refreshed himself at the village inn, and he took note of the kind and quality of the beverages provided. He tells us that the ale was small and thick and pale in colour, but, adds he, “commonly good French brandy and wine can be had, so common are these French liquors in this country.”¹

Amid such rural surroundings, then, and among such simple-living people, Smellie lived, and worked for the first

¹ *Chambers's Domestic Annals of Scotland*, vol. iii., p. 271.

nineteen years of his professional life. Tramping on foot, or riding on horseback, he covered shorter and longer distances in the pursuit of his professional labours, and in his leisure he jotted down in his journals what of interest he had seen and had experienced, having before him the evident determination to discover what nature might reveal to him.

The late Sir James Simpson, in an address which he delivered in the Hall of the Royal College of Physicians, before the British Medical Association at its meeting in Edinburgh in 1858, made some references to Smellie, which, from the quotations made from the address by M'Lintock, seem to have been of a depreciatory character. This address was never published; M'Lintock, however, knew of it and obtained the MS. of it from the present Professor Simpson, and he utilized it when writing his sketch of Smellie, which is prefixed to the edition of Smellie's works reprinted by the New Sydenham Society within recent years. Simpson stated that Smellie "eked out his scanty income by keeping a shop as a village cloth merchant as well as by practising as a village doctor."

This statement was evidently borrowed from a passage in Thomson's *Life of Cullen* (vol. i., p. 18). Cullen's biographer, Dr. John Thomson, in order to show the value of the library which Cullen possessed while he lived in Hamilton, states that Smellie was in the habit of borrowing books from it, "I find," says he, "a curious example of this in a letter addressed to him as 'Bailie Cullen, Surgeon in Hamilton,' from the late Dr. William Smellie, who, *as I have been told* (the italics are ours), at that time, united the occupations of cloth merchant and practitioner of midwifery in Lanark." This is Simpson's authority for his statement, and it is unsupported by the smallest shred of corroborative evidence. On the other hand, indeed, there is abundant evidence to show that he confined himself to the practice of the healing art. During his stay in Lanark, Smellie was able to purchase property on more than one occasion, and we were interested to find in what manner he was designated in the legal documents usual on such occasions. The town clerk of Lanark made a search of the Register of Sasines for that burgh, and he has kindly put at our disposal *verbatim* copies of the deeds referring to these purchases. The first purchase was made, and the deed dated, on the 26th October, 1728, and in it he is

designated, "Gulielmi Smelie, Apothecarii, Burgii, Lanarcae"; in the second, of date 24th January, 1736, he is written down as "Gulielmi Smellie, Chyurgi, Lanarcae"; and in the third, 29th May of the same year, as "Gulielmi Smellie, Appothecarii, Lanarcae."

Here, at any rate, we have clear proof that by legal designation he was a professional man only. Moreover, in the earliest history of Lanark there is not a whisper of this hearsay story, and if the fact had existed, tradition would surely have kept it alive there. For these reasons we conclude that the statement is unreliable; and in this we are more concerned as to strict historical accuracy than to defend Smellie from the charge of doing anything derogatory to his position.

Probably the first important step in his life was his marriage. His wife, whose name was Eupham Borland, is mentioned in all the deeds of purchase of property, even in the first, dated, as we have seen, 1728. From the family gravestone, we learn that she was, in point of age, nearly his equal, and that she survived him six years. From these facts we know that they must have been married some time before 1728. No records of marriages existed in Scotland prior to 1854; the only evidence we have in their place being obtainable from the Records of Proclamation of Banns, which parish ministers did, or did not, keep, according to their business habits or inclinations. Search had been made in the Lanark Register, on former occasions, but without finding any reference to Smellie; and we were about to conclude that this was a point which we could not discover, when it was determined to make a fresh search, and, fortunately, this time with success. The following is a *verbatim* extract of the entry in the Parish Register, now in the Register House, Edinburgh:

46 "1723-1724. William Smellie and Eupham Borland, in the Paroch of Hamilton, were proclaimed for the third time upon the last Sabbath of February, 1724."

He would then be about twenty-seven years of age at the time of the marriage. There was no issue of the union. His wife does not appear much in the history of the time. In his work (vol. iii., p. 256) he notes that "many years ago I was called in the country to a friend of my wife's." The only other contemporary notice, at least, what is believed

to be such, of this lady, is in Smollett's novel, *The Adventures of Peregrine Pickle*, and, more particularly, in *The Memoirs of a Lady of Fashion*, which is therein incorporated, and which was published in 1751; the lady of fashion being the notorious Lady Vane. In an edition of Smollett's works, published by Nimmo of Edinburgh in 1870, there is prefixed a memoir of the author, by David Herbert, M.A. In his annotations on *The Memoirs of a Lady of Fashion*, Herbert advances the opinion that the Mrs. S— which occurs in the narrative was none other than the wife of Smellie, and that Dr. S— was Smellie himself. The reader will remember that in these memoirs there is a considerable number of persons mentioned whose names are indicated by an initial letter followed by a dash.

Herbert, indeed, in the above work, goes the length of filling in the blank Dr. S— as Dr. S(mellie), and Mrs. S— as Mrs. S(mellie). At page 361 of this edition, it is stated that Lady Vane was seized with a violent fit of illness, "in which," the narrative goes on to say, "I [Lady Vane] was visited by my father, and attended by two physicians, one of whom despaired of my life, and took his leave accordingly; but Dr. S(mellie), who was the other, persisted in his attendance, and, in all human appearance, saved my life; a circumstance by which he acquired a great share of reputation." Again, at page 373, it is stated in the narrative, that "in a few weeks we were joined by Dr. S(mellie) and his lady, who visited us at Tunbridge according to their promise," etc.; and, on another occasion, "Mrs. S(mellie) sat up all night by my bedside, and was so good as to assure me that she would not leave me until I should be safely delivered from the apprehensions that surrounded me in this house, to which she and the doctor had been the principal cause of my coming"; and, further, that "we returned to town with the doctor and Mrs. S(mellie)."

The reasons which Herbert advances for believing the Dr. S— to be Dr. Smellie are these: "The remark that 'he acquired a great share of reputation' means to imply subsequent eminence. Sir Hans Sloane was still alive, but he attained eminence long before this time. Dr. Smellie had been just a year or two in London, to which he came in 1739. It might be he. His position, at the time these memoirs were

written, warrants the conjecture. He is referred to in Smollett's letter from France, November 12th, as 'our old acquaintance.' Dr. Shebbeare was much spoken of as having had a hand in the writing of these memoirs for Lady Vane; and he is satirized by Smollett as Ferret in Sir Lancelot Graves; but the editor has not been able to identify him with the Dr. S— of the memoirs." The only other fact which we can adduce to give additional colour to this belief of Herbert is, that the only novel of Smollett which is contained in Smellie's collection of books at Lanark is *Peregrine Pickle*, in addition to his *History* and a couple of numbers of the *Critical Review*.

Their conjugal union lasted thirty-nine years, and everything points to its having been a happy one. Mrs. Smellie died at Lanark on 27th June, 1769, at the age of seventy-nine years, and was buried beside her husband.

Returning from this slight but pardonable digression, we come to the second important event in the life of Smellie, which occurred during his residence in Lanark. This was his becoming a member of the Faculty of Physicians and Surgeons of Glasgow, a connection which has not been alluded to in any memoir of Smellie. Our attention was first brought to this fact by a narration of it in the *Glasgow Medical Journal* for January, 1879, by Mr. Alexander Duncan, librarian to that corporation. We have since, by examination of the minutes of Faculty, verified that gentleman's discovery. The minute-book of the Faculty from 1688 to 1733 was accidentally destroyed by a fire which occurred early in the latter year in the house of the clerk of the Faculty, who then resided in the High Street of Glasgow. In one of the earliest entries in the first minute-book after the fire, the following is to be found: "1733. May 5. Mr. Smellie, freedom fyne, £02 15s. od."; and in a further minute of date 8th June, 1735, in a list of the intromissions of the collector, is the following: "1733. May 5. Mr. Smylie's fine, £2 15s. od." It is quite clear from other minutes that the "freedom fine" was a sum of money which an entrant to the freedom and privileges of the Faculty paid into the funds on his admission as a member of the body corporate. In some respects, but not in all, it corresponds to the examination fee of to-day. A minute in the Faculty records succeeding the above more clearly shows this. This minute embodies

the rules and regulations for admission to that body, and it was drawn up by a committee, and placed on record for the purpose of taking the place of the copy of those rules lost in the fire. We may therefore conclude that Smellie was admitted a member of Faculty for the first time on May 5th, 1733.

At this time certain dues were exacted from the members of Faculty called "quarter accounts." These, when paid, were put down in a slump sum in the collector's intrusions, but notice is taken of them individually if their payment was allowed to fall into arrears. Smellie kept up his connection with the Faculty while in London by paying these dues, although he was not obliged to do so after he left Lanark. At times, however, they fell into arrears, and, in consequence, notice is taken of the fact in the records. The following are the references. In the charge accounts from 1743 to 1745, this entry occurs:

1st. "1745. Oct. 7. To Mr. Smellie, Surgeon, his quarter Accts. for eleven years, 18s. 4d."

2nd. "4th Sept. 1749. Doctor Smelly's Quarter Accounts paid. The which day the sd. John Gordon paid into the Collector four pound Scots as the quarter Accts. due to the faculty by Doctor William Smellie of London for the current year 1749 and the three preceding years"; the amount being 6s. 8d.

3rd. "Sept. 2, 1750. To 2 years' Quarter Accounts from Doctor Smellie, 3s. 4d."

Mr. Duncan has made a suggestion, in which we agree, that Smellie, by paying these dues when outwith the jurisdiction of the Faculty, and therefore not liable for them, had evidently in view his return to Scotland, and so desired to continue his connection with the Faculty.

In this connection, and as showing the interest this incorporation had in those members who came to the front, it is pleasing to note that it purchased Smellie's volume of Plates, as will be seen from the following entry:—"1756. Feb. By Doctr. Smellie's plates, from Daniel Baxter (bookseller in Glasgow), £2 6s. 6d."

To return, however, to Smellie in Lanark. The site of the house in which he lived, and where he had his surgery can still be pointed out in Lanark. The original building,

however, has been replaced by one of a more modern type. It was his own property, and was purchased by him from a John Carson, on 24th Jany., 1736. It forms the subject of the deed bearing that date, which runs thus:—"In Toto et Integro illo dicti Joannes Carson ejus tenemento Domorum subtus et supra ante et retro cum horto et pertinentibus ejusd. Jacens intra burgum Lanarcae in via ejusd. vocat Bloomgate," etc. It is on the south side of the Bloomgate, and immediately adjacent to the present Bloomgate United Presbyterian Church.

During his residence in the town he took no active part in public affairs, unlike his *confrère* William Inglis, or his friend Cullen in Hamilton, who engaged themselves in municipal politics. He evidently discovered that the bent of his mind was not in that direction, but rather in the pursuit of professional knowledge and experience. We have already seen that very early in his career he began the habit—a habit which continued throughout his busy life—of systematically noting down those occurrences in his daily practice which seemed to him fruitful of lessons, and, as his liking for obstetrics developed, so do we find his notes taking this special bias.

Not content with his own experience, he sought to advance his knowledge by contact with his professional brethren either personally or through their writings; and athirst for more information, he did not scruple to avail himself of the kindness of his friends, and to lay himself under obligations by borrowing their books. It is also evident that he tried to keep himself abreast of current medical literature of his time. He read Chapman, Giffard, and other contemporary writers, to cull from their observations and experience what might increase his own, and, at the same time, might benefit those who placed themselves under his care. From his friend John Gordon of Glasgow he gained a knowledge of the blunt hook; from William Inglis of Lanark a knowledge of the noose; from his friend Cullen he borrowed books, in addition to purchasing them for himself from Glasgow, Edinburgh, and London; and from the *Medical Essays of Edinburgh* he got to know of the forceps, which he quickly introduced into his practice. In short, whatever was conducive to the help of suffering women, from whatever

quarter he might be able to procure it, he persistently sought after. In this way he lived and worked, in and around Lanark, from the year 1720 till 1739.

Of his medical contemporaries in the Upper Ward of Lanarkshire very little need be said; at the same time the subject is not devoid of local antiquarian interest. Although Smellie does not usually mention by name his medical *confrères*, he occasionally does so. He specially speaks in his work of William Inglis as "Dr. English of Lanark," and of "Mr. Ingles" of the same place. In vol. ii., p. 252, he informs us that it was to the former that he owed his acquaintance with the noose; and in vol. iii., p. 122, he lets us know that when he retired to Lanark, he found "Mr. Ingles," the son of William, in practice in that town. Dr. Inglis took a very active part in the municipal affairs of the burgh, and filled some of the important offices. He died not many years after Smellie began to practice, in the year 1727. Of "Mr. Ingles," whose Christian name was Cornelius, very little need be said. One of the few remaining relics of him is the account for professional services which he rendered to Mr. Gardner, Writer in Lanark. This account was seen by the late Sir James Simpson of Edinburgh; and we believe that he had mistakenly associated with it the name of Smellie, and so wrote the statement regarding the latter that, while he was in Lanark, he received miserably small fees. This statement is, "I have seen some of his accounts, showing how miserably small his fees were." Now, as a matter of fact, Simpson saw but one account of Smellie, a copy of which we have elsewhere given. Inglis' account, of which the following is a copy, is of considerable interest:

*"Mr. Gardner, Writer in Lanark, debtor to Cornelius Inglis,
Surgeon there.*

		£	s.	d.
1759.				
Aug. 12,	Impr. To cutting a child's tongue, -	0	1	0
Oct. 12,	It. A glass of lotion for the mouth, -	0	0	6
1760.				
Nov. 18,	It. A glass of spirit of wine and camphire,	0	0	9
29,	It. To a small mixture to Mrs. Gardner, -	0	0	9
Dec. 7,	It. A glass for the child's mouth, -	0	0	4
11,	It. To purging syrup, -	0	0	5
14,	It. To a glass of spirits and ointment, -	0	0	10

1762.			
July 25,	It.	A glass of syrup to Charles,	- - 0 0 4
Aug. 6,	It.	To syrup of poppies,	- - 0 0 3
8,	It.	A glass of julep to Jamie,	- - 0 0 10
11,	It.	To five glasses syrup to Jamie—different times,	- - 0 1 8
Oct. 24,	It.	To an anodyne draught to Mrs. Gardner,	- - 0 0 6
26,	It.	To syrup of roses,	- - 0 0 2
Dec. 3,	It.	A glass of julep, ye child,	- - 0 0 7
1763.			
Jan. 15,	It.	A box of ointment, ye nurse,	- - 0 0 4
April 18,	It.	To Hypocacian,	- - 0 0 1
Dec. 26,	It.	To cutting a child's tongue,	- - 0 1 0
1765.			
June 1,	It.	To ointment for ye little maid,	- - 0 0 2
Aug. 16,		To attendance,	- - 0 10 6
1773.			
Oct. 13,		A blister for the back,	- - 0 1 0
1775.			
May 15,		A blister for the throat, with dressings, to Jamie,	- - 0 0 10
20,		To Robie, physick,	- - 0 0 3
20,		A blister for the head to Jamie, and dressings,	- - 0 0 8
1776.			
Feb. 9,		Physic for yourself,	- - 0 0 6
			<u>£1 4 3</u>

William Cullen, at that time of Hamilton, was another contemporary and friend. Before Smellie left Lanark for London he had made the intimate acquaintance of Cullen. Thomson, in his *Life of Cullen*, vol. i., p. 18, makes reference to a letter which Cullen received from Smellie, and which was found among his papers at his death. This letter, addressed to "Bailie Cullen, Surgeon in Hamilton," is as follows: "I have kept your book on consumption too long, but I shall send it next week. Send me up Dr. Clifton's History of Medicine, I want to see some things in him. I could not get that book from Glasgow or Edinburgh, but I have sent to London for it." This he probably did through William Gray, who was a publisher in Lanark at this time. As will be seen, this letter must have been sent to Cullen sometime between

1738 and 1739.¹ How this acquaintance with Cullen arose we do not know, but it has been surmised that it began in the course of Smellie's visits to Hamilton, either on professional work or affairs of courtship. So early in his practice as 1724 Smellie had to visit Hamilton in the business of his profession. This is noted in vol. ii., p. 376, where he says: "Mrs. Muirhead, midwife in Hamilton, in the year 1724, sent for me." We find also that his wife, if she did not reside in the town of Hamilton itself, at least lived "in the paroch of Hamilton." Smellie was married in the same year (1724). But at this date Cullen was only about fourteen years of age. It must then have been at a subsequent period to this that the intimacy arose. Cullen started practice in Hamilton in the spring of 1736, and Smellie left for London in 1739, so that the local intimacy was not of long duration. But that it was close we may fairly assume from the borrowing of books by Smellie from Cullen's library, and also from the mode of mention of Smellie's name in Cullen's correspondence with William Hunter, after the removal of the latter to London. For instance, in a letter from William Hunter to Cullen, dated "London, May, 1746," we read the following: "All your friends here are making frequent inquiries after you. Dr. Smellie, Dr. Armstrong, and Dr. Pitcairn, particularly, always desire to be remembered to you"; and in Cullen's reply of date 18th June, 1746, he says, "Make my compliments to Drs. Smellie, Armstrong, Pitcairn, etc." For an account of Cullen's illustrious career, first as lecturer and professor in the University of Glasgow, and afterwards in the University of Edinburgh, we must refer the reader to his biography by the Thomsons. The other local medical contemporaries of Smellie need only be named. They were Thomas Simson

¹ The particular letter to Cullen in which this book-borrowing is mentioned, although undated in Thomson's *Life of Cullen*, must have been sent not very long before Smellie made his journey to London; and for these reasons, Cullen settled in practice in Hamilton in the spring of 1736, and was appointed to the magistracy of that burgh on two separate occasions—hence the title "Bailie" Cullen, by which Smellie addresses him; on the first occasion in 1738, and, on the second, in the following year, 1739; consequently, Smellie could only address him with propriety as "Bailie" after 1738.

and William Baillie of Biggar, John Weir and Gavin Marshall of Lesmahagow, John Wilson of Douglas, Robert Swan of Wiston, James Clarkson of Carnwath, and Christopher Bannatyne of Lanark, none of whom, however, except the two first-named, were qualified to practise surgery and pharmacy.

Smellie was succeeded in practice, it is believed, by Hew Cochrane, whose name is recorded among those of the members of the Faculty of Physicians and Surgeons.

From the comparatively large area of country over which his practice extended, and from the places, names, and specific distances recorded in his notes of cases, there can be little doubt that Smellie was well acquainted with his medical neighbours. As his practice in midwifery extended, and his experience broadened, the conviction gradually, but with ever-gaining strength, forced itself upon his mind that the methods of practice then in vogue for the treatment of severe, prolonged, or preternatural labours were unnecessarily destructive of the lives alike of parturient women, and their offspring. As we know from his own writings, conservative midwifery had for instruments then, mainly and primarily, the hands of the accoucheur, coupled with the noose or fillet, and in certain cases, the blunt hook. In the early period of his career he informs us that, being called to a case where another practitioner had failed to deliver, he wished to perform podalic version, but the midwife and assistants strenuously objected on account of "that being a new method, and unknown in the place."

Under those circumstances, it is not astonishing to find that in difficult cases delivery was most usually effected by destructive methods, viz., by opening the foetal head, evacuating the contents with the blunt hook, and then using the crotchet; or when the other parts of the foetus presented by actual dismemberment. Case 354 (vol. iii., p. 92), with its added notes, gives a tolerably clear account of this kind of treatment. Indeed, we will not overshoot the mark in saying that the employment of sheer brute force was most usual. And there cannot be the least doubt that this paucity of resource on the part of the practitioner of that day arose solely from his ignorance of the processes which nature herself adopts in bringing about delivery. Doubtless Smellie saw that, before rational lines of treatment

could prevail, more enlightenment was required as to these processes; in short, that the key-note of the position, in a large bulk of cases, lay in a true knowledge of the mechanism of parturition. When attending his cases, therefore, he watched how nature behaved, noted her processes, studied the changes in position which the foetal head experienced in its transit through the parturient canal, and by these standards regulated his practice. By patiently working in this way, he accumulated that experience which enabled him later on to reveal to the world for the first time the true mechanism of parturition.

Let us, however, take his own testimony for the kind of midwifery as he found it in the earlier years of his practice in Lanark. In connection with Case 186, vol. ii., p. 249 *et seq.*, he tells us that, "During the first year of my practice, when I was called to lingering cases, which were often occasioned by the imprudent methods used by unskilful midwives to hasten labour, such as directing the patient to walk about and bear down with all her strength at every trifling pain, until she was quite exhausted, and opening the parts prematurely, so as to produce inflammation, and torture the woman unnecessarily; on such occasions, without knowing the steps that had been taken, I have been told that the patient had been in severe labour for many hours, and sometimes days, and that now I was called to prevent her dying with the child in her belly. Thus solicited, if the head was at the upper part of the pelvis, I commonly turned the child, and brought it by the feet; and thus, if small, it was usually saved, provided it was not dead before my arrival: but when the head was large, or the pelvis narrow and distorted, the force necessary to extract it was often the occasion of its death.

"On the other hand, when the head was so low in the pelvis, that I could not raise it into the uterus in order to be turned, I was obliged to dilate the cranium with the scissors, and extract with my fingers, assisted by the blunt hook. This method, however, I never practised, except when the head was low down, and the patient so much exhausted that she could not be delivered by the pains; and not even then until after I had tried Mauriceau's fillet, which always failed, and another, introduced by my fingers in the form of

a noose, which sometimes, though very rarely, succeeded, when the child was small. In order to avoid this loss of children, which gave me great uneasiness, I procured a pair of French forceps, according to a draught published in the *Medical Essays* by Mr. Butler; but found them so long, and so ill-contrived, that they by no means answered the purpose for which they were intended. I afterwards perused the treatises of Chapman and Gifford (*sic*), who had frequently saved children by a contrivance of this kind; and actually made a journey to London in order to acquire further information on this subject. Here I saw nothing was to be learned, and by the advice of the late ingenious Dr. Stewart, who was my particular friend, I proceeded to Paris, where courses on midwifery were at that time given by Gregoire.

“In a word, I diligently attended to the course and operations of nature which occurred in my practice, regulating and improving myself by that infallible standard; nor did I reject the hints of other writers and practitioners from whose suggestions, I own, I have derived much useful instruction. In particular, I was obliged to Dr. Gordon of Glasgow, and Dr. English of Lanark, in Scotland; the first made me acquainted with the blunt hook, the other with the noose, etc.

“On the whole, I have given this short detail of my own conduct for the benefit of young practitioners, who will see, that far from adhering to one original method, I took all opportunities of acquiring improvement, and cheerfully renounced those errors which I had imbibed in the beginning of life.”

CHAPTER II.

HIS VISITS TO LONDON AND PARIS.

WE now come to the point of Smellie's life when he quits Lanark and makes his journey to London. Everything points to the year 1738 or 1739, as the date of that journey. From the preface to the second volume of his work we learn that "between the years 1722 and 1739" he "practised in the country." Again, in connection with Case 303 (vol. iii., p. 1), he says: "In 1738, the year before I settled in London," etc. This date is also supported by the fact that, in his works, there is only *one* case recorded as having occurred in 1738, and there are *none* in 1739. The date of his leaving Lanark for London may therefore be fixed as some time toward the end of 1738, or the beginning of 1739.

The reasons for his taking this step have been much canvassed. M'Lintock, in his memoir, mentions a story which he had heard, that Smellie, after disappearing from Lanark for some years, at last wrote to his friends that he was "a thriving doctor in London." This gossip is unsupported by a single fact. As we shall see, the chronology of his cases only shows that a hiatus in his history of about one year at the outside—probably only some months—requires to be accounted for. This gap was most likely filled by his travelling and his sojourn in Paris. Sir James Simpson, in the address already mentioned, said, that Smellie, "while settled in Lanark, did not succeed, as we learn from one of his subsequent detractors, in getting above the position of second medical practitioner in that small community."

The only authority upon which this statement is based is the second letter which William Douglas, M.D., one of his most virulent critics, addressed to Smellie, in reply to the letter written in his defence by his anonymous pupil. It is there stated that "'tis very well known that he (Smellie) was only the second man in the place where he lived, and I believe you might properly have said, that he left it (Lanark) because another stood in his way." This was in answer to the pupil who had said, in his reply to the first letter of Douglas, that "Dr. Smellie after having practised nineteen years in Scotland with universal applause, quitted that country (where he had acquired the esteem of everybody who knew him) *for the sake of his health, which was greatly impaired by the vast fatigue he underwent,*" etc. (The italics are ours.)

Whatever basis there might be for this statement respecting the state of his health,—and there is nothing in his works which lends corroboration to it,—there can be no question that his services when in Lanark had been much appreciated. This is abundantly shown by the area of his work, since we find him attending cases at Hamilton (twelve miles distant to the west of Lanark), at Wiston (about as far to the south), at Carluke, at Covington, etc., and others at varying distances from the town of Lanark. All this indicates appreciation of his work.

Moreover, if we consider the number of cases of midwifery which he attended in his country practice, and which he deemed worthy of a place in his note-book, we shall be able to see that, considering the limited population amongst which he was operating, and the fact that he was only called to difficult cases, he did no mean amount of work. We have drawn up a chronological table from his works of the cases which occurred during his stay in Lanark, and which he considered illustrative of the text of his treatise. They amount to seventy-three in number, sixty-two of which are noted in the table, the other eleven being accounted for by the fact that in some instances there is more than one case under a single reference (*vide* Appendix).

Again, it is equally untrue that he was the second man in Lanark. William Inglis, who, when Smellie first settled in Lanark, enjoyed the largest share of practice, died, as we

have seen, in the year 1727 ; so that for about a dozen years Smellie probably enjoyed the largest amount of public confidence. Neither was it for financial reasons that he left Lanark. We have already seen that he had become owner, by purchase, of at least three different properties. This does not betoken financial embarrassment, but rather the opposite. It is difficult indeed to perceive why so many different reasons should be urged for his leaving Lanark, when he himself clearly informs us that he set out for London simply for the purpose of seeing whether or not he could learn improvements in his practice, whereby mothers and children might be saved ; in short, to combat that destructive practice which he saw so prevalent about him.

Praise cannot be denied him for the beneficent object which prompted this journey ; for he went on his way to benefit humanity. This step, too, shows the courage of the man. The journey to London in those days was no trifling affair. There were none of the comforts of travelling then, of which the modern traveller may avail himself. There were no railways ; no coaches ; neither, in some parts of the route, were there even roads worthy of the name. The horse-waggon, the pack-horse, and the sailing-packet, were the only available accessory means of locomotion. These were the days when a man made his will before setting out on such a journey. But by what route, or by what method, he travelled, we do not know ; he doubtless, however, made his way by the route which Watt, after his time, followed, viz., by Coldstream, Newcastle, then on to Durham, and thence to London.

When he reached London, however, we find that he was disappointed with what he saw was to be learnt there. After he had consulted with his friend Dr. Stewart, to whom doubtless he had a letter of introduction most likely from his friend Professor Monro of Edinburgh, he determined to push on to Paris. As this is the only reference in Smellie's work to Dr. Stewart, it will be interesting to know who this "particular friend" was. There can be no doubt that this man rendered Smellie, who at this time was an utter stranger to London and without many friends, signal service by his advice. In a contemporary writing, viz., Boehmer's *Essays*, mentioned in Levret's *Suite des Observations*, etc. (p. 339), and

also in Burton's letter to Smellie (p. 57), reference is made to a certain Peter Stuart who wrote on midwifery in the *Dispensatory*, 1736, under the title "De Secundinis salutiferis atque noxiis." But further research could not connect *him* with Smellie. In the same volume, however, of the *Edinburgh Medical Essays* (vol. iii.), in which Butter's essay on the Forceps was published, there is notice of a case which had been published in the *Philosophical Transactions* (a copy of the volume is in Smellie's library) by "Dr. Alexander Stewart, Physician to the queen of England." This notice, it occurred to us, either arose out of some special interest in the case, or in the author, to cause it to find a place in a Scottish publication. On tracing back this point a clue was obtained from Munk's Roll of the Royal College of Physicians.

It will be observed that Smellie terms Stewart as "the ingenious Dr. Stewart"; he, therefore, must have been a man of some note. From the fact that the author of the case above referred to was physician to the Queen, he must have belonged to the College of Physicians. On reference to Munk's Roll, however, we found that there was no Fellow whose name was *Stewart*, corresponding to Smellie's friend, but there was one bearing the name of Alexander *Stuart*. But, recollecting that *Stuart* was more familiar to the English than the Scotch form of *Stewart*, there was fair reason, apart from the loose spelling of the time, to identify the Dr. "Stewart" of Smellie with the Dr. "Stuart" of the College of Physicians and the Dr. "Stewart" of the *Medical Essays*. In the first place, the Christian name, Alexander, was the same; and in the second, they were both physicians to the Queen at the same time. As to the propriety of Smellie's adjective "ingenious" applied to Stewart, the briefest consideration of the principal facts regarding him establishes its appropriateness.

Munk says of Alexander Stuart, M.D., that he was a Scotchman who graduated at Leyden in 1711, and who became a Licentiate of the College of Physicians in 1720. He was created M.D. at Cambridge in 1728, and, about this time, was appointed physician in ordinary to the Queen. By virtue of this office he was elected a Fellow of the College. From Chamberlain's *State of Great Britain*, published in

1737, we find that he was a Fellow of the Royal Society. He was also a member of the Academy of Sciences of France. On the institution of the Westminster Hospital in 1719 he was elected physician, but retired from that post when elected one of the first six physicians on the establishment of St. George's Hospital. He died in 1742; so that his friendship with Smellie was but of short duration.

His "ingenious" character was principally shown, however, by the researches which he made into the structure and function of muscle, for which he received the Copley Medal of the Royal Society. His only important contribution to literature is entitled a *Dissertation on the Structure and Function of Muscle*, which was published in 1739. In Smellie's library there is a good copy of this treatise. The kindly interest of this influential man was doubtless of much assistance to Smellie.

To return, however to our narrative. Whether, during his stay in London, Smellie attended any of the then teachers of midwifery does not appear; but he could hardly pass the judgment he did without having tested the value of the information then to be had publicly only from such teachers. This, at least, is known, that he did attend, either during this flying visit, or subsequently, the prelections of Frank Nicholls; because we find him speaking of that gentleman as "my old friend and preceptor." Finding himself dissatisfied with London teaching, and having ascertained that discourses on midwifery were delivered in Paris, Smellie left London for that city.

Grégoire was at this time giving lectures in the French capital, and to him Smellie repaired. This was an ambitious step for a rural practitioner to take. It involved that he should make himself acquainted with the French language, in order to intelligently avail himself of the doctrines of his French teacher. He seems to have surmounted this difficulty, however; for, having attended Grégoire, he expresses himself again as disappointed in his expectations. He says (vol. ii., p. 250), "though his (Grégoire's) method might be useful to a young beginner, his machine was no other than a piece of basket-work containing a real pelvis covered with black leather, upon which he could not clearly explain the difficulties that occur in turning children, proceeding from the con-

tractions of the uterus, *os internum* and *os externum*. And as for the forceps, he taught his pupils to introduce them at random, and pull with great force, though he preferred Chapman's instrument to that used by the French, and recommended the improvement made upon Mauriceau's fillet, which can never be of any use."

There is every reason to believe that although there were other teachers of midwifery in Paris at this time, Grégoire was the principal and of most repute. This we learn from the writer of a pamphlet, a copy of which is to be found in Smellie's library, and which has the following lengthy title: "A Short Comparative View of the Practice of Surgery in the French Hospitals, with some Remarks on the Study of Anatomy and Midwifery. The Whole, Endeavouring to prove that the Advantages to Students, in their Professions, are greater at London, than at Paris. London, 1750."

"Midwifery is taught here," says the writer, "by several, but the Person of most Repute is Mons. Gregoire, whose machine has made much noise all over Europe; therefore it may not be amiss to give a Short Sketch of its Fabric.

"It is compos'd of Basket-work, cover'd with coarse Cloth; the Pelvis is human, covered with oilskin: It has neither *Uterus Externum* nor *Internum*, nor any of the Contents of the Abdomen, the Want of which he substitutes with his Hands; in short, 'tis so rude a Work that a common *Pelvis* stuck into a *Whale*, without any Embellishment, would be as like Nature as the *Machine* which has been so much admir'd: It has not any appearance of Ingenuity or Resemblance of Nature; yet this *Machine*, rude as it is, would probably have still kept its Reputation had it not been for the surprising genius of Dr. Smellie," etc. . . . "When a Person has Judgement enough to work well on these *Machines* (of Smellie), he would soon be a good *Accoucheur*; whereas, one might work to Eternity on *Gregoir's* Basket, and never know anything of the matter; for let a Part, however difficult, present itself in his Machine, you deliver it as easily as you would turn a Cork in a Pail of Water.

"The advantage Mr. *Gregoir* is said to have over Dr. *Smellie*, is that of having real children. This at first appear'd to me a great advantage, but I find it is not so; for the Coldness of the Child, the Flabbiness of the Parts, and the

Skin's coming off at the least Touch, makes the Delivery seem much less natural than that of the Leather Children." The writer then goes on to say that Grégoire's course of lectures is divided into two parts, "viz., of Theory and Practice, which together take up at least three months. The Theoretical Lectures are but indifferent, but his Practical ones, pretty good, as he relates many Cases, and makes judicious and good Observations.

"If you attend Labours with Mr. Gregoir," adds the writer, "the Expence is eight Livres to see him deliver a Natural Case, eighteen, to see him Turn, and deliver by the Feet, one Guinea, if he delivers by Instruments, and if a Pupil delivers any unnatural Case, he pays two Guineas; and the same for a Course of Lectures."

The question that here naturally suggests itself is, to which of the Grégoires did Smellie attach himself when in Paris? for there was Grégoire the father, and Grégoire the son. Smellie himself gives no direct information on this point, but from a remark which he makes in the course of his depreciatory reflections on the teaching, with the aid of other contemporary evidence, a conclusion can be arrived at: Grégoire, the elder, used the large French forceps exclusively, and it was this instrument which Ould, who studied in Paris before Smellie, saw him use, and the same instrument Ould himself used, as he gives a description of it in his book. Grégoire, the younger, on the other hand, preferred the English instrument of Chapman; and it will be observed that Smellie specially notes this fact. Chapman had not long before 1739 published a drawing of his forceps, but Grégoire, *fils*, had come to know of them, and of their merits. For this reason, we conclude, that when Smellie speaks of Grégoire, he means the son and not the father.

Having seen what he could of the French practice of midwifery, and felt himself compelled to express his disappointment with it, it would naturally have been expected that, having fulfilled his purpose, Smellie would make his way back to Lanark. Instead of this, however, he settles himself in practice in London; and the year of his settlement would appear to be 1739.

His visit to London, his stay there for the purpose of testing the quality of the teaching, his subsequent journey to

Paris, and his stay there of at least three months, suffice to account for the hiatus which occurs in his notes from 1738 till 1740. The time of his settlement in London may also be inferred from the chronology of his cases. There are but two cases recorded for the year 1740, and four for 1741.

YEAR.	CASES.	
1740.	Case 134,	vol. ii., p. 192.
	„ 457,	„ iii., p. 255.
	“Soon after I settled in London.”	
1741.	Case 70,	vol. ii., p. 111.
	„ 84,	„ „ p. 129.
	„ 329,	„ iii., p. 52.
	„ 451,	„ „ p. 207.

And there is this further corroboration. In the preface to his second volume, in referring to his forming a collection of cases illustrative of the text of the first volume, he tells us that he has been more careful in its formation “in London, since the year 1740.”

There are two pertinent questions that may be raised at this point, viz., Having fulfilled his intention of visiting London, and, subsequently, Paris, to improve himself, if possible, in his practice, why did Smellie not return to Lanark? and, again, Did he intend to settle in London when he set out originally on his journey, or was his settlement there an afterthought, and, if so, what fixed his determination? The answer to each may be found in a consideration of both. We do not think that the reason urged by his anonymous defender, viz., the state of his health, had everything—indeed, if it had much—to do with his settlement in London. For he could have recuperated his health, and could have overcome the effects of the “vast fatigue,” by simply lessening the amount of his work, and by narrowing its limits. Probably, therefore, this was not an important factor in the problem. On the contrary, it suggests that some additional reason must be sought for, and that in the man himself.

The first noteworthy fact about him indicative of his mental character, is his keen, close, and unremitting watch on nature; in this respect, following, mayhap unconsciously, the poet's precepts, “Think frequently, think close, read Nature.” A careful scrutiny of his works at once shows that not only was

he a true student of nature, but that he was not lightly set aside from his purpose by obstacles of any kind.

That he had formed a purposive plan of work is undoubted. His note-books enabled him to collate and compare facts and phenomena, and there cannot be much question that, if not at the inception of this plan, certainly in the course of its progress and development, new views began to force themselves upon him, and reforming lines of practice to dawn upon him. Such notes, indeed, were not only of present value to him, since we find that from the record of a first accouchement he was sometimes able, by adopting a different procedure, to successfully achieve afterwards what he had formerly failed to accomplish ; but they also enabled him to gradually build up those facts which allowed him afterwards to truly interpret the action of nature. He collected his facts and reasoned afterwards. It is obvious from his frank criticism of the teaching of both London and Paris, that he felt himself in a position to critically scan and review all that was taught. This ability to criticize was doubtless born of his observations of nature, and we cordially agree with the view of M'Lintock, that "the effect of his visit to London and Paris was the strong conviction that he could introduce better and more effectual methods of teaching midwifery than any that were then known."

This view of the position is sustained when it is found that, on leaving Lanark, he retained the properties which he had purchased, in the probable expectation, either that he might return to Lanark after his visit to these places, or that, settling in London, he might repair again to Lanark at some future time. That his views had been rapidly maturing before he left Lanark is shown by the fact that he was not long settled in London till he began to teach midwifery ; for he informs us, incidentally, in connection with Case 415, vol. iii., p. 207, that he was a teacher of midwifery in the year 1741.

Smellie first took up residence in Pall Mall, and there began the practice of his profession as an accoucheur and apothecary. He thus started practice in a humble way. William Douglas, in his second letter, remarks that it appeared to him strange that Smellie should leave the excellent position which his defender alleged he held in the country, "to come and settle here (in London) in a very mean Apothecary's Shop."

M'Lintock feels disposed, he tells us, to question the accuracy of this statement, because, although Pettigrew in his *Medical Portrait Gallery*¹ mentions this humble start in the Metropolis, he gives no authority for his information. The statement is to be found, however, in the biographical notice of William Hunter by Foart Simmons, and is to the effect, that "Mr. S. was at this time an apothecary practising in Pall Mall." A like statement may be found in Hutchinson's *Biographia Medica* (1799).² Both evidently owe their origin to the same source, which, however, M'Lintock had failed to discover. Foart Simmons lived sufficiently near, in point of time, to this period to have at least received accurate hearsay evidence, if not, indeed, direct evidence from those who could establish the fact. Most likely, therefore, Smellie's original settlement in Pall Mall cannot be doubted. That he at least lived there in 1741 is quite clear. It was in this year, and in the month of July, that William Hunter, then a young man, left Hamilton in Lanarkshire for London, to pursue further his medical education with the ulterior view of becoming a partner with Cullen. On his arrival, Hunter went at first to live with Smellie, and continued to do so for a short time, till he went to reside with Dr. James Douglas, as his assistant. Douglas was at this time residing in the Piazza, Covent Garden. The reason, doubtless, for Hunter receiving the hospitality of Smellie, was this: Hunter had been a pupil of Cullen in Hamilton from 1737 till some time in the year 1740, when, in the winter of that year, he went to study in Edinburgh. As has been already seen, Smellie and Cullen were intimate friends. What, then, could be more likely than that, when Hunter went to London, Cullen should recommend him to Smellie, on the strength of their friendship?

Having followed Smellie till his settlement in London, it will be convenient now to inquire into the position of midwifery in the metropolis, both in respect of its practice and its teaching, at this period.

¹ Vol. $\frac{1}{2}$, p. 1. Sketch of William Hunter. ² Vol. i., p. 457.

CHAPTER III.

THE CONDITION OF MIDWIFERY IN LONDON AT THIS PERIOD—1739.

THERE is much in the condition of the practice of midwifery in London during the earlier decades of the eighteenth century to interest the student of the progress of the medical art. Viewed from the standpoint of to-day, it truly was deplorable ; but, considered in the light of the times, it was no worse, nor was it, perhaps, any better than that obtaining in the capital of any other country.

We are afforded a glimpse of the position of affairs in a pamphlet, published in 1736, by John Douglas, Surgeon, F.R.S., under the title : “ A Short Account of the State of Midwifery in London, Westminster, etc., wherein an effectual method is proposed to enable the Midwomen to perform their offices in all cases (excepting those few where instruments are necessary) with as much Ease, Speed, and Safety as the most dexterous Midmen : whereby women and children’s falling *Victims* to the Ignorance of Midwomen, so loudly complained of by Chamberlen, Giffard, and Chapman, may for the future be prevented, etc.” The pamphlet is dedicated to the Right Honourable the Lady Walpole.

The writer at the outset notes with surprise that, whilst other departments of surgery have been practised and improved by men, “ the operations necessary for the safety of women in labour, and their children ; operations of more consequence to mankind than all the rest ; operations so often wanted, so difficult many times to perform, and upon which always two, and sometimes more, lives depend, seem

to have been entirely left to a parcel of ignorant women, or to men little better qualified than they, who, upon any extraordinary difficulty (as too many still do), took hooks or knives, and carved the children to pieces; and often, also, destroyed the mother." He says that in Paris things are better managed, for there all the "Midwomen" must be examined and approved before they dare begin to practise; which, he adds, is "an example most worthy of imitation"; while, on the other hand, in London they permit "every silly woman, who takes it into her head, with very little or no instruction, to practise *impune* among his Majesty's subjects, without any the least examination or licence."

He then comments on Chamberlen's translation of Mauriceau, published in 1672, which, while it pretends to help surgeons and midwives in the practise of their art, only too clearly sets up as an advertisement of his own *secret* method of delivering women in difficult cases. He next criticizes Chapman's Essay (1733), where that author, while professing to write for midwives, shows that *he* also *has* a *secret*—the fillet—of which he (Chapman) says, "I must beg leave to be silent in, as being entirely an invention of my own." This Douglas questions, for he mentions Daventer's description of a fillet in his *Ars Obstetricandi*, 1701; and he further says that he (Douglas) himself has seen eight or ten different sorts of them; and he adds, "Pray, was not Dr. Birch's fillet put up to be sold for £500 by the late excellent Surgeon, Mr. Jos. Symonds? Has not Dr. Sandys had one for many years?" He then expostulates with these authors that they should pretend to educate midwives by their writings, and only, all the time, advertise their own secrets. Why, says he, call midwives "Rude, Rough, Negligent, Ignorant, Foolish, Novice, Obstinate, Over-confident, Supine, Unskilful, Conceited, Self-sufficient," etc., etc., when no effort is made to educate them?

He points out, as excellent works for the tuition of French midwives, those of Madam du Tertre, who is also known by the name *de la Marche*, and Madam Lovys Burgeois: the latter of which was translated into English, and published in London in 1698. He then finishes his pamphlet with most excellent and practical suggestions whereby this deplorable state of things might be remedied. The remedies which he

proposed are as follow : That midwives should be properly instructed in the management of ordinary cases, and be sufficiently intelligent to know when a surgeon should be called. And to show that this suggestion is not novel, he points to the admirable instruction given to midwives in the Hotel Dieu in Paris, and also to the lucid work for midwives by Madam du Tertre. He brings the above suggestion to a practical bearing by proposing "that an hospital be erected at the public expense" for the reception of two or three hundred poor women ; that a proper number of "Midwomen" be appointed to attend them ; that two surgeons be appointed for the purpose of teaching these women the art of midwifery, and of effecting delivery in difficult cases ; that every woman attending the hospital should be compelled to attend these courses of instruction ; that, after such attendance, each woman should be examined by these two surgeons, and six or seven additional examiners, and, if approved of, to be granted a certificate of their fitness to practise : and, lastly, that in each city or county town in England, a "Midman" be appointed to instruct midwives. He concludes by saying, that "if this or some such scheme was put in execution in the principal towns of the Kingdom, in a very few years there would hardly be an ignorant midwoman in England, and, consequently, the great agonies most woman suffer at the very mention of a Man, would be almost entirely prevented ; the great expence they cost, saved ; and the melancholy scenes above-mentioned (from the books quoted) would be no more seen or heard of. What can be more Desirable ? What can shew more Humanity ? What can be more Charitable than to pursue a Design whereby the lives of so many innocent children and valuable women may be yearly, nay daily, saved from Destruction ? . . . Can anything," concludes he, "better deserve the attention of the Legislature itself ?" The author of this pamphlet was evidently a forcible writer, and the pamphlet itself is an able production, considered in the light of the times.

To this pamphlet, as was to be expected, a reply was quickly vouchsafed by Chapman. This was entitled, "A Reply to Mr. Douglass's Short Account of the State of Midwifery in London and Westminster. Wherein his trifling and malicious Cavils are answer'd, his Interestedness and Disin-

genuity impartially represented, and the Practice of *Physick*, but particularly the Character of the late Dr. Chamberlen, vindicated from his indecent and unjust aspersions. By Edmund Chapman, Surgeon and Man-Midwife in Orange Street, near Red Lion Square. London, 1737."

The tone of the pamphlet may be easily inferred from the title, and it is not proposed to weary the reader with any lengthy review of its contents. Suffice it to say that Chapman questions the etymological propriety of the terms "midmen" and "midwomen" which Douglas introduces, justifies his keeping his Fillet a secret, but joins with Douglas in hoping to see "any Scheme put in Execution for the real Good and Improvement of Midwifery." In passing, it may be noted that the ignorance and insufficiency of midwives were not infrequently forced upon the mind of Smellie during his practice in Lanark, as he repeatedly animadverts on their unskilfulness.

The principal teachers of midwifery in London at this time were Dr. John Maubray and Sir Richard Manningham, with others, among whom may be mentioned Dr. Sandys. Maubray taught students at his own house in Bond Street, and had been doing so as far back as 1724. Manningham was just beginning to teach in St. James' Infirmary. At the time when the afore-mentioned pamphlets were written, there was not, in London, any institution devoted to lying-in women. But in all probability as a result of this wordy warfare, and of the stimulus it gave to the public mind on the subject, in 1739 a ward of the parochial Infirmary of St. James', Westminster, was set apart for lying-in women. This was established on the initiative of Sir Richard Manningham, and there he taught his students. As Denman informs us, it was supported by public subscription. Manningham in his *Artis Obstetricariæ Compendium*, expressed his surprise that there was no hospital in London devoted to midwifery: — "Diu equidem sum muriatus (id quod complures questi sunt) Hospitium in subsidium pauperum parturientium et infantum expositorum nullum adhuc in hac nostra civitate tam opulenta exstitisse; at quoniam, quae miseris benigne semper illuxit, Majestas Regia concessa Diplomate opus hoc desideratum Auctoritate sua promovit, summique inter nobiles viri Hospitii futuri curatores fieri dignati sunt nullus dubito

quin, collatis ultro pecuniis (ea enim est nostratium proclivis misericordia) brevi perficiatur, nec minus Religioni, efficiendi quo minus egestas dira ad infantium suorum necem invitas parentum manus, impellat, quam Reipublicae Vires opesque civiles quotidie augendo, profit. . . . Justum et laudabile habeat et unde Ars Obstetricandi commode semper discatur.”

To Manningham must be given the credit of bringing into existence the first maternity institution in this country, and of stimulating the public mind to further projects in the same direction. In his account of this institution, in 1744, he wrote: “As hitherto the due knowledge of the practice of midwifery could not be easily obtained without going into foreign countries, and as that suited the affairs and circumstances of the few, so it could not reasonably be expected that our women midwives specially should be so properly and fully qualified as they ought for the skilful performance of their business”; and “as the lying-in Infirmary may reasonably afford the best opportunity of instruction in the art and practice of midwifery for the public benefit, it is ordered that an exact register be always kept of the names and places of abode of all persons taught or improved in midwifery at the said lying-in infirmary, after they have received a certificate from the physician of their being duly qualified for the practice of midwifery.”

A few facts about Manningham will be of interest. He was the second son of the Bishop of Chichester, and took the degree of LL.B. at Cambridge, in 1717; but where he studied medicine is not known. He became a Licentiate of the Royal College of Physicians in 1720, and was a Fellow of the Royal Society. He was knighted by George I. in 1721. In his time he enjoyed the principal obstetric practice in London. From Chamberlen's *State of Great Britain* we find that in 1737 he was residing in “Jermin Street, St. James.” He died in 1759, and was buried at Chelsea. In the early twenties of the century, he played an important part in the detection of the impostor—the so-called “rabbit breeder”—Mary Toft of Godalming, an affair which London had not forgotten even by Smellie's time. This case of Mary Toft illustrates the kind of belief which was apt to occur from the ignorance and credulity of that

day. It gave rise to a pamphlet war, and occasioned great excitement during its currency. The matter was initiated by Howard, a surgeon of Guildford, Surrey, publishing an account of this woman, who, he declared, was delivered, at short intervals, of a series of rabbits. Mr. St. André, Anatomist to His Majesty, inquired into the question, and was led to believe the absurd story; at least so he declared in a publication. The case then became the talk of the town, and the excitement so great, that for a time rabbits were never seen as a dish at table. Among the pamphlets written was one by Thomas Braithwaite, Surgeon, published in London in 1726, entitled, "Remarks on a short narrative of an Extraordinary Delivery of Rabbits, performed by Mr. John Howard, Surgeon at Guilford, as published by Mr. St. André, Anatomist to His Majesty, with a proper Regard to his intended Recantation." It was dedicated to the "Learned and Profound Dr. Meagre," in which name the reader will recognize Maubray. Maubray had endeavoured to discover the imposture, and, according to this writer, had failed, notwithstanding he had administered to the woman a "wonderful pill." The writer also lampoons the "Gullivers, St. André, and Howards of the age, who," says he, "don't stick to tell us that there are Men of the Size of one's little Finger, and others Sixty Foot high, and that there are Flying Islands, and Rational Horses, etc., . . . and that Mary Toft of Godliman has been delivered of Seventeen Rabbits." In the pamphlet he refers to Sir Richard Manningham by name. To Smellie's copy of this pamphlet are appended "The several Depositions of various Witnesses Relating to the affair of Mary Toft of Godalming, in the County of Surrey, being delivered of several Rabbits, taken before the Right Hon. the Lord Winslow at Guildford and Claudon on 3rd and 4th Dec., 1726. London, 1727"; and "Much ado about Nothing: or the Rabbit-Woman's Confession. London, 1727," which latter is a very indecent production. Manningham, at the request of Queen Caroline, went into the particulars of the case, examined the woman, had her brought to London and there closely watched her. He threatened to perform on her a dangerous operation, and this, added to a threat of imprisonment, caused her to reveal her imposture, whereupon she was committed to prison. St. André, in the

Daily Journal for 9th December, 1726, printed an advertisement wherein he states that he is now convinced that the above was "an abominable fraud." After this he became discredited. He was satirized by Dryden, who, alluding to his supposed dancing-master origin, immortalized him in the following line :

"Saint Andrè's feet ne'er kept more equal time."

Of this case Manningham wrote : "An Exact Diary of what was observed during a close Attendance upon Mary Toft, the pretended Rabbit-Breeder, from November 28 to December 7 following ; together with an account of the Confession of the Fraud."

The year that Smellie began practice in London, Manningham published his principal work on midwifery, viz., "*Artis Obstetriciae Compendium, tam theoriam quam praxin spectans*, 4to., Lond.," which was afterwards translated into different languages. In it he informs the reader that, in his teaching he employs a "machine," or, as it would be called in these days, a phantom, for demonstrating the practical parts of his subject. "Machinam ita comparatum habemus, ut per illam et Praegnantium Tactum et Educationes Foetus omnimodae monstrari possint. Fit autem et Foeminae ossibus compactis quibus uterum factitium aptari curavimus. Hac igitur nullo parturientium incommodo imperitas Tironum manus exercebimus, donec ipsum opus capessere tuto poterunt. Eadem etiam machinatione quem situm obtinet, et varios situs, qui praeter naturam utrique accidunt, (unde molestissima et periculosissima saepe fuit puerperia) demonstrabimus, quid denique pro diversis rebus potissimum facto opus sit edocēbimus." Doubtless, in this, he was but following the lead of the French School.

"D. Philippus Adolphus Boehmerus, Medicinae et Anatomiae Professorius Publicus ordinarius Halae Magdeburgicae," as he styles himself, published an edition of the above work (also in Latin) in 1746, to which he appended his own views on the comparative merits of the French and English forceps. In this connection he notes that, nowhere in Manningham's book is there any mention of instruments, "et mirandum omnino est autorem nostrum nullam fecisse ejusmodi instrumenti mentionem." The doctrines which Manningham taught

were those then commonly prevalent, but they will be dealt with in another chapter.

In addition to this work Manningham wrote others treating of the Plague and Pestilential Fevers, and of the Febricula. Of his other contributions to midwifery, one seems to be only an amplification of the work already quoted. It was published in 1756, with the title, "Aphorismata Medica; Quibus tam bona quam male Valetudo Mulierum, praecipae Utero gerentium a Conceptu usque ad Puerperium depingitur. Et ad levandos earum Morbos, quid fit faciendum quid fugiendum praescribitur, etc.;" the other is "An Abstract of Midwifery, for the use of the Lying-in Infirmary, 8vo., London, 1744."

Manningham's name occurs but once in the works of Smellie, viz., in vol. iii., p. 222, and then only incidentally. It was in connection with a case of placenta praevia. Smellie had proposed a consultation with another practitioner, and "one of the women proposed Sir Richard Manningham," but, as he chanced to be engaged, another was sent for. This is the case referred to in Douglas's second letter to Smellie, and was the cause of barbarity of conduct being attributed to him by that writer. Manningham's second son, Thomas, became a doctor of medicine of the University of St. Andrews.

John Maubray, as his name is spelled on the title-page of his books, had by this time written both of them. The first, *The Female Physician*, is addressed, "from my house in New-Bond Street, over against Benn's Coffee-House, near Hanover Square," and the second had for title, *Midwifery brought to perfection by Manual operation*. In 1726 a critic of the former work, in a pamphlet which he wrote, gave some brief but interesting particulars of this man. He tells us that Maubray informed the medical world of his teaching, by advertising in the "News-Papers that a Compleat Course of Midwifery, etc., was to be performed the 22nd of September last, by J. M., M.D., author of *The Female Physician*, and *Midwifery brought to Perfection*"; and that he had just heard that Maubray had been appointed "Physician to the new Parish call'd St. George's." He adds, ironically, addressing Maubray, "I congratulate you, Sir, on your new and excellent way of teaching young Gentlemen Midwifry, and Midwives, Anatomy, by Lectures in Divinity, Astrology, and Metaphysick Philosophy; or

rather, *A Manual Operation* by *Theological Dissertations*, and *Astrological Contemplations*."

The kind of information found in Maubray's book, and the kind of teaching likely to be given by him, may be appraised by taking as an example the following Chapters from *The Female Physician*:

"Chap. 33. Of a Seven Months' Birth. Wherefore, in short, I cannot help having full as good an Opinion of such a Child born about the last of the Seventh, as if any such born in the Beginning of the Ninth.

"To examine this nice matter a little more clearly, let us inspect into the Stature and Quality of the Month, in order to which I hope we may rationally observe,

"That the latter of the Planets (the Moon) influentially presides over the Infant in this Month, whose frigid and humid Qualities are thought to afford the several parts of it a certain Fatness, thereby relaxing, and easily distending the *Matrix*; which being done, and the Child being now perfected by the whole Body of the Planets, that have all particularly, in their order, duly discharged their respective Functions towards its Perfection.

"It is also further observable, that as the Soul of Man has Seven different Appellations, according to its principal offices, I have also remarkably observ'd that the Number *Seven* is most powerfully and signally predominant in Coelestials; as the Seven Circles in the Heavens, according to the Longitude of the Axle-Tree; the Seven Stars about the Artick Poles called Charles's Wain; the Seven Stars called the Pleiades, etc.

"The Number *Seven* is likewise to be of the greatest Esteem in Religion; as, the Seven Beatitudes, the Seven Virtues, the Seven Vices, the Seven Petitions of the Lord's Prayer, the Seven Words of our Saviour upon the Cross, etc. The Seven Seals, Seven Trumpets, Seven Vials, according to the Interpretation of that most learned Divine, Peter Palladius, Bishop of Rochel.

"I think that Number likewise may properly portend here Perfection in Maturity, and Completion in Vitality to every full Seven months' Child.

"Chap. 35. Of a Nine Months' Child. The Generality of modern Writers alledge a Nine Months' Birth to be the

appointed Time of Nature. But unless they can produce better Reasons than I have yet heard of, they shall scarce influence me to agree with their popular Notions or Vulgar Errors. For their fond opinion seems not to be so much supported by any Arguments of natural Reason, as by an imaginary Experience founded upon Hearsay, or the general Misconstruction of Women.

“However, I must own that several auspicious Births happen in this very Month, for several good Reasons.” He then adduces his astrological and theological reasons to account therefor; as also similarly for ten months’ births and eleven months’ births. “As to the Months,” he adds, “I desire to be understood as meaning Solar Months, comprehending Thirty Days.” This, doubtless, will suffice for the ordinary reader.

In addition to these two men, the foremost accoucheurs then in London were Bamber, Griffith, Middleton, Nesbit, Hody, Morley, Douglas, MacKenzie, and Sandys. Very little need be said of most of these. Bamber’s name is of interest in respect that one of his daughters married Sir Crisp Gascoyne, Knt., Lord Mayor of London, and one of their descendants married a Marquis of Salisbury. Middleton’s name is mentioned in Smellie’s work. Nesbit assisted Smellie in improving the forceps. James Douglas, the anatomist, with whom William Hunter began his public life, and who probably shared with Smellie in giving the bent to Hunter’s mind toward midwifery, had an extensive practice. It was of him that the following lines were written :

“To prove me Goddess ! clear of all design,
Bid me with Pollio sup, as well as dine ;
There all the learn’d shall at the labour stand,
And Douglas lend his soft obstetric hand.”

Dr. Francis Sandys, or “Sands,” as he is always termed in Smellie’s work, was also one of the most prominent accoucheurs of his day, being contemporaneous with Smellie, although established in London, while Smellie was in Lanark. He is referred to in volume iii. in three different places; the first at pages 58-9, the second at pages 222-3, and the third at page 299. There is comparatively little about him in the contemporary writing of the time, and there is no

evidence available that he contributed by his pen to the subject to which he specially attached himself.

The following are the principal facts which we can at present glean from the records of that time, and also from fresh inquiries made for the purposes of this work. Foart Simmons, in his *Life of William Hunter* (page 14), states that Sandys was "for some time Professor of Anatomy at Cambridge, was a most assiduous and able anatomist, and had a large collection of anatomical preparations. He had all the parts of the eye finely prepared and preserved, and elegantly expressed in drawings. He was also very curious in his injections, and discovered the art of making them pellucid with oil of turpentine. Dr. Hunter, in his *Medical Commentaries*, mentions him as the discoverer of the *membrana pupillaris*. He died in a retired situation in Bedfordshire at a very advanced age. His collection was first in the possession of Mr. Branfield, and afterwards sold for 200*l* to Dr. Hunter." Pettigrew, in his *Life of Hunter*, practically re-echoes these remarks.

With a view to verify the above statement regarding the readership of anatomy, and to obtain further information if possible concerning Sandys, communication was made with the authorities of Cambridge University, who very courteously and promptly responded to our queries. The name of "Francis Sandys" appears in the "Graduati Cantabrigensi" as "M.D., 1739, per literas regias." He was not attached to any college, because the record expressly states "no college"; therefore, he must have been a stranger when nominated for the degree by the letters of the King. It would appear that he never was reader of anatomy in Cambridge. Neither was he a Fellow of the Royal Society.

The earliest reference to his name is to be found in Douglas's *Account of the State of Midwifery in London and Westminster*, which was published in 1736. Douglas says: "Pray was not Dr. Birch's fillet put up to be sold for £500 by the late excellent Surgeon, Mr. Jos. Symonds? Has not Dr. Sandys had one for many years?" This reference indicates that for "many years" prior to 1736 Sandys was in practice as an accoucheur, and therefore he must have been more a contemporary of Manningham than of Smellie, so far as London practice is concerned. The only reference

to this fillet of Sandys which can be found, is by Levret, in his *Suite Des Observations*, etc., published in 1751. In article vii., which treats of the history of the different forceps of Messrs. Rathlaw and Roger Roonhuysen, is found the following, which we translate. At page 208 Levret speaks of "another instrument which Doctor Sandes of London had made known to him" (that is to Rathlaw); and at page 210, after referring to the merits of Rathlaw's own instrument as expressed by himself, he goes on to say, "I pass to the instrument which Doctor Sandes had made known to M. Rathlaw, who has recognized many advantages in it, and which, he declares, has often been of great use to him; this is how he describes it. 'This instrument consists of a plate or blade of steel, mounted on a handle, and furnished with two broad bands of curried leather which are fixed at the bottom of the handle. When the face of the foetus presents with the chin or the forehead against the Pubis, I attempt with my left hand to cause the head to rise sufficiently so that the vertex will present directly in the *true passage*, and in that case nature usually extricates it in a short time. But if I am unable to replace it I then introduce the blade already spoken of to the right or left side, I conduct it round the head, I cause the two leather bands to pass to the other side, within which the head can then be seized. I afterwards direct it toward the outlet of the *ordinary passage*, and thus deliver the foetus'." Levret adds that he does not know whether his readers will be able to appreciate the method of using this instrument from the foregoing description given by Rathlaw, but, for himself, he declares it very difficult to conceive. Levret, however, gives a drawing of this instrument, which is reproduced from his work at page 218.

Smellie's connection with Sandys dates at least from 1747, because that is the date of the first recorded consultation in which Sandys met him; but whether the intimacy was anything more than a merely professional one, or whether even the professional acquaintance was anterior to that year, we have no means of ascertaining. The second consultation noted by Smellie, where Sandys is mentioned by name, occurred in the following year, 1748, regarding which a little controversy arose between William Douglas in his

Letters to Smellie, and the anonymous pupil who replied. The circumstances of the case were these :

The patient, when a little over forty years of age, was pregnant of her first child and was "of a gross habit" of body. At the seventh month she received a fall, which brought on a flooding ; this, however, was soon checked, although it returned on the least motion or exercise. About the middle of the eighth month Smellie was called, because the haemorrhage was greater than it ever had formerly been. It was however again checked, but it left the woman so weak that Smellie advised a consultation with a physician. This was arranged, and the physician approved of the treatment employed. About two or three weeks before full time the patient was seized with slight pains. Smellie was again called, and, from examination, thought it either placenta praevia, or a coagulum of blood occupying the *os uteri*. The woman becoming faint and weakly, and the discharge reappearing, Smellie again desired "a consultation with another of the profession." The family being strangers to England, Smellie gave them the names of some gentlemen, one of whom they might themselves choose. "One of the women proposed Sir Richard Manningham ; but he being engaged, Dr. Sands was sent for ; who gave it as his opinion, that it was still proper to support her strength by broths and nourishing food, and more safe to wait until the slight pains should bring on the right labour than to use any violence to deliver her immediately." This advice was agreed upon. Smellie was again called the same night, "when," says he, "she was taken all of a sudden with frequent faintings ; in one of which she expired as I entered the room. This sudden alteration," adds he, "prevented me from making any attempt." Then, as soon as all present were satisfied that the woman was dead, Smellie proceeded to open the abdomen. Having taken out the child, he examined the position of matters in the uterus. He tells us that he "found the placenta firmly adhering to its inferior and posterior parts ; about two fingers' breadth of its lower edge was separated from the *os internum*, which it covered : and this was what Dr. Sands and I had felt in the morning."

This case evidently became known to the gossips, among whom was William Douglas. In the first letter which he addressed to Smellie, he says, "I have been told of no less than *Eight Women* who have died within these few Months

under the Hands of a *Wooden Operator*, which I believe is greater Execution than all the *Men-midwives put together* in the Bills of Mortality can pretend to, besides your self. . . . Barbarities, on the other Hand, are equally shocking, and the Epithet of Butchering, apply'd to some of us, has no Injustice in its Similitude. A Case which I am told you lately attended deserves to be recorded, and, if so, your physical Capacity to be enquired into; *It was in the Meuse, on his M——y's Body-Coachman's Wife, where, it's said, you was backward and forward for a whole Month. The Woman was suffer'd to flood all that Time, till she was near Death, when two other Men-midwives were sent for; one only came, who, when he saw the Woman, declared it was too late for anything to be done, and that it was a gone Case, and so took his Leave: It's said you continu'd till she expir'd, and after that cut her open, and took the child out alive, which died likewise in about two Minutes afterwards. Had any Midwife in Town stay'd by a bleeding Woman till she was quite exhausted before she had sent for a Man-midwife, she would have been severely reprimanded, and very deservedly have lost all her Business. To cut a Woman open who had lost all her Blood (consequently there could be no Hopes of the Child's Life) was substituting an appearance of Barbarity as a Remedy for a former Neglect.*" In the reply to this letter by the pupil of Smellie, his treatment of the wife of the King's Coachman is defended. The writer states that the physician who was called in was "Dr. Hoadley, Physician to his Majesty's Household, who approved of what had been done, and ordered the same Regimen to be continued." When the case became critical on account of the severe haemorrhage, Smellie desired further consultation. Sir Richard Manningham was sent for, but he being engaged, Dr. Sands was called in, who agreed with the line of treatment. Following this reply came Douglas's "Second Letter to Dr. Smellie." He declaims once more against the barbarity of "opening women," as in this case, but, he adds, "If what you say is true, I will do you the Justice to own that you treated the Patient with all the Skill that could be expected from any Man of the Profession." In this way, then, the ill-informed detractor had to eat the leek.

The Dr. Hoadley referred to in connection with this case was Benjamin Hoadley, who was a Graduate of the University

of Cambridge, a Fellow of the College of Physicians and of the Royal Society, and also a distinguished Physician of both St. George's and Westminster Hospitals, and Physician to the Household of the King and the Household of the Prince of Wales, both of which latter offices he held at the time this case happened. Not only did he write on medical and philosophical subjects, but he was also the author of the comedy, *The Suspicious Husband*. He died in 1757, about ten years after the above case occurred.

The other case, in which the name of Dr. Sands occurs, happened in 1747.¹ This was also a case of flooding, and was one for which a Dr. Gordon had been engaged. The midwife who was in attendance, alarmed by the violent haemorrhage, and having been warned to send for Smellie, because Gordon had to go out of town, did so as instructed; but Smellie, engaged at another case, could not be found, and the messenger went for Dr. Sandys. Smellie, however, coming home shortly afterwards, obeyed the summons at once, and arrived at the patient's house before Sandys could come. The friends then proposed to countermand the message to Sandys, but were prevented by Smellie, who, telling them of the gravity of the case, advised that he should be permitted to come. On the arrival of Sandys, they had a consultation, and agreed, since the flooding had diminished, that a soothing draught should be administered, and that they should wait further developments. Before the medicine could be procured, however, the flooding reappeared more violently than before, and Smellie, with the assistance of Sandys, thereupon delivered the woman by turning. The child was dead; but the mother was saved for the time, although very weak from her great loss.

At page 265 of vol. iii. the sequel of this case is recorded. It appears that till about the eighteenth or twentieth day after the delivery the patient progressed favourably, but then she was suddenly seized with a "violent purging," from which dropsy resulted. Smellie was again called at this juncture, and says he, "I advised the friends to take the advice of a *physician*, as it was not now my province to prescribe. Mr. Mead visited her next day, and ordered medicines to invigorate the body." The swelling, however,

¹ *Vide* vol. iii., pp. 58-59.

increased both in her legs and abdomen, and she died about six weeks after delivery.

The remaining allusion to "Doctor Sands" occurs at page 299 of the same volume. Smellie is discussing the "first dressings of the child," and is declaiming against the not uncommon practice then prevalent of "binding" the child unduly tight. He goes on to say, "I have been called several times where I found the uneasiness of the children proceeded from too tight dressings; and by observing this circumstance in time, the danger was prevented by dressing them looser. Doctor Sands," he adds, "told me that he was called to a child of a relation of his own. The nurse had, as she thought, dressed it very nice, as it was then to be christened. When he examined, he found it was so tight bound that it could scarcely breathe. The face was turning livid; and as there was no time to be lost, he did not wait for its being undressed, but taking a knife or pair of scissors ripped open the clothes; by which means the child was soon relieved."

The name of Sandys occurs in connection with the famous trial "*Maddocks v. Morley*," which has been fully considered at page 316 *seq.*, and occurred in 1754. Dr. "Sands" was the first witness called for the defendant. He is there designated "man-midwife." In the witness-box he gave "a very long and learned Account of the Course of Practice in such Cases, with Precedents and Instances of the like Nature, as well such wherein he had been himself concerned" (and doubtless those cases with Smellie of the "like nature" would form a part), "as what he had read in Treatises of Midwifery." When he was asked whether, in his opinion, "Dr. Morley ought to have continued with Mrs. Maddocks when he was with her, or if he ought to have come again to her when the Apothecary came to call him, he very candidly declared that, for his own Part, he should have done it, and that the Doctor ought to have done so too." A few years after this he retired to Bedfordshire, where he died after living to a good old age.

Since the bulk of the obstetric practice in London, as in the country generally, was in the hands of midwives, we can hardly avoid saying something of the principal of them, as some of them ranked high in this department, and even

attended royalty itself. It cannot be said that they were all in active practice in the year 1739, although some of them were, but at all events they figured largely during Smellie's sojourn in London. The most important of them were Mrs. Kennon, Mrs. Elizabeth Blackwell, Mrs. Maddocks or Maddox, Mrs. Brown, George's Court, Princes Street, Soho; Mrs. Fox at the Acorn in New Court, by Bow Street, in Covent Garden; Mrs. Charles, Mrs. Simpson or Mrs. Moore, Mrs. Draper, and Mrs. Fletcher; and later, Mrs. Nihell.

Mrs. Kennon was a midwife of much repute. She had an extensive practice in society. We are told that she was not in favour of men practising midwifery. The name "Kennon" does not exist in Smellie's work, but, as the orthography of proper names was rather elastic in his time, we believe we recognize the same person in "Mrs. Canon," who is mentioned in Case 172, vol. ii., page 234. The patient, in this case, was a gentlewoman, and had had tedious labour for some time before Mrs. Canon sent for Smellie. The patient would not permit him to "touch" her, consequently he could only advise the midwife how to proceed.

Mrs. Blackwell published in 1736 *The Curious Herbal*, in three folio volumes. Smellie speaks of her in Case 492, to which, he tells us, she had called him. Her ability as an artist is proved by reference to her work, the illustrative plates of which were from her own pencil. Another interesting point regarding her is that she was present on the first occasion that Smellie delivered a patient by means of his wooden forceps.

Mrs. Maddocks is mentioned in Cases 190 and 503; in the former as having attended on two subsequent occasions, and with successful results, the patient who is the subject of his comments. From this same record, it would appear that Smellie retained Mrs. Maddocks to wait on tedious cases during his enforced absence. She afterwards, by a second marriage, changed her name to Mrs. Ward, and, we are told in the pamphlet *Man-midwifery Analysed*, that she attended the Princess of Wales, the Queen, and the Duchess of Brunswick, in their confinements.

The names of Mrs. Brown, Mrs. Fox, Mrs. Charles, and Mrs. Draper, only call for passing notice. They are all,

with the exception of Mrs. Charles, mentioned by name by Smellie in connection with cases.

Mrs. Simpson, or as Smellie calls her, Mrs. Moore (her name by her first marriage), was a pupil of his. She was a very skilful woman, and was employed by him to attend labours with his students, and to initiate them into the practice of the art. He mentions these facts in vol. iii., page 179, where he says, "Mrs. Moore, now Simpson, whom I had taught, and kept on purpose to attend all the labours with the pupils in the teaching way, was first called. She had assembled about ten of the gentlemen." This was a case of face presentation in a narrow pelvis, where, after turning, the head had to be delivered by the crotchet. Again, in the same volume, page 261, he tells us of "a poor woman in St. Giles's who was delivered by Mrs. More and some of my pupils, who gave her some money, which," he adds, "being soon spent in gin with her gossips, she went out begging with her child on the fourth day after delivery." From this conduct she was seized with severe illness, and "with great difficulty recovered by bleeding and antiphlogistic medicines."

Mrs. Nihell, who lived in the Haymarket, and who afterwards published a *Treatise on the Art of Midwifery*, had a large practice, and was the most uncompromising opponent of man-midwifery, the outstanding champion of the doctrine that the *ordinary* practice of midwifery should be confined solely to her sex. She had studied in the Hôtel-Dieu at Paris. Her husband was an apothecary, and they both practised their respective branches of the profession from the same address. As she tells us in the preface of her work, "my husband is, unhappily for me, a surgeon-apothecary; his business has no relation to mine." As Smellie was, in her time, the most prominent exponent of man-midwifery (as it was then termed), her attack was chiefly directed against him and his work. But as we propose to deal with her strictures in another chapter, this statement of her position will meanwhile suffice.

Mrs. Kennon, who has been already mentioned, shared to some extent these views of Mrs. Nihell; but she made her protest in a more dignified manner. When Nicholls wrote *The Petition of the Unborn Babes*, she was so satisfied

with the position he took up, that on her death-bed, as Thicknesse informs us, she presented him with a bank-note for £500 as an evidence of her sympathy with his views.

This movement on the part of Mrs. Kennon and Mrs. Nihell was but the beginning of a larger outcry, which increased in volume and virulency as Smellie's fame as a practitioner and as a teacher increased; and, as we shall see, the movement was by no means confined to the midwives.

The agitation started by Douglas for the better education of midwives was not confined to England. We find it taking shape in Ireland. The first evidence of it is to be found in Ould's Treatise, where he speaks of the "Misconduct of Female Midwives, of which," adds he, "we have frequent opportunities of being convinced." In the first chapter of that work, which deals with the state of the art of midwifery in his time, he uses the following pertinent language: "Though Chirurgical Knowledge has been daily increasing, and receiving Improvements from the earliest Ages, but more especially, from the Time of Hippocrates, by the constant and indefatigable Industry of many eminent Men, in most Nations where Learning was cultivated, and still continues in the same successful Progress; yet the Art of Midwifery, which is one of its most considerable Branches, and that which, by the common Principles of Humanity, we are indispensably bound to illustrate, by our most diligent Inquiries, and nicest Observations; is, and I think always has been, the least taken Notice of; altho' it be universally acknowledged to be the Duty of every one who is conversant in any Branch of the Art of Healing, to communicate whatever occurs to him, that he thinks may be of Service to the Public. Nor is this Art in any respect the meanest Province in the medicinal Common-wealth, but much on the contrary; as on it depends, not only the Preservation of the Species, but the various Methods of relieving distressed Women, from extraordinary Pain and Torture, innumerable Disorders and Death, the Consequence of bad Practice: from misapply'd and ill-contrived Instruments; and even from the injudicious Management of the Hands. It is not much to be wondered at, that this Art should escape the nice Observation of the Ancients; for while their Time was taken up in the Prevention of Evils, for which no Help had been

provided, the Women practised Midwifery; and in all likelihood, their Skill was never called in question; but as medicinal knowledge increased, it became very apparent that there was more Learning and Dexterity required, in the prosecution of this Art, than what could be expected from ignorant Women, who generally had the meanest Education: and then it was, that Men, who were well acquainted with operations in general, applyed themselves to the Improvement of this Art; whereby many Women were rescued from Death, that before in the like Case, were in all probability deemed irretrievable."

One of Ould's principal objects in writing his book was to improve the knowledge of midwives, and thereby to increase their usefulness. He says, "To make this Treatise of more general Use (especially to Women who live in the Country remote from the Assistance of skilful Persons) the Editors have here subjoined an Explanation of the Terms of Art."

It is to the credit of Scotland, however, and particularly to the Faculty of Physicians and Surgeons of Glasgow, that the first practical move was made in the direction of protecting the lives of the lieges from unskilful women. The minutes of that Corporation abundantly show that they were early alive to the dangers arising in the practice of midwifery from ill-informed practitioners. On the 3rd December, 1739, at a meeting, it was agreed "that all midwives after a certain time, shall pass an examination, and have a licence from the Faculty before they be admitted to practise." Accordingly, on 24th March of the following year, "it was agreed that for hereafter all midwives before they be allowed to practise shall after a certain time undergoe a tryall; and Ordain'd y^t The praeses, Doctor Montgomerie, John Gordon, Alexander Horseburgh Shall meet and Draw up a form of an Act (which is to be inserted in the sederunt books) anent tryal of the intrant midwives, and that the said persons or any three of them are impouered to meet before and the facultys meeting the first of May and then to report." This Act was submitted to a meeting of Faculty on 4th August, 1740, as will be seen from the following minute:

"The said Day the faculty having considered the many dismall effects of the Ignorance of midwives, and that it is incumbent on the faculty to prevent these evils as much as they can. They Therefore Enact That after the first of

January 1741 any midwife who shall pretend as such to practise within the Shyres of Lanerk, Renfrew, Ayr, and Dumbarton, without a license from the faculty, Shall be fined in the Sum of forty pound Scots for the use of the facultys poor In terms of the Facultys Charter granted by King James the Sixth in the year 1599 and Ratified by King Charles the Second and his parliament in the year 1672, which grants, whereon Sundry Decrees of Declarator of the Lords of Session, have proceeded, Impower the faculty to Call before them Examine all practisers in Physick, Surgery, and pharmacy, and if not qualified Discharge them from practising under the foresaid penalty of forty pounds. And as the faculty have no other view but to prevent ignorant persons from practising midwifery They Appoint that such as shall voluntarily submit to one examination towards their being Licensed shall pay no freedom fyne nor be at any furdur charge than two shillings sixpence Sterling to be payed the Clerk for each of their Licences."

Consequent upon this, the Faculty inaugurated a crusade against such women who had failed to take advantage of the opportunity to qualify which was offered them, and who still continued in practice; and the records show that many women were summoned to appear before the Faculty and were either fined, or discharged on a written promise to cease practice: and, on the other hand, that many others presented themselves for examination, were found qualified, and were permitted to practice the art "within the Faculty's Bounds."

On the Continent, too, matters were rapidly maturing. France, and particularly Paris, for a long period before this, had provided ample facility for the examination and qualification of midwives. The Hôtel-Dieu provided a large field for their clinical instruction. But it is not so clear that the same attention had been paid in the same direction by other Continental countries. Holland began to set its house in order, in respect of male practitioners of the art. Rathlaw informs us that the States of Holland, on its being represented to them that there were many within their borders who were incompetently practising midwifery, issued an enactment on 31st January, 1747, to this effect: "No one may give himself out as an accoucheur, or may exercise that Art, until he has been specially authorised to so practise after a

competent examination passed before those who were appointed for this purpose." In accordance with this order, Rathlaw presented himself for examination but failed to satisfy his examiners, owing, he says, entirely to his want of knowledge of the particular means employed by Roonhuysen in delivering women, which were then only known to his examiners. It was partly for the purpose of exposing this injustice, as he deemed it, that his work was published.

CHAPTER IV.

SMELLIE IN LONDON.

SETTLED, then, in Pall Mall, as an unpretentious accoucheur and apothecary, Smellie took advantage of his enforced leisure from work, consequent upon his being unknown, to improve himself in knowledge. While doubtless he attended the prelections of other teachers, we certainly know that he attended the lectures of Frank Nichols on pathological anatomy, and there is good reason to believe that he advanced his studies in mechanics by hearing Desagulier's lectures on natural philosophy. While feeling himself an unknown man, his cautious Scotch nature counselled him to proceed slowly in his intention of setting up as a specialist in that department to which he had been specially attracted, and with which he was identifying himself. He had already seen enough to prove to him that the art of midwifery was but inadequately taught, and that the practice of it in the hands of the midwives was far from what it ought to be. He was confident that he had learned from his close observation of nature, the truth of certain important phenomena in parturition, and he saw his way clear enough to impart that truth to others. This determination to teach was, at once, a courageous and ambitious step. From the obscurity of a country practitioner to the prominence of a metropolitan teacher was a long way; and coming from the esteem and popularity of his country district to the condition of being almost utterly unknown in the city, the outlook was likely to be gloomy enough. Obstacles at first, however, were, in his opinion, but things to be overcome. So he quickly matures his plans, and blos-

soms out as a teacher of midwifery in the year 1741. "Festina lente" being his motto, for a year or two his progress was perhaps but slow; very soon, however, the novelty of his teaching, and the efficiency of his teaching apparatus, attracted to him the attention of London, and students in numbers, and of both sexes, flocked to his lectures. As success warranted the step, we find him removing from his more humble abode in Pall Mall to a more pretentious residence in Gerrard Street, and later on to Wardour Street, St. Anne's, Soho. These are the only addresses which he occupied during his stay in the metropolis, so far as can be ascertained; and the source of this information—particularly of the latter two addresses—was the fly-leaves of the books in his library in Lanark.

We do not propose to discuss now the then novel views which he held on many points in the science of midwifery, but it is necessary to point out that they were so different from those then prevailing, that they compelled attention to his work.

Let us next inquire how he set about to equip himself as a teacher. It has been already seen that he critically examined the methods of teaching employed in London and in Paris by the principal exponents of the subject, and that he had made himself conversant with the apparatus they used in conveying practical information to their students; at all events, he had seen Grégoire's phantom, and had heard how he taught the application of the forceps. It is equally probable that he had seen Manningham's "machine" for the same purpose; that they did not meet his views has also been already shown. How, then, does he seek to improve matters? His mind becomes active in devising such apparatus in the form of a phantom as will be a decided improvement on those already existent, and which, at the same time, will correspond more to nature than the others. Let us see what his contemporaries say on the question.

Probably the one most likely to be conversant with this question would be a pupil who had worked on the apparatus in question, and who would thus be familiar with it in all its details. This pupil, defending Smellie against the attacks of his critic William Douglas, fortunately affords us information. Speaking of his ability, apart from midwifery, he says

that Smellie was regarded “for an uncommon Genius in all sorts of mechanicks, which after having shewed itself in many other Improvements he manifested in the machines which he has contrived for teaching the Art of Midwifery. Machines which Dr. Desaguliers, who frequently visited him, allowed to be infinitely preferable to all that he had ever seen of the same kind, and which I (from having seen those that are used at Paris) will aver to be, by far, the best that ever were invented. They are composed of real Bones, mounted and covered with artificial Ligaments, Muscles, and Cuticle, to give them the true Motion, Shape, and Beauty of natural Bodies, and the contents of the Abdomen are imitated with great Exactness. Besides his large Machines (which are three in number) he has finished six artificial Children with the same minute Proportion in all their Parts: so that with the apparatus he can perform and demonstrate all the different kinds of Delivery with more Deliberation, Perspicuity, and Fulness, than can be expected on real Subjects.” Another description of the above is given in the pamphlet, entitled, *A Short Comparative View of the Practice of Surgery in the French Hospitals*, etc., from which we have already quoted in speaking of Grégoire’s apparatus. This writer, speaking of the French phantom, says, “It would probably have still (1750) kept its Reputation had it not been for the surprising Genius of Dr. Smellie, whose *Machines* are really curious; they are composed of real *human Bones*, arm’d with fine smooth Leather, and stuff’d with an agreeable soft Substance. All the Parts seem very Natural both to Look and Touch; the Contents of the *Abdomen* are beautifully contriv’d, the Intestines look very natural, as likewise the Kidneys, and large Vessels. The *Uterus Externum* and *Internum* are made to contract and dilate according to the Difficulty intended for the Delivery. The *Children* for these *Machines* are likewise excellently contriv’d, they having all the Motions of the Joints. Their *Craniums* are so form’d as to give way to any Force exerted, and are so Elastick, that the Pressure is no sooner taken off than they return to their natural *Equalities*.”

From these descriptions, then, it will at once be obvious to the reader that Smellie’s phantoms were exceedingly perfect and very suitable for the purposes intended, that they were

much more efficient and more natural than any others then in existence, and that they were probably even more efficient than those existing at the present day.

Having presented the views of those who had seen and who had worked with this phantom, let us glance at the opinions entertained of them by his hostile critics. The fierce and malevolent criticism of William Douglas did not stop at Smellie's practice or his person; it extended even to his apparatus. Douglas ironically imagines that Smellie, in his *Course of Midwifery*, "would not offer at any thing more than shewing your Machine and Glass Matrix (which was invented by *Mr. Aaron Lambe* the Auctioneer), thro' which the nature of extracting or turning the Child might be shew'd"; and he goes on to say that "a Machine is used by most Masters to give an idea to their Pupils, in order to prepare them for operating upon the Natural Subject; the nearer to Nature their Apparatus is, the *more preferable*; every good Master should use a natural Foetus in his machine, as that is in some Measure Nature itself, and by it the Position of the Child, a very essential Part, is learnt. Instead of a Child you make use of *little stuffed* Babies, which have rather amused than instructed your Pupils, in the natural members of a Child." This phantom evoked also the ire of Mrs. Nihell. "This was," says she, "a wooden statue, representing a woman with child, whose belly was of leather, in which a bladder, full perhaps of small beer, represented the uterus. This bladder was stopped with a cork, to which was fastened a string of packthread, to tap it occasionally and demonstrate in a palpable manner the flowing of the red-coloured waters. In short, in the middle of the bladder was a wax doll, to which were given various positions. By this admirably ingenious piece of machinery were formed and started up, an innumerable and formidable swarm of men-midwives, spread over the town and country."

Let us now turn our attention to his scheme of teaching. Like Grégoire, he saw that the art and practice of midwifery could only be efficiently taught by the combination of theoretical with clinical work. Having prepared the requisite apparatus for the former, he had to plan how to compass the latter. In the earlier years of his teaching, the clinical field was exceedingly limited; institutions for the clinical study

of midwifery, as we have seen, were few and far between. He quickly saw that, following Grégoire's example, he could tap a plentiful supply if he could mature a scheme whereby poor women could be attended in their confinements by him and his students, gratuitously, at their own homes. He soon got this plan in working order, and so was able to provide for his students both theoretical and clinical teaching. What were the precise steps he took to acquire this facility we do not know, but we may take it for granted that, as soon as the fact became known that he was prepared to attend such poor women, it would quickly spread among those whom it concerned. That it was successful there is abundant evidence to show. Not only did he and his students so attend poor women, but he made it a condition also, that every student who attended his practical course should contribute a sum to a common fund toward their support. In a brochure, which he published under the title of "A Course of Lectures upon Midwifery, wherein the Theory and Practice of that Art are explained in the clearest Manner, 4to," he informs us that each student had to pay six shillings to this common fund. This syllabus of his lectures the writer saw in the early seventies in his collection of books at Lanark, but like some other interesting works there it has now disappeared.

The fees which he charged for his teaching have, in these days, a certain amount of interest. We have no earlier information on this point than the year 1748, when the above brochure was published. There he informs those intending to be students that "those who engage for one course pay three guineas at the first lecture; for two courses, five; for two months, or four courses, nine; for three months, twelve; for six months, sixteen; and for a year, twenty. Then, each course consisted of twelve lectures. By the year 1753, however, the course was extended to eighteen. In addition to these fees, and to the sum to be paid into the common fund, the student had to pay an additional sum for each confinement he personally attended, the sum varying with the nature of, and the difficulty encountered in the case; the sum ranged from five to ten shillings. In the pamphlet, *A Comparative View*, etc., the reader is informed that "the Expence of two Courses with Dr. Smellie is five guineas, for which you attend four Labours, and deliver the last, which labours make an

additional expence of about one Guinea." And from a prospectus of his lectures, of date 1750, quoted by Onslow in the *London Medical Repository*,¹ we find that "Those gentlemen who pay only for a single course pay half a guinea for each labour, and six shillings more to a common stock for the support of the poor women; but when they attend two courses, they then only pay five shillings each labour, attend four, and deliver the last natural case themselves. If four courses, they are admitted to all the labours in their turn, deliver twice, and pay four shillings; but those who engage for three months, they are in the last month sent in their turn to deliver in difficult and preternatural cases, and only pay three shillings; if six months, two shillings; but if a year, one shilling." It will be, therefore, apparent, from what has been said above, and also from what has been shown of Grégoire's fees and his mode of charging them, that not only did Smellie imitate him in his mode of teaching, but, to a certain extent, in this also. Douglas, on this point, made a startling, but apparently uncorroborated charge against Smellie, viz., that of underselling in his teaching. He says, "I shall take the Liberty of making a few Remarks on your *Method* of teaching. When you first came to town, being affected with the Sufferings of poor women, as a *Teacher of Midwifery* you declar'd to endeavour to give them Relief, which in itself was very laudable, had you but preserved your great Virtue: but instead of that you fell into a *pitiful meanness*, I will not say without Regard either to *Reputation* or *Honour*; by which, in a great measure, Gentlemen who did, and others who intended, to teach properly (by instructing such Persons only who were fit for the Business, and would not have suffered any to have been turned out unqualified), were prevented. You, without any regard to the Consequence, in your Bills, set forth that you gave an *universal Lecture* on *Midwifery* for *Half a Guinea*, or divided it into Four for a *Guinea*." The effect of this, argued Douglas, was to make men believe themselves to be competent to practise midwifery when they were far from being fit, and to cause them to perpetrate blunders of the grossest kind on women and their offspring; and he adds, "But to whom could a Man of the Profession impute this wickedness? to a mean-

¹ Vol. xv., p. 101.

spirited master, greedy of *Half a Guinea*, or a *Guinea*, or to a poor mistaken Pupil? All the World will agree, to him that *caused*, and not him that *effected*, this Misfortune. Other Masters of *Midwifery* declare *Twenty Guineas* to be their Price, which, had you kept up to, you would have done the World more *Justice*, yourself more *Service*, and the Profession more *Honour*."

It will be observed that Douglas's accusation is intended only to apply to the time when Smellie first settled in London as a teacher. Whether this accusation be true or not, there are now no means of knowing; it might be true, but, if so, this condition of things could have lasted but a short time, for in 1748—the year in which Douglas's pamphlet was written—Smellie's published charges were as have been already described; besides, it is difficult to perceive what Douglas expected to gain by raking up matters of eight years back, unless on the principle of mud-throwing. It is noteworthy that the anonymous pupil, writing in Smellie's defence within a few months after the publication of the above pamphlet, and in reply to it, pays not the least heed to this charge. Whether it was true, and therefore desirable to be forgotten, or whether it was so far from the truth that no answer was needed, we have no means of deciding, and there the matter rests. But at the worst it only would corroborate the ascertained fact that Smellie at first began in a very humble way in London. At the same time, it would not be depreciatory of Smellie's merit; for had he been a mere charlatan, or a man who professed what he was unable to perform, he would doubtless have received the just reward of the impostor, and been quickly relegated to the obscurity which he would have justly merited, and from which it had been better he had never tried to emerge. It was otherwise, however, as the sequel will show.

Not only was his mechanical ingenuity busy in devising as perfect a phantom as might be made, but it also took the form of simplifying the instruments then used in difficult labours. His ingenuity must, indeed, have been very active. And the outcome of it—the forceps, with his ingenious form of union, the scissors or perforator, the double crotchet, and the sheathed crotchet—he made free to all the world, and thus showed an example to those about him of giving

freely whatever he had invented that would be of benefit to humanity.

In addition to all this, and as a supplementary aid to teaching, he set about collecting such other material as would illustrate the art which he taught. This collection formed his museum, access to which was freely given to his students; and doubtless the interest it created prompted them later on, when they had settled in practice, to send him whatever they chanced upon which might lend additional attraction to the collection. This museum contained numerous specimens of the normal and abnormal pelvis, of the uterus, of monstrosities, etc.; indeed, anything that might contribute to the more efficient illustration of his teaching. Smellie makes mention of his museum in vol. iii., p. 214, Case 421. This case deals with the history of two children adhering to one another "at the side of the breasts and bellies." Each had hair-lip, and there was but one umbilical cord. He informs us that "both were sent to me by the same gentleman, and are amongst my collection of Foetuses, together with other useful preparations, collected from time to time for the information and improvement of students." In *Essays and Observations: Physical and Literary*, published by a Society of Edinburgh, vol. i., dated 1754, we find the above collection incidentally alluded to:—

"Doctor Donald Monro, Physician at London," a son of the Professor of Anatomy [Monro, *primus*] in Edinburgh University, and who, before he became one of the Physicians to St. George's Hospital, had been a student of midwifery with Smellie, wrote article xvii. of that volume, with the title, "The Dissection of a Woman with Child; and Remarks on Gravid Uteri." In this article, dealing with the condition of the uterine walls during pregnancy, he observes "that Dr. Smellie, Mr. Hunter, Mr. M'Kenzie and others who practise midwifery here, and have had occasion to see a good number of impregnated wombs, are of opinion that in general the uterus does not alter much in its thickness by being distended; tho' sometimes it is found thicker, and sometimes thinner, than ordinary; *and in a collection of uteri in Dr. Smellie's possession, there are wombs which seem to favour all the three different opinions.*" (The italics are ours.) With such an equipment, then, it cannot be wondered at that students were attracted to him. But, addi-

tional to this equipment, there must have been something whereby students were drawn to him, and by reason of which the envy and malice of his detractors were caused. Was that something to be found in his style as a lecturer, or as a practitioner? There can be no hesitation in saying that his mode of imparting information to his students was, first of all, methodic. It has already been observed that, from his early years in practice, he kept case-books. This alone betrays an orderly character. And this is amply corroborated when we come to examine the style of writing and the arrangement of his work in his different volumes. We may also be perfectly certain that whatever he had to say was the result of direct observation. He was no mere theorizer. He collected his facts, and reasoned afterwards; therefore his method was thoroughly scientific. Apt in mechanics, he could well demonstrate what mechanical laws were engaged in parturient, and, as we have seen, it was from his knowledge of these laws that he was able to construct so well his apparatus for teaching

It was said by some of his critics that he was an "ignorant" man. But in so far as he forged ahead of his fellows, including his critics, he knew more than they did. There can be no doubt, however, that he was a reserved man, apt to keep his own counsel in his personal affairs, and, more particularly, where he was maligned or misrepresented. He had no taste for wordy warfare, and abuse of others was unknown to him. He was frank and candid in manner, and unhesitatingly pointed out his own mistakes while, at the same time, he was slow to condemn others. Our views of him as a teacher must be gathered from one who knew him well, for the only written facts on this point regarding him are to be found in the Letter of his Pupil, and in these words: "His Method of teaching is distinct, mechanical, and unreserved, and his whole Department so candid, primitive, and humane, that he is respected by his Acquaintance, revered by his Students, and beloved in the highest Degree by all those who experience his Capacity and Care. No man is more ready than he to crave Advice and Assistance when the least Danger or Difficulty occurs; and no Man more communicative, without the least Self-sufficiency or Ostentation. He never officiously intermeddled in the Concerns of other People, or strove to insinuate himself into Practice by depreciating the Character of his Neigh-

bour ; but made his Way into Business by the Dint of Merit alone, and maintains his Reputation by the most beneficent and disinterested Behaviour.”

This, it must be remarked, only presents to the reader a compendious account of the character of Smellie, but it so consorts with the opinions which are likely to be formed of him by the student of his writings, that we are content to leave it without a single added word of comment.

CHAPTER V.

WHERE HE OBTAINED HIS DEGREE.

IT will have been observed by the reader that, in the pamphlets published about this time (1748), where the name of Smellie is mentioned, he is designated as "Dr." Smellie. From this fact the question arises, Where did he get his Degree? When M'Lintock wrote his memoir of Smellie in 1876, he very confidently asserted that nothing was known on this point. And in a footnote to this remark he adds: "The registers of the Universities of Edinburgh, Glasgow, St. Andrew's, Leyden, Utrecht, and Aberdeen have been examined with a negative result; but I have been informed that the registry of St. Andrew's is defective for some years about the time when Smellie's name would appear in it; so that he may have taken his medical degree in this university, and, from not finding his name elsewhere, I am disposed to think that he did."

In pursuing our researches we felt that considerable difficulty was likely to be experienced in answering the query now put; since if the statement made by M'Lintock was correct, our inquiries must cover a broader field than that overtaken by that author. In the first place, we tried to fix the time when Smellie was most likely to have obtained this degree, before setting out to answer the question whence he obtained it. The widest limits as to time are 1739—the year he settled in London—and 1752, when he published his first volume under the designation of "William Smellie, M.D." But we found that these limits were capable of greater contraction. It has been already noted that in 1741 William Hunter resided with him for a short period, and further, that Foart Simmons, who published his *Life of Hunter*

in 1783, states that Hunter "took up his residence at *Mr.*, afterwards *Dr.*, Smellie's." This significantly points to the fact that in the year 1741 Smellie was not in a position to be termed "Dr." There is little likelihood that Foart Simmons would be wrong in the above statement, when we remember that he became an Extra-Licentiate of the College of Physicians of London in 1777—just about eighteen years after Smellie left London—a time, too, when the stir which Smellie had created had not yet died down, and when, besides, his name was still being bandied about by the detractors of man-midwifery. We, therefore, find ourselves limited to the years 1741 to 1752. Contemporary writing also helped to still further limit this period. In Tomkyn's translation of La Motte's work, published in 1746, Smellie is spoken of as "Dr. Smellie," and in Douglas' first letter to Smellie, written in 1748, he is also addressed as "Dr. Smellie." Again, from the records of the Faculty of Physicians and Surgeons of Glasgow we find him, in 1745, called "Mr." Smellie, but, in 1749, "Doctor" Smellie. We, thereupon, legitimately inferred that he received his degree between the years 1745 and 1749, and, most probably, in 1745 or 1746. But from what University did he obtain his degree?

M'Lintock, in his memoir of Smellie, appeared to be so certain of his facts regarding the Universities already named, that it was thought advisable to extend the search to different Universities; while, at the same time, since M'Lintock had not condescended upon dates as to the period when the aforementioned hiatus occurs in the registers of St. Andrews, to make inquiries on this point at that University.

We received two communications from St. Andrews, from the courteous librarian Mr. Maitland Anderson, to the following effect:—"I am sorry that I cannot find the name William Smellie among the medical graduates of this University, from 1738 onwards, although I have gone through the minutes twice in search of it. I am afraid he had not graduated here." We then referred him to M'Lintock's statement regarding the hiatus, and received the following reply: "The Minutes of Senatus from 1738 onwards are quite consecutive, and no hiatus is apparent. It is possible that they are not quite perfect, as they seem to have sometimes been written up long after the dates of their respective Minutes. I have

no reason to suspect, however, that in the matter of Degrees there are any omissions." This was decisive as regards St. Andrews. We thereupon set about to verify his statement regarding the other Universities he named, while opening communications with other Universities of the Continent. Knowing Smellie's acquaintance with France and French teaching, and having observed that about this time not a few Scotchmen received their degree from the University of Rheims, we circulated our query thither, and the Director of the School of Medicine at Rheims—the University having long ceased to exist, although its records are still extant—kindly searched the records. From him we received the following reply:—"J'ai fait des recherches pour vous répondre au sujet du Dr. Smellie, qui vous pensiez avoir pris sa grade à l'Université de Reims, de l'année 1745 à 1749? Les resultats de mon enquête sont absolument négatifs. Le nom de Smellie ne se trouve pas dans le catalogue des médecins reçus à Reims, durant le 18^{me}. siècle, et cependant le catalogue est aussi complet que possible." Knowing also that Smollett, the intimate friend of Smellie, obtained his degree of Doctor of Medicine from Aberdeen University, we likewise applied there, but with a negative result; and so also at Leyden and Utrecht and other continental Universities. The reply from Glasgow University just then came to hand; Mr. Innes Addison, Assistant Clerk of Senate, who greatly obliged us with his assistance, wrote as follows:—"It so happens that I recently completed an Alphabetical List of our Graduates from 1727 (close of printed Munimenta) down to 1890, and I am therefore able to answer your enquiry without making any search. The Degree of M.D. was conferred on a William Smellie on 18th February, 1745. Of course, I cannot say for certain that this is the man you are in search of, but the chances are greatly in favour of that being the case. The date is within the period you suggest; a Lanark man would be almost certain to take his Degree here; and no other William Smellie has received an M.D. either before or since 1745." This letter explains why M'Lintock missed the mark. On its receipt we found that what was already proving a laborious and unfruitful task, had now reached a satisfactory conclusion, and we thereupon desired the further kindness

at the hands of Mr. Addison of being furnished with a *verbatim* copy of the entry in the records of the Senatus. Not only was this supplied, but our obligation was increased by being privileged to inspect the entry, which is as follows :

“At the Coll. of Glasgow, 18th Feb., 1745.

“Sederunt. Mr. William Leechman, Decanus Facultatis, S.T.P., Mr. Neil Campbell, Prinl., Mr. Jo. Lowdoun, P.P., Rob. Simson, Math. P., Dr. Jo. Johnstoun, Med. P., Mr. Fr. Hutcheson, P.P., Mr. Wm. Anderson, Hist. Ec. P., Dr. Robert Hamilton, A. et B.P.

“Dr. Johnstoun having represented that Mr. William Smellie, Practitioner (*sic*) at London in Physick and Midwifery, desired to have the Degree of Doctor in Medicine, and his ability and qualifications for the said Degree being well known to several members of Faculty, and a testificat of the same, signed by three Doctors of Medicine at London, being produced, the Faculty agree to confer the Degree upon him, and appoint a Diploma for that end to be expedited.

(Signed) WILL. LEECHMAN, Dec. Fac.
(„) ROB. SIMSON, Cl. Fac.”

It was with not a little pleasure, therefore, that we found the name of Smellie enrolled in the list of graduates of our Alma Mater, which since his time has produced many illustrious men in the departments of science, medicine, and letters ; and it is also very interesting to find that the record which notes the conferring of the degree upon Smellie is signed by an ancestor of the man who was until lately the incumbent of the Chair of Midwifery, who was so greatly esteemed by his many students, and whose recent death has been much deplored by all.

The only other remark which need be made upon the above record is that history is mute as to the London signatories of the “testificat” to Smellie’s ability.

CHAPTER VI.

HIS FIRST CRITIC—WILLIAM DOUGLAS.

BY the year 1748 so famous had become his teaching that Smellie began to attract to himself the malicious envy of a bitter critic. It is probably almost a truism to say that no man who tries to reform the existing order of things by teaching or otherwise escapes criticism, and that in most cases the amount and persistency of the criticism evoked are in direct ratio to the value of his work. This can be found abundantly illustrated in history. It was so, peculiarly, with Smellie. In the first place he was the chief exponent of man-midwifery, and was a very large factor in the production of male practitioners to the practice of that art; consequently he incurred the wrath of some, if not most, of the midwives, and of those who thought with them that the *ordinary* practice of midwifery should still remain, as it had done for centuries before, solely in the hands of women. In the second place he was, probably, the most prominent and best-equipped teacher of his time; and in consequence there was invited the envy of those who felt themselves left behind in teaching, and the malice of some who believed that they were being outstripped in practice. And in the third place he was, unquestionably, the first teacher to demonstrate on correct mechanical principles, the processes of parturition, and to inculcate, generally, sounder principles in obstetric practice. He thereby called forth the criticisms of those who believed and taught the traditional doctrines, and who supported them chiefly by quotations from the writings of the ancients.

And by simplifying the instrumental side of midwifery, and laying down correct principles for the use of these instruments, he elicited the strictures of those—and they were not few—who did not believe in the use of such artificial aids to delivery in any circumstances, but who did believe that Nature and their own hands were all-sufficient for any delivery, even the most difficult.

Examples of these different sorts of critics will be afforded in their proper places, but here we chiefly intend to deal with his first, and probably most virulent, critic, viz., William Douglas, M.D., “Physician to His Royal Highness the Prince of Wales’s Household, and Man-midwife.” In Smellie’s time, and after it, not a few medical authors bore the name of Douglas, and to avoid confusion on the part of the reader, we append a few remarks about each. There was John Douglas, surgeon, F.R.S., who, as we have already seen, wrote *A Short Account of the State of Midwifery in London, Westminster, etc.* His only other contributions to literature were what was termed “a peevish critique” on Cheselden’s *Osteographia*, published in 1735 with the title, “Remarks on that pompous Book, the Osteography of Mr. Cheselden,” and *A Treatise on the Hydrocele*. James Douglas was a celebrated anatomist and accoucheur in London, the friend of William Hunter, the brother of the previous author—and who gave name to Douglas’s Space. He wrote a translation of Winslow’s *Anatomy* in two volumes. There was, after Smellie’s time, Andrew Douglas, the author of a treatise on *Rupture of the Uterus*, published in London in 1799, but in which neither the name of Smellie nor his cases are mentioned, although the author professes to give a record of all the cases of this disaster. Robert Douglas wrote *An Essay concerning the Generation of Animal Heat*, which he dedicated to Mark Akenside. And lastly, there was William Douglas, whose only title to fame is his abusive letters to Smellie.

This William Douglas was an ardent pamphleteer. He seemed to be actuated by a desire to attain notoriety for himself, or, as was said of him by a contemporary, “to scold himself into practice of midwifery” by his venomous epistles. During this same year, 1748, in which the following letters were written, not content with this unprovoked

onslaught upon Smellie, he had in hand similar deliberate attacks upon others. In another pamphlet he assailed Dr. Mead, than whom no man in London at that time was more generally respected. This pamphlet was entitled, "The Cornutor of Seventy-five"; and in it the old man was sadly abused, so much so, indeed, that there was not long wanting a champion to take up the gauntlet on his behalf. His defendant, under the protection of anonymity, wrote a pamphlet, in reply to the foregoing, entitled, "Don Ricardo Honeywater Vindicated in a Letter to Doctor Salguod, Physician in Ordinary to His Royal Highness the Prince of Asturia's Household, and Man-Midwife: The Reputed Author of a Scurrilous Pamphlet, Entitled The Cornutor of Seventy-five: By A. M. a Graduate in Physic. London, 1748," pp. 49. For Honeywater read Mead, and for "Salguod" spelled backwards, read Douglas, and each name is identified. This pamphlet exhibits all the vigour of language characteristic of the controversial writings of that time, and the writer of it walks through his task of vindication triumphantly. He speaks of Douglas in this fashion, taking notice of that writer's *penchant* for pamphleteering: "The Doctor's Itch of Fame, Scribble, and Scandle, daily increased; tho' his Patients did not; but he was resolv'd once more to have a Brush with one of his Neighbours, to try if he could not scold himself into the Practice of Man-Midwifery. For this Purpose, he hires another Hackney Writer to abuse, in his Name, an eminent Professor of Man-Midwifery. His Piece is highly season'd with his old Favourite, *Scandal*, no matter whether true or false, and he lays about him like a Madman, raving at the Ignorance and Stupidity of both Antients and Moderns in that useful branch." In keeping with the quixotic style of the pamphlet, it is signed "Gill Blass." Douglas, some time before this, had written a poem on the Resurrection. *The Town*, a satirical literary production, poked considerable fun at this verse, and *apropos* of it wrote the following lines:

"D——s to those he had by Physick slain,
So sung to tell'm how to rise again;
Finely describes how broken Members fly,
Odd Legs and Arms how bristle in the Sky:

(How vast the Genius that such Thoughts contain !)
 So then, if true to his prophetic Strains,
 D—s perhaps may find his scatter'd Brains."

Not content, even, with being engaged in a couple of such controversies as the foregoing, Douglas must needs throw himself into a third. In his second letter to Smellie he draws a parallel between that gentleman and a Dr. Thomson, as to the methods by which he considered each attained popularity. He devotes not a little attention to this Dr. Thomson in the letter in question, and it is therefore not surprising to find his pen again employed in the pamphlet war which occurred about this time respecting Thomson. We are able from a collection of these pamphlets in Smellie's library to give the reader the substance of the strife.

In the early forties of the last century Dr. Thomas Thomson had attained a very large and fashionable practice in London, to the envy of not a few. He attended, during his last illness, the Right Honourable Thomas Winnington. The fatal termination of the case called down upon him a considerable amount of adverse criticism, which, beginning as the gossip of the coffee-houses and taverns, quickly developed to such an extent that Thomson felt himself compelled to vindicate his treatment of the case in a pamphlet which he published in 1746, under the title of "The Case of the Right Honourable Thomas Winnington Esq. By Thomas Thomson M.D. Physician in Ordinary to His Royal Highness the Prince of Wales's Household." Thereupon there fell from the press quite a shower of critical replies, dealing with the various aspects of the case, both in respect of diagnosis and of treatment. The principal of these brochures were :

1. "A Letter from J. Campbell, M.D., a *Physician* in the Country to His Friend in Town; 1746."
2. "An Answer to Dr. Thomson's Case, By G. Dowman, M.D., 1746."
3. "A Letter to Dr. Thomson, in Answer to the Case of the Right Honourable Thomas Winnington Esq. By *William Douglas, M.D., Physician to his Royal Highness the Prince of Wales's Household, and Man-Midwife, London 1746.*"

The reader will here recognize our old friend once more poking his fingers into still another pie. He dates his pamphlet from "Henrietta Street, Covent Garden, 9th June, 1746."

4. "The Genuine Tryall of Dr. Nosmoth, a Physician in Pekin for the Murder of the Mandarin Tonwin etc. London, 1746."

By a slight transposition of the letters in "Nosmoth" and "Tonwin," we easily get "Thomson" and "Winton."

5. "Physic in Danger, Being the Complaint of the Company of Undertakers against the Doctors T—— C——, and D——, addressed to the College of Physicians: containing Remarks upon the Pamphlets lately published by those Three Gentlemen. London 1746."

The reader will easily interpret, in the light of the foregoing, for whose names these initial letters stand.

6. "Thomsonus Redivivus, or a Reply to W——M D——G.——S., M.D., etc., By Dr. Sangrado, Physician to Gilblas of Santillane, London 1746."

In "Gill Blass" and "Sangrado," the reader will at once see the same author: and we may hazard the conjecture that Smollett was the author of these two particular pamphlets, both by reason of the style in which they are written, and from the fact that at this time he was directing his attention to Spanish literature, indeed, was at this very time engaged in his translation of Don Quixote, which was afterwards published in 1754.

7. "A Letter to Dr. Sangrado in answer to Thomsonus Redivivus." Published anonymously.

In addition to these pamphlets, a coloured engraving was published at this time lampooning Thomson. The picture represents an open chariot driving along the street toward the College of Physicians, the doors of which are, however, carefully closed. In the vehicle is seated the Doctor, bewigged, but hatless, addressing a person in Highland costume: the driver wears a fool's cap with bells. In the foreground of the picture are a few persons, who are shouting vigorously: "Down with Dr. T——n!" "He a Doctor!" etc., and at the foot of it, we read the following verses:

“This Doctor from North Britain came, to Eat and learn is Trade
 As Tyro’s do of Scotish Breed, and So, are great Men made ;
 To Sea he went, Burgoo to Eat and Negroes hides to Dress
 The Punch to make and Cook the Meat, for Captain and his Mess.
 Then Home return’d greatly improv’d, in cureing Itch and Yaws
 Set up as Doctor and now wrights, in hope to gain Applause.”

Some time after this, there was published in verse, “An Epistle to Dr. Thomson, by Mr. Whitehead, London,” in which Thomson’s merits as a physician are highly lauded, and the criticisms of his detractors pungently dealt with. Thus ended the Thomson controversy. It is too late in the day to pay the least attention to the merits of Winnington’s case, which called forth such a torrent of ink, and such a waste of paper ; but it affords an interesting example of the kind of criticism which was indulged in at the time, and the mode adopted to give it publicity. Whatever may have been Thomson’s failings, he at least acted with dignity, and, it is significant to note, that the criticism of him was confined to men, to some of whom, at least, scandal was the very breath of their nostrils, and whose hands were so idle in the more legitimate work of their profession that they found abundant leisure in, to them, the apparently congenial task of maligning their neighbours in order to glorify themselves.

From the part played by Douglas in all these controversies, we can easily supply the motive which prompted him to attack Smellie, and we are enabled thereby, at the same time, to estimate the value of his criticism. To his credit, however, it must be said, that whatever he wrote, he did it over his signature. He neither liked, nor did he practice, anonymity. His opponents, however, declared that his object in putting his name to his many pamphlets was simply to advertise himself—a practice which is probably not unknown in these days—and an air of truth is given to this view by the fact that he generally appended, in full, the address where he could be found, examples of which we find in his letters to Smellie and Thomson.

The following is the title of the first letter which was published during the year 1748. We print it in full :—

“A Letter to Dr. Smelle (*sic*)
 shewing
 The Impropriety of his New-invented
 Wooden Forceps; as also
 The Absurdity of his Method
 of *Teaching* and *Practising*
 Midwifry

By William Douglas, M.D.

Physician to his Royal Highness the Prince of Wales's
 Household, and Man-Midwife.

Decipimur specie recti.—Hor.

London

Printed for J. Roberts in *Warwick Lane*. 1748.

(Price Sixpence)”

We give the letter in its entirety, as it affords an excellent example of Douglas as a pamphleteer.

“A LETTER TO DR. SMELLE.

“Sir,—I Herein shall trouble you with a few Remarks on a new invented Instrument of yours, which you call Wooden Forceps: The Contrivance is so extraordinary, that I think a Man of Skill will scarce know how to use 'em; their Service so unnecessary, that where ever they could be apply'd, Nature would do as well without 'em: I will, and dare venture to assert, that it would puzzle any Man living, except yourself, to shew any real Occasion, where they could be used.

“Mysteries of this sort should be clear'd up, and it would be a Pity that Mankind should lose the Benefit of the mechanical Labours of a Man of your Genius; for so amazing is your Skill in that Branch of Philosophy, that every one must stand in need of your Explanation, whenever the World is oblig'd with any of your Productions!

“I am sorry to have Occasion to censure a Brother in this

particular Manner; but had not your own Self-sufficiency carried you beyond attending to friendly Counsel, this affair might have been amicably settled, by the repeated Conversations we have had together; therefore I hope you'll consider the Remarks I am going to make as intended to promote the Good of Mankind, and to vindicate the Honour of the Profession.

“The great Fatality that has of late happened in Midwifry, has caused Numbers to call in Question that superior Skill that is claim'd by Men-midwives. And 'tis now high time that some of us should examine into the Reason of these *Out-cries*, that the World may be undeceiv'd, and that the deserved Reputation *Man-midwifry* has acquir'd may be supported; as some of these Complaints have arose where you have been *Operator*, I am apt to suspect your new Invention and Method, which I shall speak to in their Place.

“It has been always esteem'd wise and prudent, in Parents, to consider the Disposition and Inclination of their Children, in order to place them to what they seem most naturally adapted: Surely then, every Man that has his Employment to choose, when he comes to Age of Maturity, will avoid such, for the Exercise of which Nature has form'd him unfit.

“But without any Regard to these prudential Rules, with an unfit Hand for Midwifry you endeavour to rival your great Head in Mechanics; which, in it's way, most excels I know not; but this I can say for your Hand, that it has the Advantage of making Matters exceeding easy for the Husband, wherever it is employ'd.

“The *Physicians* are no great friends to *Men-midwives*, because they do not confine themselves to the business they possess: and there has lately been an *Instance* where a Surgeon in the City, upon propagating a Midwifry Acquaintance, was obliged, by his Brother Surgeons, to declare himself, either *Man-midwife* or *Surgeon*, if he desired to be well with them: His Interest led him to choose the last: and he was afterwards chose *Surgeon* to an Hospital.

“Your Complaisance to oblige those two Bodies of *Gentlemen*, has carried itself so far, as to introduce five times the Number, more than ever will, in all *Probability*, get any Employ (how they are qualify'd will appear by what is possible to be extracted from their Master.) It has been thought advantageous, in some Hospitals, to choose one of

their Surgeons *principal Operator*, judging that the more frequently a Man operated, the better Operator he would be ; so different are you to this way of reasoning, that, I think, were the Pupils you have introduced to have equal Turn about, there would not be real *Midwifry Cases* enough in the whole Kingdom to make one good Operator amongst 'em.

“ *Midwifry* depends upon Practice, nor can it be perform'd without it, any more than the expert Hands of an experienced Artist could be parallel'd by the profound Reasoning of a Man of Sense not brought up to that Business. I am talking of *Man-midwifry*, and not of Cases where you, or anybody else, must be obliged to take the Child, perhaps, before a Man can pull his *Gloves off*.

“ If there had not been, before your Time, more *Men-midwives* than could have served the Public, or than knew how to live, introducing a fit Number would have been of public Good, if properly instructed ; but I must own, I should not recommend you for their Master, and that for Reasons that will appear hereafter.

“ If the Gentlemen of the Faculty should find for the future, that *Men-midwives* interfere more in their Profession, I hope they will excuse those that would have stuck to Midwifry only, and impute it to the Necessity they are under of getting their Bread in the best Manner they can ; for, as there now are *more Men-midwives* than Streets, it will lay every one under a Necessity of practising Physick, or Surgery likewise, which Innovation the Faculty will be more particularly obliged to you for.

“ The *Ancients*, to whom we owe almost our All, for Reasons best known to themselves, quite neglected giving any Assistance to the *suffering Fair*, but in Cases of the *Dead Child, Mola* or *false Conception* : For the first they foolishly (pardon the Expression) invented a Parcel of lumbering Instruments, as the *Speculum Matricis, Crotchets, Teartets*, and *Hooks* innumerable ; by which, and an ill-concerted *Farago* of stimulating and forcing Medicines, they were so often disappointed ; that they may be said to have given up that Branch of Surgery entirely, and left the poor unhappy Fair Sex to God and themselves, whenever a preternatural Labour happen'd.

“ Their *Successors*, more *crafty*, have kept up the Farce, by

lugging about with them a Bag of *Lumber*, a more proper Badge of the *Farrier* than the *Accoucheur*. As to the second, I will not say that such a Thing never occurs; but I believe it is now, as it was then, oftener talk'd of for a Cloak to Ignorance, at least a plausible Excuse for the Negligence of the *Male* or *Female Operator*, than ever such a Thing really happens.

“Dr. *Hugh Chamberlen* was the first that introduc'd the *Forceps* amongst us, after having been baffled at *Paris*, by them and his translating *Mauriceau*, obtain'd a Character; I am doubtful whether he was more oblig'd to his *Translation* or to his *Forceps*; I alledge the first: But I am of Opinion the World is not oblig'd to him for either; how much it is oblig'd to you, will in some Measure, appear by what follows.

“Dr. *Walker* pretended to improve Dr. *Chamberlen's Forceps*, but, in Truth, spoil'd them, by making them *Male* and *Female*: With this *botch'd* Instrument you set out; a strange Demonstration of the mechanical Turn of your Head; you set out, I say, with the *Male* and *Female Forceps*, and used them long, even until People began to take Notice of your bad Success; (*but a fertile Head is never at a Loss*) therefore the *Wooden Forceps* was produc'd! But whether your Cunning or your Conscience prevail'd most in this *Contrivance* will appear clearer by and by.

“The properest Thing to make *Forceps* of, is Steel, temper'd so well as not to bend in operating, which is a capital Fault in the *French Ones*; the finer they are made, the better.

“*Forceps*, made of *Wood*, can never answer the Intention, because the essential Properties of *Forceps* are *Strength* and *Smallness*; and it would be equally just to assert, that a weak large Hand is preferable to a small One of greater Strength for Operations in Midwifry.

“The use of the *Forceps* is, you know, *to extract a Child* when the Head is properly sunk into the *Vagina*, for they will not do in all *Head-Births*; many of which, nevertheless, ought to be brought *Head foremost*. Now suppose you should apply these *Wooden Forceps* to a Child that may be extracted by a Pair of *Steel Ones*; *Wooden Ones* will *break*, whereas *Steel Ones* would have *extracted the Child* through their superior Strength; the Consequence of the failing of these *Wooden Affairs* is, that the Child must either be turned, or

the *Brain extracted*, or else the *Crotchet* used; the first to the great Danger of the *Mother*, and the two last to the Destruction of the *Child*; which, I fear, you have lately, but too often, experienced from *the Success*, I perpetually hear, you have had.

“I have been told of no less than *Eight Women* who have died within these few Months under the Hands of a *Wooden Operator*, which I believe is greater Execution, than all the *Men-midwives put together* in the Bills of Mortality can pretend to, besides your self.

“These are Things that ought to be spoke to by Somebody; for the common People have that *implicit Faith in Men-midwives*, that they Scarce ever accuse them of any Fault in their Parts, but impute any Misfortune that befalls *poor Women* to the Badness of the Case; and a Man may go on a long While with the Vulgar, and do a great deal of *Mischief*, 'till he falls in with People of Distinction; but, I think, it would be a great Pity, that a Person or two of Quality should fall a Sacrifice to *stupid Contrivances*, before the World can be apprised, that such *Wooden Forceps* are not proper Instruments of *Midwifry*; this Fatality has happen'd (your Pupils had no Share here) among People in Trade, therefore make no Noise, for had they been of any Distinction, you would have Scarcely gone on so far.

“So fond is the World of every Thing that has the Appearance of Novelty, that, to your great Reputation, has it been said, and receiv'd, that *Doctor Smelle* had invented a *new Instrument*, that none knew how to use without his Instruction; which first put me upon Seeking after these *Wooden Forceps*: This indeed arose from some of the mistaken young Gentlemen under your Direction, and may serve your Purpose, however detrimental it may prove to the true Practice of *Midwifry*. Now it behoves every Body of Men to support the Reputation of their Profession, and in most Arts there is a Test required of a Man's Qualifications.

“The Physicians admit none of their Body without knowing *their Merit*; and no Man is a *Surgeon by Law*, 'till he has pass'd a public Examination; but I know of no particular Scrutiny for *Men-midwives*, therefore I think it absolutely necessary for the Professors of it to have a watchful Eye, that nothing extraneous shall be introduced, that may sully the Reputation of their Profession, or ruin the Credit of true *Mid-*

wifry ; which I apprehend must be the Consequence, if such Things as these pass without Correction.

“ *Steel Forceps* have been used heretofore by very good Professors, but as Practice and Industry has discover'd safer, and easier Methods, every Man, that knows 'em, is right to use what serves his Purpose best : Now as the *Forceps* are the only Thing you can use in *Head-Births*, except when there is Occasion to extract the Brain, which in some Cases may be requisite ; I hope, for the Sake of the poor Women that may fall under your Hands, that you'll betake your self to *Steel Ones* again, and give up this *Wooden Project*, which may cause the whole Profession to *be censur'd* instead of the *Inventor* : But, for my Part, I have entirely excluded all *Forceps* out of my Practice, and so have some others of my Acquaintance ; and I find, that what I use never fails, when the *Forceps* would be ineffectual. This, *Sir*, I don't pretend to call a *Nostrum*, because there are some few that I know, use the same Method ; and I am ready, for the public Good, to teach any one that will put himself a proper Time under my Directions.

“ There are several better Ways to extract *Head-Births* than the *Forceps*, which you appear to be quite a Stranger to ; I know there are some Gentlemen of the Profession who decry Instruments entirely, but that must arise from the Want of a proper Knowledge of the Use of them.

“ Since I am upon this Subject, I shall take the Liberty of making a few Remarks on your *Method* of teaching. When you first came to Town, being affected with the Sufferings of poor Women, as a *Teacher of Midwifry*, you declar'd to endeavour to give them Relief, which in itself was very laudable, had you but preserved your *great Virtue* ; but instead of that you fell into a *pitiful Meanness*, I will not say without Regard, either to *Reputation*, or *Honour* ; by which, in a great Measure, Gentlemen who did, and others who intended to teach properly (by instructing such Persons only who were fit for the Business, and would not have suffer'd any to have been turn'd out unqualified) were *prevented*.

“ You, without any Regard to the Consequence, in your Bills set forth, that you gave an *universal Lecture* in *Midwifry* for *Half a Guinea*, or divided it into Four for *a Guinea*. Now, *Sir*, suppose that any one that had had your universal Lecture, and after that consequently your Certificate ; from which, as a

Voucher in his Pocket, the World might believe him qualified, and his *Credulity in your Instructions* persuade him, that he is equal to the Business, or, at least, to say within himself, that no Man knows what he can do 'till he tries, and upon this should attempt to deliver a *difficult Birth*, in which Case, I think, the Death of both the Mother and Child must necessarily ensue ; perhaps he might have had Address enough to persuade the Husband, that what had happen'd could not, from the Nature of the Case, be avoided.

“ But to whom could a Man of the Profession impute this wickedness? to a mean-spirited Master, greedy of *Half a Guinea* or a *Guinea*, or to a poor *mistaken Pupil*? All the World will agree, to him that *caused*, and not him that *effected* this Misfortune.

“ There are Numbers, as above mention'd, that have your *Certificates* in their Pockets, and are *no* more capable of performing a *difficult Labour*, than I am able to carry *St. Paul's Church on my Back*. Other Masters of *Midwifry* declare twenty Guineas to be their Price, which had you kept up to, you would have done the World more *Justice*, yourself more *Service*, and the Profession more *Honour*.

“ I blame no young Gentleman for getting knowledge at an easy Purchase, but 'tis a double Crime in him who first deceives them, and after that imposes them on the World as Men qualified, to the Detriment of credulous or necessitous poor Creatures, that may fall Victims to their insufficient Education ; for 'tis very certain, that there are too many nominal *Man-midwives* of your introducing, which is an Injury to both the World and the Profession.

“ I think you would do well, both for the public Good and your own Credit, if, for the future, you would resolve not to instruct any one, that will not or cannot stay a proper time : and I would advise you also, to teach such only who are by nature form'd for the Purpose, because to instruct any that are not so, is only *wronging them and injuring the World*.

“ Any one pusillanimous or sickly has neither Strength nor Constitution proper ; on the contrary, a *raw-bon'd, large-handed* Man is no more fit for the Business, than a Ploughman is for a *Dancing-Master* ; a Man that has a large Hand, is neither fit to introduce an Instrument nor turn a Child, the only cases in which we are call'd : For in the first, his Hand occupies that

Space that should be left for the Instrument; and in the last, may hurt the *Matrix*, cause Inflammations, Abscesses, Mortifications, and innumerable other bad Consequences may ensue, both to the Destruction of the Mother and Child.

“Such *monstrous Hands* are, like *Wooden Forceps*, fit only to hold Horses by the nose, whilst they are shod by the *Farrier*, or stretch Boots in Cranburne Alley.

“When I first saw your Paper Lantern, wrote upon, *Midwifry taught here for Five Shillings*, I thought, from the Size of your Hand, you would never have attempted a real preternatural Labour; for in a natural one, a midwife is as sufficient as any body: I imagin’d that you would not offer at any thing more than shewing your Machine, and Glass Matrix (which was invented by Mr. *Aaron Lambe* the Auctioneer) thro’ which the nature of extracting or turning the Child might be shew’d; but I should not now be at all surpriz’d to hear, that you was about to rival the *Harlequin* of *Covent-Garden*, or the *Equilibrist* of the *Haymarket*, for I think your *Feet* as fit for *them*, as your *Hand* is for *Midwifry*, and I don’t doubt but that you would shine as much in Performances of that Sort as you do in those of your Profession.

“A Machine is used by most Masters, to give an Idea to their Pupils, in order to prepare them for operating upon the natural Subject; the nearer to Nature their apparatus is, the *more preferable*; every good Master should use a natural Foetus in his Machine, as that is in some Measure Nature itself, and by it the Position of the Child, a very essential Part, is learnt. Instead of a Child, you make use of *little stuffed Babies*, which have rather amused, than instructed, your Pupils in the natural Members of a Child; of which I’ll give you a short History.

“A certain quondam Pupil of yours, and a *Doctor* too, being call’d to a Cross-Birth, enquires of the Midwife the nature of the Case, of which when he was satisfy’d, prepares himself to deliver the Woman; he began, *contrary to all Decency*, with laying her *quite bare*, for the Benefit of operating, then, introducing his Hand, after some time brought a Hand of the Child into the World, but not being us’d to practice upon the natural Limbs of Children, he call’d for a Candle, and saw it was a hand, and upon that return’d it; and after some time, thro’ the same Skill, brought down either the

same, or the other Hand, taking the Advantage of the Candle for his Satisfaction; he a second time return'd a Hand, and, after some Difficulty, brought a Foot, of which likewise he assur'd himself by the Candle, and after that extracted the Child alive. The Mother and It both did very well, and the *Doctor*, by the By-standers, had the Character of being a very *fine and a good man*.

“This, Sir, must have been a most blundering Piece of Business; but had the *Doctor* been us'd to the natural Foetus (instead of your *Babies*, where he had the advantage likewise of peeping over the *Os pubis*, and thro' Mr. *Lambe's* Glass Matrix), there's no doubt but he would have been better acquainted with what he was about. What I am most astonished at is, the audaciousness of *so young a Practitioner*, that durst introduce his Hand three times into the Uterus, contrary to the known Rules of Midwifry; and 'tis owing to a good Constitution and a happy Make, that the poor Woman escaped with Life, and not to *the Doctor's Skill*.

“I would not be understood by this, that a Man of Judgement shall always be successful, and 'tis here shewn that an ignorant Man may not always be unfortunate; but there are certainly Criteria to form one's Judgement by, otherwise, the Whole would be a Confusion, without any Distinction of Merit, or Demerit.

“Your Pupil's Luck in the Case above mention'd no Man can praise; your own Success in operating, so demonstrated, by your *Method, Hand, and Forceps*, which every Body must blame.

“Decency is a Thing that should be very particularly preserved in this Operation; that obscene Method you have brought into Use, of exposing Women *quite bare* to a whole Room full of Company, is sufficient to make every Woman abhor the Name or Sight of a *Man-midwife*.

“Barbarities, on the other Hand, are equally shocking, and the Epithet of Butchering, apply'd to some of us, has no Injustice in its Similitude. A Case which I am told you lately attended deserves to be recorded, and, if so, your physical Capacity to be enquired into; *It was in the Meuse, on his M——y's Body Coachman's Wife, where, it's said, you was backward and forward for a whole Month. The Woman was suffer'd to flood all that Time, till she was near Death,*

when two other Men-midwives were sent for; one only came, who, when he saw the Woman, declar'd it was too late for any thing to be done, and that it was a gone Case, and so took his Leave: It's said you continu'd till she expired, and after that cut her open, and took the Child out alive, which died likewise in about two Minutes afterwards. Had any Midwife in Town stay'd by a bleeding Woman till she was quite exhausted, before she had sent for a Man-midwife, she would have been severely reprimanded, and very deservedly have lost all her Business. To cut a Woman open who had lost all her Blood (consequently there could be no Hopes of the Child's Life) was substituting an Appearance of Barbarity as a Remedy for a former Neglect.

“There is another Case which happened in these three Months, or thereabout, where it's said you was Operator, in which the Woman and Child both died before you could get out of the Room. Here you offer'd to excuse the People your Fee, if they would let you open the Woman, which was consented to.

“Every Man satisfy'd that what he has done is right, should, for the Vindication of his own Character, and likewise for the Satisfaction of the Husband, desire that an indifferent Person might be call'd in on such Occasions, by which Means every body might be satisfy'd, and the Operator clear'd of any bad Imputations; but to open Women by one's self, after such Misfortunes, is endeavouring to engross all Knowledge, I will not say to screen your Ignorance.

“The Reputation of Man-midwifry, from some of the late Professors of it, has in some Measure pav'd the Way for the Lengths you have run, I am sorry I cannot say it was your own Success! This modern Practice, and the Numbers introduc'd by you, seems to have alarm'd the good old Women, who, when they find their own Insufficiency, generally send for better Help.

“Happy wou'd it be for the suffering Sex, if the Candor of the late mention'd Doctor was imitated by the rest of his Brethren, who, thro' a nominal Character, altho' not capable of performing a difficult Birth, will not suffer any body that could assist to be sent for, which, in the End, will affect this useful Branch of Physick, and the Consequence

must be, that the Ruin of all true Practice will ensue, and the World betake themselves to their old Women again, and with great Justice say, that *Man-midwifry* has done more *Harm* than *Good*.—*I am, Sir, yours, etc.,* W. DOUGLAS.”

No answer to the foregoing from Smellie being apparently forthcoming, a former student of his thought it his duty to write and ask him for an explanation. Smellie, in return, forwarded him a copy of Douglas's pamphlet, and his answer to it. Thereupon his pupil wrote an anonymous pamphlet in reply, in which he incorporated the gist of Smellie's answer, and added his own testimony of Smellie's practice, to rebut the statements of Douglas. It bears the following title: “An Answer to a late Pamphlet intituled a Letter to Dr. Smellie, shewing the Impropriety of his new invented Wooden Forceps, etc. Printed for C. Corbet, at Addison's Head, over against St. Dunstan's Church, Fleet Street.”

This pupil, whoever he was—and we are unable to identify him—lived in the country at a distance from London. He felt it to be his duty to publish “that worthy Man's modest Vindications of himself; that the World may see, how groundless and malevolent those aspersions are, which have been thrown upon him, with all the Bitterness and Presumption that Insolence and Envy could inspire. This,” adds he, “I have a Right to undertake, because, having acquired my own Knowledge in Midwifery, under the Instructions of this Gentleman, whatever is levelled against his Character, and Method of Practice, must affect me, and others who have attended his Lectures, and now profess to follow his Example.”

Smellie's answer begins by stating that Dr. Douglas is neither son nor relation to “the late famous Physician of that Name”; it notices that Douglas accuses him of having caused the deaths of eight women by the Wooden Forceps; and goes on to say: “As you know that I never use any Instrument but when it is absolutely necessary for the safety of the Mother or Child, you will not be surprised when I assure you, that I had used that instrument only twice, before his Letter was published, and that in both Cases it succeeded to my Wish; the Women recovered, without having sustained any Damage; nor could the least Hurt or Impression be discerned on the Heads of the Children.—I was called to the first by Mrs. Blackwell, Midwife, in Old Bond Street;

and to the second, by your old Acquaintance, Mrs. Brown, in George's Court by Princes-Street, Soho, who has seen me deliver another since that Time; and a fourth was extracted in presence of Mrs. Fox, Midwife, at the Acorn in New Court by Bow-Street, Covent Garden, with whom the Doctor himself is acquainted."

He then defends his treatment of the wife of the King's Coachman, by stating that he called in Dr. Hoadley, "Physician to his Majesty's Household, who approved of what had been done, and ordered the same Regimen to be continued." When the case became critical on account of severe hæmorrhage—being a case of Placenta Prævia—he desired further consultation. Sir Richard Manningham was sent for, but he being engaged, Dr. Sands was called in, who agreed with the line of treatment. He refers to the size of his hands, on which Douglas had animadverted, mentions what La Motte says of the hands of Mingot, and adds: "and I think it needs no great Art to demonstrate, that a large Hand and strong Arm are often requisite in difficult Births; and that there is no Case in Midwifery, where they can do any Harm if properly used." He then criticizes the behaviour of Dr. Douglas in three cases. Then he says, "I am likewise taxed with Obstinacy by the Doctor, who alledges, that he gave me Advice in private, with regard to the Use of Instruments in Midwifery; But I don't remember to have ever spoke with him on the Subject; and indeed I never much courted his conversation." "What I have said, will (I hope) partly convince you that I have been but indifferently treated: However, as Innocence in Time will get the better of groundless aspersion, I choose to be silent on the Subject, at least postpone any public Dispute to another opportunity.

"I have inclosed the Copy of a Letter which I wrote some time ago to Mr. Monro, Professor of Anatomy at Edinburgh, in which I give a short Account of the Wooden Forceps, and relate *two more* Cases of Midwifery, in which they were used. Pray let me hear of your Success; and if you have made any remarkable Observations in our Way, communicate them, that they may be added to my Collection."

Then his anonymous defender takes up the quarrel: "Altho' every impartial Reader will allow, that the most material Articles of the Charge exhibited against Dr. Smellie, are incontestably

refuted by the above candid Representation ; I am prompted by my Zeal for Truth, and Esteem for a Man whom it is my Duty as well as Interest to defend, to give that Part of the Publick which may be unacquainted with the Doctor a right Idea of a Character which has been so maliciously mangled and defaced. Dr. Smellie after having practised 19 years in Scotland with universal applause, quitted that country (where he had acquired the Esteem of every Body who knew him) for the sake of his Health, which was greatly impaired by the vast Fatigue he underwent, and settled in London about eight years ago.

“As he was every where beloved for his benevolent and inoffensive Disposition, he was likewise regarded for his Judgment and Understanding ; particularly for an uncommon Genius in all Sorts of Mechanicks, which after having shewed itself in many other Improvements, he manifested in the Machines which he has contrived for teaching the Art of Midwifery, Machines which Dr. Desaguliers, who frequently visited him, allowed to be infinitely preferable to all that he had ever seen of the same kind ; and which I (from having seen those that are used at Paris) will aver to be by far the best that ever were invented. They are composed of real Bones, mounted and covered with artificial Ligaments, Muscles and Cuticle, to give them the true Motion, Shape, and Beauty of natural Bodies, and the Contents of the Abdomen are imitated with great Exactness. Besides his large Machines (which are three in number) he has finished six artificial Children with the same minute Proportion in all their Parts ; so that, with this Apparatus, he can perform and demonstrate all the different kinds of Delivery with more Deliberation, Perspicuity, and Fulness, than can be expected on real subjects.

“He has been employed for some years past, in collecting every Thing that was curious and useful in Midwifery, from the ancient and modern Writers, in order to contribute, as much as in him lies, to the Perfection of that Art : For which Purpose also, Part of his leisure Hours is engrossed in laying up Materials for finishing more artificial Women and Children ; well knowing, that it is as an hundred to one, if any of those who may succeed him in teaching, shall have the same Mechanical Turn. He has reduced the Instruments formerly used in his Profession to a small number ; and these he has improved,

by rendering them more simple and commodious. His Method of teaching is distinct, mechanical and unreserved, and his whole Department so candid, primitive and humane, that he is respected by his Acquaintance, revered by his Students, and beloved in the highest Degree by all those who experience his Capacity and Care.

“No Man is more ready than he to crave Advice and Assistance, when the least Danger or Difficulty occurs ; and no Man more communicative, without the least Self-sufficiency or Ostentation. He never officiously intermeddled in the Concerns of other People, or strove to insinuate himself into Practice by depreciating the Character of his Neighbour ; but made his Way into Business by the Dint of Merit alone, and maintains his Reputation by the most beneficent and disinterested Behaviour.”

He declares his contempt for the conduct of Douglas, and counsels him “to fall upon some more laudable method of PUBLISHING HIS OWN EXISTENCE, and raising himself from Obscurity, than that of scandalizing his betters.”

Then follows “A Letter to Mr. Monro, Professor of Anatomy in the University of Edinburgh, dated September, 1747,” which was sent by Smellie, as already noted. He there states that Mr. Irving—a pupil of both—was leaving at that time London for Edinburgh. “I desired him to wait on you, and to shew you a new kind of wooden Extractors, that I have just now contrived. I had only then tryed to deliver with them on the Machines ; but since that I have had the opportunity of using them in a laborious case,” and that with success. “There was not the least Mark or Hurt on the Head, neither were the Parts of the Woman any way tore, altho’ I was oblig’d to use a good deal of Force in extracting. The Midwife and assistants did not know but that I delivered her with the Help of the Fillet, which I used in securing the Ends of the Extractors. The above Gentleman will inform you of the other Improvements that I have lately made on the Crotchets, Scissors, and the steel Forceps ; all of which I have found, by repeated Trials, answer better than those formerly used. I have always studied to contrive the Instruments of Midwifery in the simplest manner, and to reduce them to as small a number as possible, and never to use any, where the Delivery could be safely performed, either by the Woman’s Pains, or by the Accoucheur’s Hands.”

Here follows "Part of a Letter to Mr. John Gordon, Surgeon at Glasgow, dated January the 12th, 1747-8.

"Great Complaints have been made by most Practitioners in Midwifery, that when the Head of the Child presents, and can neither be delivered by the Woman's Efforts, nor returned and brought by the Feet, they were obliged, for the Safety of the Woman, to destroy the Child, and extract it with the Crotchet.

"Many have been the Contrivances to redress this Grievance; such as different kinds of Forceps, and Fillets; the first of which have been brought to greater Perfection here, and used with greater Success, than any where else; and indeed, seems to be a much better Expedient than the other.

"In all preter-natural Cases, it is no difficult matter to determine the Method of Delivery"; but "in the above Case, when the Child can neither be delivered in the natural Way, nor returned and brought by the Feet; when the Woman is weakened, sunk, and wore out by long Labour, if, instead of extracting with the Crotchet, we can perform with the Forceps, without hurting either Mother or Child, provided the Pelvis is not too narrow, nor the Head monstrous, nobody will hesitate in giving this Instrument the Preference to all others; for if we could save one in three Children, we should be to blame in neglecting the Means.

"About three years ago, I contrived a more simple Method of fixing the Steel Forceps, by locking them into one another; by which Means, they have all the Advantages of the former kinds, without their Inconveniencies; and, as I have had frequent occasion to use them, I can assure you that I save three in four of those on whom they are practised; and frequently avoid the Danger of too long a Delay.

"I have laid it down as a Maxim to myself, and the Gentlemen who attend my Course, never to use any Instrument, or Violence, but where it is absolutely necessary for the safety of the Mother and Child: And, as it is seldom possible to take hold of the Head with both Hands, the Forceps are proposed as artificial ones, to supply that Defect."

He then gives rules to be observed in their use, and concludes his letter thus:—"When the Forceps are thus introduced, and locked into one another, the Head is to be pulled gently along; the Forehead (if it does not present Fair) turned into the Hollow of the Os Sacrum, and Hindhead to the lower

Part of the Os Pubis : the last being brought down, the Forceps are to be raised over the Os Pubis, to bring out the Head with a half-round Turn, that the Perinaeum may not be tore.”

. . . “The Design of the Wooden Contrivance, is to make them appear less terrible to the Women ; besides, they are portable, and make no clinking noise when used. I have, as yet, only delivered three Times with them, but cannot recommend them before the Steel ones till further Trial. From the Shortness of the Handles, they have not so great a Purchase ; but then there is a better Hold to introduce them, and the Want of Purchase is sufficiently supplied by several Turns of a Fillet, or Garter, drawn very tight round the Handles at the Notches, which likewise keeps the Blades firm upon the Head of the Child ; and leaves the Hands at more Liberty to rest, and help the Head gradually along, at each Effort of the Woman’s Pains.”

Douglas did not wait long to reply to this pamphlet. He almost immediately published his second Letter, which bears the following title :—

“A Second Letter to Dr. Smellie
and an Answer to his Pupil
Confirming
the Impropriety of his Wooden Forceps ;
as also
The Absurdity of his Method
of Teaching and Practising
Midwifery

By William Douglas, M.D.
Physician to his Royal Highness the Prince
of Wales’s Household, and Man-Midwife.

London

Printed for and sold by S. Paterson, at Shakespear’s
Head, opposite Durham-Yard in the Strand. Price
Sixpence.”

He first adverts to the anonymity of the Answer to the First Letter; then equivocates about the Wooden Forceps: "My Words to you are these, I have been told of no less than eight Women who have died within these few months under the Hands of a *Wooden Operator*. Now, Sir, it is very plain, that the Allusion is to the General Practice of *that Operator*, and not confined to the *Forceps* only." He declaims against the barbarity of "*opening Women*," as in the case of the wife of the King's Coachman, but adds, "If what you say is true, I will do you the Justice to own, that you treated the Patient with all the Skill that could be expected from any Man of the Profession.

"Now follows something in your own Favour, that is, your *Hand*, extolled for its Strength and *Size!* it is true, I have in my Letter desired you would object against any as *Pupils*, who are either sickly, or who have large Hands, that the Profession might not be discredited; and at the same time, wondered at your applying yourself to *Midwifery*, as having an unfit *Hand* for the Business. Here I think myself, in some measure blameable, and it has given me a little Remorse, that I should have personally fixed upon *you*; as it is what is not in your Power to alter, you are rather entitled to one's *Pity*, than any such observation: But as you rank it amongst your *Qualifications*, you here had an opportunity of shewing its *particular Excellence*, which you thought proper to decline, and refer to *La Motte* as an Author of your *Party*; but the Thing is too obvious to every Capacity to say any thing further upon it. Permit me, *Sir*, only to observe, that by your Obstinacy on this Head, you seem capable of maintaining any Absurdity whatever, provided it be subservient to *your Interest*."

He then gives his version of the cases referred to by Smellie, which occurred to himself; and goes on to remark:—"Your complaining of indifferent Treatment, I think, appears to be without any Reason; what Excuse can be made, for your *Mercenariness* by which you have *disgraced*, and, in a great Measure, *ruined* the *Profession*? How have you justified granting your *Certificates* to Numbers, from one *Week* or *Fortnight's* Attendance, who have armed themselves with your *Forceps*, to the great Peril of their Patients and Disreputation of *Midwifery*? Is the charge of that particular *Fatality* where

you have attended, false, or is it any thing in your Favour? Have you invalidated what was said of the Doctor, your *quondam Pupil*, in relation to his having been rather *amused*, than *instructed*, by your *stuffed Babies*, and Machinery? Is the *indecent* of exposing *Women*, or are *Cruelties* in Appearance (so *detrimental* to the *Profession*) Things for which you desire *Praise*?"

He next discusses Smellie's claim to the invention of instruments and goes on to say:—" *Forceps* are the principal Basis upon which this *pretended Invention* is founded, and indeed you have, in this Shape, sufficiently rung the Changes. Those sold in the Shops before you returned from *Paris*, I think them the most convenient; you recommended a Sort that receive each other for their *Fastenage*, and in this the principal Difference consists.

"Your first *Forceps* of *Steel* fell into Disrepute, and gave place to the *Wooden* Ones; those of *Wood* are now thrown aside, and *Steel*, in the Shape of *Wooden* Ones, recommended, with this Addition, that they are covered with *Leather* that they may make no *Noise*; to this Article may be added, the *Crotchet Forceps* of your Invention, an Instrument so remarkable, that the very Sight of it is enough to terrify the *hardiest operator*, and its Use is much about the same as its Shape! There is still one other Sort, sold as of your Invention, that is the *Placenta Forceps*; it is not necessary to describe this instrument because any whom it concerns may see them at the Shops, but I always judged the best *Placenta Forceps* to be a Small Hand.

"The *Sizars* are a very good Instrument, some have ascribed their Invention to you; but this I can tell *you*, that they are used both of a properer Strength and Shape than *yours*, by others; and I believe was, before *you* practised in Town. These, Sir, are the chief of *your* Inventions, which I have here drawn up as a sort of Answer to *you*, and your *Pupil*. To *you*, where *you* claim the Invention of *Instruments of Safety*, by which neither *Mother* nor *Child* are hurt! and to him, where he says *you* have reduced the Number of *Instruments*, and brought them to the greatest Perfection; which are both absolute Falsehoods.

"The last thing I have to take Notice of to *you* is, the Use of the *Forceps*, which, when I wrote to *you*, were of

Wood, but are now made of *Steel* again in the *wooden* Shape; whether this Change has been brought about by what I said, or by your Experience of the Insufficiency of *Wood*, is not very material. Forceps, you insist, have the Preference of all other Extractors, which is what I absolutely deny; this you confess to be the *best* and *safest Instrument* you know, and always use where it can be applied; I, on the contrary, declare, that there are a great many better and safer Methods in the same Cases, which appear to be unknown to you; from this State of the Dispute, who is to determine which is right I refer to the most eminent Practitioners, who use no such Thing, viz., Dr. S——ds, Sir R——d M—n—g—m, Dr. H——y. These are Gentlemen of known *Experience* and *Reputation*, and ought to outweigh any Positiveness on either Side, with all impartial People. Two of those Gentlemen always publickly declare against the Use of Forceps, and the third makes Use of no such Thing; these, *Sir*, determined as you are not to be convinced, I think are Circumstances sufficient, to make you doubtful of *your* favourite Instrument the Forceps; and nothing but that knack of believing every thing that seems necessary to *your* Interest can possibly make you any longer support this Point.”

He then attacks Smellie's champion, and hints that he may be the author of a “dirty pamphlet” as he terms it, which he thinks is directed at him: He calls the author of it a “*Scurrillous* Writer,” and the substance of it a “*Scandalous Libel*.”

He thinks Smellie's mode of teaching was wrong, and his popularity due to the following:—“First, then,” says he, “As half a Guinea for a general Lecture in *Midwifery*, or a Guinea for a regular *Course*, were so easy Terms to acquire that *Art*, it could not fail making many embrace the Opportunity of getting a Qualification in such a Profession: Upon these Considerations, great *Numbers* applied themselves to learn the Business, and had their Certificates given them, to satisfy the World of their Abilities; the Number of these Students daily increasing, every one magnified the *Doctor's* Knowledge and Understanding in his Profession, in order that they themselves might have the Credit of being taught by so great a *Man*. This, *Sir*, is

one Circumstance that has contributed to erect this popular or *nominal Reputation*.

“The Opportunity of learning Midwifery upon easy Terms in *England* being known, very soon began to extend itself into the *Country*; upon this the *Apothecaries* in all Parts, began to think of acquiring a *Midwifery* Knowledge, and their Method has been, to write to some Friend here in Town, to Know when Dr. *Smelle's* Course would begin, and ordering Matters so, as that they could attend his *Lectures*, have returned in a *Week* or a Fortnight, with their *Certificates* of being *Masters of Midwifery*; this *Certificate* being ornamented with a *Frame*, and *glased*, is hung up in the *Parlour* or *Shop*, to attract the Eye, and thereby give Intelligence to every Body who shall come there, that the *Proprietor* has taken his Degree in that Profession. Thus, to the infinite Disreputation of *Midwifery* and I fear to the Loss of many Lives, has this Method of Teaching afforded these *Practitioners* an opportunity of being called to the most difficult Cases that happen which they never refuse to attend. The fatal Consequences of which *superficial Education* is, as I am informed, felt almost in every County of *England*.

“These Gentlemen likewise cry up the *Doctor* as the greatest *Man* of the Profession, and have contributed to his Popularity, notwithstanding the little Experience they have had: Here I shall add, that his *Pupils* who attend more regularly, and 'tis Pity he ever took any but such, these Gentlemen, I say, either through Interest, or Want of Opportunity of knowing the Method of other Practitioners, have so loudly sounded the Praises of their *Master* in publick *Companies*, and in *Coffee-houses*, that I have known *Physical Men*, not immediately conversant in *Midwifery*, go away persuaded that Dr. Smellie was capable of teaching every other Man of the Profession, which no way appears, either from his *Success* or *Method*, yet these, without doing any Injustice to him, are the true Means and *Circumstances*, by which he has arrived to be that *nominal great Man* you are pleased to make him.

“His *Charity*, *Disinterestedness*, and *Beneficence*, as set forth by you, are very engaging *Epithets*, and must procure any one truly possessed of them, the Approbation of all Mankind, this is a Shape in which every one would wish

to appear, and under this *specious Form*, tho' without any real Foundation, *crafty men* have often succeeded in their *Schemes*, when all other Arts have proved ineffectual; the Right that Dr. *Smelle* has to these amiable *Virtues*, is generally built upon this *Basis*, viz. That any poor pregnant Woman applying to the Doctor may be supported by his *Charity* till her full Time, and after that, be delivered, and be properly taken Care of without any Expence; and also, that no one ever craves the *Doctor's Advice* or *Assistance*, in what Capacity soever, but they may have it! This sounds well, and was there nothing more at Bottom, might entitle him to all that is said in his Favour in this Respect; but to set this Matter in its true Light, do ever Women with *Child* apply, that are not paid for their Attendance, by the *Pupils*, he too having his Share of the *Profits*? Or when these Women are delivered, don't the Operator, and Attendants pay the Expence, and is not the Doctor gratify'd either by his *Contract*, or by every one paying for being present? Does he ever give his Attendance Abroad but where he is paid, or in case of a *Pauper*, that he does not bring half a Dozen *Pupils*, by whose Presence he is a considerable Gainer? Where then is this mighty puffed up *Disinterestedness* and *Charity*?

“The *Doctor*, as you say, never *insinuated himself into Business by depreciating the Character of others*; but he applied a more effectual Method, and rightly distinguished betwixt saying and doing; he took to the Language of Action, and by this Means under-worked and under-taught all his Brethren, to the Shame and Ruin of the Profession, and all this out of the laudable View of enriching himself, and monopolizing Business, which is a lively Instance of his *Disinterestedness* and *Beneficence*.

“To shew yourself quite of a Piece, you say the *Doctor* practised, in an eminent Station, 19 years in Scotland, but 'tis very well known that he was only the second Man in the Place where he lived, and I believe you might more properly have said, that he left it, because another stood in his Way; and it appears very odd, that the *Doctor* should leave his native *Country*, and such *extra-ordinary Business*, to come to settle here, in a very mean *Apothecary's Shop*. His Practice and Knowledge of *Midwifery* when in Scotland,

were certainly very little, for after he left that *Country*, he went to *Paris* as a *Pupil*, and there got an *Idea* of the *Machine*, from whence, after a *Stay* of less than *three Months*, he came to *Town* qualified to set up as a *Teacher* himself.

“Your boasted Preference of his *Machines* to those of *Paris*, I think has very little in it. There, *Madam* is a Piece of *Basket-work*, covered with a kind of *Silk*, in Imitation of her *Skin*, and appears in her *Buff*; here she has the addition of *Shoes*, *Stockings*, and the *common apparel* of *Women*, but of what *Use* are these to the *Learner*? The *Pelvis* of the *French*, is of *natural Bones*, as well as his, and as to the *Cuticle*, *Ligaments*, *Muscles*, and *Contents* of the *Abdomen*, they are only fit to amuse *Midwives*, and young *Apothecaries*, that don't understand anything of *Anatomy*; but not worth the notice of an *Artist*.

“The next thing in the *Doctor's Catalogue* of *Perfections*, is his *Six Artificial Children*; here I expected an *Answer* to my *Objections* against these *Babies*, and I think their *Insufficiency* plainly appeared, in the case of the *Doctor Pupil* in my *Letter*. The *French* use a *natural Foetus* in their *Machines*, and certainly there is no *real* or *imaginary* *Situation* peculiar to his *Children*, other than what is *unnatural*, but what a *real Child* is capable of being put in, with the same *Facility* as they are. The *French* give a particular *Lecture* which they call the *Touch*, 'tis by putting a *dead Child* into the *Machine*, and presenting different *Parts* of its *Body* to be touched; by this *Learners* become *Acquainted* with whatever *Part* of the *human Foetus* presents, a *Thing* very essential in *Midwifery*, and to be learned in no other manner but this; had the *Pupil Doctor* had this *Advantage*, instead of the other *Amusements*, he without doubt would have distinguished a *Knee* from an *Elbow*, and scarce would have brought a *Hand* into the *World* twice, instead of a *Foot*; so that the *Approbation* you give of your *Master's Apparatus*, in Preference to what, *you say*, you saw at *Paris*, appears to me to be very ill-grounded, their *Machine* having all the *Advantages* in common, with *yours*, and their *Method* of using a *real Foetus*, instead of *Stuffed Babies*, greatly the Preference.”

“Here I shall draw a *Parallel* betwixt *Dr. Thomson* and *Dr. Smelle*, by which it appears that their general *Scheme*

was founded upon the same *Basis*, tho' they took different Methods in the Execution: The first began by founding his own *Judgement* and *Integrity*, branding at the same time, every other Man of the Profession with the Appellations of *Knave*, *Ignorant* and *Avaritious*, held forth, that he had reformed *Physic* in the *West!* and that he would now do it in the *East!* that he desired no more than five Shillings a Visit, and that whenever a Man called an Apothecary into his Family, 'twas impossible to get him out again! This manner of boldly asserting his own *Knowledge*, and the *specious appearance* of having Fees reduced, and *Medicines* for an *old Song*, induced many to hold up their Hands in Favour of the *Doctor*, till at length he had really talked himself into very good Business, and was employed in the best Families in the *Kingdom*. This so engaged the Attention of the *Town* in his favour, that any Objection that was made against him, was imputed to the *Malice* of the *Physicians*, who only envy'd his Success; the *Doctor* having gained this Length of Rope, gave a full Swing to his Practice, during which, he had the *Mortification* in a short time, to find several Men of *Fashion*, and *Fortune* fall victims to their Credulity, which so alarmed the World, that upon Reflection, the *Physicians* were again reinstated, and restored to that Respect and Esteem they had always so justly merited of the Publick.

“ Dr. Smelle grounded his *Push* on the inseparable *Interest* that subsists betwixt *him*, and his Pupils and Dependents, who on all Occasions have extolled his Merit, that it might add to the Reputation of his *Scholars*; his low price of *Teaching* and *Practicing* has wormed him in, to the Dishonour and Disadvantage of the Profession; which was the principal *Scheme* of his *Brother*; Dr. *Thomson* held forth for himself; Dr. *Smelle* is magnified by the Interest of his *Pupils*; *Thomson* pretends to the sole Art of Healing, bleeds and purges universally, but is despised by the *Physicians*; *Smelle* declares the *Forceps* to be the best *Extractors*; but his Opinion is refuted by the most *Eminent* of the Profession, who make no manner of Use of them; which excels in that remarkable *Fatality*, that daily happens, is hard to say, both being Men of *prodigious Execution*.

“ I envy no Man's Business, provided he gets it fairly, but

Puffing in all Shapes ought to be exposed, and whatever is gained by it, lessens the Encouragement that Men of Judgment, and Merit, ought to have, and is, in some Measure, the Reason why we see so many *Gentlemen* of unexceptionable Knowledge, want, thro' their Modesty, those Rewards, and that Encouragement, which Artifice runs away with."

He further adds: "That I am neither *Son* nor Brother to the late Dr. *James Douglas*, who I was acquainted with from the Beginning of the Year 1719, to the Time of his Death, five Years of which Time I was under his immediate Care for *Anatomy* and *Midwifery*, etc., but no body that knows me can say I ever claim'd the least Relation to him, and as I have not disgraced him, nor the Family I come from, I can not see any Occasion there was for that *quaint* Remark of your Master's, unless you were desirous to make the World believe I was as obscure as yourselves."

He bids farewell to his reader by stating that he believes he has shown abundant reason for admonishing Smellie, but he would have preferred more to praise than to blame.

CHAPTER VII.

THE PROGRESS OF MIDWIFERY TEACHING IN LONDON.

THESE letters of Douglas formed the first of a series of criticisms originating from different motives and from different points of view. But, barring the facts which he put into the possession of his pupil for the purposes of his defence, Smellie never again either directly or indirectly, considered it worth his while to notice any of his critics. He pursued the even tenor of his way, regardless of what might be said of him, but always willing to submit his position and his views to the judgment of time and posterity. There can be no doubt, at the same time, that such epistles as the foregoing must have caused him some pain; but, as he did not wear his heart on his sleeve, the effects were not generally apparent in his conduct. His pupils were increasing in numbers; they were coming from far and near, to imbibe his teaching, and to follow his practice. At this time, the country being free from war (peace being declared), he tells us "that many gentlemen both of the army and navy attended my lectures." And his practice was now a serious affair, both in respect of extent and kind. What need he, then, care about the criticism of a man whose character was so well known as that of Douglas: to be castigated in company with his friend Mead, was, indeed, more an honour than an affront. He saw the work of midwifery prospering in his hands, and was beginning to perceive that his efforts to raise its position were already commencing to bear fruit. The public-spirited citizens of London were awakening to the

needs of the parturient poor, and had begun to set about establishing suitable institutions for the care of these poor women and their offspring. In short, more enlightened times were beginning to dawn; and the impetus he had given to the teaching and practice of midwifery had the effect of assisting in the establishment of the British Lying-in Hospital in the year 1749, of the City of London Lying-in Hospital in the following year, of Queen Charlotte's Hospital in 1752, and of the Royal Maternity Hospital in 1757. In addition to these, the Middlesex Hospital appointed a Physician-accoucheur, which post was held in 1747 by Dr. Layard, who, shortly thereafter, having to leave London on account of his health, was succeeded by William Hunter in 1748. In the following year Hunter was also appointed to the position of Surgeon-accoucheur to the British Lying-in Hospital. In this hospital, Christopher Kelly, M.D., of Aberdeen, held the office of Physician-accoucheur in 1757. He wrote, *A Course of Lectures on Midwifery*, 8vo, in this year. And one of the physicians to the Lying-in Hospital in Brownlow Street, in 1752-3, was George Macaulay, the very intimate friend of Smollett and Smellie. Manningham was now becoming an old man, and Sandys was chiefly practising as a physician, hence the chief teachers of midwifery in the Metropolis, by the year 1750, were Smellie and William Hunter.

By this time London was well equipped by its hospitals, and by its teachers, for the study of midwifery, and although Paris still held the field as a prominent centre for study in this branch, there were many who declared that London was rapidly equalling, if not, indeed, surpassing it, in this direction. The latter point is illustrated by a pamphlet written in 1751 by William Clark, M.D., entitled, "The Province of Midwives in the Practice of their Art, etc." Therein the writer avers that "London, at present, affords equal advantages of Information (with Paris), for the *anatomical* Waxwork with suitable Lectures, might furnish as good a Qualification, with less offence than real Dissections; and there are not wanting those who professedly instruct both sexes by *mechanical demonstration*. And for the future it is to be hoped there will be no Necessity for Men to have Recourse to Paris for *Observation*, since we have *Infirmaries* at Home for the Accommodation of Women in Child-bed."

The allusion, which he makes to the Anatomical Wax-work, has evident reference to the method of teaching and to the apparatus of Dr. Thomson. This Thomson—not, however, the Thomson of Douglas's pamphlet—published a brochure with so quaint a title that we give it to the reader in its entirety:—"Syllabus pointing out every Part of the Human System. Likewise the different Positions of the Child in the Womb, etc., as they are exactly and accurately shewn in the *Anatomical Wax-Figures*, of the late Monsieur Denouë. To which is added, a Compendium of Anatomy, Describing the Figure, Situation, Connexion, and Uses of all the Parts of the Human Body. By G. Thomson, M.D. London; Printed by J. Hughs; and sold only up one Pair of Stairs, at the Grocer's Shop, the corner of *Durham-Yard* in the Strand; where the said Figures are exhibited to view. (Price sew'd, One Shilling and Sixpence.) Printed in the year 1739." Perusal of this booklet shows that while the writer deals largely with pure Anatomy, its obstetric bearing is revealed in those chapters of it which treat of the parts of generation in women, of the Foetus in Utero, and of birth. The other allusion to "mechanical demonstrations," doubtless, has direct reference to Smellie and his mode of teaching.

Clarke, in the above pamphlet speaks of his brother. He was Matthew Clarke, who was a physician to Guy's Hospital at this time. Pettigrew, in his *Portrait Gallery*, in his biographical notice of Sir Charles Mansfield Clarke, notices the obstetrical fame of Dr. John Clarke—the elder brother of Sir Charles—and very erroneously attributes to him the authorship of the foregoing pamphlet. This Dr. John Clarke was a fellow-student of Dr. Baillie—William Hunter's nephew—and studied midwifery under Denman and Osborne. Pettigrew's mistake will at once be obvious when we point out that Baillie was not born till 1761—ten years after the pamphlet was written—and that Denman and Osborne did not begin to lecture on midwifery till many years after 1751. It was of this John Clarke, however, that the following verse was written in the "Nugæ Canoræ":—

"Beneath this stone, shut up in the dark,
Lies a learned man-midwife, y'clep'd Doctor Clarke.
On earth while he lived, by attending men's wives,
He increased population some thousands of lives :

Thus a gain to the nation was gain to himself,
 And enlarged population enlargement of pelf.
 So he toiled late and early, from morning till night,
 The squalling of children his greatest delight.
 Then worn out with *labours*, he died skin and bone,
 And his ladies he left all to *Mansfield and Stone*."

In the year 1749, John Moore, then a student in Glasgow, went to Paris for the purposes of study. Toward the end of that year, he came to London, and took a course of Smellie's teaching. This we learn from a letter of his to Cullen, dated from Paris in this year, wherein he says:—"As to midwifery, I have attended one course, seen a good many births, and performed some myself; have also read upon this subject, Mauriceau and La Motte, with tolerable diligence, and shall give the finishing stroke under Smellie, whom I design to attend at London on my return." On Moore's return to Glasgow, he presented himself at the Faculty of Physicians and Surgeons, desiring to be admitted a freeman of that corporation, in September, 1750. His "tryall" was then arranged, and John Gordon was appointed one of his examiners.

It may be of some interest to many, if we give an extract of the minute of the meeting at which he was licensed to practise. It is as follows:—

"7 Feby., 1751.

"Conveened in a faculty called Extraordinair Doctor John Woodrow, physician, praeses, Hector M'Lean, Surgeon, visitor, Doctors George Montgomerie, William Hamilton and William Cullen, physicians, Robert Wallace, Mr. William Stirling, John Gordon, Andrew Morris, William Ralstonn, James Anderson, Andrew Craig, David Corbett and John Crawford, Surgeons, all members of faculty:—

"The which day the Essay, mentioned in the sederunt of third September last, appointed to be made by John Moore Surgeon in Glasgow was produced in faculty and approved of, And he to the full Satisfaction of the faculty having this day performed the whole other parts of his tryall, and having paid the necessary fees; Admitt him freeman member of this faculty And to the practice of all the parts of Surgery and Pharmacy within the City of Glasgow and their whole other bounds, etc."

The only further remarks that need be added about Moore

are, that, although he did settle in practice in Glasgow for a time afterwards, and subsequently practised in London, his fame did not chiefly arise from this, but from his literary works; and that he was the father of that famous warrior—Sir John Moore.

That the fame of the Parisian School of obstetrics was passing away is also evident from the pamphlet from which we have already quoted, viz.: “A Short Comparative View of the Practice of Surgery in the French Hospitals,” etc., wherein a general tone of depreciatory criticism prevails. And this is further substantiated by a pamphlet published in 1770—twenty years later—by A. Tolver, Man-Midwife, entitled “The Present State of Midwifery in Paris.”

“France,” says this writer, “till of late years was regarded as the fountain of chirurgical knowledge: and hence the conflux of foreigners from, perhaps every nation; but the seat of this part of learning is removed, and the great source of midwifery, in particular, has dried up. The levity and indecent behaviour of the French students shut the doors of the lying-in wards of the Hôtel-Dieu, and procured an edict of government prohibiting access. Since when, instruction has flowed in private channels, clear and profitable, in proportion to the abilities of the several professors through which it has run.

“At present, although the obstetrick art is taught by many, there are but two of eminence, or perhaps but one (since Dr. Petit declined) of real scientifick knowledge in Paris: Mr. Levret, Accoucheur to Madame la Dauphine, claims the preference; and Mr. Payen (Péan), royal professor at the theatre de Saint Côme, is at least second in vogue, if not in Knowledge.

“Mr. Levret, whose writings are well known to the medical world, has, joined to strong natural parts, some advantages of education, and his lectures are supported with geometrical reasoning and demonstration; but partial to a system, he treats different opinions with too little respect, and sees every effort of genius that does not tend to elucidate his own theory, with the eye of malevolence: Hence he hath fettered the free expansion of his capacity; and with the affectation of originality, often blends the errors of prejudice and fancy into the most solid reasoning.”

The author goes on to say that his course of lectures is more theoretical than practical, that there are no real labours

to attend, or touching lessons to receive, and that the course was not well attended. The course continued about six weeks, was delivered in aphorisms, divided into sections; "his preparations and instruments are displayed with formal parade"; "his machines are finished in a very slovenly manner, and their contrivance far inferior to our own." He then tells us of Levret's forceps and their manner of application.

Of M. Péan, he says some very hard things. For instance he states that "this professor has rose into notice rather through intrigue than merit, and was set up in opposition to Mr. Levret. The lectures he reads were penned by a very eminent physician and man-midwife, expressly for that purpose. . . . Each course continues about three or four months, and as the expence is only one guinea, the pupils of both sexes are seldom less than three-score. Here barbers, women, and regulars, promiscuously assemble, and are present together upon all occasions. A circumstance very disgusting to the gentleman, and frequently repugnant to the delicacy of a Briton. . . . The machinery, indeed, is preferable to Mr. Levret's, being an improvement on his invention." At the lectures, he further tells us, attention is entirely wanting; and decorum and respect are absent. There are, however, the advantages of opportunities of touching and of being present at real labours. "The touching lessons are only once a week, and to each woman the student pays six sous when he examines her. To a labour he pays one livre, and draws for his turn to deliver." At a labour with his students, Péan measures the woman externally, first, as to the hips and then as to the distance between sacrum and pubis, with a pair of brass callipers, "with the gravity of a bombardier surveying the dimensions of a mortar."

Notwithstanding the general improvement in the teaching and practice of midwifery that had undoubtedly taken place in London during the previous decade, it still appeared to some that it was far from being satisfactory, in respect of the want of sufficient regulation. George Counsel, Surgeon and Practitioner in Midwifery, as he terms himself, wrote, in 1752, a work, entitled *The London New Art of Midwifery, or the Midwife's Sure Guide*, etc.—which David Spence of Edinburgh, in his *System of Midwifery*, characterized as an "abridgement of Smellie"—in which he declared, that such was the condition of

midwifery then, that mothers and their offspring were being "daily, if not hourly" destroyed "by ignorant wretches, in almost every state of life, a pack of young boys, and old superannuated washerwomen, who are so imprudent and so inhuman as to take upon them to practise, even in the most difficult cases that can possibly occur." As a corrective of this, he urgently demanded that the State should interfere "to examine all such as are to be admitted to practise, and take care of the lives of his Majesty's subjects." From this, he makes bold to say, great good would follow. The plan he proposed was, that the College of Physicians should appoint annually one or more of its Members, "eminent in the Profession of Midwifery," to examine and license all Persons, "Men as well as Women," who, for the future, desire to practise in this branch; and further, that the College should be granted power to appoint Examiners in every city and populous town, for, he adds, "there is scarce any City, or very large Town, in which a Practitioner in Midwifery of some Eminence does not now reside."

In this the reader will recognize the scheme of Douglas, but only more fully matured. However, it was not till far on in the century that the College of Physicians instituted an examination, and a Diploma, in Midwifery.

CHAPTER VIII.

SMELLIE'S FRIENDS.

A MAN is said to be known by the company he keeps. Of Smellie's friends, many were men who, before his own position had been secured, were either in the first rank of the profession, or who, either during his time, or immediately succeeding it, rose to eminence. We have only to mention the names of Mead, Nichols, Stewart, Nesbit, Monro of Edinburgh, Macaulay, Gordon of Glasgow, Sandys, Fothergill, Clephane, Dickson, Donald Monro, William Hunter, Pitcairn, Cullen, and Armstrong, not to speak of others, to show that he possessed in his friends men of high standing in the profession of medicine. Smollett, as we shall afterwards see, was an old and intimate friend of his, and so was the philosopher Desaguliers. Besides these, he possessed a host of less prominent friends who, doubtless, did much to make his life agreeable.

Probably the oldest professional friend he had was Dr. John Gordon of Glasgow. In Vol. iii., p. 128, Smellie speaks of Gordon as "my old acquaintance, and senior practitioner in the art of midwifery." The points of contact between them are so interesting, and so continuous, that we make no apology for dealing with them at some length. Gordon was a much-respected practitioner in Glasgow for a long series of years in the first half of the last century, and did much, in his later years, to encourage the linen industries of that city and the West of Scotland. He was an active and useful member of the Faculty of Physicians and Surgeons, his name almost constantly appearing in the sederunts, and frequently, in addition, as an examiner of candidates for the membership of that body. There

has been, hitherto, but little published of him, and we take this opportunity of putting down a few new facts regarding his life, which, we think, will prove of some interest.

His connection with the Faculty is worth noting. By reason of the fact that the Minutes of Faculty, in which the history of the time of his becoming a member would be recorded, having been accidentally destroyed by fire, we are unable to discover the date of his membership; but it must have been some time before 1733. However, one of the earliest names which meet the eye in the volume of Minutes immediately after the fire (which begins about 1733), is that of John Gordon. That he was an influential member of that body is evidenced by the prominent positions he occupied in the ranks of that Corporation. On the 5th July, 1736, for instance, he was added to the Committee appointed on the 8th November, 1733, to try to supply the gist of the missing records—those consumed by the fire in the house of the Clerk, who then resided in High Street. This Committee reported that “the Extract of the Faculty’s laws and acts now and formerly lying on the table should be Ingrossed and Recorded in this their Register-Book, etc.”; which Report the Faculty agreed upon, and ordained the same to be “execute accordingly with all convenient diligence.”

Again, on the 11th April, 1737, the Directors of the Town’s Hospital asked the advice of the Faculty anent the building of an Infirmary, and the Faculty appointed Doctor Woodrow and John Gordon for this purpose. And, when the Faculty determined that midwives should not be allowed to practise until they had been duly examined as to their fitness, it was agreed, on 24th March, 1740, that “the praeses, Doctor Montgomerie, John Gordon, and Alexander Horseburgh, shall meet and Draw up ane form of an Act” to this end. The Committee drew up the Act thereupon, and it was adopted by the Faculty on the 4th August, 1740.¹ When it became necessary to appoint examiners for the purpose of testing the fitness of female candidates for the license to practice midwifery, the Faculty appointed Gordon as one of their number.

Although he had been a surgeon member of the Faculty for many years, on the 6th October, 1755, he abandoned general practice, and was received into its membership as a medical

¹ *Vide ante*, p. 51.

member. The minute reads thus :—“ The same Day Doctor John Gordon (formerly a Surgeon Member of the Faculty) was admitted a freeman Member of Faculty as a Doctor of Medicine, it being noted to the faculty his admission as a Physician, and his receiving a diploma as such from the University of Glasgow, and that for some years or time past he has acted in that Character only, without practising as a Surgeon or Pharmacien.” On the same day, too, the Faculty conferred on him its highest honour, by appointing him to the president's chair; and on the 4th October of the following year, it confirmed its selection, by re-appointing him *praeses* for another year. On the 3rd November, 1755, the date of the first monthly meeting after his first election to the chair, he appeared and took the oath of office. Matthew Bramble, in *Humphrey Clinker*, speaks of Gordon as a “consulting physician in Glasgow,” about this time. While Gordon practised in Glasgow, he had as a partner *Mr.* William Stirling, who afterwards became the founder of a large manufacturing firm in Glasgow and the West of Scotland. In the minutes of Faculty, Stirling is always designated as “Mr.” because he was a Master of Arts of the University of Glasgow; and he shared this honour with the physicians, when, perchance, they were not designated as “Doctor,” whereas the surgeons who had no Arts degree were only designated by their Christian names and surnames. For many years this partnership was successfully carried on. In these early days, education in medicine and surgery in Glasgow was almost only to be obtained, as we have already said, by apprenticeship to practitioners, either solely, or combined with such tuition as the University of Glasgow then gave. During the subsistence of the above-mentioned partnership, pupils whose names were afterwards to become famous, not, however, in the medical, but in the literary world, were apprenticed to Gordon and Stirling.

Perhaps the two most noteworthy pupils in this regard were Tobias Smollett and John Moore. The minute of Faculty in which Smollett's indenture is entered is worthy of full notice, since it has not been noted elsewhere.—“Att and within the physicians and surgeons hall in Glasgow” (then in Trongate) “the third day of May 1736. Convened Thomas Buchanan, Surgeon, Visitor, Thomas and James Hamilton, John Gordon, Robert Wallace, and John Paisley,

Surgeons. The which Day Tobias Smollett son of the deceased Mr. Archd. Smollett in Dumbarton is booked apprentice with Mr. William Stirling and John Gordon, freeman, for five years from the date of the Indenture produced dated the Sixteenth and nineteenth days of Aprill last, and he payed the Collector ten shillings ster. of Booking money with the Clerk and Officer their dues."

John Moore—the author of *A View of the Causes and Progress of the French Revolution*, *Zeluco*, and other works, the editor of the works of Smollett, and the father of Sir John Moore—was apprenticed to Gordon and Stirling in 1744. The following entry in the minutes of Faculty states the fact concisely:—"3rd Dec., 1744. John Muir (sic) booked Apprentice to Mr. W. Stirling and John Gordon." Sir Walter Scott tells the following anecdote of Gordon. In the company of some of his professional brethren, he had been listening to their boasts as to the abilities of their respective pupils, when he quietly retorted, "It may be all very true, but give me, before them all, my ain bubbly-nosed callant, wi' the stane in his pouch"—referring, it is believed, to Smollett.

Moore afterwards became Gordon's partner, when Mr. W. Stirling left to follow commercial pursuits. This new partnership subsisted for two years, until Gordon relinquished general practice on receiving his degree of Doctor of Medicine. Then Moore was joined by Dr. Hamilton, the then Professor of Anatomy and Botany in the University. We have noted that Moore was, for a time, a student of Smellie. When Gordon relinquished practice, he followed the example of his partner, Stirling, and went into commerce, we believe, with his old partner, as a linen manufacturer. Smollett, in his character of Bramble, says that Gordon "is the father of the linen manufactory in that place" (Glasgow).

Smollett held a very high opinion of his old master. In *Humphrey Clinker* he makes Bramble say, "I was introduced to Dr. Gordon, a patriot of a truly noble spirit, who is the father of the linen manufactory in that place, and was the great promoter of the city work-house, infirmary, and other works of public utility. Had he lived in ancient Rome, he would have been honoured with a statue at the public expense." Gordon died in 1772 at a ripe age.

Let us now consider Smellie's acquaintance with Gordon. We obtain our information on this point both from the works of Smellie, and from the Minutes of the Faculty of Glasgow. The first mention of the name of Gordon is where Smellie says,¹ "I was obliged to Dr. Gordon, of Glasgow," . . . who "made me acquainted with the Blunt Hook"; the second where reference is made to a letter "from Dr. Gordon, in Glasgow, who is my old acquaintance, and senior practitioner in the art of midwifery. I had before that wrote to him, and desired the favour that he would communicate to me the most material things which he had found in his practice that might be of use to the public";² this is in connection with Case 376, which is dated 1749. And the third reference to their correspondence occurs in "An Answer to a late Pamphlet intituled 'a Letter to Dr. Smellie etc.'" by his anonymous Pupil, to the "Letter" of Douglas, and consists of "part of a Letter to Mr. John Gordon, Surgeon, at Glasgow, dated January the 12th 1747-8"; the substance of which will be found at page 88.

From the Faculty Minutes we also learn of their intimate correspondence. Smellie, while in London, kept himself in the membership of that body by paying the "quarter accounts"; and there can be little doubt that Dr. John Gordon received from Smellie the sums owing by him to the Faculty, during the whole period of his residence in London, which Gordon, in turn, paid into the treasury of the Faculty. The first entry, dated 1745, Oct. 7, in the Accounts of Charge and Discharge of the Collector, is the following:—

"To Mr. Smellie Surgeon, his quarter accts. for eleven years, 18/4." It is true that the name of Gordon does not emerge here; but doubtless he was the medium of payment in this, as in the following entry, which is dated 4th Sept., 1749:—

"Docter Smellys Quarter Accts. paid." "The which day the sd. John Gordon paid into the Collector four pound Scots as the quarter accts. due to the faculty by Doctor William Smellie of London for the current year 1749 and the three preceding years." The last entry we can find is as follows:—"1750, Sept. 2. To 2 years Quarter Accts. from Doctor Smellie, 3/4." And it is quite likely it was partly owing to the fact of their intimacy, as also from their

¹ Vol. ii., page 252.

² Vol. iii., pages 126 and 128.

intrinsic value, that, during Gordon's occupancy of the presidential chair, the Faculty purchased a copy of Smellie's Anatomical Tables. We find it recorded thus:—"Feb. 1756. By Doctr. Smellie's plates from Daniel Baxter. £2 6 6." The published price of the Tables was £2 2s., and the remainder would probably be the cost of carriage to Baxter, who was at this time the principal bookseller in Glasgow.

From these data very interesting speculations arise. From the first reference to Gordon, where Smellie says he owes to him the knowledge of the blunt hook, we can discover the earliest known date of their acquaintance; and from that point backwards we can guess at the earliest probable date. Smellie's habit of dating his cases is of the greatest service to us here. Since he knew the use of the blunt hook from Gordon, it is obvious that their intimacy must at least date back to the first time he used that instrument. Let us look a little more closely into the dates. The earliest mention of the blunt hook is in Case 282, vol. ii., p. 376, which occurred in Hamilton, in the year 1724; the second is in Case 277, vol. ii., p. 371, dated 1727; the third, vol. iii., p. 194, in 1727; and the fourth, sequel to Case 282, is in Case 371, vol. iii., p. 120, dated 1730. We therefore know that in 1724 Smellie was acquainted with Gordon. This was only about four years after he started practice in Lanark. From this time backwards we can only speculate as to the probable date of the origin of this interesting intimacy. It is quite evident, however, that Gordon knew Smellie before the latter became a member of the Faculty in 1733, but in what way, and how the intimacy arose, we cannot precisely determine. A surmise that Smellie was a pupil to a Glasgow surgeon, and that in this way he became acquainted with Gordon, must be left for what it is worth. And the peculiar phrasing used by Smellie in vol. iii., p. 128, viz.: "Dr. Gordon, in Glasgow, who is my old acquaintance and senior practitioner in the art of midwifery," raises the question whether Smellie was not, indeed, a pupil of Gordon. It unfortunately happens that the only records which could have cleared up this difficulty—the Faculty Minutes—were lost in the fire already mentioned. And, again, if not a pupil of Gordon, he may have been of some other Glasgow prac-

tioner, since he was well known to some members of Senate of the University, as it is stated when the diploma of M.D. was conferred on him. Not an inconsiderable amount of reasonable speculation therefore arises out of the intimacy of these notable men—an intimacy, too, which extended throughout their professional lives. There cannot be a doubt that this intimacy gives us the key to the relationships which, in various ways, subsisted between Smellie, Smollett, Moore, Cullen, and William Hunter.

TOBIAS SMOLLETT.

Proceeding out of his friendship with Gordon was the life-long intimacy of Smellie with Smollett. We have already provided all the material necessary to show how that intimacy arose. Smollett was Gordon's pupil from April, 1736, until sometime in 1739; Smellie and Gordon, as we have shown, had been acquainted by this time for over a period of at least a dozen years; but whether Smellie knew Smollett during the term of his apprenticeship we have no means of discovering. Smellie left Lanark for London in 1739, and, by a curious coincidence, if nothing more, Smollett left Glasgow for the same destination, in the same year. As everyone knows who is acquainted with the history of that time, the means of travelling between two points so widely apart were very primitive indeed; and the route itself was not only a difficult, but a dangerous one. Smollett in *Roderick Random* gives us a very vivid notion of this in the following sketch. The reader will remember that, when the hero set out on his journey, his whole fortune consisted "of one suit of clothes, half a dozen ruffled shirts, as many plain, two pair of worsted, and a like number of thread stockings, a case of pocket instruments, a small edition of Horace, Wiseman's Surgery, and ten guineas in cash," together with his letters of introduction to people in London. Then, as to the means of travelling, he tells us, "there is no such convenience as a waggon in this country, and my finances were too weak to support the expense of hiring a horse; I determined, therefore, to set out with the carriers who transport goods from one place to another on horseback; and this scheme I accordingly put in execution on the first day of September, 1739, sitting upon a pack saddle between two

baskets, one of which contained my goods in a knapsack." The route lay, as we have already shown, by way of Coldstream to Newcastle, and thence by the Great North Road to Durham, and from that city to London by waggon or coach. A journey to London in those days, as has been remarked, was a serious undertaking, and, as travellers preferred to travel in company with friends rather than alone, it is probable that Gordon, who was in correspondence with Smellie, would be acquainted with the latter's intention of going to London, and would put Smollett in possession of this information. It is not likely, however, that they would travel in the same manner precisely; for, from what we have already seen, Smellie would be in a better position in regard to funds than Smollett, and would, most likely, hire horses for his own use, for the purpose of the journey to Newcastle, where a coach could be procured. We have no desire to found much upon these circumstances, but we think that the facts are in favour of our surmise. It is not so likely that their acquaintance had its beginning in London—although it is quite possible to suppose this also—for we know that Smollett only remained in London as long as was necessary to obtain his qualification as a surgeon's mate, in virtue of which he was engaged in the Naval Service in that capacity. Neither did their ways run parallel. When Smollett returned to London, he did little medical practice; he rather gave himself out as a *litterateur*, and his ways were the ways of the literary men of London of that day. Smellie, on the other hand, was engaged, both bodily and mentally, in the work of his profession, and from what we know of the amount of work he undertook and overtook, he must, indeed, have been very busily occupied. Whether, then, their leaving the West of Scotland in the same year was in company or not we cannot definitely determine, and probably will never be in a position to tell; but we incline strongly to the belief that it was about this time that the acquaintanceship was formed, and that the medium of it was none other than John Gordon. Whatever doubt may be about this, there can be none about the fact of their after-intimacy in London.

We know that Smollett passed his examination before the examiners of the Incorporation of Barbers and Surgeons, and in the Records of that body the name of Smollett stands to this

day; that he then sailed in the Cumberland on an expedition to Carthage in 1740, and returned to London with the evident intention of settling down as a medical practitioner in 1744. He tells us, in a letter dated May 22 of that year, that "I have moved into the house where the late John Douglas, surgeon, died, and you may henceforth direct for Mr. Smollett, surgeon, in Downing Street, Westminster."

This John Douglas was the author of the letter on the State of Midwifery in London and Westminster, to which we have already alluded.¹ Smollett's success as a medical practitioner was apparently very limited, because he found time to write his two famous Satires, and was engaged also as the librettist of an opera for the manager of Covent Garden Theatre, the music of which was to be composed by Handel.

It was during this time that Smollett communicated to Smellie notes of a case which is entitled, "Separation of the Pubic Joint—Communicated by Dr. Smollett,"² which occurred to its author in 1748, the same year in which *Roderick Random* was published. The case itself is a remarkably rare one, and apart from the interest imparted to it by the name of its author, is deserving of notice. There can hardly be a doubt that, between 1744 and 1748, close intimacy existed between these two men. Indeed, it could hardly be otherwise. John Gordon was corresponding about the same time with Smellie, and, doubtless, he was the common bond of union between them. At the same time he was corresponding with Smollett. For we read in the same letter from which we have quoted, "I am informed of the decease of our late friend by a letter from Mr. Gordon, dated the day after his death."³ By this time, too, Smellie, both as a teacher and practitioner of midwifery, was well known in London. He was attracting, in both capacities, crowds of men both from the army and navy, and, at the same time, the virulent notice of captious and envious critics. Douglas had this year published his pamphlets against Smellie, and there cannot be a doubt that this was largely in consequence of the latter's popularity as a teacher. Whether Smollett was the anonymous pupil who penned the reply

¹ *Vide* pages 32-34.

² Case 2 of vol. ii., page 7.

³ *Biographical Dictionary of Eminent Scotsmen*, vol. iii., Thomson.

London, 1875.

to Douglas or not we cannot definitely say, but in the light of what here follows, we deem it quite probable. In other ways, too, they had a common sympathy. The Scotch Rebellion had just been "scotched." The following year in London (1746), as one writer puts it, "was a busy year for judges, juries, hangmen, headsman, and Smollett": for the first four, in trying the Scotch prisoners, and in carrying out the sentences of the law; and for the last, in bewailing his country's and his countrymen's fate. The Scotch colony in London at this time was sadly perturbed; their compatriots Lords Kilmarnock, Balmerino, and Lovat had lost their heads on the headsman's block on Tower Hill; a Scotchman to acknowledge himself as such on the streets was liable to insult at the hands of a population uproarious with joy over the victory of Culloden; and "to see Scotch blood spilt, the hearths of Scotch peasants go up in flames," made the blood of their countrymen boil. They met in coffee-houses and taverns, the Golden Ball in Cockspur Street, and "The British," kept by a Scotchwoman, to talk over the times, and to mourn over "old Scotia's" fate. Smollett, at one of these meetings, wrote the "Tears of Scotland," a poem which created a considerable stir in the metropolis. We may be quite sure that Smellie was not unmoved by the same sad circumstances. Although we find no record of him taking an active part in politics at any time of his life, still, as a good Scotchman, he could not rest undisturbed by the things that were daily happening around him, and feel unmoved at the sad plight of his countrymen. Whether it is mere coincidence or of set purpose we cannot say, but it is somewhat strange to find a political execution referred to in a work on Midwifery; which, too, it is interesting to observe, has a smack of the Scottish rebellion about it. The reference is to be found in vol. iii., p. 215, and it is of "a child born, in which all the upper part of the skull was wanting." It is dated 1747. The mother accounted for this phenomenon in this wise. "Upon the ninth of April, 1747, when she was near two months gone with child, she was grievously frightened with thinking on Lord Lovat, who was that day to be beheaded. Her husband was gone to see the execution amongst the crowd at Tower Hill: and when the news came to her hearing, that a scaffolding was fallen

down, by which accident many people were hurt and some killed on the spot, she immediately feared that her husband might be of that number, and was greatly affected. While she was under this dread and apprehension, an officious idle woman came to her and said, that a friend of hers, for whom she had a great regard, was killed on the spot, and that she saw his brains on the ground; upon this the poor woman put both her hands on her head in great agony, and immediately fainted away." This is a most interesting account of a "maternal impression"; but it is especially interesting in that the person of whom it is recorded seems to have had some interest in the unfortunate victim of the block.

Smollett evidently did not long occupy Douglas's house in Downing Street, for we read in the Rev. Dr. Carlyle's account of him, that, by the end of April, 1746, he was occupying a house in Mayfair. By this time he doubtless had made up his mind that he must look to literature, rather than to medical practice, whereby to live.

By the year 1748, he had practically two sets of friends. There was the Scotch "medicals" in London who numbered not a few, and there was also the circle of literary friends. We have only to do, however, with the former. Dr. Anderson, in his *Life of Smollett* (Edinburgh, 1820), tells us, "Among his countrymen of the medical profession, he was so fortunate at this time as to be cordially connected with Dr. Clephane, Dr. Macaulay, Dr. Dickson, afterwards physician to the London Hospital, Dr. Hunter, the celebrated anatomist, and Dr. Armstrong, author of the admirable didactic poem, 'The Art of preserving Health.'" To this list must be added Dr. Smellie, Dr. Pitcairn, and others. As we deal with this subject in another chapter, suffice it to say here that the Dr. Macaulay mentioned, was also a noted London obstetrician of that time, was a friend of Smellie, and communicated to Smellie the case referred to in volume ii., page 14, at the time when he was physician to the lying-in hospital in Brownlow Street. This same Dr. Macaulay it was to whom Smollett was not infrequently indebted for pecuniary assistance in his times of need. We find him, for instance, applying to Macaulay in May, 1753, for the further loan of fifty guineas.¹ Smellie's further intimacy with Smollett continued up till his death.

¹ *Chambers' Life*, p. 87.

In 1766, Smollett paid a visit to Scotland; and, among the other places he visited, was Lanark. The reader will find this noted, together with the details of a most affecting incident to which Smollett and party were on-lookers, and which occurred in that town, in *The Expedition of Humphry Clinker*.¹ What the object of this visit was, is not set down, but it is likely that its purpose was to visit the widow of Smellie, who was at this time living on her small estate, Smellom, in the immediate neighbourhood of Lanark, left to her by her husband during her life-time.

Perhaps one of the most interesting points in the whole of the intimacy of these two men is that in relation to the part played by Smollett in the preparation of Smellie's volumes for publication. To this point we have given very careful attention, and have ransacked every possible source of information to attempt to solve, what hitherto has been, an unsolved question. We have fortunately been successful in our efforts.

In the Advertisement to Smellie's posthumous volume (vol. iii.), it is stated that "the Manuscript was transmitted to the person who prepared the two former volumes for the press, and even delivered to the printer, when the Doctor died, advanced in years, at his own house near *Lanark* in *North Britain*." This advertisement is reprinted in the Sydenham Society Edition. M'Clintock, its editor, remarks in a footnote to it, "who that individual was, whether Dr. Harvie or Dr. Smollett, we cannot say, and need not care to know." In his Memoir of Smellie, which begins the first volume, page 10, he also says, "it is supposed that this friend was no other than Smellie's own countryman, the celebrated Tobias Smollett." If this supposition be correct, then we differ from M'Clintock in thinking the point of no moment. If established, it enlarges the area of Smollett's ascertained field of labour, and we can therefore read Smellie with a greater degree of interest, knowing that the work of a master in the obstetric art has been subjected to the revision of a celebrated master in the literary craft.

The first reference to this connection we found in a pamphlet originally published in London, in 1764, entitled "Man-midwifery analysed; or the Tendency of that Indecent and Un-

¹ Herbert's Edition of *Smollett's Works*, page 557, *et seq.*

necessary Practice Detected and Exposed." This pamphlet passed through at least four editions, the last of which was issued so late as 1790. It was published anonymously, but the author was known to be one Philip Thicknesse. He had, that same year, published a pamphlet, entitled "A Letter to a Young Lady," which had brought down upon him the wrath of the *Critical Review*, a periodical which had been established in London by Mr. Hamilton, a printer, originally of Edinburgh, but who had to leave that city hurriedly after the hanging of Captain Porteous. Hamilton found the money for the magazine, and Smollett, appointed its editor, found the literary matter. Although at the time the review of Thicknesse's pamphlet appeared, Smollett was not in the editorial chair, the magazine was still conducted under Scotch auspices. The pamphlet virulently attacked Smellie, and possibly this had something to do with the causticity of its critique by the *Review*. At all events, as a kind of rejoinder to this critique, Thicknesse returned to the attack in the second pamphlet, "Man-midwifery analysed, etc." At the outset he states "that every indelicate expression in that epistle" ("Letter to a Young Lady") is extracted almost verbatim from their friend Dr. Smellie's "Treatise on Midwifery," a book written in English, "the matter by Smellie, and the language *said to be* that of Dr. Smollett."

The next valid reference is to be found in Dr. Anderson's *Life of Smollett*. At page 44, he says, after speaking of the difficulties Smollett encountered in making ends meet, "among other resources for immediate subsistence, he assisted his countryman, Dr. Smellie, in the course of the year, in the composition of his 'Treatise on Midwifery'; the result of his experience in the obstetrical Art, of which he was the first who made the practice general among the men in our island. The first volume of this popular work, printed in 8vo, 1751, and the second and third volumes, which followed in 1754 and 1763, comprehending the modern practice, owe their chief recommendation to the pen of Smollett." Again, in the *London Medical Directory*,¹ in a paper on "Obstetrical Researches," by Dr. Maurice Onslow, it is stated that his volumes were revised for publication by a friend, "who is known," says the writer, "to have been the celebrated Dr. Smollett."

¹ Vol. xv., page 101.

These statements are of a very explicit kind, and they would seem to remove any doubt that might have previously existed on the point; but they lacked that directness of proof which is necessary to indubitably establish a historical fact. In looking for this fact, we perused the volume entitled "Some Account of the Family of Smollett of Bonhill; with a Series of Letters hitherto unpublished. Written by Dr. Tobias Smollett, Author. Arranged by J. Irving: Dumbarton, 1859." In it we found a copy of the following letter—one of a series which "was in possession of the then representative of the family of Smollett." It is a letter from Smollett to Dr. John Moore, and is dated "Chelsea, March 1, 1754"; and in it he says, "I have nothing ready for the press but Doctor Smellie's second volume, containing cases in midwifery, and my translation of 'Don Quixote,' which will be published next year."

Part of a letter to Dr. Moore, Glasgow, from Smollett, addressed thus:—

To
MR. JOHN MOOR,
Surgeon in Glasgow,
North Britain.

March 1st, 1754.

*I have nothing ready for the Press, but Doctor Smellie's second Volume containing Cases in Midwifery, and my Translation of Don Quixote which will be published next year. I have likewise made some Progress in the History of the German Empire, which I believe will be printed this ensuing Summer; & Drummond's Letters are now ready to appear—
In short, dear John, I am so jaded that I now write with infinite Reluctance, so that you must excuse my inaccuracy, & all other Defects in
your affectionate humble Servant
Chelsea March 1. 1754 J. Smollett*

*present my best Wishes to your Mother & Sisters,
& let me be kindly remembered by Doctor Duk, &
Hamilton your Partner Wrie, Barclay, Blackburne
and all friends at Glasgow.—*

This letter, then, establishes, beyond doubt, the fact that Smollett revised the second volume of Smellie's work for publication; and if the same person performed the same office for the other volumes, as the advertisement to the third volume

plainly states, then Smollett was that person. It further establishes the great probability that this same advertisement was from the pen of Smollett, and also that the Indices at the end of the original editions of vols. ii. and iii. were the work of the same hand.

Through the kindness of the present representative of the Smollett family, Patrick Boyle Smollett, Esq., to whom we now acknowledge our thanks, the above original letter has been put into our hands to make what use of it we think proper. We think it will be of great interest to the reader, and we reproduce above, photographed about half the size of the original, that part of it which refers to the above fact. Not only did Smollett assist Smellie in the publication of his work on Midwifery, but it is probably less well known, that, during the time he occupied the editorial chair of the *Critical Review*, he revised all the attacks and replies made by William Hunter during the literary warfare between Hunter and Monro of Edinburgh, before they were printed.

WILLIAM HUNTER.

When William Hunter left Cullen in Hamilton to proceed to study first in Edinburgh, and then in London, there was a mutual understanding that Hunter should return and become partner with Cullen in practice. This, however, was never realized. When he went to London he was armed with a letter of introduction to Smellie among the others. This Cullen would give him on the strength of his friendship with Smellie which was still active. M'Clintock was evidently not aware of the source of the intimacy. He only thought it was natural that they should be acquainted, being "natives of the same county." Hunter, then only twenty-three years of age, first took up his abode with "Mr., afterwards Dr. Smellie, at that time an apothecary in Pall-Mall," as Foart Simmons puts it. Before many months had elapsed, however, he left Smellie's roof, to take up his new position in the house of Dr. James Douglas, to assist the latter in his anatomical researches. There can be little doubt, however, that he was a pupil of Smellie, in midwifery, during his term of residence with him, and that, coupled with the fact that Douglas at this time was in large obstetric practice, gave that bent to

his mind which caused him eventually to choose this branch of practice as his specialty. Of Hunter's brilliant after-career we need say nothing here, except that he became one of the most eminent of that band of Scotchmen who did noble work in science and medicine in the metropolis of England.

Smellie had good reason to look proudly upon the success of his quondam pupil; and we have no doubt that he ungrudgingly yielded to him every one of the honours which fell to him. The decided superiority in practice which the person and manner of Hunter gave him, was not, we are perfectly certain, envied by Smellie. It has been said, that although friendly at first, they became unfriendly afterwards. We are not aware, however, of a single particle of evidence which would support such a view. Indeed, there is not a little to support the opposite opinion. In dealing with the epistolary communications of Cullen and Hunter (1746), we have already seen the exchange of compliments that was going on between this trio of distinguished men. In Smellie's work, there is nothing to evidence any friction between the two; indeed, in Hunter's collection of books in the Hunterian Museum of the University of Glasgow, we find in the first volume of Smellie's work, the words, "From the author," in Smellie's own handwriting. In 1752-4, at least, Smellie felt it due to Hunter that he should put down publicly his obligations to him. In vol. ii., page 7, we can infer that he was in the habit of seeing Hunter, because he tells us, referring to separation of the Pubic Joint, the case related by Smollett, that he "saw the same phenomenon in a pelvis belonging to Dr Hunter." This was probably some time after 1748. At page 252, of the same volume, he acknowledges his indebtedness to Hunter. This passage requires consideration as to its construction. Smellie's words are:—"In London, Dr. Nisbet assisted me in improving the forceps, and *Dr. Hunter in reforming the wrong practice of delivering the placenta*"; that is to say, "Dr. Hunter" assisted me "in reforming," etc. The sentence, to our mind, indicates that Smellie, having found out for himself¹ that the practice he had followed in the country, in the delivery of the placenta, and afterwards in town, was erroneous; and having satisfied himself that the new method was the better and safer, had found Hunter's assistance of

¹ Vol. i., page 287, *et seq.*

use in promulgating the new doctrine and practice, and in that way *assisted him to reform* the former practice.

M'Clintock, in a footnote to this passage, attributes to Hunter the credit of reforming Smellie's practice in this regard; but this is not borne out. At page 288 of his Treatise, Smellie circumstantially states how he arrived at the method and practice which he inculcated in his book. He tells us that repeated observations showed him, that immediate separation of the placenta by manual extraction—the then practice—was harmful, and that nature was capable, with time, in itself effecting its delivery: He goes on to say, "I resolved to change my method, and act with less precipitation." He accidentally found in Ruysch that this method met with that author's approval, and he adds, "his authority confirmed the opinion I had already adopted." Our reading, therefore, of the passage in question, is, that Hunter co-operated with or *assisted him to reform the wrong practice*, not that he assisted to reform him in the practice.

In the same volume, pages 149-50, Smellie makes reference to Hunter in such a way as to indicate clearly that he was in direct communication with him; and makes in the latter page a further reference to a paper by Professor Monro, in the *Philosophical Transactions* of Edinburgh, where Hunter's name is mentioned: In the year 1754, when the Anatomical Tables of Smellie were published, there are further evidences of this intimacy. In the explanatory text of the Ninth Table, we find, in Smellie's own copy, the following statement, viz., "Consult Mr. ('Dr.' here introduced in Smellie's handwriting) Hunter's elegant Plates of the 'Gravid Uterus.'" This rectification was due to the fact that, shortly before this, Hunter had obtained his degree of Doctor of Medicine from the University of Glasgow. Now Hunter's plates were not yet published, nor were they for several years afterwards. This reference to a work non-existent can only be explained by the fact, that, as Hunter himself says in a letter to Professor Monro of Edinburgh, "my first and original intention, you know, was to have published ten plates only, and to have published them about this time." Hunter must have been in this intention when he penned the above letter, and Smellie could only have stated the above in the knowledge of that intention; and we reason on the presumption they were

intimate friends, that Smellie put down the above note in view of the early issue of Hunter's plates, which he had unquestionably seen.

The other, and only remaining, reference to Hunter is to be found in volume iii., page 199, where Smellie states that "Dr. Hunter was present and assisted at this operation," viz., the operation of removing the head of a foetus, from which the body had been separated, and which was left *in utero*. This was in the year 1752.

Once more, and as showing the interest Hunter had in Smellie, it is noteworthy that, in one of the volumes of Smellie's works which belonged to Hunter, and which is now in the Hunterian Museum in Glasgow, there is, we believe in the handwriting of Hunter, a MS. note on the fly-leaf indicating the nature of the disease from which Smellie died.

The late Matthews Duncan, in his Harveian address, remarked, "It has been often said that there was ill-feeling or jealousy between the two Scotchmen; but while there is not sufficient, or, indeed, any good proof of this, it is very remarkable that we find little evidence of any kind to show that they had even frequent intercourse one with another."

Concerning this latter statement, we have shown, we think, as much evidence as can be obtained from the scanty records of the time, that a considerable degree of intimacy did exist, at least up till 1754, between these two men. But it is remarkable that after this time, there is no evidence at all obtainable of the continuance of the intimacy. Whether there did arise, between the compatriots, any coolness, does not emerge; at any rate, we have not been able to discover any evidence of it. We, however, do know that Hunter did not approve of instrumental midwifery. Dr. Vaughan of Leicester appended to a paper on Hydrophobia, and an account of a case of Caesarean Section, one entitled Reflections, etc., relative to the operation of Cutting the Symphysis of the Ossa Pubis. This paper was written by Hunter, was read before a meeting of physicians in London, and was occasioned by Vaughan sending him the pelvis of a woman upon whom section of the Pubis had been performed. In that paper, he says, "a new practice, salutary and useful perhaps in a few rare cases, may, very naturally, by an indiscriminate and frequent use, do much more harm than good. This sentiment will not surprise those

of the profession who know my opinion of the *Forceps*, for example, in midwifery. I admit that it may sometimes be of service, and may save either the mother or child. I have sometimes used it with advantage; and, I believe, never materially hurt a mother or child with it, because I always used it with fear and circumspection. Yet, I am clearly of opinion, from all the information which I have been able to procure, that the *Forceps* (midwifery instruments in general, I fear) upon the whole, has done more harm than good." This was the opinion of Hunter in 1778. Here, doubtless, is an apparent difference of opinion between these two noted men, but there is no reason to believe that in any way it caused a rupture in their amicable relations. Probably the true reason of the apparent solution of continuity of their friendship is to be found in the fact that, after this time (1754) the work of the two men lay in different planes of society, and that they met less frequently. This is amply borne out by the statements of Foart Simmons, which are, to all intents and purposes, echoed in the "Eloge" pronounced upon Hunter in the *Académie Royale des Sciences*, and which is published in the History of that body, dated 1783.

"THE LEARNED DR. MEAD."

Very early in his London career, Smellie was taken by the hand by some very eminent men of the profession in the metropolis. One of these, to whom he was not a little indebted, was, as Smellie terms him, "the learned Dr. Mead." This friendship most probably arose through Stewart. It so happened that, at the same time, both Mead and Stewart were physicians-in-ordinary, the former to the King, and the latter to the Queen. Mead was probably the most illustrious physician of his time, and his friendship with Smellie must have been of the greatest value to the latter. Mead had a knack of discovering ingenious men, both in and out of the profession of medicine; his interest in Smellie being illustrative of the former, and in Sutton, the inventor of a plan for ventilating the holds of ships, of the latter. The points of contact between Mead and Smellie which are recorded in the work of the latter are not many, but they fully bear out a close intimacy between them. In volume i., p. 255, Smellie,

in discussing the alternatives available for the delivery of women in tardy or laborious confinements, weighs the merits and demerits of the fillet and forceps. He sees advantages in the use of each in appropriate cases, and adds, "The reader ought not to imagine that I am more bigoted to any one contrivance than to another. . . . I have tried several kinds of lacks which have been from time to time recommended to me, and in particular, the last mentioned fillet, which was communicated to me by the learned Doctor Mead, nine years ago. As this fillet could, in all appearance, be more easily introduced than the other, I, for several years, carried it with me when I was called to difficult cases, and frequently used it accordingly; but I generally found the fixing of this, as well as all other lacks, so uncertain, that I was obliged to have recourse to the forceps, etc."

The above-mentioned instrument was constructed in the form of a sheath, mounted upon a piece of slender whalebone about two feet long. It is figured in table xxxviii. of Smellie's Anatomical Tables. The date of the above communication being 1743, it shows that, within four years of his settling in London, Smellie was something more than a mere casual acquaintance of Mead. The remaining reference is in volume iii., p. 265, where he designates Mead as "Mr. Mead." Smellie had called him in consultation to prescribe for a patient, who had been delivered by him some weeks before, and because he himself could not prescribe, according to the laws of the College of Physicians, which he always rigidly observed.

, "MY OLD FRIEND AND PRECEPTOR, DR. NICHOLLS."

Frank Nicholls was probably the most distinguished anatomist in London at the time when Smellie settled there. During his career as a teacher, he also taught physiology and pathological anatomy, and as Smellie indicates, he must have attended his lectures sometime in the earlier years of his London career, when he had more leisure. Nicholls was the son-in-law of Mead. The only reference to Nicholls in the works of Smellie is that from which we have taken our heading, viz., in volume iii., p. 104. The case referred to was one in which pedal version had been performed, and where, after delivery, the child showed signs of suspended animation.

“Soon after,” says Smellie, “the infant showed some weak signs of life, and in about ten or fifteen minutes began to cry and breathe with more freedom: that which had the greatest effect was whipping his little breech from time to time, for which I ask pardon of my old friend and preceptor, Dr. Nicholls.” This, doubtless, alludes to some teaching of Nicholls in his work on the circulation of the blood in the foetus, before and after birth, which was published in 1733. By the year 1751, the practice of *man-midwifery*, as it was then termed, had been much extended, and this was most largely due to Smellie. Nicholls, who was a purist as regards the College of Physicians, viewed, with considerable disfavour, the growing tendency on the part of the Fellows of that College to soil their hands, as he deemed it, in the practice of the obstetric art. Whether this disfavour arose from an idea he may have had that obstetrics was more legitimately a branch of surgery than of medicine, or whether from the consideration that as pure obstetricians were not entitled to usurp the functions of the pure physicians, the latter should not encroach on the preserves of the accoucheur, we cannot definitely determine, but we believe that his objections arose partly from both views. In that year, there was published anonymously, but unmistakably from his pen, “The Petition of the unborn Babes to the Censors of the Royal College of Physicians of London. Printed for M. Cooper in Paternoster-row; and sold by the Booksellers of London and Westminster, 1751. Price Threepence.” Consisting only of eleven pages, the pamphlet nevertheless deserves some detailed consideration, because it throws light on these times in regard to the practice of midwifery. It purports to be an indictment against *Dr. Pocus* and *Dr. Maulus* for acting in midwifery cases; and, indeed, against all the members of that College who practised midwifery. The bust of Harvey is supposed to be addressing the Physicians assembled “as a Court of Inquest, constituted by Parliament to enquire into the Deaths of six Children, said to have died in the Delivery under the Hands of a Man-midwife.” After considerable invective, the speech ends in these words: “Ye shall be visited with Shame and Confusion, and this your Dwelling shall be divided among the Scots.” Hutchinson, in his *Biographia Medica*, says of this pamphlet, that Nicholls satirized Drs. Nesbitt, Maule, Barrowby, Sir

William Browne, Sir Edward Hulse, and the Scots. There are, however, no surnames mentioned in the pamphlet, although "Dr. Maulus" probably is intended to mean Dr. Maule, and "Sir William," which occurs also, Sir William Browne.

In the Hunter-Cullen correspondence there is a letter of date 22nd February, 1752, which, we believe, bears direct reference to the foregoing pamphlet. Hunter writes, "Physic is in a strange ferment here. The practitioners in midwifery have been violently attacked, but by a madman; and in that scuffle, I have had a blow too obliquely:—the reason is, we get money, our antagonists none." Shortly after "The Petition" appeared in print, and in the same year, a second pamphlet was issued from the same press bearing the title, "A Defence of Dr. Pocus and Dr. Maulus against the Petition of the Unborn Babes"; of which, also, Nicholls is supposed to be the author. The "Defence," however, is a literary figment; it really is but a continuation of the "Petition." Neither of the pamphlets evoked the public attention. Nicholls, however, earned the gratitude of the midwives. The author of "Man-Midwifery analysed," published in 1764, informs us that Nicholls received from Mrs. Kennon, a celebrated midwife of the time, a bank-note for £500 for writing the "Petition." The allusion to the Scots in the former pamphlet requires a word of explanation. In 1752, several of the Licentiates of the College of Physicians, graduates of either Scottish or foreign universities, resting uneasily under their disability to become Fellows, made a representation to the College through its president, Dr. Wasey, urging that the disability be removed. It was, however, without avail, although the movement caused considerable excitement for a lengthened period. The charter of the College provided that only graduates of the Universities of Oxford and Cambridge might become Fellows; the graduates of all other universities could only attain to the rank of Licentiates.

OTHER FRIENDS.

Of the other friends of Smellie who are mentioned by name in his work, space forbids us to say much. Among these were Doctors Peter Shaw, who was Physician Extraordinary to George II., Professor Alexander Monro, primus,

who was the first occupant of the Chair of Anatomy in Edinburgh University, Donald Monro, his son, who was Physician to Saint George's Hospital, George Macaulay, a noted obstetrician in London, and the good friend of Smollett, Desaguliers, the philosopher, and many others. Professor Monro is mentioned in the Reply to Douglas, and, as will there be seen, received from Smellie a pair of his Wooden Forceps. He and William Hunter had many a controversy on anatomical subjects. Dr. Anderson, in his life of Smollett, says that Smollett always revised and corrected the MS. of Hunter's attacks and replies before they were published. Neither did this literary warfare cease with Monro *primus*. After his retirement from the professorship in Edinburgh, Monro *secundus* continued it. In a MS. volume of his lectures, which we have in our possession, he says that he has been engaged for a number of years in disputes with Hunter on various subjects, and, adds he, "I foresee our disputes will not end here, for if I mistake not we shall e'er long have another on the Gravid Uterus." Dr. Donald Monro, a student of Smellie, speaks of Smellie's Museum in the *Medical Essays* of Edinburgh for 1754.¹

¹ Article xvii.

CHAPTER IX.

SMELLIE AN AUTHOR.

THE year 1751 was a busy and important one in obstetric history. During its currency, at least four authors published on midwifery, viz :—Brudenell Exton, John Burton, George Counsell, and Smellie. The Treatise of Midwifery of Smellie had been preparing for a considerable time before this; he was waiting to produce as complete a work as possible before committing himself to print. For six years before, Smellie had been writing his lectures, and had been altering, amending, and digesting, what he had written against the time of publication. He thought his views were now sufficiently mature to be issued to the world,—views which were the harvest of about thirty years of practice and at least of ten years' teaching. During the ten years immediately preceding this date, he had been a very busy man. He tells us that during that period, "I have given upwards of two hundred and eighty courses of Midwifery, for the instruction of more than nine hundred pupils, exclusive of female students; and in that series of courses one thousand one hundred and fifty poor women have been delivered in presence of those who attended me; supported during their lying-in by the stated collections of my pupils; over and above those difficult cases to which we were often called by midwives, for the relief of the indigent. These considerations, together with that of my own private practice, which has been pretty extensive, will, I hope, screen me from the imputation of arrogance with regard to the task I have undertaken; and I flatter myself that the per-

formance will not be unserviceable to mankind." As with most authors the plan to be given to his work occasioned him some anxiety. At first, he thought to throw his book into lecture form, but he believed that plan to be unsuitable, inasmuch as "almost every observation has a reference to the working of those machines which I have contrived to resemble and represent real women and children; and on which all the kinds of different labours are demonstrated and even performed, by every individual student."

He determined that the book should take the form of a treatise, and he believed that in this respect he might very well follow the example either of the works of La Motte or of that of Mauriceau. At first La Motte's plan, that of introducing narratives of cases illustrative of the text in the body of the work, seemed to have not a little to commend it to his choice. Doubtless his supervision of Tomkyns' translation of that author had impressed it favourably on his mind; and that he had been long in favour of such a method of writing a book on this subject is evidenced from his having inspired Tomkyns to the work of translation. But he reflected that, while a book like that of La Motte was admirably adapted for the more mature reader, it might tend to embarrass the student in the progress of his reading; consequently, he abandoned the plan of La Motte for that of Mauriceau. For Mauriceau, as a writer and as an exponent of the doctrines of sound midwifery generally, Smellie had considerable regard. We have it shown by the fact that there is no writer of that period, the different editions of whose works find a more prominent place in Smellie's library than do those of Mauriceau. There are two editions of his *Observations sur Grossesse et l'Accouchement des Femmes, etc.*, of date 1715 and 1738 respectively; and there are, at least, four different editions of his *Traité des Maladies des Femmes Grosses*, viz., the third French edition of date 1683, a Latin edition published in London in 1688, another Latin edition printed at Leyden in 1708, and the fifth and seventh French editions of date 1712 and 1740 respectively. Consequent upon this determination, he published his resolve to print a second volume of cases "digested into a certain number of classes or collections, with proper references to the particular parts of this treatise; so that the reader, when

he wants to see the illustration, may turn over to it at his leisure, according to the directions in this edition.”¹ This treatise, therefore, took the form of an Introduction and Four Books, divided into chapters, sections, and numbers. The *motifs* of the work were studied avoidance of theory and direct observation of Nature.

There seems to be some dubiety among several writers as to the precise date of the publication of this Treatise, whether 1751 or 1752. It is true that the point is a trifling one, but it is worth considering for a moment. There can be no doubt about this fact, that a critical notice of it appeared in the *Monthly Review* (London), in December of 1751; but whether, at this time, only advance copies had been issued to the press, we cannot say. On the other hand, it must be borne in mind that it was in this year (1752) that the Gregorian calendar came into force, from which the above apparent confusion may have arisen. A second corrected edition, however, appeared in 1752. The critical notice in question constitutes the 61st Article of the fifth volume of that magazine. The following is its substance (p. 465 of the volume).

“ 1. To this Treatise is prefixed a short Preface, apprizing the Reader of the Doctor’s Motives for committing himself to the World, and containing a succinct Account of the Work, which begins with an Introduction, exhibiting a Summary Synopsis of the Practice of Midwifery, both among the Antients and Moderns, with the Improvements which have been made in it from the Time of Hippocrates to the present Age; then follows a distinct and regular System of the obstetric Art, in all its Branches, comprehending the Anatomy of the Parts, the Diseases incident to pregnant Women, the Various Methods of delivering in natural, preternatural, and laborious Cases; the Disorders proper to Mother and Child, either at, or after, the Birth, and the Choice and Management of Nurses, whether wet or dry.

“ 2. In perusing this Treatise, one may easily perceive that the author is perfectly Master of his Subject, and that far from endeavouring to amuse his Readers with vain Hypotheses, or, as vain Exaggerations of his own Success, he asserts nothing that is not justified by his own Experi-

¹ Preface to Third Edition, vol. i.

ence, and fairly owns the Circumstances of his own Mis-carriage, in those Instances wherein his Attempts have failed.

“ 3. His Description of the Pelvis is accurate, his Observations on its Structure, and that of the Child’s Head, useful and ingenious; and, if we are not mistaken, he is the first Writer, who upon mechanical Principles, hath demonstrated the different Modes of Operation, in all the Emergencies of Practice; he, in a very minute Manner, recommends and describes the Use of the Forceps, as he himself hath improved that Instrument, and then proceeds to give a Detail of other Expedients used in the Practice of Midwifery, some of which he hath also rendered more commodious; and tho’ he has laid repeated Injunctions on the young Practitioner, to avoid as much as possible the Use of Instruments, he has likewise proved, beyond all Contradiction, that, in some Cases, they are absolutely necessary for the Preservation of the Patient’s Life; he confutes the erroneous Notions that have been entertained by the Modern Writers on this Subject, rectifies certain mistakes of Daventer, touching the different Situations of the Uterus, and justly blames La Motte for having essayed to mislead young Men in their Opinions, by concealing the unsuccessful Part of his Practice, which must have been considerable, if he, on all accounts, neglected the Use of Instruments, against which he indiscriminately exclaims.—In a Word, Dr. Smellie’s Improvements are, in our Opinion, solid and effectual, his Instructions, clear and perspicuous, his Remarks judicious, and happily deduced, his general Method of Practice unexceptionable; and there is an Air of Candour, Humanity, and Moderation, through the whole Book, which cannot fail to engage the Reader’s Favour and Esteem.

“ 4. Affixed to this Treatise are the Author’s Proposals for publishing a Set of anatomical Figures, engraved after the Drawings of a very able Artist, who drew them from the human Subject, under the Doctor’s own Eye and Direction; and if the whole are as well executed as those Specimens left with the Publisher, it is not to be doubted but the Subscription will soon be filled; for, in point of Design and anatomical Exactness, we may venture to pronounce them to be superior to any Figures of the kind hitherto made public.”

Such was the brief but laudatory notice of the reviewer.

That Smellie was paying attention to the literature of Midwifery during the earlier years of his stay in London, probably with the idea and intention of familiarizing himself with the difference in doctrines which prevailed, is evident from the interest he was taking in the works of La Motte. Prior to, and during, the year 1746, Smellie had, as one of his pupils, one Thomas Tomkyns, English by name, but French by birth and upbringing. Smellie was much impressed with the value and merits of La Motte's Treatise, and thinking that this was an excellent opportunity of establishing a French author of repute on English soil, he inspired Tomkyns to translate the work, while he himself promised to supervise the whole. In this indirect way did Smellie make his *début* into literature, and thus, for the first time, were the doctrines of La Motte rendered serviceable in English. In addition, he was industriously collecting works of former writers on this subject, with the result that his collection of books at Lanark is found to contain practically all the prominent writers that preceded him.

CHAPTER X.

THE LITERATURE OF MIDWIFERY FROM 1660-1760.

ALTHOUGH in the Introduction to his Treatise Smellie gives a cursory glance at the doctrines of the prominent writers, the sketch is admittedly not complete. In this chapter, therefore, we propose to deal with The Literature of Midwifery from the Middle of the Seventeenth, up to the Middle of the Eighteenth Century, with the view of contrasting, at a later stage, the doctrines commonly taught before his time, with those he himself inculcated.

Prior to the last three decades of the seventeenth century, the subject of midwifery had not attracted so much attention at the hands of medical men as it was afterwards destined to receive. The chief cause of this is probably to be found in the fact, that, in these earlier times, the practice of the art was practically confined to women. Male practitioners were, during this period and for a long time thereafter, only called to treat parturient women when the resources of the midwife were exhausted, and when the energies of the patient were in a like condition. In consequence of this, a good deal of what was written dealt almost solely with the instrumental side of the art, and, unfortunately, too, with instruments which were not intended to be conservative, but destructive, of the product of conception. As was frequently remarked by various writers of that time, the energy and invention of male practitioners were not directed so much to the normal process of parturition, as to its abnormal conditions; consequently, much that was

written on ordinary parturition, on the position of the foetus *in utero*, on the mechanism of labour, and on other kindred subjects, was based more on theory or conjecture, or ancient tradition, than on direct observation of Nature ; a great deal of what was published, as was to be anticipated, was ill-founded and incorrect. Up till the end of the seventeenth century, the leading works on midwifery at the command of the student were comparatively few, and the majority of them were issued from the French press, because it was in that country that clinical facilities for male observation had earliest existed. In Great Britain, in addition to what might be termed the more important works, there was a large amount of obstetric literature of a very primitive character. This was due to the fact that not a few writers specially catered for the usually comparatively uneducated midwife, and their doctrinal teaching was, in consequence, elementary in form. In spite of this, however, this latter class of literature survived for a very long period.

Probably one of the earliest works to command attention in this country, and to keep a footing for a long time thereafter, indeed well on into the eighteenth century, was *The Byrthe of Mankynde*. There is much that is very interesting to the bibliographical student about this book, quite apart from the subject of which it treats and the style in which it is treated. The ordinary English translation—we had almost said edition, but there were several editions of it—purports to be “set forth” into English by Thomas Raynold [or Raynalde]. Printed in black-letter, it is now a rare book, and is esteemed a prize by those possessing it. It is less well known, however, that before Raynold translated, or perhaps, more correctly, edited, this work, it had been translated at an earlier date by another person. Pettigrew, in his sketch of the life of Sir Charles Mansfield Clarke,¹ gives us an excellent account of this, the earliest, translation into English. The MS. of this translation was in his possession when he wrote the above sketch, and he tells us, further, that besides being the earliest known work on midwifery in the English language, it was presented to Katherine, Queen of Henry the Eighth. The full title of it is as follows :—“The Byrthe of Mankynde

¹ *Portrait Gallery*, vol. i.

newlye translated oute of Laten into Englysshe. In the which is entreated of all such thynges the whiche chaunce to women in their labor, and all suche infirmities which happen unto the Infantes after they be delyvered. And also at the latter ende or in the thyrde or laste booke is entreated of the conception of mankynde, and howe manye wayes it may be letted or furtheryd, with diverse other frutefull thynges, as doth appere in the table before the booke."

The work opens with "An Admonicion to the Reader," which we think, for quaintness of expression and wise counsel, is worthy of being here put down. It proceeds thus:—
 "For so much as we have enterprysed the interpretation of this present booke, offerynge and dedycatyng it unto our mooste gracious and vertuous Quene Katherin onely; by it myndyng and tenderyng the utilite and wealthe of all women, as touchyng the greate parell and dangours, which mooste comonlye oppresseth them in their paynfull labours. I requyre all suche men in the name of God, whiche at any tyme shall chaunce to have this booke, that they use it godlye and onely to the profight of their neighbours, utterly enschuyng all rebawde and unsemelye comunicacion of any thynges contayned in the same, as they wyll answeere before God; whiche as witnessyth Christ wyll requyre a counte of all ydell wordes, and mucche more then of all rebawde and uncharitable wordes. Every thyng as saithe Solomon hath his tyme, and truelye that is farre out of tyme, yea and farre from all good honestie, that some use at the commune tables, and without any difference before all companyes rudely and leudelye to talke of suche thynges, in the whiche they ought rather to know mucche and to saye littel, but onelye where it maye do goode, magnifyeing the myghtye God of nature in all his workes, cōpassionatyng and pytyng our even Christians the women whiche sustayne and endure for the tyme so greate dolor and payne for the byrthe of mankynde and delyverance of the same in to the worlde.

Prayse God in all his Workes."

Then follows the "Dedication." "Unto the most gracious and in all goodness most excellent vertuous Lady Quene Katheryne wyfe and most derely belovyd spouse unto the

most myghty sapient Christen prynce Kyng Henry the Eighte Rychard Jonas wyssheth p'petual joye and felycyte." Then he goes on to tell how that the original work was "a boke entitled *De Partu Hominis*, that is to saye, of the byrth of mankynde compyled by a famous doctor in Physyke, called Eucharius, the whiche he wrote in his owne mother tunge, that is, beyng a Germayne, in the Germayne speche, afterwards by an other clarke, at the request and desyre of his frende transposed into Laten, the whiche boke for the singular utilite and profete that ensueth unto all such as rede it, and mooste specially unto all women (for whose onely cause it was written) hathe ben sythe in the Doutche and Frenche speche sette forthe and empynted in great nōber," etc.

This work is arranged in three Books, divided into chapters. It contains sixteen plates, representing the supposed positions of the foetus. The Hunterian Collection in Glasgow University is singularly rich in editions of Rhodion and Raynalde, but it does not contain a copy of the translation by Jonas. There are, in addition to those mentioned below, of Rhodion :

1°	An edition.	12°	Franc.	1532.
2°	do.	12°	Paris.	1536. (French edition.)
3°	do.	12°	Franc.	1544.

and of Raynalde (which is really a free translation of Rhodion) :—

1°	An edition.	Black Letter.	4°	1565.	Lond.
2°	do.	Ordinary Roman text.	4°	1598.	Lond.
3°	do.	„	4°	1654.	Lond.
4°	do.	„	4°	N.D.	Lond.

Pettigrew believed the date of its first issue by Jonas to be about 1540. A copy bearing this date is in the library of the Obstetrical Society of London. The original work, which was printed in German, was published at Wurms, in 1513, with the title "Der swangern Frawen und Hebammen Rosegarten," in quarto form, "by Euch. Roesslin." The title of the Latin translation, as mentioned by Eloy,¹ is : "De Partu Hominis et quae circa ipsum Accidunt, adeoque de parturientium et Infantium morbis atque curâ libellus." The date of the publication of this Latin translation is difficult

¹ *Dict. Hist. de Medicine*, vol. ii., p. 166.

to settle; probably it was from 1531-7. A copy bearing this latter date exists in the Hunterian Collection in Glasgow University, and was printed at Venice, by Baptiste Pederzani, in 1536. It consists of 70 pp., and contains 20 illustrative plates, which are indeed very rude. There is a second copy, unpagged, which is dated "Francofurti, xix. Octobris, 1532." Another copy exists in the library of Physicians and Surgeons of Glasgow, of date 1532, which contains thirty woodcuts. The copy which Eloy mentions was published at Paris in 1535, in octavo. Copies of this edition are exceedingly rare, and Pettigrew, speaking of their rarity, says that at the time he was writing, "no copy of the Latin edition is to be met with in any of our public libraries." Eucharius Rösslin or Rhodion was a native of Frankfurt. Two English translations were issued; the first by Jonas about 1540, and the second by Raynalde in 1545. The first edition by Raynalde purports to have been printed by Thomas Ray. Pettigrew declares that no one of that name was known as a printer at that time, and he surmises that "Ray" stands for the first syllable of the editor's name, who, himself, probably undertook the responsibility of publishing it. This translation by Raynalde went through several editions, and was for upwards of a century and a half one of the principal, if not, indeed, the chief work, in the hands of English midwives. We have seen editions bearing the following dates, viz., 1565, 1598, 1626, and 1654. The title of this translation is as follows: "The birth of mankinde, otherwyse named, The Woman's Booke. Set forth in English by Thomas Raynalde, Phisitian, and by him corrected and augmented. Whose contents yee may reade in the Table followyng: but most playnely in the prologue. Imprinted at London by Richarde Watkins." The later editions contained seventeen plates.

The object Raynalde had in view in editing the translation of Jonas is more fully set out in the prologue. He therein says: "Wherefore now to come to our purpose, yee shall understand that about three or foure yeares before I tooke this booke in hand, a certaine studious and diligent clarke, at the request and desyre of divers honest and sad matrones being of his acquaintance, did translate out of Latine into English a great parte of this booke, entituling it, according

to the Latine inscription, De Partu Hominis, that is to say, of the Birth of Mankinde: which we now doe name, The Woman's Booke, for so much as the most parte, or well-neere all therein entreated off, both concerne and touch onely of women. In which his translation hee varied or declined nothing at all from the steppes of his Latine Author, observing more fidelitie in translating, than choyce or discretion (at that time) in admitting and allowing many thinges in the same booke, greatly needing admonition, and wary advice or councell to the readers, which otherwise might sometimes use that for a helpe, the which should turn to a hindrance: Wherefore I, revolving and earnestly revising from top to toe the said booke, and herewithall considering the manifold utilitie and profite which thereby might come to all women (so touching that purpose) if it were more narrowly looked over and with a straighter judgement more exactly everythinge therein pondered and tryed, thought my labour and paynes should not be evill employed, ne unthankefully accepted and received of all honest, discreete, and sage women, if I, after good and diligent perusing thereof, did correct and amend such faults in it, as seemed worthy of the same, and to advise the readers what thinges were good or tollerable to be used, which were dangerous, and which were utterly to be eschued." There is an excellent copy of this translation by Raynalde in Smellie's collection, of date 1565, and, on the fly-leaf, the name, "Eliza Cox, her booke." Not only was this book translated into English, as above, but also into French, from the Latin, by Bienassis, in 1536, and into Dutch, in 1559. Smellie, in the Introduction to his Treatise, devotes a few lines to the doctrines of the writer, and concludes that he had copied from the ancients. Leroy says of this criticism of Smellie: "Le jugement désavantageux que le Docteur Smellie a rendu de cet habile médecin, prouve qu'il ne l'a pas lu, et qu'il l'a jugé d'après l'opinion de gens intéressés à décrier sa doctrine." This view is, in our opinion, incorrect; Smellie was, indeed, likely to be conversant with the work in question, since the volume was in his library; and, moreover, the date he assigns to its publication corresponds to the date which his own copy bears, viz., 1565. We have devoted the foregoing pages to this work because, as we have already said, it was not only

the standard work in England for about one hundred and fifty years or more, but also because, as Smellie says, it "became universally the woman's book over all Europe."

The next works of importance in the hands of midwives are mentioned in John Douglas' "Short Account of Midwifery, etc." He points to them as being excellent works for their intended purpose. The first was that written by Madame du Tertre, also known by the name of Madame de la Marche. It is entitled: "Instruction familière et très-facile, faite par Questions et Réponses touchant toutes les choses principales qu'une Sage-Femme doit sçavoir pour l'exercice de son art. Composée par Marguerite du Tertre, veuve du Sieur de la Marche, Maistresse Jurée Sage-Femme de la Ville de Paris et de l'Hôtel-Dieu de la dite Ville, en faveur des Apprentisses, sage-femmes du dit Hôtel-Dieu. Paris, 1677."

The other book which he mentions is that by "Madame Lovys Bourgeois." She will, perhaps, be more easily recognized in Louise Bourgeois or Boursier. Her work is entitled: "Observations diversés, sur la sterilité, perte de fruct fœcondite accouchements et maladies des femmes et enfants nouveaux naiz amplement traictées et heureusement practiquées par L. Bourgeois, dite Boursier, sage-femme de la roine. Paris, 1609." There is a copy of the French edition in the library of the College of Physicians of Edinburgh, which is dated 1626. It was, as Douglas tells us, translated into English in the year 1698; but there is good reason to believe it was earlier than that year. We believe that "The Midwives' Book, by Mrs. Jane Sharp," published in London in 1671, was largely taken from this work, and that the substance of the work of Du Tertre is to be found in "The Complete Midwife's Practice," published in London, in 1680, and also in "The English Midwife, enlarged," in 1682, all of which are to be found in the Hunterian Collection. La Motte, in the preface to his work, mentions that this lady was "head-midwife of the hospital," at the time he was "topic (*i.e.*, he who follows the physician and writes down what he prescribes—our modern clinical clerk). She was a woman of note in her time. Leroy informs us that "les plus célèbres Médecins de la Faculté de Paris, entr'autres Delaurent, se firent un plaisir de cultiver les heureuses dispositions que lui avoit donnée la Nature pour l'art qu'elle

professoit. Bientôt elle se crut en état d'instruire, par ses écrits, ses semblables, et à l'imitation de la fameuse Aspasia, elle s'acquittait à la fois de la confiance de son sexe et l'estime de ses contemporains. Si l'art, dans ses mains, ne fit pas de nouveau progrès, la postérité ne lui reprochera de l'avoir détérioré."

The work of Jacques Guillemeau was also well known in London about the time of Smellie. Originally published in Paris in 1609, under the title "De l'heureux Accouchement des femmes, etc.," it was translated into English and published anonymously in London, in quarto form, in 1612. Another edition was issued in 1635; both containing wood-cuts. Its English title was "Childbirth, or the Happy Deliverie of Women: Wherein is set down the Government of Women in the time of their breeding Childe, of their Travaile, both naturell and contrary to nature, and of their lying-in, together with the diseases which happen to Women in those times, and the meanes to helpe them; and a Treatise of the Diseases of Infants, etc." Smellie was conversant with the English translation; he mentions it in his Introduction, and informs us that "in it, all the absurd notions about spells and amulets were left out."

In 1685, there was published the first of a series of more advanced works from the French School. Its author was Paul Portal, and its title "La Pratique des accouchemens soutenue d'un grand nombre d'observations, composée par Paul Portal, Maistre Chirurgien juré. Paris." Smellie's collection possesses a copy; and he refers to the book in vol. i., p. 67, where he simply notes the fact of its publication, and also in vol. ii., p. 286, where he quotes the substance of Observation xvi. of the book, where the *os internum* was "tore by its being mistaken for the placenta." This treatise was translated into English in 1705, with the title, "Compleat Practice of Men and Women Midwives; or, The True Manner of Assisting a Woman in Child-bearing." Subsequent editions were issued, of which we have seen one dated 1763.

Probably the first work of importance during this epoch was that by François Mauriceau, which was published in Paris in 1668, in quarto, with the title, "Des Maladies des femmes grosses et accouchées, avec la bonne et veritable methode de les bien aider en leurs accouchemens naturels,

et les moyens de remedier à tous ceux qui sont contre nature et aux indispositions des enfans nouveaux-nés, etc. Composé par François Mauriceau, Chirurgien juré à Paris et Maistre des Arts." This work went through several editions in France, and was translated at different times into Latin, German, Dutch, Italian, and English. We have already said something as to the French and Latin editions in speaking of the plan of Smellie's treatise. The English translation was made by Hugh Chamberlen, M.D., and was published with the title, "The Diseases of Women with Child and in Child-bed: As also the best Means of helping them in Natural and Unnatural Labours." Chamberlen, in 1672, the date of issue of the first edition, was Physician in Ordinary to His Majesty. His translation was printed in small octavo form, and consisted of 437 pages. The first edition did not contain the anatomical part of the original; this was, however, supplied in the subsequent editions. It passed through several editions in England. We have been able to trace those of 1672, 1681, 1683, 1716, 1727, and 1755. The edition of 1755—published three years after Smellie's Treatise—is called the *eighth* edition, and is composed of 375 octavo pages.

In 1695, Mauriceau published his first volume of "Observations sur la Grossesse et l'accouchement des femmes, etc.," at Paris, in quarto; and his second volume in 1706, entitled, "Dernières observations sur les maladies des femmes grosses et accouchées." Of each of these volumes, also, were several subsequent editions published. In 1694, besides, he wrote his "Aphorismes touchant la grossesse, accouchement, les maladies et autres dispositions des femmes"; and it, likewise, was published at Paris, in duodecimo. This was translated into English, and published in London by T. Jones, Surgeon in Norwich, in 1739, with the title, "Aphorisms relating to the Pregnancy, Delivery, and Diseases of Women." Smellie incidentally alludes to it in his Introduction, and the only copy which we have been able to consult is in his collection. It is not mentioned either by Hinze, von Siebold, or M'Lintock. It contains 286 aphorisms, and in the appendix he condemns Mauriceau's view of the thickening of the uterus during pregnancy. Mauriceau's *rencontre* with Chamberlen and his forceps is

narrated in Observation 26, and is the case “d’une femme qui mourût avec son enfant dans le ventre, qui n’en pût jamais être tiré par un Médecin Anglois qui avoit entrepris de l’accoucheur.” This case, which happened in the Hôtel-Dieu in Paris, was so far unfortunate for Chamberlen. His ostensible mission to that city had been to demonstrate the great superiority of his “secret” instrument, in delivering women in tedious or difficult labours; his more immediate purpose, however, being to sell the knowledge of the instrument. Having failed to effect a sale, by reason of his failure in this test case—a miscarriage, which we may add, was, in this case, neither due to the instrument nor to the operator—he set out for Holland on the same quest. According to Leroy, Ruysch united with Roonhuysen to buy the instrument; they, in their turn, parted with the secret to others likewise for a “consideration,” and these again, in their turn, more magnanimously made it public. This instrument, as sold, was, says Smellie, “a single piece of iron near eleven inches long, one inch in breadth, one eighth of an inch thick, and covered with leather; straight in the middle for the length of about four inches, and bent at both ends into a curvature about three-eighths of an inch in depth.” It would appear, therefore, that the “secret,” which Chamberlen sold in Holland, was a vectis rather than the forceps. This, however, does not correspond with Rathlaw’s description of the instrument of Roonhuysen. Should the reader care to proceed further on this point, he might consult a paper by Bland giving “Some Account of the invention and use of the Lever of Roonhuysen,” which is printed in *Medical Communications*.¹

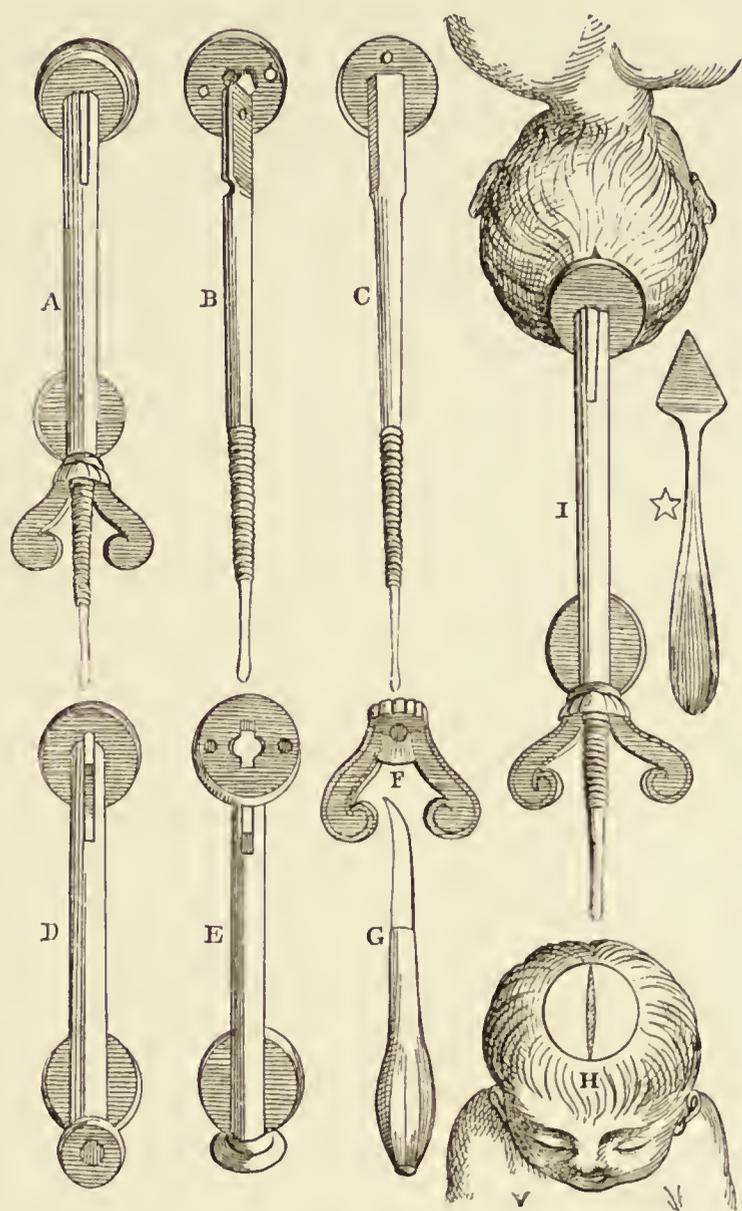
There was no author who was held in higher esteem by Smellie than Mauriceau, although he acknowledges he found by experience that his expedients for delivery were ineffective. Mauriceau’s instrument for opening the foetal head was largely discussed at one time, and we here reproduce a photogravure of it for the reader’s benefit.

While the French press was busy issuing works by French authors, and the English press works by English authors and translations from the French, the Scottish press found but little employment in this direction. There was, how-

¹ Vol. ii., p. 397, 1790.

ever, one work issued from the Edinburgh press which we believe to be the first work on midwifery, of any importance,

PLATE II.



MAURICEAU'S INSTRUMENT.

FIG. 1 represents the instrument *in situ*, ready for extraction.
 FIGS. A, B, C, D, E, F represent parts of the instrument.
 FIGS. G and * sharp instruments for making incision in foetal head.
 FIG. H the incision in the head.

published in Scotland by a Scottish author. It is nowhere mentioned by any of the writers who have formerly dealt with the bibliography of this subject. In making researches in the Hunterian Collection, we came across the work in question, and were much struck with its style and practical teaching. A careful perusal of it quickly reveals that not a little of it is borrowed from the French, and possibly from Mauriceau. It is entitled "The Expert Mid-Wife: A Treatise of the Diseases of Women with Child, and in Child-Bed: As also of the best Ways and Means of Help in Natural and Unnatural Labours with Fit Remedies for the various Maladies of New-born Babes. A Work more

full than any yet extant: And most necessar for all Bearing Women, Midwives, and Others that practise this Art. By Mr. James M'Math, M.D., Edinburgh. Printed by George Mosman, and are to be Sold at his Shop in the Parliament Closs. MDCXCIV." This particular copy, from which we have quoted the foregoing title, possesses this additional interest to the student of this time, that it originally belonged to James Douglas of London—William Hunter's quondam Master—his name, if not indeed his signature, appearing on the fly-leaf. The book is dedicated "To the Lady Marquise of Douglas." The author says in the preface "Nor would I but chuse Your Illustrious Name, being vertuous Consort to the Noble Marquis of Douglas, whose most obsequious Vassal and Client I am, as for other Causes, so by vertue of my Native Soyl: To build that Noble House also." There are no wood-cuts in the work; and on this point we are told:—"I have not inserted the engraven Figures of the Infants in their various Postures, and some others, having especially so clearly represented all by word: Nor yet any Figures of the Instruments, proper to this Art, of which the ancients had a great variety: For that albeit the use thereof, hath universally hitherto prevailed, and that I have also shewn the best and securest way of using the same in all operations, yet they may, and ought to be, abandoned, for their pernicious Effects upon both Women and Children: And tho some Physicians at London [here the writer alludes to the Chamberlens], have by industry attained to, and now keep it as their horrible Secrete from all the World beside, to extract Children, or expedite all difficult Deliveries without them: yet why not other knowing and industrious Physicians also, who ply the Study and Improvement of this: or rather Mid-wives, by their Advice or Counsel, whose hands are less terrible, more easie, adapted and expert: so that they seem continued from a dull Custom, to the sad Hurt and Ruine of many Women and Infants, more than any necessity." He then informs his reader of the reason why he, "having appeared so long in a subordinate station," should affix the title of Doctor to his name: He received his degree at the University of "Rhems," in April, 1677, after having studied both at Leyden and Paris, and after having served an apprenticeship in "chirurgery and

pharmacy"; and, continues he, "tho for a good many years after my Return, I traded with Drugs and the Apothecars Shop, yet that could be no disparagement nor prejudice thereto, but for a greater Improvement and Experience, and for a safer Practice, having so long in that made proof of Receipts, from most Physicians in the place: So that whatever I may lake of Inguine (lack of ingenuity?), good Luck, or Fortune in the matter, I come Nothing behind for Diligence and Industry." The work consists of three books; the first having 23 chapters, the second 30, and the third 39, and makes up to 394 pages. Our conclusion, after perusing it, was that it was a well-written, common-sense work, viewed in the light of its times.

Following Mauriceau, came a number of French authors. Immediately succeeding him in point of time, was Cosmè Viardel, who published a work, in octavo, in 1671; its title being:—"Observations sur la Practique des Accouchemens naturels, contre nature, et monstreux, avec une Méthode tres-facile pour Secourir les femmes en toute sorte d'accouchemens, sans se servir de Crotchets, n'y d'aucun instrument que de la seule main, etc. Composé par Cosmè Viardel, Chirurg: ord: de la Reyne. Paris." In 1748 there was published a new edition, in quarto, with supplement.

It is noteworthy that Smellie nowhere mentions the name or the work of this writer; it is possible, indeed likely, however, that he may have included him among those "others of the same nation," who wrote on the same subject.

Following a chronological order, we note that the next work issued from the London press in 1681, and was written by Nicholas Culpeper, under the title of *A Directory for Midwives*. There is a copy of this work in the Hunterian Collection, dated 1701, showing that it must have gone through more than one edition, at least. From the internal evidence it appears that it was merely a compilation, and that badly done. Of this writer Smellie says in his Introduction, that "his performances were for many years in great vogue with the midwives, and are still (1752), read by the lower sort whose heads are weak enough to admit such ridiculous notions." About this same time, too, Dr. Salmon, "a great translator and compiler," was part

author of a work called *Aristotle's Midwifery*, of which a new edition was published in London, in 1708, as "The Works of Aristotle, in four Parts." This writer, "William Salmon, Professor of Physick, near Holborn Bridge, London," as he designates himself, also compiled "The Compleat English Physician, in ten Books," in 1693, and the "Ars Chirurgica, in seven Books," in 1699. The former of these is in Smellie's collection. We believe that we have seen a reprint, within the last thirty years, of this *Aristotle's Midwifery*.

Phillippe Peu was the next author in point of time. He wrote "La Pratique des Accouchemens. Par Mr. Peu, Maitre chirurgien et ancien Prevost et Garde des Maitre Chirurgiens jurés de Paris. Paris, 1694." Then followed Bartolemé Saviard, who was the king's physician in the Hôtel-Dieu at Paris. His work is entitled, "Nouveau recueil d'observations chirurgicales. Paris, 1696." Smellie simply mentions the name of these authors, but, in addition, quotes from Saviard's work in his second volume.¹ There is a copy of this work in his collection, of date 1702.

The next published work came from the Dutch press. Its title is, "Dageraat der Vroedvrouvven, etc. Leid: 1696"; in octavo, and its author's name, Heinrich van Deventer. It was translated, and published in Latin in 1701, with the title, "Operationes chirurgicae novum lumen exhibentes obstetricantibus, quo fideliter manifestatur ars obstetricandi, etc. Lugd: Batav:." The first part was translated into French from the Latin, and was amplified in the process, by D'Ablaincourt in 1733; and into English about 1720 (the third edition is dated 1728), by Robert Samber (Bamber?), as stated by Boehmer in his edition of Manningham. The title of the English translation is, "The Art of Midwifery Improv'd, fully and plainly laying down whatever Instructions are requisite to make a Compleat Midwife. And The many Errors in all the Books hitherto written upon this subject clearly refuted. Written in Latin by Henry à Daventer. Made into English." It was published anonymously. Smellie devotes about one and a half pages to this work, and for this criticism was chastized by Burton. He refers frequently to Deventer's views in his volumes.

¹ P. 17.

In 1703, Friend's "Emmenologia in quâ Fluxus Muliebris menstrui Phenomena, Periodi, Vitia, cum Medendi Methodo, ad Rationes mechanicas exiguntur," was published in London. There was a translation into English by Thomas Dale in 1729, a copy of which is in the library at Lanark.

In 1708, Palfyn wrote his work entitled, "Description Anatomique de Parties de la Femme, qui Servent à la Génération; Avec un Traité des Monstres, etc. Par Mons^r. Jean Palfyn, Anatomiste et Chirurgien de la Ville de Gand; à Leide." We have perused in Smellie's collection a very good copy of the above. The book is abundantly illustrated with plates of monsters, all of which are of a wonderful character, and many of which, we are sure, existed only in the imagination of the writer. He invented a pair of forceps which we have depicted in another place.

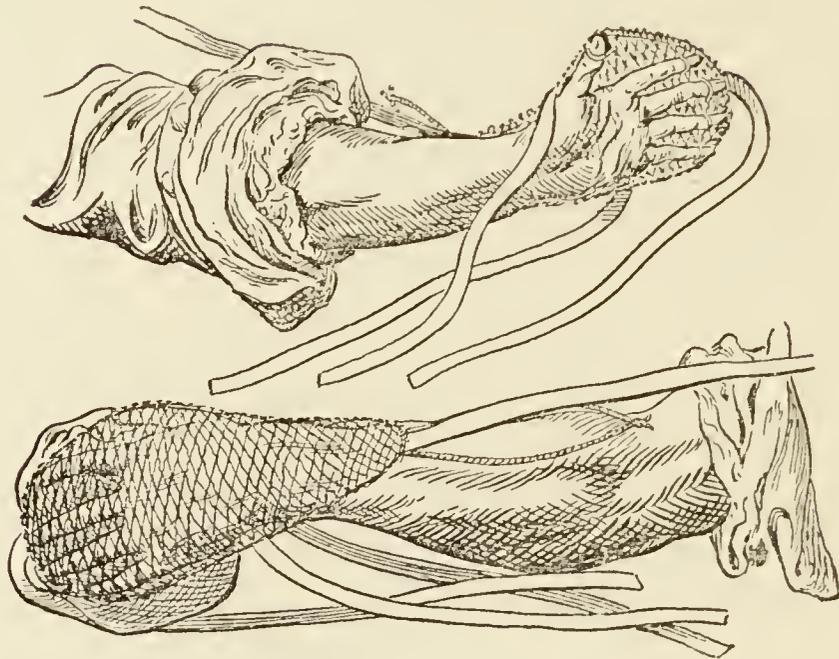
Pierre Amand comes next in point of time. In 1714 he published at Paris, "Nouvelles observations sur la Pratique des Accouchemens avec la manière de se servir d'une nouvelle Machine, très-commode et facile, pour tirer promptement et seurement, la tête de l'enfant, séparée de son corps, etc. Par Pierre Amand, Maitre Chirurgien juré à Paris. 1714." Hinze gives the date as 1713, quoting from Haller, which M'Lintock follows; the second edition, a copy of which is in Smellie's collection also, is dated 1715. Smellie devotes a few lines to this work, and especially to the contrivance therein described, and the mode of using it. The book, having a frontispiece of the portrait of the author, is composed partly of questions and answers in catechismal form, partly of clinical observations and partly of a full description of his "machine." It contains four illustrations. We here reproduce his "machine," known by the name of "Amand's net," taken from the work itself. Smellie refers to Amand both in his first volume,¹ and in his third volume² In the last reference, he speaks of the case in which Dr. William Hunter assisted him in the delivery of a foetal head retained in utero, from which the body had been separated. As part of his armamentarium, he took this "net" but he did not use it, having succeeded in the delivery of the head in another way. Smellie says of the net, that "the contrivance is ingenious, but is not applied without

¹ Pp. 72 and 353.

² P. 178.

great trouble, and cannot succeed when the pelvis is too narrow, or the head too large to pass."

PLATE III.



AMAND'S NET.

Figures show the mode of introduction over the foetal head ;
the strings tighten the net when fixed in position.

The work of Pierre Dionis succeeded that of Amand. Published in 1718, in octavo, it bears the following title, "Traité général des Accouchemens qui instruit de tout ce qu'il faut faire pour être habile Accoucheur. Par M. Dionis, prem: Chir: de feues Mesdames les Dauphines, et Maître Chir: juré à Paris. Paris 1718." It was translated into English in the following year, and in Smellie's collection we have perused a copy of the translation dated 1720, entitled "A General Treatise of Midwifery. Faithfully translated from the French of Monsieur Dionis. London, 1720." It contains six books, illustrated by a few engravings of a very crude character. This work was also translated into German and Dutch.

After Mauriceau, probably there was no writer who influenced Smellie so much, at least as regards the style of his work, as did La Motte. Guillaume Mauquest de la Motte practised at Valognes, in Normandy. In 1715, according to Smellie¹ and Hinze,² quoting from Heister, he published, in quarto form, his important work. Von Siebold, however, puts down the date as 1721. Its title was, "Traité com-

¹ Vol. i., p. 71.

² "*Versuch einer chronologischen Uebersicht*, p. 44.

plet des Accouchemens naturels, non-naturels, et contre nature, expliqué dans un grand nombre d'Observations, et de Réflexions sur l'Art d'accoucher. Par le Sieur De la Motte, Chirurgien juré et Accoucheur à Valognes. Paris." A second edition was published at The Hague in 1726, and from it an English translation was made twenty years later. This translation has a special interest for us, inasmuch as it was made by a pupil of Smellie, and at the direct instigation of Smellie. Its title is "A General Treatise of Midwifery, illustrated with upwards of Four hundred curious observations and Reflexions concerning that Art. Written originally in French by Lamotte (*sic*), Sworn-Surgeon, etc., at Valognes, and Translated into English by Thomas Tomkyns, Surgeon, London 1746." This English translation was evidently unknown to von Siebold, because he does not mention it in his work. Tomkyns, in the translator's preface, says, "As I cannot expect that the publick should rely on the judgement that I make of *La Motte*, and as the necessity of his being translated into *English* might be called in question, was it done by my sole choice, I think it necessary to acquaint them, that I undertook this work at the instigation, I might say request, of a gentleman whose judgement in matters relating to midwifery cannot be called in question; a gentleman who is not satisfied with being serviceable to mankind by his own labours, but with indefatigable industry studies to enable others to be as serviceable as himself, and communicates knowledge with surprising ingenuity: none need be informed that I mean *Dr. Smellie*, whose excellent lectures diffuse knowledge through all the different parts of this kingdom, and will soon cause *France* to cease being our rival in this branch of Surgery, as it has long ceased being so in all the other branches of it. . . .

"*Dr. Smellie* did me the favour all along to compare the translation with the original, and carefully examined that nothing useful might be left out, and nothing useless retained." This translation fills 536 pages.

Tomkyns, though born in London, had been from his early years brought up in Paris, and had only returned to England a few years before he undertook his task of translation. And in his preface he mentions these facts, so that the reader may excuse the possible occasional occurrence of French idioms in the translation. The name of Tomkyns is mentioned more

than once in Smellie's volumes. In vol. i., p. 71, he mentions the fact of Tomkyns being the translator of La Motte. In vol. ii., pp. 104-105, he tells us of a case attended by this gentleman when his pupil, in 1746—the year when the translation was made. And in vol. iii. he mentions the fact (in a note to a case dated 1753) that “Mr. Tomkins” was “surgeon to the Foundling Hospital” in London. Tomkyns also translated Daran's work on Diseases of the Urethra.

In his Introduction to his own Treatise, Smellie makes some reflections on this work of La Motte. He tells us that the book contains “many judicious reflections”; that the author was unacquainted with the forceps, at least he “exclaims against the use of instruments; that his method was to turn in difficult cases; but,” he concludes, “I am afraid that, like other writers, he has concealed those that would have been more useful to the young practitioner, and only given a detail of his own that were successful.” For this critique Burton took Smellie to task, and accused him of making “a sacrifice of La Motte's reputation,” and of trying to lessen his merit. Anyone who peruses La Motte will quickly perceive the truth and force of Smellie's criticism, and will acquit him of such a charge as Burton lays at his door. For La Motte Smellie had a great admiration. He at first followed his advice as to practice, but having found by experience that not infrequently his manœuvres were unsuccessful, altered his opinion of their value, and consulted his own reason. Notwithstanding this, however, he found much that was meritorious in La Motte, and very frequently quoted him (*vide* vol. ii., pp. 64, 71, 98, 140, 151, 155; and vol. iii., pp. 200, 219, 242-3, 273, and 289).

Friedrich Ruysch was an important Dutch writer of this epoch. Smellie mentions his name in at least two places in his work, viz., vol. ii., pp. 16 and 288. He published various works, but the one with which we have more especially to treat was written in 1725, and was entitled, “Tractatio anatomica de musculo in fundo uteri observato, antehac a nemine detecto, cui accidit depulsionis secundinarum, parturientium feminarum instructio, authore Fred: Ruyschid, ex belg: in lat: traducta a Jo: Christoph: Bohlio, Borusso, Amstelod. 1726.” This work, originally published in Dutch in 1725, was first translated into French and then into Latin. Smellie

did not believe in the existence of the special muscle referred to above, and thus gave Burton another opportunity of rating him. Its presence, it may be incidentally remarked, is discussed by Professor Thomas Simson, of St. Andrews, in an article in the *Medical Essays of Edinburgh*,¹

In 1721, Ruysch also published at Amsterdam his "Opera Omnia anatomico-medico-chirurgica," in two volumes. The first quotation from the works of Smellie, which we have above noted, is from the first volume of this work. A student of Leyden, Ruysch became Professor of Anatomy in 1666, and in 1685, Professor of Physic in Amsterdam. He was a most indefatigable worker, and contrived a method of preserving bodies by injection, which retarded putrefaction in a "marvellous" manner. As an instance of this, we are told he preserved the body of Admiral Berkeley, for which he was handsomely rewarded by the British Government. Pettigrew tells us, also, that he possessed a wonderful collection of anatomical preparations, which was visited by the learned from all parts of the world, and which was bought by Peter the Great for 30,000 florins, and by him taken to St. Petersburg. There can hardly be a doubt that the Czar had heard much of this collection during the time he was working as a ship carpenter in the building-yards of the East India Company in Amsterdam, in the year 1697.

Returning again to Great Britain, the next author to claim our attention is John Maubray, M.D. In 1724 he published in London, "from my House in New Bond Street over against Benn's Coffee-House near Hanover Square" as he informs us, his work, entitled, "The Female Physician, containing all the Diseases incident to that Sex, in Virgins, Wives, and Widows etc., to which is added the Whole Art of New Improv'd Midwifery, etc.;" and in the following year, "Midwifery brought to Perfection by manual operation." Perusal of the former work reveals that it is composed of a great deal of irrelevant and absurd matter, with a very little of genuine substance. As we have already given an extract from his writings, we refrain from saying anything more here, except that Smellie nowhere mentions his name in his works, doubtless from his poor opinion of the productions. This did not arise from a want of knowledge of the

¹ Vol. iv., p. 93.

book, because there is an excellent copy of the former work in his collection. Contemporary criticism of "The Female Physician" was, nevertheless, not wanting. This appears in "A Letter from a Male Physician to the Author of the Female Physician in London; Plainly Shewing, That for Ingenuity, Probity, and extraordinary Productions, he far surpasses the Author of the Narrative. London. Printed for T. Warner, at the *Black Boy*, in Pater-Noster-Row. 1726." The reader will observe that this allusion is to the "Narrative" of the supposed delivery of rabbits by Mary Toft of Godalming—the imposture which Manningham so cleverly exposed. To the above criticism the author adds to his Letter, "a Short Dissertation upon Generation, whereby every Child-bearing Woman may be satisfied that 'tis as impossible for Women to generate and bring forth Rabbets, as 'tis impossible for Rabbets to bring forth Women." On page 13, the writer, addressing Maubray, says, "the author of the Narrative brought away the 15th Rabbet out of the Womb of Mary Toft, a Sorry Woman; you, Sir, brought away a Sooterkin, the likest of anything to a Moodiwarp, from the Womb of a Dutch Woman. . . . Yours were monstrous little Animals, that run away from you like Dæmons, and those none of the better Sort, which you took them for the first time."¹

As a sample of the kind of teaching inculcated by Maubray, the author of the pamphlet gives us a verbatim extract of chapter iii. of this work to illustrate his "neatness of Diction, and incomparable Fluency!" which we have quoted.²

The short dissertation on Generation was a strongly-written article. It was evidently much required, because at this time, what with the "Rabbit" revelations and the miraculous occurrences to Maubray and others—the exponents of what might be termed supernatural midwifery—the minds of midwives were being seriously exercised. In it the author animadverts on the many incredible and impossible things which were being gravely narrated, such as, for instance, that the Countess of Holland had been delivered of 365 children at a birth (as Maubray had put down), or that other ladies brought forth, one a dog, another serpents, another moles, and another birds; or of the Dutchman, who, after nine months' pain in

¹ *The Female Physician*, p. 375.

² P. 40.

one of his legs, brought forth, according to Bertrand, a living child, which was christened, "An : 1350"; or the thousand and one other fabulous stories current in the older obstetrical writings. He then sets himself to give a plain exposition of the recondite problem of generation, and in conclusion says: "It was never known that Poppy seeds would produce Parsley, nor a grain of Millet or Mustard Seed a Mulberry Tree. . . . In vain, then, we amuse ourselves with empty Trifles, old Women's Tales, and Chit Chat that have no foundation in Truth, but *primâ facie* appear the impossible Things they are: It is impossible that the Roes of Herring can produce Salmon, Cod-fish, and Turtle; Whitings, Whales; or Owls beget Ostriches; or Ladies' Lap-dogs, Dromedaries; Ant's Eggs, Elephants, etc. Consequently, it is as impossible for Women to generate and bring forth Rabbets, as it is for Rabbets to generate and bring forth Women."

One of the most prominent article-writers on midwifery of this time was Thomas Simson (or Simpson, as Smellie and Hinze both spell his name). Simson was Professor of Medicine and Anatomy in the University of St. Andrews at this time. In 1729 he published at Edinburgh, *The System of the Womb*, a copy of which is in Smellie's library in Lanark. In addition to this he wrote several articles in the *Medical Essays of Edinburgh*, the more notable of which are the following:—"On the Ring-scalpel or Scalp-ring"—an instrument which he intended for perforating the foetal cranium, and which, when used, was put over the finger as a ring¹; the description of a Pessary;² "An Account of the Sides of the Os Uteri grown together in a Woman with Child";³ and "Remarks concerning the Placenta, Cavities of the Uterus, and Ruysch's Muscle *in fundo uteri*."⁴ Smellie refers to these various papers and works in vol. i., pp. 105, 180, and concerning the Ring-scalpel, at p. 293; and in vol. ii., p. 404, the article on the occluded *os uteri* is quoted fully.

In 1727, Dr. James Augustus Blondell published a small work entitled, "The Strength of Imagination of Pregnant Women examined." This inspired the usual controversy, for it was followed, in 1729, by "An Answer to a Pamphlet on The Strength of Imagination, etc.," by Daniel Turner, M.D.

¹ Vol. v., p. 445.

² Vol. iii., p. 288.

³ Vol. iii., p. 291.

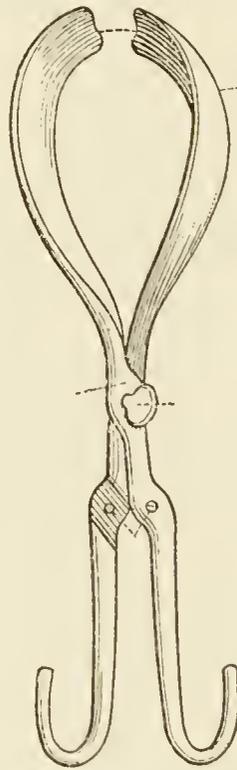
⁴ Vol. iv., p. 93.

Blondell again replied in the same year, and was followed again by Turner in 1730, in "The Force of the Mother's Imagination upon the Foetus in Utero still further considered, by way of Reply to Dr. Blondell's book." This subject is one which, judging from medical literature, is of perennial interest, and is responsible for a great deal of writing from that day till the present.

In 1733-4, Butter published the article in the *Edinburgh Medical Essays*, which was to have such an important effect on Smellie and his work.¹ It is of such interest that we reproduce it. It is entitled: "The Description of a *Forceps* for extracting Children by the head, when lodged low in the *Pelvis* of the Mother; by Mr. *Alex. Butter*, Surgeon in *Edinburgh*."

"The forceps for taking hold of a child's head, when it is fallen so far down among the bones of the Pelvis that it cannot be pushed back again into the uterus to be extracted by the feet, and when it seems to make no advances to the birth by the throws of the mother, is scarce known in

PLATE IV.



DUSÉ'S FORCEPS

(about one-sixth actual size).

this country, though Mr. Chapman tells us it was long made use of by Dr. Chamberlane, who kept the form of it a secret,

¹ Article xx., vol. iii., p. 295.

as Mr. Chapman also does. I believed, therefore, that a sight of such an instrument, which I had from Mr. Dusé who practises midwifery at Paris, and who believes it to be his own invention, would not be unacceptable to you; and the publication of a picture of it may be of use to some of your readers.

“When this instrument is to be used, the axis of the hinge is to be taken out, and each blade, being directed by one hand in the vagina, is to be introduced separately along the side of the child’s head, as far as immediately above the ears; then, the two blades of the instrument being crossed, the axis is put into the hinge which the operator finds most convenient to employ; after which the child’s head is to be taken firm hold of, and the operator pulling by the handles, extracts the child.

“I think Mr. Chapman is in the right to desire the axis not to be put in; for it is very troublesome to take out and put in again, when any of the blades quit their hold, and the instrument can easily be managed without it, in extracting the child in the manner mentioned; and, in several cases where it may be requisite to dilate the lowest part of the passage at the same time that the extraction is making, the blades of the forceps require to be separated, and are not to be crossed or moved upon a hinge.

“You will easily see, that often when the head of a child is a little too far forward on the *ossa pubis*, or turned too far backwards, that one blade only of this forceps can be employed to bring it to a right situation, and to assist the birth.”

Some doubt has existed as to the precise date of the publication of this volume, but the internal evidence all points to the middle of 1734 as the proper date. We observe in the volume, for instance, that the Extracts from the public Register of Burials in Edinburgh include statistics from June, 1733, till May, 1734, inclusive: consequently it could only be published subsequent to the latter date. Mr. Butter, as the title of the article informs us, was a surgeon at Edinburgh; and on examination of the Records of the Corporation of Surgeons of that city, we found that he was admitted a member of that Body on 8th August, 1734. It was this article and this engraving which first directed Smellie’s attention to the forceps. There is in the library at Lanark

a complete set of these *Essays*, and some of the volumes bear the signature of Smellie.

In vol. i. of this series appeared an article by Mr. Joseph Gibson, "Surgeon at Leith, and City Professor of Midwifery" at Edinburgh, on "The Nutrition of the Foetus in Utero." This essay sums up and criticises the various views on this subject held by different writers. From the standpoint of that time it must be considered as an able production, but, from the present-day point of view, the theories which are propounded, and the arguments used in support of them, are, at once, odd, curious, and startling. Gibson's name is mentioned but once in Smellie's works. At page 232 of the third volume he is noted as having been present at a Caesarean Section in Edinburgh in 1737, which was performed by Mr. Smith of that city.

In 1733 Frank Nicholls published in London his *Compendium Anatomicum* which contained his views on the foetal circulation before and after birth. At this time Nicholls was Reader of Anatomy at Oxford, and his views, therefore, were entitled to much consideration. In the same volume of the *Essays* as that in which Butter's paper appeared, there is a critique of this work, in all probability, from the pen of Professor Alex. Monro, *primus*. "Dr. Nicholl's opinion," to quote the critique, "concerning the circulation of the blood *in natis et non natis*, in born and unborn animals, is so different from what has prevailed since Harvey's time, that we cannot but wish he had been more explicit, and would add the experiments or other proofs that can be brought to support his doctrine. With a view to be informed, and to induce perhaps the Doctor to explain himself more fully, we shall propose one question which naturally offers itself upon looking at his scheme of the circulation in a foetus: What preserves the form of canals to the passage from the *cava ascendens* into the right auricle, and to the part of the aorta between the rise of the left subclavian artery, and the insertion of the *canalis arteriosus*, seeing, by the explication of the scheme, there are no liquors pass through them?"

Nicholl's scheme was shortly this: While the foetus is *in utero*, the following conditions of the circulatory cycle are present:—

“Praelect XXIV.:—

“I. The ascending and descending aorta are dilated and contracted at different times, or have asynchronous motions.

“II. The blood of the ascending cava is pushed to the heart at the time when the right auricle is contracted and the left auricle is relaxed, and therefore it will not pass into the right auricle, and from that to the left, but must go immediately from the cava into the left auricle.

“III. The blood from the left auricle being sent into the left ventricle (consisting mostly of the blood of the ascending cava), is wholly distributed to the heart and branches of the ascending aorta.

“IV. The blood from the descending cava partly passes through the lungs into the left auricle, to be mixed with the blood of the ascending cava, partly passes into the descending aorta, not to be mixed with the blood of the ascending aorta, that the blood which is returned to the mother may be venous, weak, and poor.

“On the child being born :—

“V. The (*ductus arteriosus*) *canalis arteriosus* is shut by respiration; the descending artery now acquires a motion synchronous with the ascending artery, the blood of the ascending cava being sent to the heart at the time when the left auricle is contracted and the right auricle is relaxed, is wholly poured into the right ventricle, along with the blood of the descending cava.

“VI. That the establishment of respiration hastens the closing of the umbilical arteries, umbilical vein, and the *ductus venosus*; and that the crying of the infant distends the lungs.”

In the same year an important work was published in London by Edmund Chapman, surgeon, entitled:—“An Essay on the Improvement of Midwifery, chiefly with regard to the Operation. To which are added fifty Cases selected from upwards of twenty-five Years’ Practice.” Of this “Essay,” a second edition was issued in 1735, and a third in 1753. It was also translated into German, and this issue ran through three editions also. In his first edition, although Chapman gave a description of his forceps, he gave no drawing of it. For this omission he was adversely criticised by several writers, particularly by the critic of his book in the *Edinburgh Essays*; but he put himself right by giving an engraving of it in the

second, and subsequent editions. Smellie's collection contains the second edition, and in his works he mentions Chapman's book in vol. i., pp. 73 and 251, and in vol. ii., pp. 143 and 250.

From this point onward, up till Smellie's time, and for a considerable period thereafter, the centre of publication of works of midwifery was changed from Paris to London. The impetus which the study of midwifery was beginning to receive at the hands of British accoucheurs, had its inception from Chapman's time, and the chief advancements in the science of midwifery were made by British obstetricians. Following Chapman there was published in the following year—1734—“Cases in Midwifery. Written by the late Mr. William Giffard, Surgeon and Man-Midwife. Revis'd and publish'd by Edward Hody, M.D., and Fellow of the Royal Society, London.” Smellie possessed a copy of this work, and he refers to it in vol. i., p. 73; in vol. ii., pp. 143 and 250; and in vol. iii., pp. 200 and 212. In 1736 “The midwife rightly instructed, or the way which women should take to acquire the knowledge of midwifery. By Thomas Dawkes,” was also published from the London press; and in the same year John Douglass' “Short Account of the State of Midwifery in London and Westminster, etc.” In the following year—1737—“The Midwife's Companion; or a treatise of Midwifery; wherein the whole Art is explained, etc.,” came out; as also, “A Complete Practice of Midwifery, by Mrs. Sarah Stone”; and, “Reply to Mr. Douglass' Short Account of Midwifery, etc., wherein his trifling and malicious Cavils are answer'd, his Interestedness and Disingenuity impartially represented, and the Practice of *Physic*, but particularly the Character of the late Dr. Chamberlen, vindicated from his indecent and unjust aspersions. By Edmund Chapman, Surgeon and Man-Midwife, in Orange Street, near Red Lion Square, London.”

In 1739, Manningham published his “*Artis Obstetricariae Compendium tam theoriam quam praxin spectans, etc. In usum medicinae tyronum, auctore Ricardo Manningham, Equite, M.D., Reg : Soc : Sod : et : Coll : Med : Londini,*” in quarto. A second edition of it was published in London in 1740, and another in Hull in 1744. It was translated into English under the title of “An Abstract of midwifery, for the use of the Lying-in Infirmary, London,” in 1744. We have

not been able to find a copy of the translation. In 1746 Boehmer's edition of the above was published at Magdeburg, under the same title, but with the addition, "Altera vero praestantiam et usum Forcipis Anglicanae in Partu Difficile ex situ capitis obliquo . . . commendat. Auctum, Tabulisque Æneis ornatum, autore—D. Phillippo Adolpho Boehmero, Medicinae et Anatomiae Professore Publico ordinario, Halae Magdeburgicae 1746." The engravings with which it is adorned are those of the forceps of Grégoire *fils* and of Chapman. Then in 1756 was published his "Aphorismata Medica (de mulierum morbis), Londini"; in duodecimo. We have referred the reader to these publications of Manningham in a previous chapter. But we make this simple allusion to his "Exact Diary" of the case of Mary Tofts, to note, that James Douglas, the famous anatomist and accoucheur, wrote "An Advertisement occasioned by some passages in Sir R. Manningham's Diary lately published, 1726." In addition to his obstetrical writings, Manningham wrote other works in other departments of medicine, which, however, find no place here.

In 1741 James Parsons wrote the "Praelecturi Jacobi Parsons, M.D., Elenchus Gynaicopathologicus et Obstetricarius etc., In Usum Tyronum, Londini." This is only a pamphlet, although its title is so imposing, the subject-matter being treated in aphorismal form. Although Parsons was evidently a teacher of midwifery in his time, and although, by reason of his association with James Douglas in his anatomical pursuits (he was his assistant before Hunter) he was introduced into "extensive obstetric practice," as Munk informs us, he does not bulk much in the obstetric history of this period. He was a Fellow of the Royal Society, and became its Foreign Secretary.

In the same year Laurenz Heister published his *Institutiones Chirurgicae*. Smellie refers to this work in his Introduction,¹ as giving "a very concise and distinct account of the practice of midwifery, as well as of the Caesarean Operation," and it is also mentioned in the body of the same volume.² In 1753 he also published his *Medicinish, Chirurgisch, und Anatomisch, Wahrnehmungen*, 2 Bände. The former work was translated into English under the title of *General System of Surgery*, with plates, by Laurence Heister.

¹ P. 74.

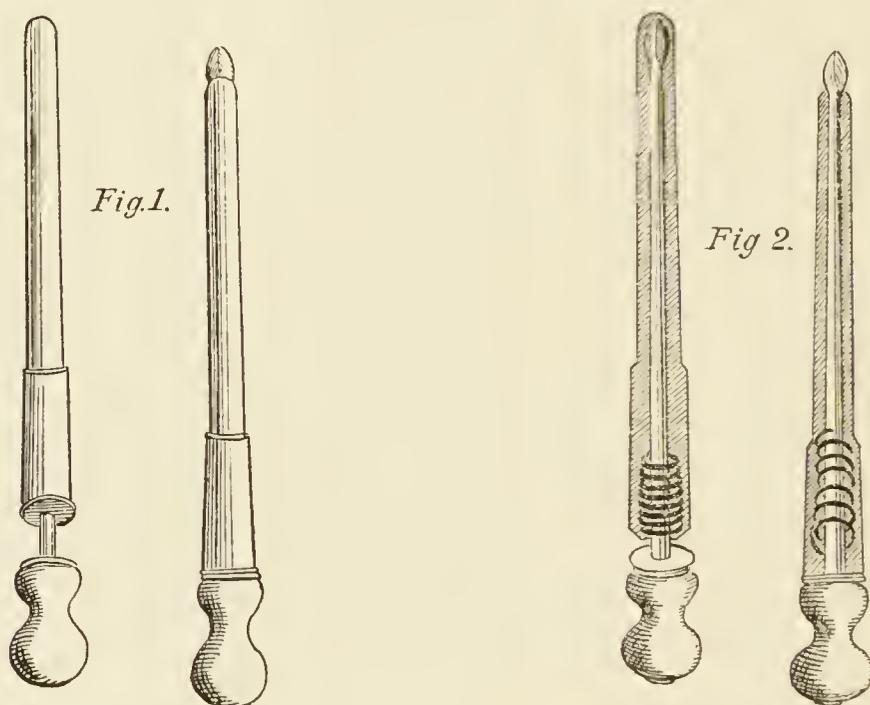
² P. 365.

In 1742 there appeared from the Dublin press the first important Irish contribution to obstetrics. This was from the pen of Fielding Ould, afterwards Sir Fielding Ould. The occasion of his being knighted gave rise to the following verse of some unknown Dublin wit:—

“Sir Fielding Ould is made a Knight,
He should have been a Lord by right:
For then, each lady’s prayer would be,
Oh, Lord! Good Lord! Deliver me.”

The title of his work is “A Treatise of Midwifery in three Parts. By Fielding Ould, Man-Midwife, Dublin.” A second edition appeared in 1767. Smellie’s collection contains a good copy of the first edition. It contained an engraving of his instrument for perforating, which he calls the “*terebra occulta*.” We here reproduce a photogravure of the instrument.

PLATE V.



OULD'S TEREBRA OCCULTA.

FIG. 1 represents the instrument entire—the left-hand figure shows the perforating point sheathed, the right-hand figure the point exposed, the handle being driven home.

FIG. 2 represents the instrument in section, in the situations as depicted in Fig. 1.

Being a pupil of the French school, Ould used the French forceps, of which he gives a faithful description. The chief merit of this author is, that he was probably the first observer to question the accuracy of the then prevalent notions regarding the mechanism of labour. We discuss the subject more in detail

in another chapter. Smellie refers to Ould's Treatise in his Introduction, and in vol. ii. ;¹ to his teaching, in the same volume ;² and to his instrument, in vol. i. ³

In the same year there was published at Leyden the following work, entitled "Uteri Humani Gravidi Anatomia et Historia, Wilhelmo Noortwyk. 1743." There is a good copy of this in Smellie's collection.

In the following year Jacques Mesnard of Rouen published at Paris, "Le Guide des Accouchemens, ou le Maistre dans l'art d'accoucher les femmes, et de les soulager dans les maladies et accidens dont elles sont très-souvent attaquées. Par Jacques Mesnard, Chirurg : juré, Ancien Prevôt de la Communauté des Chirurgiens de la ville de Rouen, et Accoucheur," in catechismal form ; of this a second edition appeared in 1753. This author is referred to by Smellie in his Introduction, and, he says, "is the first who contrived the curved in lieu of the straight crotchets, which is a real improvement." In vol. i.⁴ he speaks highly of this instrument. Smellie improved it by substituting his lock method for the original clumsy mode of union.

In 1744 the novelty of Ould's views respecting the mechanism of labour attracted the attention of Dr. Thomas Southwell, and he accordingly wrote "A Continuation of Remarks on Mr. Ould's Midwifery, Showing the Errors in Anatomy, the Danger and Bad Consequences attending the Practice and Manner of Deliveries, by Thomas Southwell, M.D., and Accoucheur. London." This work, the only copy of which we have seen being in Smellie's collection, is mainly taken up with criticisms of Ould's statements respecting the foetal posture, and position of the foetal head *in partu* ; criticisms which are of a very petulant and unsubstantial character. Burton, however, in his letter to Smellie, quotes approvingly from it. In the same year Thomas Dawkes, the author of "The Midwife rightly instructed," and a pupil of Deventer, wrote another little work in the form of a dialogue between a Surgeon and a Nurse, entitled "The Nurse's Guide, or some Short and Safer Rules for the Management of Women of each Rank and Condition in Child-Bed." It is purely a midwife's book, and is of little consequence. In 1746 appeared Tomkyns' translation of "La Motte," which we have dealt with elsewhere.

¹ P. 236.² P. 149.³ P. 293.⁴ P. 347.

Than André Levret, France has produced no more important writer on midwifery. Viewing his subject largely from the mechanical point of view, and thus apt to exalt the instrumental side of the art, he, nevertheless, as Baudelocque remarked, did for midwifery in France what Smellie did for the art in England. Himself the inventor of several instruments, some of which are probably the most complicated ever invented for obstetric purposes, if we exclude the instrumental vagaries of the French school some decades after him, he was not slow to recognize merit in an instrument invented by another. As we shall afterwards see, in his criticism of the forceps of Smellie, nothing could be more just, or more candid, than the remarks he makes upon that instrument. Although he became, in his later years, more intolerant of the views of others, as we are assured by a critic of the later French school, we must do him the justice to say, that none of it is apparent in his earlier years. In 1747 he published his first work, under the title "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 ; et de nouveaux moyens pour y parvenir plus aisément. Par M. A. Levret. Paris." Of this work there were three subsequent editions, in 1751, 1762, and 1770. In 1749 this was followed by "Observations sur la cure radicale de plusieurs polypes de la matrix, etc.;" and in 1751 by his "Suite des Observations sur les causes et les Accidens, etc." Smellie's collection contains copies of the first editions of each of these works.

In 1747 Levret sent to the Royal Society of London a communication respecting one of his instruments, the crotchet, which formed the basis of an anonymous attack on him in a "Letter" which was published in the *Journal de Savans*, 1749.¹ The writer of the letter attempted to show that the officials of the Royal Society saw nothing striking or original in the instrument, and generally to belittle his invention. To this Levret retorted with effect. Although this letter ostensibly purported to be a critique of the *Suite des Observations*, etc., the critic goes on to say that "the preliminaries of the Peace were no sooner signed and the routes opened, until I went to England with the intention of acquiring more light" (on the subject of midwifery) from "persons of high reput-

¹ Pp. 1676, *et seq.*

ation in London. Among the number," says he, "were Doctor Layard, the laborious Unter, and the ingenious Faucaud, all three literary correspondents with Levret."¹ He then concludes by saying, "I shall conclude these few reflections with an advice which I believe I ought to give to M. Levret. For it is well that he should know, that during my sojourn in London, I saw, besides Messrs. Layard, Unter, Faucaud, etc. and a number of others, the Doctor . . . with whom I had some conversation on the progress of the Art of Midwifery, in which this Doctor has acquired a great reputation; and coming to speak of the new discoveries in this art, the question of your book came up. Then the English Doctor showed me a Memoir in manuscript which had been sent to the Royal Society of London by M. Levret, and which, he told me, the Society had remitted to him to examine, and report upon. This Memoir bore the title *Sur la cause la plus ordinaire et la moins connue de l'arrachement de la tête de l'Enfant, lorsque cette partie se présente la première.*"² This Doctor also showed me detailed drawings of an Instrument, most ingeniously contrived, according to my idea, that M. Levret had designed to terminate a labour when the head was arrested, and which could not be completed by turning. I thereupon asked the Doctor what he thought of it, and his reply was, that he found nothing extraordinary about it, but that he thought it curious that, although M. Levret was a member of the 'Academie Royale de Chirurgie' of Paris, he had not sent the communication there before sending it to London. In consequence, they had written to their French *confrères* associated to the English Society, who replied, that M. Levret had, in effect, already made the communication to their Society in Paris." Levret, in reply, gave a certificate which he had caused the Secretary of the Royal Academy of Surgery to write, testifying that he (Levret) had not communicated the Memoir in question to that body. The Secretary says "Je certifie qu'il ne l'a point communiqué à notre Academie."³ And Levret points out that the instrument which he did show to the Paris Academy was his "nouveau Tire-tête," whereas the instrument he sent to the London Society was his new crotchet. The Doctor Layard

¹ Preface to *Suite des Observations*, p. 9.

² *Suite des Observations*, p. 28.

³ *Ibid.*, p. 32.

referred to in this letter was elected physician-accoucheur to the Middlesex Hospital in 1747, the year of the communication in question, but his health failing, he left London for Huntingdon, whence, however, he again returned to London in 1762, and, says Munk, "soon got into extensive practice as an accoucheur." The "laborious Unter" was undoubtedly William Hunter, who, at the time, was delivering lectures on operative surgery to the Society of Naval Surgeons in Covent Garden. The "ingenious Faucaud" we cannot presently trace. But who was "Dr. . . .," to whom it was remitted to examine and report upon the Memoir of Levret? We have come to the conclusion that it was Dr. James Parsons, to whose small work we have already alluded, and who was, at this time, in "extensive obstetric practice" in London, to which he had been assisted by Dr. James Douglas. Parsons was also then a Fellow of the Royal Society, enjoyed an extensive correspondence with foreign contemporaries of the highest rank, and in 1751 was appointed foreign secretary to that Society. Levret's first work is not mentioned in Smellie's Introduction, but his *tire-tête* is dealt with in vol. i.¹ and in vol. iii.;² and his work on Uterine Polypi is noticed in volume ii.³ In another chapter we will have something to say relative to the intimacy of Smellie and Levret, and to their respective positions concerning the invention of the long curved forceps.

Coming back to England, we find the year 1751 responsible for the production of more than one work by English authors, viz.:—(1) "A new and general System of Midwifery. In four Parts. By Brudenell Exton, M.D., of Kingston-upon-Thames," in octavo; (2) "An Essay towards a complete New System of Midwifery, theoretical and practical, etc. All drawn up, and Illustrated with several curious Observations, and eighteen Copper-Plates. In four parts. By John Burton, London"; (3) a less pretentious work, "The Province of Midwives, etc.," by William Clark, M.D., who was at this time in practice in Wiltshire; and, (4) "The Petition of the Unborn Babes to the Censors of the Royal College of Physicians, London," published anonymously, but attributed to Frank Nichols; with "A Defence of Dr. Pocus and Dr. Maulus against the Petition of the Unborn Babes," by the same writer.

¹ Pp. 352-3.² P. 198.³ P. 82.

About three years before the last works appeared, William Douglas had fulminated against Smellie in his blatant "Letters." We need but mention them here, as we have dealt more fully with them in a previous chapter. Exton was a pupil under Chapman in 1737-38, and, as he himself informs us, under Manningham in 1747. His book, consisting of 180 pages, is unimportant. There is not a new suggestion within its covers. He perpetuated the old doctrine of the posture of the foetus being suddenly changed about the eighth month of pregnancy; believed that the placenta always and only occupies the *fundus uteri*; thought that Chapman was too fond of the use of forceps, and informs us that, although in his earlier days he himself used that instrument, he had now totally discarded it in favour of his hands. He further believed to the full in Deventer's doctrine of the obliquity of the uterus, as being the main cause of difficult labours, and he practised the extraction of the placenta by the hand *in utero* immediately after the birth of the child. In short, the book contributed nothing to the advancement of the knowledge of the art, nay, rather, as we have indicated, it only perpetuated several of its erroneous traditions.

The chief points of Burton's book were the invention first of a new forceps, and second of a new perforator; otherwise, he merely rehearsed the prevalent doctrines of his time, although here and there he added views of his own on some points which were more theoretical than practical, more visionary than substantial. His book was translated into French by M. Le Moine, a Paris physician, who added to it notes of his own.

This same year, 1751, and toward the latter half of it, Smellie issued the first volume of his work, entitled, *A Treatise on the Theory and Practice of Midwifery*; in octavo. We have already dealt with the general plan of the work, and propose to add nothing regarding it now, as the doctrines therein taught will require detailed consideration afterwards. In 1752 appeared "The Art of Midwifery, or the Midwife's Sure Guide: wherein the most successful Methods of Practice are laid down, in the plainest, clearest, and shortest Manner. By George Counsell, Surgeon and Practitioner in Midwifery." It appeared in another edition six years afterwards with the title, "The London New Art of Midwifery, etc.," and

with the addition of illustrations. The edition was dedicated to Edward Hody, M.D., the editor of Giffard, and it looks suspiciously like an abridgment of Smellie's book.

In 1753 Burton's elaborate and laboured critique of Smellie's Treatise, entitled, "A Letter to W. Smellie, M.D., containing critical and practical Remarks upon his Treatise on the Theory and Practice of Midwifery. By John Burton, M.D., wherein the various Methods of Practice mentioned and recommended by that Writer, are fully demonstrated and generally corrected," was published in London; and, in addition, the "Compendium Obstetricii: or a Small Tract on the Formation of the Foetus, and the Practice of Midwifery. By N. Torriano, M.D." This pamphlet is but a trifle, but the author takes opportunity to praise the work of Smellie. He says, "I freely own, were it not for that excellent Method of Teaching which is exhibited by *Dr. Smellie's*, Midwifery (as to the operative Part) would want great Light, in Comparison to what it does, when his instructive Method is regularly pursued."

This same year also saw the publication of a treatise by a pupil of Smellie, who was Professor of Midwifery at Göttingen. This pupil was Johann Georg Roederer, whose name is familiar to students of midwifery. He studied under Smellie in 1748. His work is entitled "Elementa Artis Obstetricariae in usum praelectionum academicarum. Göttingen": in octavo. A second edition of it was published in 1759. It was translated into French in 1765 but anonymously; into Italian, by Galleti, in 1795; and into German in 1793. He also wrote the "Icones uteri humani observationibus illustratae. Göttingen, 1759"; in folio. The French translation of the "Elementa," which was from the third edition of it, contains reduced reproductions of Smellie's plates, even to the very lettering and explanation, without, however, any acknowledgment of their source. Leroy draws attention to this in his eulogy of Smellie, and justly condemns it.

In 1754 Smellie again appeared in print in his "Collection of Cases and Observations in Midwifery, by W. Smellie, M.D., to illustrate his former Treatise, or first volume, on that subject"; in octavo; and in a work which he had in contemplation for some time, even before the publication of his Treatise, viz. :—"A Set of Anatomical Tables with Explanations, and an Abridgment of the Practice of Midwifery, with a View to

illustrate a Treatise on that Subject, and Collection of Cases"; in imperial folio.

Alongside of these volumes, Benjamin Pugh, Surgeon at Chelmsford, in Essex, issued from the press, "A Treatise of Midwifery chiefly with Regard to the Operation: with several Improvements in that Art. To which is added, some Cases and Descriptions with Plates of several new Instruments both in Midwifery and Surgery." In the preface, he apologizes for having published his Treatise, since so many have written on the subject; "and some very lately, particularly the ingenious Mr. Ould, Dr. Smellie, and Dr. Burton." But as he believed it to be the duty of every man to make public anything which would tend to the advancement of that Art, his new Inventions must be held as sufficient excuse. We have considered these instruments in another chapter. His Treatise is composed of twenty-six chapters, and, although, as he informs us, he had delivered upwards of two thousand women during fourteen years, he published but *four* cases. Fully alive to the great value of instruments when used with prudence, caution, and skill, he, at the same time, considered the practice of turning as "the Grand Pillar of Midwifery." Otherwise his doctrines regarding many important points of obstetric practice are but a reflection of the views of preceding writers.

In 1755 Giles Watts, another pupil of Smellie, then located in the country, published in London his "Reflections on Slow and Painful Labours, and other Subjects in Midwifery, together with Several other Disorders incident to pregnant Women, with Remarks on Dr. Burton's Letter to Dr. Smellie." Therein he defends Smellie from the criticism of Burton, and inquires into his motives for the attack. But more of this again. In 1757 Christopher Kelly, M.D., then physician to the British Lying-in Hospital, and also a teacher of midwifery in the metropolis, published "A Course of Lectures on Midwifery." In 1759 another work came from the French press—a work, however, of not much importance. Its title was "Traité des Accouchemens, contenant des observations importantes sur la pratique de cet art, etc. Par M. Puzos. Corrigé et publié par M. Morisot Deslandes, Doct. Regent de la Faculté de Medecine à Paris." Another work of his is the "Abrégé de l'Art des Accouchemens." In the library of the London Obstetrical Society there are MS. notes of his lectures delivered in 1749.

The year 1760 saw the publication of Mrs. Nihell's book, which, although entitled a "Treatise on the Art of Midwifery; setting forth various abuses therein, especially as to the practice with Instruments, etc.," ought, with a greater regard to truth, to have been designated a Treatise of Abuse of male practitioners of midwifery in general, and of Smellie in particular. There are four hundred and seventy-one pages of this "linked *abusiveness* long drawn out"; if we may be pardoned taking a liberty with the poet.

The third volume which completed the writings of Smellie, although not published till 1764, the year after his death, ought, we think, with propriety to be introduced here. It is entitled, "A Collection of preternatural Cases and Observations in Midwifery by W. Smellie, compleating the design of illustrating his first volume of that subject." At this point we leave the literature of midwifery. We shall afterwards see how Smellie was impressed by the doctrines of the writers who had preceded him, and wherein his doctrines differed from theirs, and how far the truth of these doctrines has been corroborated by those who taught after him.

CHAPTER XI.

SMELLIE'S TREATISE.

WHEN an author launches a new work on the world, the first inquiry that is generally made is, What are the views he entertains of the subject of which he writes, and wherein do these views coincide with or differ from contemporary or previous writers? If the book contains any novel doctrine, probably there is another point of importance, and that is, does the author succeed in maintaining his theses? Let us inquire somewhat closely, on these lines, into the contents of Smellie's work above indicated.

Previous to his time, not a few of the doctrines which prevailed had a direct descent from the writings of the ancients; they could be traced from writer to writer, sometimes transcribed more or less literally, or again, paraphrased into the peculiar style and language of the writer. There they were, however, in all their baldness, as unsupported by proof as when they were first written. This book-midwifery, or books written on traditional bases, may be said to have been the prevalent form up till the time Smellie issued his Treatise. It is clear that now and again an author, as Mauriceau and La Motte, and one or two more, made a bolder essay after truth by ignoring tradition as far as he could, and that by more closely following nature. Traditional beliefs, as we shall afterwards see, prevailed among some writers even in Smellie's time; they are certainly to be found in the works of writers published in the same year as his Treatise. As we have already indicated, the source of this was probably to be found in the fact that male practitioners had but seldom oppor-

tunities of watching the operations of nature in normal parturition. Their function began and ended when abnormal phenomena presented themselves, and their services were more frequently of a destructive than of a conservative character. Hence evidence of the study of nature in her normal mood is almost entirely wanting from the books of the writers before the first four decades of the eighteenth century, and what little there was present was of an ill-digested sort; hence the practice of midwifery had become stereotyped.

Smellie was not long settled in practice until he discovered the presence of a great deal of pure superstition in midwifery. As a young practitioner, he could but follow the example and precepts of those before him; but he was not long to remain bound by such leading-strings. He not only observed nature's moods and vagaries, but he put down in his case-books what facts he thought interesting and profitable. From such experience, aided by methodic records, he quickly perceived that there were not a few points ready to be revealed to the man who was willing to watch for them and correctly appreciate them. Probably one of the most outstanding features of his Treatise is the entire absence of book-tradition. He evidently set himself to weigh in the balance of experience each doctrine which presented itself to him for acceptance, and in this way he either verified its accuracy, or proved its insufficiency. Superstition and tradition had no place with him. He early got beyond the primitive remedies employed by earlier practitioners for critical conditions. We do not find, for instance, any mention in his book of the application of the skin of a newly-flayed sheep to the abdomen of a woman who was threatened with peritonitis or metritis, or both. It will be remembered that this was a remedial agent highly approved by Guillemeau. Dionis, too, at a later date, tells us that M. Clement, in the case of the Dauphiness of France, used this remedy; in which case, says he, "the Sheep followed the Butcher into the Room and came up to the Bed-side, which surprised the Ladies, and put them into a very great fright." Dionis himself pooh-poohed the remedy. But, as showing how such things recur, we find Chapman, in his work, gravely discussing the merits of this novel remedy, and coming to the conclusion that it might be "a Thing of the greatest Service." At the same time, in his earlier days, the

occasional use of very primitive remedies was not unpractised by Smellie. Perhaps the most unique of them is that mentioned in a case which he treated when in Lanark in 1725. This was a case of metritis. Symptoms of peritonitis supervened on the third day after delivery, and after having bled his patient to about six ounces, and having used other remedies, he adds, "a poultice of fresh cow dung, softened with fresh butter, was laid all over the abdomen"; and, as if excusing the use of such strange medicament, he adds, "these were the only remedies then to be had."¹ The patient, however, complaining of the smell of this cataplasm, he substituted for it stupes of a decoction of emollient herbs, and a poultice of "loaf-bread." Although, in modern practice, scatologic medicine is utterly unknown, it must be borne in mind that in the country, in his time, it was at once a popular and common remedy, just as the liquid excretion of the same animal was used as a remedy for other external ailments. Indeed, even to this day, in the remoter parts of the country, both materials are used by the unlettered, the latter especially for chapped hands. This is the only instance, however, in his works, of the use of such a primitive application.

During the early part of his practice, too, he met with two cases of rupture of the uterus. Case 441² is a record of such an accident, and is, so far as we know, the first recorded case where recovery followed such a grave disaster. The rupture occurred during a tedious labour, and solely from the efforts of nature. The tear in the uterus, which was on the right side of the os, was "about three fingers' breadth." Smellie, on a subsequent occasion, delivered the patient of another child, and even at that time he found, as he tells us, "a large gap or chasm at the side of the os uteri." The second case occurred also in his Lanark practice, during the confinement of "an old servant of Mr. Buchanan's in Covington, in the county of Lanark." Covington is a small hamlet about five miles from Lanark. This woman was about forty years of age at her first confinement. The case was a difficult and tedious one, on account of a narrow pelvis. During the progress of the labour, the woman complained of something having suddenly given way in her abdomen. The foetus was delivered by perforation and crotchet. On

¹ Vol. iii., Case 447, p. 245.

² Vol. iii., p. 239.

introducing his hand to deliver the placenta, Smellie discovered a rent at the *fundus uteri*, through which the intestines protruded. He replaced the intestines, and extracted the placenta, and the woman lived for ten or twelve hours afterwards, during which time, he tells us, "she seemed perfectly free from pain, but very weak; had no vomitings, convulsions, or flooding." Regarding this case he makes the significant remark, "in order to avoid reflections, this accident was kept secret."¹ This practice of keeping such an accident secret he seems to have followed consistently in his teaching; for we read in a case happening to a pupil in 1746, where a similar accident had befallen the patient, the pupil writing to his old master, "according to your prudent advice, I spoke nothing of the matter."²

M'Lintock justly criticized Smellie's conduct in this regard, and thought that it would have been more advisable to acquaint the patient's friends of the accident, than to keep it secret. At the same time, we seem to have the key-note of this secret policy of Smellie, in the words, "to avoid reflections." We must always bear in mind that the practice of midwifery by men was, at this time, on its trial, and, however much a catastrophe as the foregoing might be the result of accident, the tendency was to throw the blame on the practitioner. Smellie then probably reasoned that, as the accident could not be avoided, there was no reason for betraying its occurrence; that, though not due to the practitioner, the knowledge of it by the friends would probably give rise to quite a different impression. This reason had greater force in the metropolis, for, as we have already seen, there were not wanting there plenteous critics, amongst whom probably the most violent were the midwives themselves, who attributed the blame of every accident to the male practitioner. This seems to us the reason for his teaching on this point. From an ethical point of view, it cannot, in these days, be defended, but on the grounds of expediency, much could be said in favour of Smellie's view, in the light of the times in which he lived. The effect of his teaching on this point was felt for a long time, indeed for about eighty years after. Dewees, in his *Essays on Midwifery*, published in 1823, devotes an essay to the subject of Rupture of the Uterus. He notes that concealment of the

¹ Vol. iii., p. 241.

² *Op. cit.*, p. 242.

accident when it happened was perpetuated by two causes, viz. :—"From the express recommendation of the otherwise liberal Dr. Smellie,"¹ and from the division of opinion that had for long existed, whether, in such a case, the foetus should be delivered by artificial means, or the woman be left absolutely to nature. He devotes his essay chiefly to a consideration of the latter question. Dr. William Hunter, we know, believed it to be an act of cruelty to the patient to bring about delivery at this juncture, since she must inevitably die. This doctrine, however, was destroyed by the publication of Mrs. Manning's case by Dr. Andrew Douglas in 1789, as a sequel to his *Observations on the Rupture of the Gravid Uterus*. Mrs. Manning—the subject of that memoir—recovered from accidental uterine rupture occurring during labour, and successfully passed through two subsequent pregnancies and confinements. Douglas thereupon urged that every woman so situated should be delivered from her perilous position by extracting the child, and thus be given a chance of recovery. Incidentally, it is to be noted, that, although Douglas enumerates several cases of this accident from La Motte, Heister, Saviard, Peu, etc., he does not mention the cases of Smellie, nor does he make any reference whatever to that writer. We can hardly imagine that he was unacquainted with Smellie's work.

MECHANISM OF PARTURITION.

If we were asked to point out the most outstanding feature in Smellie's Treatise, we would unhesitatingly direct the attention of the inquirer to his doctrine on the mechanism of parturition. The views which he promulgated on this question were far ahead of the times in which he lived, and were vastly superior to anything which had before been written on the subject. It was, besides, an absolutely novel doctrine, and in consequence attracted much attention. It had the additional merit that, in its main lines of fact and description, it was true to nature. Indeed, it may not inaptly be termed the key-stone of scientific midwifery. Had Smellie done nothing more for midwifery than this, his name would still have deserved a place in the roll of famous medical men, and his memory to be held in reverence by all those

¹ P. 201.

whose care it is to help suffering female humanity in its hour of trial. For this, alone, posterity owes him a deep debt of gratitude. We will be better able to appreciate the magnitude of the stride which he made in advance of the prevalent doctrine of his time, if we look at the subject more closely.

The views held on this point by most of the writers before his time were, as Burton puts it, that when a woman in labour lay on her back, the child seemed to be born as if it had crept into the world on its hands and knees: put in other words, it was believed that the face of the foetus looked towards the sacrum, and its occiput to the pubis—in short, that it lay in the antero-posterior diameter of the pelvis—from which it was propelled by the uterine force, *a tergo*, in a straight path into the world, just as a bullet is shot out of a cannon. There was not, amongst most writers, the remotest suspicion that there was the least complexity in the process; consequently they could not be expected to deal intelligently with difficult cases; and it seems as if the absence of knowledge in this respect was the cause of such ready use of destructive instruments in the practice of the art of that day. The only writer, prior to Smellie, who doubted the prevailing doctrine was Ould.¹ In his Treatise, Ould remarks, “When a child presents naturally, it comes with the Head foremost, and (according to all the Authors I have seen) with its Face towards the Sacrum of the Mother, so that when she lies on her Back it seems to creep into the World on its Hands and Feet. But,” adds he, “here I must differ from this Description in one Point, which at first sight may probably seem very trivial; The Breast of the Child does certainly lie on the Sacrum of the Mother, *but the Face does not; for it always (when naturally presented) is turned either to the one Side or the other, so as to have the Chin directly on one of the Shoulders.*”

In the preface he tells us how he arrived at this conclusion. “I was at a Labour in Paris, which from all Appearances promised to be very successful and speedy; the Waters gathered and broke very advantagiously, but as the Head approached towards the World, its Progress grew tedious, so that at the latter end, the Spectators saw it make its appearance, and immediately return back out of Sight, and

¹ P. 28.

that several Times ; whereupon seeing the Head in the above Direction with the Chin on the Shoulder, it was unanimously declared, that the Child was in a preternatural Direction, which impeded the Delivery ; I made a strict Inquiry with my Fingers, and found Space sufficient to give passage to the Head, though in that Situation, and, consequently, that some other Cause must retard the Operation." It turned out that when the Head was born, they "found the Funis rolled several Times about the Child's Neck, which was the Cause of all our Trouble." He leisurely reflected on this case, and from his reflections he came to the conclusion that the head ought to be disposed in the way he imagined. "To confirm which," adds he, "I made the strictest Examination of every woman, which I either delivered, or saw delivered, during my Continuance at Paris, which perfectly convinced me of the Truth of what I suggested." The proof which he adduces for the position which he assigns to the head in relation to the after-coming shoulders, is much more lucid and satisfactory than that we have already quoted ; indeed, from what has yet been quoted there is nothing that could honestly be put forward as proving his point. But he says,¹ "it may not be amiss to prove it to the Reader, by plain Reasoning. First, it is evident that the Head, from the os Frontis to the Occipitis, is of an oblong Figure, being very flat on each Side : Secondly, that the Body, taking in the Shoulders, makes still a more oblong Figure, crossing that of the Head ; so that supposing the Woman on her Back, the Head coming into the World, is a kind of Ellipsis in a vertical Position ; and the Shoulders of the same Form, in an Horizontal Position : Thirdly, that the Pelvis is of an Elliptical Form from one to the other Hip. Now if the Child presented with the Face to the Sacrum, the oblong Figure of the Head must cross that of the Pelvis ; and if it were possible that the Head and Pelvis could be formed to each other, so as to admit of its exit, it must of necessity, from what has been said above, acquire another Form for the admission of the Shoulders ; which is very different from the constant Uniformity in all the Works of Providence. From what has been said, it is evident that when the Child is turned, so as to have the Chin on one Shoulder, all the above objections are removed ; for the Head and Shoulders are on

¹ P. 29.

a parallel Line, in respect of their Shape, and at the same time, both answer the Form of the Passage from the Pelvis." From the foregoing, it is at once obvious that Ould clearly saw that it ran counter to the laws of nature that any body should be propelled along a very difficult route with the greatest possible resistance, when the path of least resistance lay close beside it. He, therefore, very properly concluded, that, as the measurement of the pelvis is much greater from side to side than it is from before backwards, and that, as the head of the foetus is longer from front to back than from side to side, the greater likelihood was that the longest diameter of the head should engage in what he thought the widest diameter of the pelvis. Beyond this, however, he saw nothing. He was evidently satisfied that having established the fact that the head primarily engaged in the longest diameter of the pelvic brim, he thus accounted for the whole difficulty. Moreover, in order to permit the shoulders to pass, he had to suppose that the head of the child was turned to one or other shoulder, so that then, lying in the same plane, the head and shoulders would pass precisely in the same diameter of the pelvis. It is noteworthy that he does not think it necessary to give a description of the female pelvis in his Treatise; he presumes his readers to be anatomists, but, at the same time, he advises them to utilize every opportunity of familiarizing themselves with the form of the female pelvis, and with the different changes of form to which it is subject. It is also clear, however, that he himself had not paid that close attention to the skeleton of the pelvis, which he had commended to his reader, for it would have enabled him to perceive that, although the head ought to occupy the longest diameter of the brim, it could not continue in the same course in which he was apparently content to leave it; neither did he seem to see that the diameters of the pelvic outlet had any special relation to the progress of the foetal head. In short, the credit to be assigned to Ould must be confined to this, that he was the first to doubt the then prevalent doctrine, that the foetal head occupied the antero-posterior diameter when it first engaged in the pelvis, and also the first to establish the fact, that, both in theory and in practice, the foetal head engaged in the longest diameter

of the brim, which to him was the transverse diameter. But he complicated and obscured the problem, by suggesting that, in order that the head should occupy this position, the chin of the foetus should be turned to one or other shoulder.

Before Ould's time, the doctrine of the antero-posterior position of the foetal head prevailed not only in Britain, but it was also the universal opinion. Indeed, Levret, who was attracted by the mechanical view of obstetric processes, and who did so much for the instrumental part of midwifery, was not so conversant with the pelvic diameters, and consequently with the mechanism of labour. As was to be expected, he considered the antero-posterior and the transverse diameters to be the most important. This was in his first work, published in 1747. But in his succeeding work (*Accouchemens Laborieux*, 1st part), he says that the greatest diameter is the antero-posterior, whereas in the second part, he calls it the smallest. This contradiction existed in two editions, but it was put right in the third.

As we have already seen, Smellie, during the thirty years, at least, in which he had been practising midwifery, showed by his habit of keeping case-books that he was engaged in a close study of nature. As he himself tells us,¹ "I diligently attended to the course and operations of nature which occurred in my practice, regulating and improving myself by that infallible standard; nor did I reject the hints of other writers and practitioners, from whose suggestions I own I have derived much useful instruction." Here we have evidence of his studious seeking after truth, whencesoever it was to be found. He pays his obligations to Ould by referring more than once to his discovery in different parts of his works. In the introduction to his Treatise he notices Ould's work, and states that it contains two good observations; the one being in regard to the position of the head, and the other, to retarded labour from the funis being coiled round the foetal neck. Speaking of dissections of two women who had died near the full time, made by Dr. William Hunter, he says,² "in both cases, according to Mr. Ould's allegation, one ear was to the pubes, and the other to the sacrum"; and in the explanatory text appended to Table ix. of his Anatomical Tables, we find him saying,

¹ Vol. ii., p. 251.

² *Ibid.*, p. 149.

that “from *Mr. Ould's Observation*, as well as from some late Dissections of the Gravid Uterus, and what I myself have observed in Practice, I am led to believe that the Head presents for the most part as is here delineated, with one ear to the Pubes, and the other to the os Sacrum; tho' sometimes this may vary according to the form of the Head, as well as that of the Pelvis.” The other observation, made by Ould, he notices in vol. ii.,¹ where he acknowledges having frequently followed with success Ould's practice in the delivery of a head retarded by the funis being coiled round the neck.

To return, however, to Smellie's doctrine. From the mechanical view he took of the parturient act, he begins his Treatise by considering the pelvis as the ground-work or basis of the art of midwifery. He describes the structure and form of the pelvis, “so far as it is necessary to be known in the practice of midwifery,” and says, in this relation, that “three circumstances are to be principally regarded and remembered; namely, the width, the depth, and form of the cavity on the inside.” At this point it will be necessary to remind the reader that Smellie dealt only with the pelvic skeleton—the bare anatomy of it—and therefore, his measurements of it must be regulated by that standard. He goes on to point out that at the brim its width, “from the back to the fore part, measures about $4\frac{1}{4}$ inches,” and from “one side to the other,” $5\frac{1}{4}$ inches; and he adds that this difference of one inch in the different axes ought to be carefully attended to in the practice of midwifery. He then shows that at the outlet the reverse obtains; that from the coccyx to the lower part of the pubis (the former being pressed backward, as he believed was possible during labour), there is a distance of “near five inches”; whereas, between the ossa ischii, the distance is only $4\frac{1}{4}$ inches. He then states that the pelvis, at its back part, is three times deeper than at its fore part, and that its measurement, from the articulation of the lowest lumbar and uppermost sacral vertebrae, to the lower end of the coccyx, is about five inches in a straight line; that the sides of the pelvis measure in depth about four inches; so that, in the dimensions of the pelvis, “the side is *twice*, and the back part, *three* times, the depth of the fore part.” He next draws

¹ P. 236.

particular attention to the importance of the form and shape of the interior of the pelvis to the accoucheur, and concludes by saying, "On the whole, it is of the utmost consequence to know that the brim of the pelvis is wider from side to side than from the back to the fore part; but that, at the under part of the basin, the dimensions are the reverse of this proportion; and that the back part, in point of depth, is to the fore part as *three* to *one*, and to the sides as *three* to *two*"; and further, that "though these dimensions obtain in a well-shaped pelvis, they sometimes vary in different women." Having thus described the salient points of an ordinary pelvis, he devotes the next chapter to describing the different kinds of distorted pelvises, mentioning particularly, among various forms of distortion, the rickety or flat pelvis. Having so far cleared the way, he then takes up the subject of the mechanism of parturition. But before dealing with it in detail, he deems it necessary "to ascertain the dimensions of the head of the child, and the manner of its passage in a natural birth." He remarks, "The heads of those children that have passed easily through a large pelvis, as well as those that have been brought by the feet, without having suffered any alteration in point of shape by the uncommon circumstances of the labour; I say, such heads are commonly about an inch narrower from ear to ear, than from the forehead to the under part of the hind-head. That part of the head which presents, is not the fontanel (as was formerly supposed) but the space between the fontanel and where the lambdoidal crosses the end of the sagittal suture, and the hair of the scalp diverges or goes off on all sides; for, in most laborious cases, when the head is squeezed along with great force, we find it pressed into a very long oblong form, the longest axis of which extends from the face to the vertex. From whence it appears, that the crown or vertex is the first part that is pressed down, because in the general pressure the bones at that part of the skull make the least resistance, and the face is always turned upward. Sometimes, indeed, this lengthening or protuberance is found at a little distance from the vertex backward or forward, or on either side; and sometimes (though very seldom), the fontanel or forehead presents; in which case they protuberate, while the vertex is pressed

and remains quite flat. But these two instances do not occur more than once in fifty or a hundred cases that are laborious.

“Now, supposing the vertex is that part of the head which presents itself to the touch in the progress of its descent” (we quote here from the second edition corrected, because the passage as rendered in the Sydenham Society edition is confused and confusing), “*the Fontanelle is commonly turned more upwards, and to one side of the Pelvis.*”

In the Sydenham Society edition, which we think was unfortunately taken from the text of the Edinburgh edition of 1788, of which we have said something at page 357, this passage, which we have italicized, is rendered thus, “the fontanel is commonly upwards at one side of the pelvis, and is distinguished by the fontanel where the coronal suture crosses the sagittal, the frontal bones at that part having more acute angles than the parietal.” In Smellie’s interleaved and annotated copy (in which were many alterations in his own handwriting, and which, in the early seventies, the author consulted in Smellie’s library at Lanark, but which is not now to be found there), his MS. correction of the above passage read as follows:—“The fontanelle is commonly upwards at one side of the pelvis, and is distinguished by

Second Edition, 1752.	Smellie’s Annotated Copy.	Fourth Edition, 1762.	Edin. Edition, 1788. Sydenham Society Edition.
“The Fontanelle is commonly turned more upwards, and to one side of the Pelvis.”	“The fontanelle is commonly upwards at one side of the pelvis, and is distinguished by the sagittal suture crossing the coronal, likewise the angles of the frontal bones are more acute than the parietal.”	“The Fontanelle is commonly upwards, at one side of the Pelvis; and is distinguished by the Fontanelle where the Coronal Suture crosses the Sagittal, the frontal bones at that part having more acute angles than the parietal.”	“The fontanel is commonly upwards at one side of the pelvis, and is distinguished by the fontanel where the coronal suture crosses the sagittal, the frontal bones at that part having more acute angles than the parietal.” ¹

N.B.—It is noteworthy that in the Edinburgh Edition of 1788, the spelling somewhat degenerates; *e.g.*, “fontanel” for “fontanelle” in the earlier editions.

¹ For another reference to the above passage, but expressed quite clearly, consult p. 212 of the Syd. Soc. Edit., where he says, “the fontanel may be plainly felt (at the brim) by the finger, commonly towards the side of the pelvis; this is the place where the coronal crosses the sagittal suture.”

the sagittal suture crossing the coronal, likewise the angles of the frontal bones are more acute than the parietal." The last reading which we present to the reader is from the fourth edition, printed in London in 1762. It only differs from the reading of the Sydenham Society edition in that after the word "pelvis" there is a semicolon.

We adduce these different readings in parallel columns, so that the reader may take them in at a glance, and also to exemplify what an author may suffer from his editors.

Smellie notes the change of position of the head in its descent in this way. He says, "When the hindhead comes down to the *os Ischium* of the contrary side, one may feel the *Lambdoidal suture* where it crosses the end of the *Sagittal*, and, unless the scalp is very much swelled, distinguish the *occiput* at its junction with the parietal bones, by the angle, which is more obtuse than those that are formed in the other parts of the skull. Besides, in this position, the ear of the child may be easily perceived at the *os pubis*. As the head is forced farther along, the hindhead rises gradually into the open space below the *ossa pubis*, which is two inches higher than the *Ischium*, while, at the same time, the forehead turns into the hollow of the *Sacrum*.

"This, therefore, is the manner of its progression: when the head first presents itself at the brim of the *Pelvis*, the forehead is to one side, and the hindhead to the other, *and sometimes it is placed diagonal in the cavity:*" (italics are ours.) "Thus the widest part of the head is turned to the widest part of the *Pelvis*, and the narrow part of the head from ear to ear, applied to the narrow part of the *Pelvis*, between the *Pubis* and the *Sacrum*. The head being squeezed along, the *Vertex* descends to the lower part of the *Ischium*, where the *Pelvis* becoming narrower at the sides, the wide part of the head can proceed no farther in the same line of direction. But the *Ischium* being much lower than the *os pubis*, the hindhead is forced in below this last bone, where there is least resistance. The forehead then turns into the hollow at the lower end of the *Sacrum*, and now again the narrow part of the head is turned to the narrow part of the *Pelvis*: The *os pubis* being only two inches deep, the *Vertex* and hindhead rise upward from below it; the forehead presses back the *Coccyx*, and the head rising upward by degrees, comes

out with a half round turn, from below the share bone: The wide part of the head being now betwixt the *os pubis* and the *Coccyx*, which, being pushed backwards, opens the widest space below, and allows the forehead to rise up also with a half round turn, from the under part of the *os externum*." From these particulars, then, he says, any person will perceive the advantage of knowing those points about the pelvis, as regards its dimensions, etc., with which we have already dealt. And, adds he, "although the position of the head, in natural and laborious births, is commonly such as we have observed, it is not always the same, but sometimes differs, according to the different figures of the *Pelvis*, and head, and the posture of the child *in utero*."

In the foregoing description of the progress of the head during labour, it will be noticeable that Smellie says nothing about the progress of the after-coming body of the foetus. When, however, he discusses the management of women in a natural labour, he satisfies the omission.¹ At this part, after describing how the head escapes from under the pubis by a half round turn, he goes on to say, "at the same time, the shoulders advance into the sides of the pelvis at its brim where it is widest, and, with the body, are forced along and delivered."

Anyone who has made himself conversant with the literature of midwifery up till Smellie's time, cannot but be struck by the wonderful advance which Smellie achieved in his lucid description of one of the most difficult problems in that science. Careful study of his description of the mechanism of parturition at once betrays evidence of a long, close, and persistent watch on nature. Burton asserted that Smellie had borrowed from Ould the fact that the foetal head presented in the widest diameter of the pelvic brim, and, he adds, that "altho' you have altered his system, I think not in the least for the better." This, however it may apply to the initial statement, cannot do so to the remainder of the description, which must be reckoned as original to Smellie, for no writer, in any country, before him, had previously accurately portrayed the movements of the foetal head during its descent through the pelvis—had, indeed (excepting Ould), even questioned the truth of the tradition handed down from Hippocrates.

¹ *Vide* Syd. Soc. Edit., vol. i., p. 211.

And this we must always bear in mind, too, in attempting to estimate the genius of Smellie. Smellie, in the first place, had to think out the matter carefully for himself. The problem he evidently kept always before him for solution was, shortly, this:—There is a body to be propelled, there is a propelling force behind it, and there is a route by which it must be propelled. Given the second, he had to consider the relation of the body to be propelled to the path through which it had to be propelled. He was early satisfied that such a relation existed, and that it was an intimate relation; and he called to his aid the laws of nature in regard to moving bodies. He remembered that nature always chooses the path of least resistance. He saw that in the form and dimensions of the pelvis, and of the foetal head, there lay the basis of the position. By careful measurements of pelvis and foetal head alike, he at once saw that the traditional belief was as absolutely untenable as it was unnatural. He perceived that the antero-posterior diameter route was not the path of least resistance, because the measurements of the pelvic inlet were the reverse of those of the outlet; and further, he saw that nature obviously intended that the longest diameter of the foetal head should, at the brim, become engaged in the widest diameter of the pelvis, and that this relation should obtain throughout the whole progress of labour. Reason led him to this sole conclusion; and his observations of nature in her operations abundantly confirmed his reasoning. There can be no doubt that he mistook the transverse for the widest diameter of the brim, but this was a mistake he was likely to make from his study of the pelvic skeleton, and from his not having made his observations of the basin as covered by the soft parts. There is one sentence, however, in his description, which shows that he had an inkling of the oblique diameters of the pelvis, and that is where he says of the head that "*sometimes it is placed diagonal in the cavity.*" The late Professor Leishman, in "An Essay, Historical and Critical, on the Mechanism of Parturition,"¹ discusses this statement of Smellie. He says of it that it "cannot be taken as meaning much, . . . for it is clear that if the head passes from the transverse to the conjugate diameter, it must at some point assume a diagonal direction"; and he interprets

¹ P. 24.

Smellie to mean that this alteration from the one diameter to the other does not take place until the head "has descended into the cavity so far as to allow the face to turn into the hollow of the sacrum." M'Lintock, in his remarks on this description of Smellie,¹ thinks that in the above criticism Leishman hardly does him justice; and he points out very cogently that at the point where Smellie introduces the passage in reference to the occasional diagonal position of the head, he is dealing with *the position of the foetal head at the pelvic brim and not in the basin*. On this point Leishman says, however, "that Smellie was much nearer the truth than many who came after him"; while M'Lintock puts it even more strongly, thus:—"It *was* the nearest approach to the truth, but was not the exact truth, though quite sufficient for all practical purposes." It is worthy of note that Leroy in *La Pratique des Accouchements*, vol. i., published in 1776, states that Smellie "proved geometrically that when it (the pelvis) is divided into parts (or diameters) its greatest diameter is not that from the mean anterior to the mean posterior, that is to say, from the symphysis pubis to the sacrum, as was everywhere believed in France, but rather from the anterior lateral part to the opposite posterior lateral part; that is to say, from one cotyloid cavity to the sacro-iliac symphysis of the opposite side." Where Leroy derived his information we cannot tell, but we have been unable to discover the source of it in Smellie's Treatise. There cannot be a doubt, we think, that Smellie believed generally that the transverse diameter of the brim was its widest diameter, and that in it the foetal head usually became primarily engaged. We must, therefore, conclude that in this sole particular Smellie was in error, an error, however, which narrowly escaped being the whole truth.

As to the accuracy of every other part of his description, a flaw cannot be found to exist. As M'Lintock well puts it: "Little of what Smellie described and laid down has been found wrong, and not very much has been added to it, except in regard to details, and to the causation of the various movements of the head *in partu*. Had Smellie made no other contribution to midwifery than what is contained in this chapter, he would still have placed accoucheurs under a perpetual obligation." His studies in mechanics, and

¹ Syd. Soc. Edit., vol. i., p. 96.

of the laws of moving bodies, applied particularly to the shape, form, and measurements of the pelvis and of the foetal head, enabled him to paint a graphic picture of the progressive steps of a labour such as had never been attempted before his time, and of which, the discoveries of Saxtorph, Solayres de Renhac, Naegelé, and others, were but the finishing touches. Without exaggeration, it may be added, that by this discovery he founded scientific midwifery, and he has thereby compelled successive generations to render him a just and deserved homage.

Another of the doctrines which he taught, which ran counter to all previous teaching, and which, moreover, has been verified by every writer of the subject since his day, was that respecting the posture and position of the foetus *in utero* during pregnancy. This subject had attracted the attention of most writers before Smellie's time. Generally speaking, the views held were that the foetus lay with the head towards the fundus, and the breech toward the *os uteri*, until some point of time between the seventh month of gestation and the onset of labour, when the position became reversed; the head coming to fill the pelvic end of the uterus, and the breech, the fundus. This doctrine was laid down by Hippocrates, and it had been closely copied by almost every writer from his till Smellie's time. In the work of Mauriceau, translated by Chamberlen, even in the last edition, published so late as 1755, we find his views expressed as follows:—Up till the 7th or 8th month the head of the foetus occupies the *fundus uteri*; but about that period, because of its increased weight, the head is carried downwards towards the *os uteri*; or, as he puts it, “tumbling as it were over its Head, so that the Feet are uppermost, and the Face towards the Mother's Great Gut.” La Motte held practically the same views, but he elaborated more fully on the question. He tells us that the foetus has its back towards that of the mother, the heels backwards, the hands upon the knees, with the head resting on the knees; and that this is its position up till the seventh month. But at this time, the head becoming heavier, it topples over and falls downwards, the face looking towards the mother's back; in which position it remains until the onset of labour, and so it comes into the world. Manningham, in his *Artis Obstetricariae Compendium*, puts it thus:—“Res ita habere

possunt, ut Mulier Utero gerat a Septem ad Undecim Menses. Infantis (utriusvis sexus) secundum Naturam in Utero positi, Caput est superius, inferiores Pedes, Facies antrorsum spectat, dum septem vel octo gestationis menses praeterierint; postea vero omnino inversa est ejus positio, superiora scilicet Pedes, Caput inferiora occupat, et retrorsum spectat Facies. Sub nonum plerumque mensem deorsum mittetur Infantis Caput, nonnunquam etiam sub octavo." Simson of St. Andrews shared generally the same views. Neither Deventer, Chapman, Giffard, or Pugh, however, touched on this subject. Pugh says only that, in a natural labour, the foetus presents "with its Head turned downwards in such manner that its Face lies towards the Mother's *Intestinum Rectum*, its Occiput towards the Bladder, and its Vertex directly opposite the mouth of the Womb." It is only when we come to Ould, whose treatise was published in 1742, that we find the first evidence of a disposition to dispute the above prevailing doctrine. He wrote that the foetus lay in the womb "having the whole spine curved, its Head hanging down as if it were looking into the Pelvis, so that the Fontanell is just opposite to the Fore-Part of the Mother's Belly"; and he adds that the change in the position of the head, relatively to the pelvis, only happens after the onset of labour, because, says he, "The first and greatest Efforts for the Expulsion of the Child are in the Bottom of the Womb, which presses directly on the Back of the Head, and must immediately turn it downwards with its Head towards the Vagina, and Face to the Mother's Back." His views, however, did not apparently gain much acceptance; for we find Burton in his treatise, published nine years after, reverting to the purely traditional view. Burton states that the foetal head "hangs downwards with its Face in or near the Knees, which are as high as the Breast, on which the Chin rests; and its Heels close or near to the Buttocks; so that it seems as if it was looking downwards towards the *Os Uteri*. The Arms generally embrace the Legs or Knees; tho' sometimes the Hands are placed near the Chin, with the Elbows near the Angle of the Thigh and Body; the Back of the Child being towards the Mother's Back. In this Position the Child remains till a natural Labour begins, when the Head descends, and the Face falls towards the Woman's Back, so

that when she lies upon her Back, it seems to creep into the World on its Hands and Knees." And lest his reader should experience any difficulty in comprehending the situation from the foregoing description, Burton gives an engraving to illustrate his meaning. One of the woodcuts represents the foetal head at the *fundus*, the other, after labour had begun, the head at the *cervix uteri*.

This, then, was the usual doctrine at the time Smellie was about to publish his Treatise. But years before his book was in preparation, Smellie had reached the conclusion that the above doctrine was totally erroneous. We learn from Dr. Donald Monro—son of the Professor of Anatomy in Edinburgh University, and then newly in practice as a physician in London—in a paper published in the *Medical Essays of Edinburgh*, 1754, that while he attended courses of midwifery in London with Smellie, he was informed by Dr. Smellie that no such change occurred in the foetal position as was indicated by former writers; but that, on the contrary, the head-downward position obtained during the whole term of pregnancy. When we refer to Smellie's Treatise, we find him discussing this question with great fulness.¹ He tells us that the foetus is nearly of an ovoid figure, and that, in this posture, it occupies the least space. The chin rests upon the breast; the thighs lie along the abdomen, the knees bent, and the heels closely applied to the breech; and the face placed between the knees. And, he adds, "the arms cross each other round the legs." Regarding the position he assigns to the arms, it is curious, as M'Lintock points out, and as we also have verified, that nowhere, in his illustrative Tables, is this position depicted, although in every other particular the engraving corresponds to the description. This discrepancy is quite unaccountable. Smellie then proceeds to tell us that the head, for the most part, is at the lower part of the uterus, and the foetus, being of an ovoid form, the greatest length is from head to breech; but the distance from one side to the other is very much less than that from the fore to the back part. By reason of the uterus being confined by the vertebrae of the loins, its width antero-posteriorly must be less than its width laterally; "so that," adds he, "in all probability,

¹ Pp. 179-182.

one side of the foetus is turned towards the back and the other to the fore-part of the womb, but as the back-part of the uterus forms a little longish cavity on each side of the vertebrae, the fore-parts of the foetus may therefore, for the most part, tilt more backwards than forwards." He then briefly reviews the doctrines of the principal writers before his time; but, from his own observations, he concludes that "it seems more probable, that the head is for the most part turned down to the lower part of the uterus, from conception to delivery": and, again, "that the head is downwards all the time of gestation, seems, on the whole, to be the most reasonable opinion," although, he adds, this view is liable to objection. However, from his experiments, which showed that in the earlier months the cranial end of the foetus is always heavier than the pedal end, he believed that a determination was thus given to a head-downward position. But, he argues, if the specific gravity of the head was the constant cause of its descent, we should expect to find the head always presenting at the *os uteri*; but that this is not the case was a matter of common knowledge. He frankly confesses that this, or any other theory, can be confronted with powerful objections. All former writers, including, to some degree, Ould, believed in the "gravity" theory; they were satisfied that this quite accounted for the phenomenon: Ould, however, was not quite satisfied with this theory. He says, in the preface to his Treatise, that "this Great Alteration in the relative Gravity of the Head must happen gradually, from some change in the Consistence of the Brain whereby its constituent Particles become closer united"; and "if this were the Cause of the Heads coming foremost, it must be general, and in common to all Children; so that they must all come in that Direction, if not interrupted in their rotatory Progress, whereby they may happen to be transverse; whereas it is well known that many children are born with the Feet foremost, which never could have happened, if the preponderating Gravity of the Head, were the Cause of this Revolution." Ould, Burton, and the rest believed, however, that gravity only began to play its part sometime between the seventh and the ninth month, whereas Smellie believed it operated all through the period of gestation.

The views propounded by Smellie very quickly met with acceptance, and succeeding writers adopted them almost *in toto*; not excepting the most modern authors. While it is true that Smellie inclined to the opinion that, during the earlier months of gestation, gravity played an important part in the head-downward position, it is also quite clear that he did not wholly pin his faith to that view. And the manner in which he weighed the *pros* and *cons* of that view demonstrated at once his usual frankness and honesty of purpose. He was the first writer to discuss different theories of the question, and unlike Ould, whose criticism of the "gravity" view was somewhat iconoclastic, Smellie strove to construct an intelligent doctrine from all the facts. Besides, from Smellie's inclination to mechanical speculation, we can easily believe that this subject was an attractive one to him, as it has been to many writers since his time. Indeed, any other theory than that of "gravity" could only be promulgated when a better knowledge of the nervous system became available. Thus it was, as the physiology of that system became more revealed to men, that the "volitional" theory suggested itself to Dubois, and the "reflex or adaptive" theory to Sir James Simpson. And it is interesting to note that, as a distinguished Scotchman—Smellie—in the eighteenth century was the first to reason out the probabilities in favour of the "gravity" theory, another distinguished Scotchman—Matthews Duncan—was its chief exponent in the nineteenth century. And probably while the last word that may be said upon this subject is, that the "gravity" theory alone does not account for the whole of the phenomenon in question, it cannot at the same time be gainsaid that it is an important factor in its production in the earlier months of gestation, however minimized it may be, if not indeed altogether neutralized, in the later months. These doctrines which Smellie taught, by which he broke down the erroneous doctrine of Hippocrates, and which was the current tradition of his own time, have received the approval of every eminent writer on obstetrics since his day; and notwithstanding the multitude of writers on this subject since, whose opinions are more or less diverse, his view still holds the field.

CHAPTER XII.

ADDITIONAL DOCTRINES.

ONE of the interesting problems that was occupying the attention of anatomists, physicians, and pure obstetricians of Smellie's day, was the cause and source of the menses. Many speculations, more or less ingenious, were current. The theory, however, which received most acceptance, was that promulgated by Simson of St. Andrews, Astruc of Paris, and others. They believed that in the walls of the uterus there were certain blood sinuses, which communicated with the interior of that organ by means of side vessels or openings ; that the sinuses, being emptied by these side vessels during one menstrual discharge, were again gradually filled before the next, so that, from the stretching which they underwent by their contents, the side vessels to the interior of the uterus were caused to open ; and hence the menstrual flux. Smellie could not attach himself to this theory, and, indeed, was unable, satisfactorily to himself, to account for the phenomenon in question. On its practical side, however, he is fully at home, and his remarks regarding it, as a clinical experience, are exceedingly apt and judicious. It is quite clear that, on this subject, he, in common with the other writers of his time, had but hazy notions ; he differed from them only in this, that he did not attach himself to any theory, while they did.

On the doctrine of conception, also, he kept an open mind. While he was prepared by the light of experience to attach the fullest value to those doctrines propounded by others which could be weighed in that balance, he was

unprepared to commit himself to any merely theoretical view. After discussing the current theory of his time, he says, "Notwithstanding the plausibility of the scheme, it is attended with circumstances which are hitherto inexplicable; namely, the manner in which the animalculum gains admission into the ovum, either while it remains in the ovarium, sojourns in the tube, or is deposited in the fundus uteri; and the method by which the vessels of the navel-string are inoculated with those of the animalculum. Indeed, these points," concludes he, "are so intricate, that every different theorist has started different opinions concerning them, some of which are rather jocular than instructive." On these questions, all we can say of him is, that if no credit can be awarded him for advancing anything new, he at least has the merit of not propagating merely theoretic notions or false doctrine concerning them.

There were, however, certain other subjects of which he wrote with no uncertain pen. Tradition and theory, unsupported by facts, he could not abide; the former he ruthlessly set aside, the latter he left severely alone. Hence we find him opposing the Hippocratic doctrine, which, up till this time, had been faithfully followed by almost every previous writer—we believe, by every previous writer—which was to the effect, that a foetus born at the eighth month had a less chance of survival than one born at the end of the previous month, because, it was believed, that every healthy foetus made an effort to be delivered at the end of the seventh month, and that a second effort was made at the end of the eighth, at which time the foetus, if successful, was so weakened by its former abortive attempt that it was unlikely to survive; whereas if the successful effort were suspended until the end of the ninth month, it would have sufficiently recovered to enable it to survive its birth. He replied to this, that experience proved quite the contrary, and that the older the foetus is, the better were its chances of survival. The Pythagorean doctrine, which dealt with the luckiness of numbers, he also trampled upon. The fantastic notions which prevailed on these points may be seen by perusal of the chapter from Maubray's book, *The Female Physician*, which we have already quoted. In like manner he rejected for the first

time that other Hippocratic doctrine, that a dead child was born with greater difficulty than a living one. This doctrine originally arose from the supposition that a living foetus contributed, by its own efforts, to its delivery. Smellie said that the foetus was but a passive agent during the parturient act, and all his experience went against the other view. So he unhesitatingly taught that "dead children are delivered as easily as those that come alive, except when the birth is retarded by the body's being swelled to an extraordinary size."

It is almost astonishing to note the persistence of this doctrine through the writers of that time. Mauriceau taught that, in the case of a dead infant, the labour was "ever long and dangerous"; Deventer, that it was "not so easy as that of those alive," because a live child helped to break out from its confinement, which a dead one did not; Ould, the same doctrine, and he further taught that when it was known that the child was dead, it should be extracted by turning; and Burton and Pugh, that a dead child commonly came in a "wrong posture," for which they also turned. Hence it will be seen that, by advocating this new doctrine, Smellie ran directly counter to previous and prevalent teaching.

Smellie further taught that the common term of pregnancy is limited to nine solar months, but he also taught that "in some, though very few, uterine gestation exceeds that period; and as this is a possible case," adds he, "we ought always to judge on the charitable side, in the persuasion that it is better several guilty persons should escape, than one innocent person suffer in point of reputation." This has proved an interesting field of investigation to many observers, both in human and in animal physiology, since Smellie's time. While he recognized the usual duration to be between 270 and 280 days, he was quite free to acknowledge its possible extension beyond this period. On more than one occasion it has proved of great importance medico-legally. The Gardner peerage case is an example. Of the seventeen medical men examined in the trial of that case, five believed that pregnancy had a fixed duration, and opposed the view of protracted gestation; on the other hand, twelve of them believed that it might be protracted to $9\frac{1}{2}$, 10, or

11 calendar months, or 288-290, 304-306, or 334-337 days. The legal limits, too, of the duration of pregnancy are variously fixed by different countries. In our own country, 40 weeks or 280 days is considered the normal limit; but it is permitted to lead evidence as to the extension of this period. In France the limit is 300 days; in Germany, 302; and, in the United States, a pregnancy of 317 days has been decided as legitimate. Smellie knew nothing of menstrual cycles, and had no suspicion of the modern developments of this subject.

He also exploded the commonly believed idea, that the placenta was always situated in the fundus uteri. His experience justified him in teaching that it might be situated at any part of the interior of the uterus; in which doctrine he was supported by William Hunter and others. It was this doctrine which was chiefly to blame for Deventer's views regarding the Obliquity of the Uterus. Believing, as he did, that the placental site was only in the fundus, he thought that when he found the placenta differently situated, it was due to the altered position of the fundus uteri, and hence he deemed the organ obliquely situated.

The question of the nutrition of the foetus *in utero*, was a very interesting one in Smellie's time. We have already referred to Gibson's essay on this subject in the *Medical Essays of Edinburgh*, and to the very peculiar views obtaining in his time on the subject. The prevailing view in Smellie's day was, that the foetus was nourished by the absorption of a nutritive fluid into the vessels of the placenta and chorion, rather than from the red blood circulated from the uterine arteries to the veins of the placenta, which on its being returned by the placental arteries to the uterine veins, and from thence to the lungs of the mother, was renewed in its purity. He, however, declined in this case also to commit himself to any theory, because, as he tells us, this was but one of the various theories advanced upon the nutrition of the embryo and foetus *in utero*.

When we come to consider his definitions of kinds of labour, we also perceive the strong practical view he took of the subject. During his time labours were divided into those that were *natural*, when the head or breech presented; *laborious*, where, no matter the position of the foetus, the labour was tedious, and the woman was in danger of her life unless

assisted by artificial means ; and *preternatural* when any part of the foetus presented other than the head or breech, and where it had to be delivered most usually by turning. Several writers, however, had their own definitions ; but neither with these nor with the foregoing definitions could Smellie agree. He propounded a scheme of definitions of his own, which was a good working scheme from the practical point of view. A *natural labour* he called one where the foetal head presented, and where the woman was delivered by her pains and by ordinary assistance ; a *laborious*, one where unusual force had to be used in delivery, either by the hand or instruments of the accoucheur ; and a *preternatural*, where the foetus had to be turned, or where the body of the foetus was delivered before the head. It will thus be observed that his definitions were based, not so much on the presentation of the foetus, as on the way in which it was delivered. He points out to the reader that, fortunately, difficult cases are not of frequent occurrence, and he ventures into the following statistics. He says, suppose in a town or village of three thousand women, one thousand are delivered in one year ; of these, 990 will be delivered without any other than ordinary assistance ; that is, 99 per cent. Of these 990 cases “ *fifty* children shall offer with the forehead turned to one side at the lower part of the pelvis, where it will stop for some time ; *ten* shall come with the forehead towards the groin, or middle of the pubes ; *five* shall present with the breech, *two* or *three* with the face, and *one* or *two* with the ear : yet, all these shall be safely delivered, and the case be more or less lingering and laborious, according to the size of the pelvis and child, or strength of the woman. Of the remaining *ten* that make up the thousand, *six* shall present with the head differently turned, and *two* with the breech ; and these cannot be saved without stretching the parts, using the forceps or crotchet, or pushing up the child in order to bring it by the feet ; this necessity proceeding either from the weakness of the woman, the rigidity of the parts, a narrow pelvis, or a large child, etc., the other *two* shall lie *across*, and neither head nor breech, but some other part of the body, present, so that the child must be turned and delivered by the feet. Next year, let us suppose another thousand women delivered in the same place ; not above *three*, *six*, or *eight* shall want extraordinary assistance. . . . As the head therefore

presents right in 920 of a thousand labours, all such are to be accounted natural; those of the other seventy that require assistance may be deemed laborious; and the other ten, to be denominated laborious or preternatural, as they are delivered by the head or feet." In adducing statistics to illustrate his teaching, Smellie was the first: no previous obstetric author had enlisted the aid of figures. Doubtless, too, his figures were based on the written records of his own work, and perhaps for this reason there was no man of his time as competent as he to give such figures. Besides, they have the merit of verification as to approximate accuracy and incidence with more recent statistical investigation on the same subject. From the foregoing definitions, it is obvious that he makes no special class for the accidents or complications of labour, such as haemorrhage, eclampsia, etc., but it is noteworthy that he classifies such among lingering and dangerous labours. It was not till Denman's time that these cases were relegated to a special class, called complicated labours. Another point that is noteworthy in Smellie's definition of a natural labour is, the absence of any limitation as to time within which it ought to be terminated. His pupil, Denman, however, added to his definition the limit of twenty-four hours, which has obtained down to the present day.

His chapter on the different positions of women in labour has a great attraction to the student of midwifery. He informs us that in Egypt, Greece, and Rome, the woman was placed on a high stool; and in Germany and Holland in a chair. Deventer, in describing the articles which it was necessary for a midwife to take to her work, devotes especial attention to this chair, and more particularly to a chair of his own device. Heister, too, speaks of the chair as being commonly used in Germany. Even in the time of Roederer the chair was the usual mode adopted.

Again, in the West Indies and in some parts of Britain the woman was placed on a stool of a semicircular shape, or on a woman's lap, or kneeling on a cushion. In France, she was placed in a half-sitting, half-lying position. In London, the method usually adopted was as follows:—The patient lay in bed upon one side, with her knees separated by a pillow and flexed on the abdomen. In this position Smellie says they are more easily "touched"; but when the labour was tedious

he adopted the French position, because gravity was then best able to render all the assistance it could, and the patient had better control over, or could use with better effect, the action of the abdominal muscles. When the patient lay on her left side, the right hand of the operator was to be used; when on her right, the left hand. A very common plan adopted by him in laborious and preternatural deliveries was to place the patient on her back, athwart the bed, and he reminds the reader that he used the forceps most frequently with the patient in this position. When pedal version had to be performed, he advised that the head and shoulders of the patient should be lower than the breech, because, in this posture, the accoucheur could most easily operate. He also found the knee and elbow position of service in certain cases in beginning the operation of turning, but he always completed it with the patient in the back position. Chapman, however, sometimes performed the operation of turning with the patient on the left side, although most commonly on the back position. Ould usually assisted his patient in natural labours while she lay on the left side, and Burton followed the like practice, both in natural labours and when the operation of turning had to be performed.

The plan followed by Smellie seems to have been that generally adopted by London practitioners of his day, because he calls it the "London method." When the back position fell into desuetude in Britain it is impossible to say, but it is certain that for the past century or more it has been superseded by the side position. There are still not a few who prefer the back to the side position in instrumental or operative delivery. In France and Germany the back position still obtains when operative interference is demanded. It is quite clear, however, that the side position, in all labours, became more general after Smellie's time, because we find both Pugh and Wallace Johnson advocating this position to the exclusion of all others, both in ordinary and instrumental deliveries. Smellie was not wedded to any one position. He adapted the position of his patient to the peculiar circumstances of her case, choosing at one time one position, and at another time a different one.

In speaking of a natural labour, Smellie makes no division

of it into stages, while, at the same time, he describes the character and purpose of the different pains. The division into stages was not made till Denman's time, when that author accurately described them. M'Lintock has observed that nowhere does Smellie specially teach, as a routine duty of the accoucheur, the support of the perineum. This is true; but we think that that writer has failed to do him justice regarding his practice; for we find in vol. ii., Cases 146 and 147, illustrations of his practice on this point. Case 146 was one where uterine action was very strong, and where by reason of the "os externum" being very little dilated, "I was obliged," says he, "to press the flat of my hand upon the parts, to prevent the fourchette from being torn, and by resisting the force of the head against the os externum, allow it time for gradual relaxation." Case 147 was one of a similar kind. He tells us that "after having guarded the parts, in order to prevent laceration, during a few pains, I withdrew my hand to take some pomatum, for lubricating the external parts. In that interval, a strong pain returned, contrary to my expectation; and before I could replace my hand, the child's head was delivered, and the perineum torn quite to the anus. This accident was owing to my hurry and precipitation, in consequence of which I passed my hand on the outside of the sheet; and before I could disentangle it, the damage was done. Ever since this misfortune, when I attend women in labour of their first children, I always turn up and pin the upper sheet to the bed-quilt, as the child's head advances to the lower part of the pelvis." In his Treatise,¹ he enumerates among the causes of laceration of the perineum, "the accoucheur's neglecting to slide the perineum over the head when it is forcibly propelled by the pains, or from his omitting to keep up the head with the flat of his hand that it may not come too suddenly along." All these indications point to the fact that Smellie was quite alive to the necessity for this support of the perineum, in those cases, at least, where the absence of it would be likely to be attended by mishap.

Also, in the recapitulation of his teaching as to the application of the forceps, he instructs the student that "the head must always be brought out with a half-round turn,

¹ P. 372.

over the outside of the os pubis, *for the preservation of the perineum*, which must at the same time be supported with the flat of the other hand, and slid gently backwards over the head." It was left to John Harvie, his successor in teaching and practice in London, to first publish, in 1767, "Practical Directions shewing a Method of preserving the Perineum in Birth etc." in which he insisted upon the support of the perineum as a routine duty of the accoucheur.

Wallace Johnson is suggested by M'Lintock as "perhaps the first British author to insist upon supporting the perineum as a duty of the accoucheur in every case." There, however, he is in error. John Harvie, in the pamphlet, part of the title of which we have just quoted, two years before Johnson's book was published, laid down explicit rules on this subject. We had better quote what he says:—"So soon as the vertex of the child's head begins to push into the os externum, it must only be allowed to advance in a slow and gradual manner, by the action of the labour pains. To do this properly, the accoucheur, having directed his patient to lie down upon the bed in the usual position, every pain must be attended to; and as soon as a pain has acted long enough to render the frenum of the perineum tight, the farther action of that pain must be totally prevented by the palm of the left hand applied against the perineum with a proper force. By observing this method in every following pain, a safe dilatation will be gradually produced. During the interval of pain, fresh hog's lard, the best ointment for that purpose, is to be insinuated upon the inside of the perineum and into all the os externum." In these circumstances "it will be proper to intreat the patient to strain only gently, and to keep steadily in the same position of the body; after that, he must very cautiously slip back the perineum over the child's face and chin. . . . The accoucheur ought to have a single fold of a warm and clean cloth between the palm of his left hand and the perineum; without which he could not have a commanding hold, and consequently could not attend to the rules here laid down."

Another point of interest in Smellie's work, and in which his teaching was opposed to the doctrine prevalent before, and even during his time, is his method of dealing with the delivery of the placenta after the birth of the child. He

tells us that while in the country he was in the habit of extracting the placenta immediately after the birth of the child, and that this practice was due to the fact, that as he was seldom called except in severe labours, and often when the patients were weakened and fatigued, he was afraid to wait; when the patient was not in danger, however he left that duty to the midwife. But when he went to London, he found "the practice in this particular quite different; the women were always in a fright when the placenta was not immediately delivered when it was in the least lacerated, or when any part of it and the membranes were retained.¹ For this reason male practitioners were so often called. I at first swam with the stream of general practice; till, finding by repeated observation that violence ought not to be done to nature, which slowly separates and squeezes down the placenta by the gradual contraction of the uterus; and having occasion to perceive in several instances that the womb was as strongly contracted immediately after the delivery of the child, as I have found it several hours after delivery; I resolved to change my method and act with less precipitation in extracting the placenta." On the delivery of the child, and after separation of the umbilical cord, using only one ligature, as was his habit, Smellie adopted the plan where there was no danger of flooding, of allowing his patient to rest somewhat, to enable her to recover from the effects of her fatigue: then "in order to deliver the placenta," he says, "take hold of the navel-string with the left hand, turning it round the fore and middle fingers, or wrapping it in a cloth, so that it may not slip from your grasp; then pull gently from side to side, and desire the woman to assist your endeavour by straining as if she were at stool, blowing forcibly into her hand, or provoking herself to retch by thrusting her finger into her throat. If by these methods the placenta cannot be brought away, introduce your hand slowly into the vagina, and feel for the edge of the cake, which, when you have found, pull it gradually along; as it comes out at the os externum take hold of it with both hands and deliver it, bringing away at the same time all the membranes, which, if they adhere, must be pulled along with leisure and caution.

¹ Vol. ii., p. 287.

“When the funis takes its origin towards the edge of the placenta, which is frequently the case, the cake comes easier off by pulling than when the navel-string is inserted in the middle, unless it be uncommonly retained by its adhesion to the womb, or by the strong contraction of the os internum. If the funis is attached to the middle of the placenta, and that part presents to the os internum or externum, the whole mass will be too bulky to come along in that position; in this case you must introduce two fingers within the os externum and bring it down with its edge foremost. When the placenta is separated by the contraction of the uterus, in consequence of its weight and bulk it is pushed down before the membranes, and both are brought away inverted.”

When the uterus is found contracted over the cord, he advised that the navel-string should be held as before indicated, and that the other hand should be guided by the cord to the os: that then, the fingers and thumb formed as a cone, the hand should be gently introduced into the uterus, and the precise position of the placenta discovered. If the placenta be loose, bring it out slowly along with the hand; but if it be adherent, then it must be separated by the fingers (and for this operation he advises that the fingernails ought to be cut short and smooth) until the whole be disengaged, when it is extracted. When the placental site is on the left side of the uterus, he advised the use of the right hand; when on the right side, the left hand. And he reminds his reader that “that part of the uterus to which the placenta adheres is still kept distended, while all the rest of it is contracted”; and that greater difficulty is experienced in the operation the further from the os the placenta is planted. During the operation of separation, too, he advises that the uterus be steadied either by the hands of an assistant or by the disengaged hand of the operator. After a difficult case of extraction he advised the further introduction of the hand to examine if any inversion of the uterus may have occurred, and to clear the organ of coagulated blood, which, adds he, “may occasion violent afterpains.”

Having thus laid down his method of delivering the after-birth, he informs the student that usually, however, the placenta will come away of itself within twenty minutes, more or less. In the writings of the ancients, he tells us,

two sets of opinions prevailed. The one, that the placenta should either be delivered slowly or left to itself; the other, that the hand should be immediately introduced into the uterus, and the placenta separated and extracted. Observation and experience had convinced him that "we ought to go in the middle way, never to assist but when we find it necessary; on the one hand, not to torture nature when it is self-sufficient, nor delay it too long." It will thus be seen that Smellie's practice was based in conformity with the action of Nature. His object evidently was to assist her action, rather than forestall it.

Let us briefly consider the prevalent practice before and during Smellie's life-time in this connection. Mauriceau advised that "as soon as the Child is born, before they (the midwives) do so much as tie or cut the navel-string, lest the Womb close, they must, without losing time, free the Woman from this fleshy mass"; and the method to be adopted was by gentle side-to-side traction on the cord, and by the expedients mentioned by Smellie on the part of the patient herself. These failing, Mauriceau says, "Command an experienced Nurse-Keeper to press the Belly lightly with the Flat of her hand, directing it gently downwards by way of Friction, above all being careful not to do it too boisterously." This manoeuvre failing, the accoucheur was to introduce his hand into the womb, separate the placenta, and extract. La Motte's teaching and practice were nearly the same, but the umbilical cord he did not cut till both child and placenta were delivered. Deventer believed in the immediate introduction of the hand to remove the after-birth. He says, evidently thinking it a new practice, "it will seem foreign to most, and to Practice in general, and Contrary to the Opinion of all Authors, that the Hand should immediately be passed into the Womb to draw out the After-Birth." He did not believe in delivering by traction on the cord; his practice was:—"Let the Hand presently after the Birth of the Infant, be passed into the Womb"; and his principal reason for so acting was the fear lest that organ should close round the placenta and render it more difficult afterwards to extract. He gives *eight* reasons in support of his practice, but the burden of them is as we have already indicated.

The doctrines of English writers, too, equally varied. Maubray recommended that the Placenta or "Hepar Uterinum," as it was sometimes then called, ought to be extracted "with all imaginable Speed after the Child is born, even before the Navel-String is cut; because the Womb immediately contracts itself." Chapman cordially approved of these views, and carried them out in practice. He tells us that "the Moment the Child is born, I slip my Right Hand into the Womb and gently with it assist in Extracting the Placenta. . . . Nor would I advise any one to trust to its coming away of its *own accord*, or to leave the Expulsion of it to *Nature*." He further informs us that this was the practice of "the greatest Masters in the Profession" in his day. Counsell, whose work for midwives was published the same year as the treatise of Smellie, advocated a like practice. He tells us, "immediately after the Delivery of the Child, the sooner you introduce your Hand in order to fetch away the after-burden the better." Burton, too, who also published in the same year, held similar opinions. He believed that the placenta ought to be delivered "by introducing the Hand into the Womb immediately (in a General Way) or as soon as may be after the Birth of the Child," and defends his practice in seven reasons, the chief of them being the fear of premature closure of the uterus.

We have said enough to indicate the practice of Smellie's time, and to show by contrast what improvements he was trying to effect in this regard. He was not in the least impressed by the fear of the closure of the womb; indeed, he tells us that he found "that the mouth of the womb is as easily dilated some hours after delivery as at any other time." There can be no doubt, therefore, that his method of delivery of the placenta, not probably so much as to its *modus operandi* as to its judiciousness, was a considerable advance on the general practice. He saw that the uterus, like every other organ of the body, under varying circumstances differed as to its behaviour, and required treatment accordingly. In short, he shaped his practice by the pattern of his patient. And it is satisfactory to know that his teaching held the field until the more rational method of expulsion by external friction or pres-

sure became to be inaugurated by John Harvie and by the Dublin School. It was for his assistance in reforming the wrong practice of delivering the placenta, that he thanked Dr. Hunter.

In M'Lintock's annotations on the practice of Smellie regarding the delivery of the placenta, he accords the credit of the initiation of modern practice—viz., the expression of the placenta, *ex utero*, by the hand externally applied on the abdomen—to the Dublin School. He states that this has been the practice at the Dublin Lying-in Hospital "from time immemorial"; at least, it was the practice of Joseph Clarke, the Master of that Hospital from 1786, and was continued thereafter. As evidence of this practice by the Dublin School, he quotes from the writings of Mr. Dease of Dublin, who wrote as follows in 1783, in his *Observations on Midwifery*, published in Dublin:—"Should the detachment of the placenta not be effected in the usual time, it will be much facilitated by the operator's judiciously applying his hand to the region of the uterus, which he may excite to the necessary contraction by gentle friction," etc. This is the method now generally called in the books "Credé's method," and which is generally taught and practised. To Credé must be accorded the credit, if not of initiating the practice, at least of bringing it prominently before the profession in Germany and in this country. It seems to us, while very willing to give every credit to the Dublin School for what it has done for Midwifery, that it is impossible to accord it the credit of initiating this practice. Facts do not support that view. When Ould wrote his Treatise in 1742, he advocated that the child was not to be separated from the umbilical cord until the placenta was delivered; and that to effect this, gentle traction was to be made on the cord, while the woman held her breath and forced downwards. This was the more enlightened practice in his time, as opposed to manual extraction *ex utero*. So far as we are aware, this new doctrine of "expression" occurs for the first time, among Dublin writers, in the writings of Dease. In his memoir of Smellie, M'Lintock mentions the name of Dr. John Harvie, who was the successor of Smellie in teaching; and further, that he was "the author of a small work published in 1767, under the title of 'Practical Directions shewing a method of Preserving the Perineum in Childbirth,

etc.' I have never seen this book," adds he, "so I can say nothing of its contents." We have perused this pamphlet, consisting only of forty-eight pages, its full title being, "Practical Directions, shewing a method of preserving the Perineum in Birth, and Delivering the Placenta without Violence, By John Harvie, M.D., Teacher of Midwifery." Although it is but an unpretentious work, it nevertheless establishes two important doctrines; and had M'Lintock been able to peruse its contents, he would doubtless have modified his opinions on these two points. The first was regarding the support of the perineum as a routine duty of the accoucheur; the other as to the delivery of the placenta. We have considered the former doctrine in its proper place. Let us now briefly consider Harvie's teaching regarding the second point. His doctrine is as follows:—"As soon as the child is committed to the care of the nurse, let the accoucheur apply his hand upon the belly of the woman, which is then very loose, and he will readily feel the contracting uterus; then having placed the flat of the hand over it, let him, by a light and gentle pressure, bring it downwards or towards the pubes, and he will feel the uterus sensibly contracting, and often will feel it so reduced in size as to be certain that the placenta is expelled. By this method we will seldom have anything to do afterwards, but to help it through the os externum, if even so much remains undone." He also recommended a similar practice for the expulsion of uterine coagula. Without doubt, then, we have here the inception of the teaching of the modern method of managing the third stage of labour; and to Harvie must be assigned the credit of having published for the first time the essentials of the more mature plan of delivering the placenta. At the same time, it must be freely acknowledged that the Dublin School had adopted a like practice long before it became generally prevalent, although not before Harvie's time.

CHAPTER XIII.

THE FORCEPS BEFORE AND DURING SMELLIE'S TIME.

THE discovery by Smellie of the mechanism of labour threw not only a flood of light on the normal processes of parturition, but it also had the effect of assisting to re-establish the forceps—an instrument which was just beginning to be rescued from the obscurity to which it had been consigned by the Chamberlens—as a very valuable auxiliary in delivery.

Let us briefly discuss the position of the instrument before Smellie's time. While we have no intention of discoursing at large on the general history of the forceps, or of its invention, or of its original inventor, we think that time would be well spent by considering the position of this instrument from the Chamberlens' time up to the point when Smellie took the problem in hand.

When Hugh Chamberlen translated Mauriceau's *Treatise on the Diseases of Women with Child, etc.*, in the preface of the translator to the reader, he informs us that the fastening of hooks "in the head of a child that comes right, and yet 'because of some Difficulty or Disproportion cannot pass," was a very common mode of practice, and one which prevailed "not only in England, but throughout Europe," in the practice "of the most expert Artists in Midwifery," at the time in which he was writing. "But," adds he, "I can neither approve of that Practice nor those Delays; because my Father, Brothers, and myself [tho' none else in *Europe* as I know] have, by God's blessing, and our Industry, attain'd to, and long practis'd, a Way to

deliver Women in this Case, without any Prejudice to them or their Infants. . . . By this manual Operation, a Labour may be dispatch'd (on the least Difficulty) with fewer Pains, and sooner, to the great advantage, and without Danger, both of Woman and Child. . . . I will now take leave to offer an Apology for not publishing the Secret I mention we have to extract Children without Hooks, where other Artists use them, viz:—there being my Father and two Brothers living, that practise this Art, I cannot esteem it my own to dispose of, nor publish it without Injury to them; and think I have not been unserviceable to my own Country, altho' I do but inform them that the fore-mentioned three Persons of our family, and my Self, can serve them in these Extremities, with greater Safety than others."

Although the writer of the above scrupled about making public the family secret, we have it on record that he tried to effect the sale of the secret privately both in France and in Holland. Doubtless the success of this enterprise would have been more assured in France, had he not failed to deliver the now historic patient of Mauriceau, in the Hôtel-Dieu at Paris, with the instrument he was trying to make capital of; and it would appear that what he attempted to sell in Holland was, according to Ruysch, not the complete instrument, but one of its blades, to be used as a lever or vectis. It has been very much the fashion hitherto to utterly condemn this secrecy on the part of the Chamberlens, and to judge them by the ethical standards of to-day, but it must always be borne in mind at the same time, that, although it may be just to bring modern ethics to bear on modern problems, they cannot, with equal justice, be brought to bear on ancient practice. From a modern standpoint it is unquestionable that the Chamberlens were not so serviceable to their country as they might, or would have been, had they made their invention public; but these were the days, *par excellence*, of secret inventions and secret nostrums. There was hardly a man pretending to any position in the art of midwifery, or the allied arts, who did not possess some invention or nostrum which he deemed to be better than those of any one else, which he considered exclusively his own, and to which he had the sole title, because it had been originally devised by himself.

We have only to cast our eyes over the field of midwifery of that time to perceive how generally this secrecy obtained. Roonhuysen, in Amsterdam, secluded his invention from the world until it was discovered by stealth, or he had parted with it for a "consideration." Rathlaw, also of Holland, had his extractor, and his pet medicine, which he deemed of wonderful virtue and value. In our own country Sandys pinned his faith to an invention of his own which he kept secret. Do we not read also of such inventions being parted with for good round sums? Even into the eighteenth century we find Chapman speaking of his extractor, but neglecting to publish particulars of it until he was brought to task for this by the *Edinburgh Essays*, and by Levret; and even then he was silent as to the Fillet, which he deemed "entirely an invention of my own." These are but a few examples of the secret tendency of that age, and will, we think, suffice.

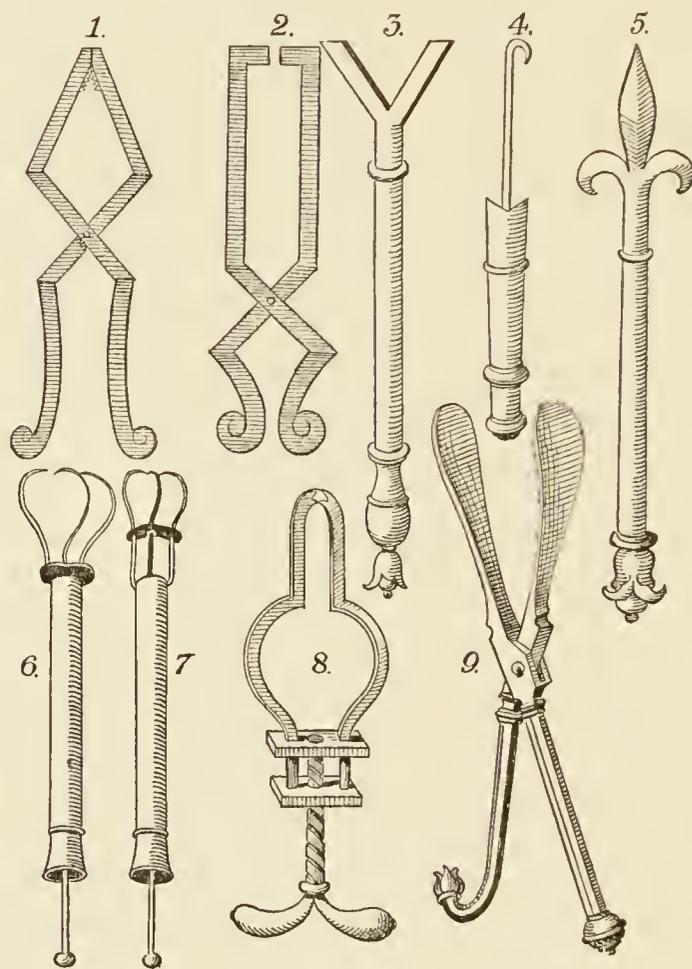
It has been already established, we believe, by the late Dr. Aveling in his work on *The Chamberlens*, that the invention of the forceps is to be laid to the credit of Dr. Peter Chamberlen, *the elder*, who was the grand-uncle of Dr. Paul Chamberlen, instead of the latter, to whom some writers—Leishman and others—accord this distinction. And it is interesting to note that Aveling was put on the right track of discovery by an incidental remark which Smellie makes in the Introduction to his Treatise. We must refer the reader to this work of Aveling for further interesting examination. But we cannot refrain from referring to the interesting discovery of the Chamberlen instrument which is therein recorded, as compiled from the original sources of information.

The estate of Woodham Mortimer Hall, near Maldon, in Essex, belonged to the Chamberlen family from some time before 1638 up till 1715, when it changed hands. In June 1813, circumstances led the occupant of the house to open a trap-door in the floor of a closet above the entrance porch, when were discovered some pairs of midwifery forceps, coins, etc., together with a small Testament printed in 1645, but dated in writing, 1695. The forceps were presented to the Royal Medico-Chirurgical Society of London in 1818, by Mr. Carwardine. The most original of the forceps, evidently, as Aveling says, "the first midwifery forceps constructed by

the Chamberlens, and from which spring all the various forms now in use" is thus described by him.

"A very rudely constructed forceps, one half $12\frac{1}{2}$ inches, the other 13 inches long; the length of blade to joint, in both, 8 inches; the length of fenestrum in one blade 5 inches, in the other 8 inches. One handle is $4\frac{1}{2}$ inches, and the other 4 inches, long, and both terminate in blunt hooks outwards. The two portions of the instrument are united

PLATE VA.

ELECTROTYPE OF INSTRUMENTS FROM BURTON'S
LETTER TO SMELLIE.

- FIG. 1. *Forfex Albucasis*, with teeth to crush the child's head.
 FIG. 2. *Vertigo Albucasis*, with which the womb was dilated.
 FIG. 3. *Impellens Albucasis*, to push up the foetus in the womb.
 FIG. 4. *Forma Uncini Albucasis*, with one hook.
 FIG. 5. Another form of this, with two hooks.
 FIGS. 6 and 7. *Extractor of Ambrosius Paraeus*, called *Pes Gryphii*, to extract moles.
 FIG. 8. Another kind of *Pes Gryphii*, to extract the head when left alone *in utero*.
 FIG. 9. *Forceps Longa et Torsa Paraei*, to take hold of a living child's head.

by means of a rivet which can be unscrewed. Its head had not the usual notch in it, but is made oval. The apices of the blades, when the instrument is closed, touch one another"¹

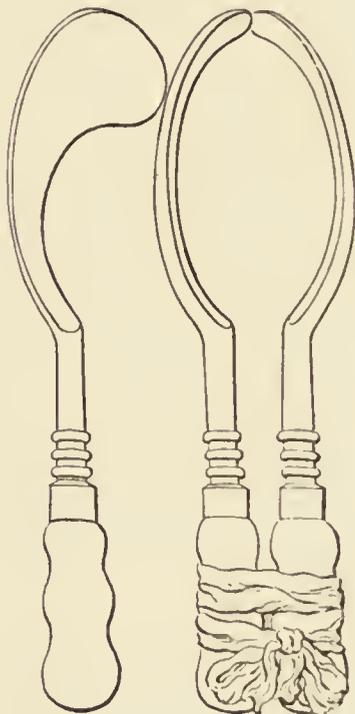
Thus for a period of about 150 years the Chamberlen instrument was kept, or lay, in secret. Before the time of

¹ *Op. cit.*, p. 221.

the Chamberlens, and away back in the preceding centuries, conservative instruments of the type of the forceps were almost wholly, if not, indeed, entirely unknown. Burton, in his letter to Smellie, published a plate in which he depicts the instruments used by the ancients; and among them, an instrument which he says was to be applied to the head of a living child, to assist extraction. We place before the reader an electrotype of this plate (*Vide* Plate V^A).

Between the time of the Chamberlens and the first few decades of the succeeding century, the practice of operative midwifery consisted in the use of crotchets, hooks, etc., as destructive instruments, and of fillets and similar appliances, as conservative instruments; but the use of the former seems

PLATE VI.



FORCEPS OF GILLES LE DOUX.
(From Mulder.)

to have predominated. The earlier English writers of the seventeenth century did not seem to have any acquaintance with the forceps; indeed, their armamentarium seems to have been both primitive and scanty. On the other hand, Continental writers knew of the forceps, and used them. For a detailed account of them we must refer the reader to Mulder's *Historia Litteraria et Critica Forcipum et Vectium Obstetriciorum*. Shortly after the year 1720, however, Gilles le Doux invented his instrument, a drawing of which had been given by Heister, and which was copied by Mulder (of which we reproduce above an electrotype). The instrument con-

sisted of two symmetrical blades which were non-fenestrated, and which, when applied, were kept in position by a band tied round the handles. When in position, the apices of the blades, as in the instrument of Chamberlen, touched one another. About the same time, Palfyn or Palfin of Ghent invented his extractor, which also consisted of two like solid blades, and which were held in position by a metal band.¹

Petit, who was in practice in Paris about this time used another form of extractor with a hinged joint. The extractor of Dusé, which he was using before 1733, differed from the previous instruments, inasmuch as it consisted of two single blades which were non-fenestrated, and which were kept in position by a joint through which passed a screw. For the first time, too, since Chamberlen, the extremities of the handles terminated in hooks. This is the instrument which is figured in *The Medical Essays and Observations* (Edinburgh), and which is described by Butter in Article xx. of that volume.² In addition to the points of interest attaching to it, to which we have already drawn attention, it is of especial interest to the readers of Smellie, in respect that it was the first form of instrument of the forceps type with which he was acquainted, and that during his stay in Lanark. Undoubtedly it was a clumsy instrument at best, but in the process of evolution of the forceps, it is an exceedingly interesting type, in advance of its predecessors. It forms Fig. 8 of Table i. of Mulder.

Returning now to England we can see what developments were taking place there. It does not seem difficult to understand, in the light of the destructive results then experienced in midwifery practice, why a school of practitioners arose who deprecated the entire use of instruments, and who valiantly attempted to overcome all difficulties, natural and unnatural, by the sole use of the hand and a strong arm.

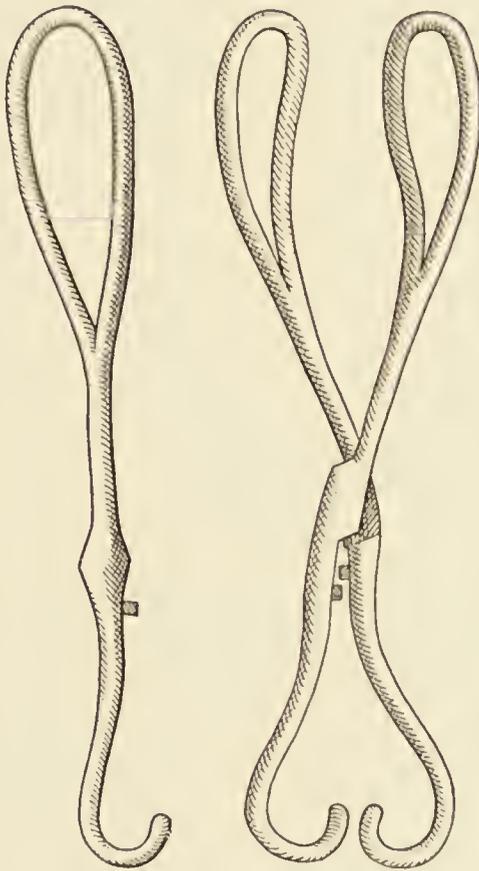
About the third decade of the century, the use of forceps, such as they were, began to be more general in England. In 1734, Giffard's *Cases in Midwifery* were published under the editorship of Dr. Edward Hody, who, at this time, was himself a noted obstetrician. This is the first English work after Butter's Essay, in which the forceps is delineated. It contains an account of 225 cases. Not only is there

¹ *Vide* Plate XIX., p. 225.

² *Vide* p. 154.

given a drawing of his extractor, but there is also depicted the extractor as improved by Mr. Freke, Surgeon to St. Bartholomew's Hospital. There is unfortunately no account given of the dimensions of either of the instruments in that work, but Mulder supplies us with the following: "Length of the Instrument $12\frac{1}{2}$ poll; of the blades $7\frac{1}{4}$ poll; and of the handles $5\frac{1}{4}$ poll; the angle of divergence of the blades 40° ; length of the fenestrae $4\frac{7}{12}$ poll; size of aperture of fenestrae $1\frac{1}{4}$ poll" (poll = about one inch). Subjoined, we give drawings of the instruments, photographed from Giffard's work. As the object and intention of Freke's modification of

PLATE VII.



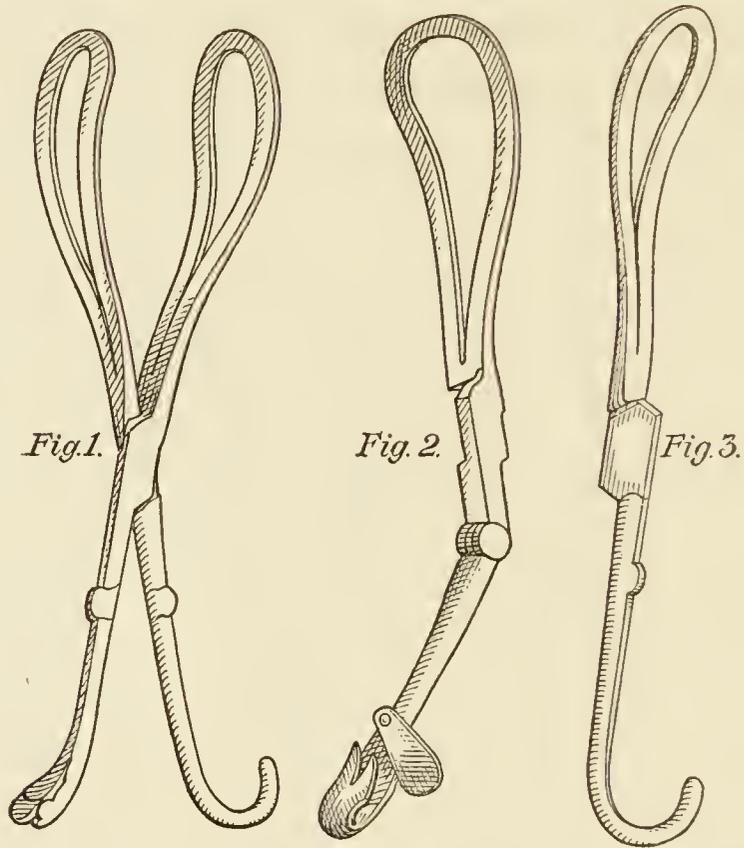
GIFFARD'S FORCEPS OR EXTRACTOR.

the instrument is obvious from the notes affixed to the plate, we refrain from making any further comments upon it. It is noteworthy, however, that the handles of Giffard's instrument possess hooked extremities.

We have carefully analysed the cases recorded in his work to see how frequently Giffard had used the instrument, and we find that of the total recorded, 225 in number, the forceps were used in 38, and one blade of the instrument as a vectis in 28. No percentage return can be made, because we have no means of knowing whether his recorded forceps cases

were *all* the forceps cases he had had in practice, nor do we know the total number of midwifery cases he had. The necessary data being absent, we must content ourselves with believing that the 225 cases recorded in the book were set down on account of their interest, and not as an index of the extent, or incidence, of his midwifery practice.

PLATE VIII.



GIFFARD'S EXTRACTOR AS IMPROVED BY MR. FREKE,
Surgeon to St. Bartholomew's Hospital.

FIG. 1 represents the instrument ready for use.

FIG. 2 represents one of the blades made to fold by means of a hinge; extremity of handle made in the form of a sharp crotchet, which can be protected by the movable metal flap.

FIG. 3 shows the other blade, the extremity of its handle being formed as a blunt hook or crotchet.

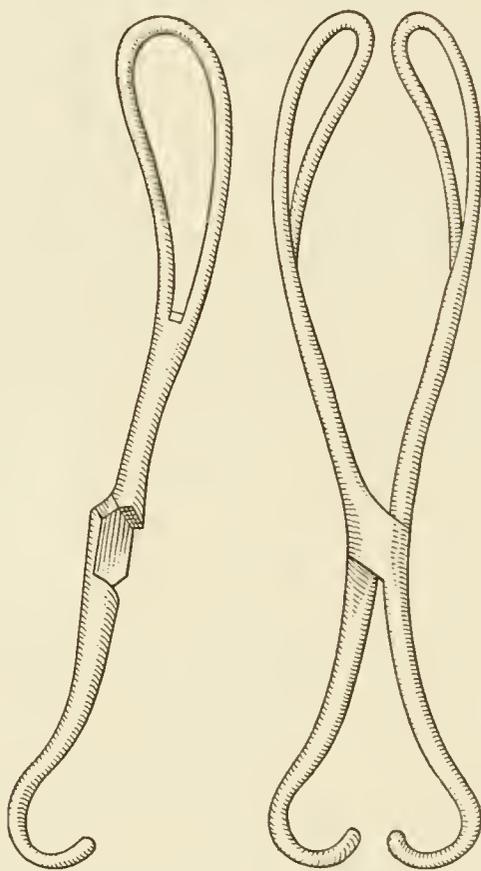
In 1735, Chapman, in the second edition of his work, published a description and engraving of his extractor. In the first edition this had been omitted. In the introduction, he says, regarding the knowledge and use of the forceps, that they are "now well known to all the principal Men of the Profession, both in Town and Country"; and he further observes, "that as there are several Sorts of Forceps, so they are far from being all equally proper; and great Regard is to be had to their Form. I once saw," adds he, "a Pair at a noted Instrument-Maker's which I thought very faulty; and was shewn a Pair by a Brother Practitioner in the Country which could not be used with either Success or Advantage;

the Diameter of the Curve being too large, and its Bows too short." Chapman noticed that, in the literature of his time, the Forceps were not more "than barely mentioned." He calls it a "noble Instrument," and adds, that, to their use, "many now living owe their Lives, as I can assert from my own knowledge and long successful Practice." The measurements and dimensions of Chapman's instrument, as given by himself, are as follow: "Their length in a Right Line, Fifteen Inches. The length of the *Bows* from the *Joint*, where the two Parts cross, to the Upper Extremity, in a Right Line, Nine inches and one Quarter. The Girt of the Bows, when shut is, in the widest Part, Eight Inches." Like Giffard's instrument, the extremities of the handles of this terminate in hooks; but their mode of locking is different. In the former, the blades inosculate by depressions made in the metal; and in addition there is a rivet in each half of the upper part of the handle, and below the joint referred to, which, when the instrument is closed, fits into a socket in the opposing handle, thus completing their mode of union. In Chapman's extractor, on the other hand, the joint is formed solely by the sockets cut in the metal at the lock, which are mutually receptive. There can be little doubt, however, that this is his improved instrument, as will be seen from the following extract from his work. The following Plate (IX.) is taken from Chapman's second edition.

The metal of which both the extractors of Giffard and Chapman were made was a comparatively soft one. Giffard tells us in his narration of Case xxvi., that "one of the branches (of the instrument), which upon examination I found was before cracked through, *gave way*, and I was forced to send home for another"; and Chapman informs us that "for many years my *Forceps* happened to be made of so soft a Metal as to bend or give way, or suffer some alteration in their Curve. They were made, as usual, with the *Screw* fixed to one Part or Side of them. These I used for some Years; but they often happening to slip off sideways, as before mentioned, my opinion of the Instrument was so much lessened, that for many Years after, I used it but seldom, and even not once in the Space of Ten Years. During which Time, when the Child could not be Turned, I employed the Fillet only. At length, I caused another Pair to be

made me of better metal, and some other improvements; the *Screw* Part being contrived to take out, and not fixed, as in the former." This last improvement he caused to be made, because being about to use the instrument at a confinement, and the screw having gone amissing, he used his hand instead to keep the joint steady, and, says he, "I found the Instrument did its office much better without the *Screw*, or the two Parts being fixt."

PLATE IX.



CHAPMAN'S EXTRACTOR.

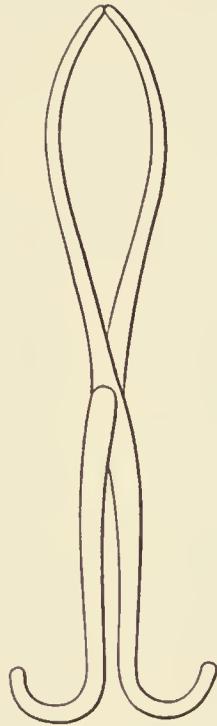
The figure with blades in position represents the instrument not quite shut.

In the next print we see an instrument which was found at the sale of the effects of Mr. Falconer, Surgeon in London, in 1778. It is supposed to have been invented about 1736, but of that we have considerable doubt. Our reasons for questioning the correctness of this statement of Mulder are, chiefly, that the lock is essentially the Smellie lock, to whom its invention has been universally attributed. It may be said that this could not be an instrument of Smellie, because the handles of it terminate in hooks. But it must be borne in mind that Smellie used such an instrument before he adopted the rounded wooden handles. In Vol. iii.¹ Smellie mentions

¹ P. 137, Case 381.

the fact that the handles of the forceps "were not then altered from crooks to wooden handles." This was in the year 1746. Whereas in a letter to a pupil, of date 1749, he says, "since you attended me I contrived the last forceps, with shorter handles, on purpose that too great force might not be used," and we know that this particular lock was not contrived till 1745.

PLATE X.

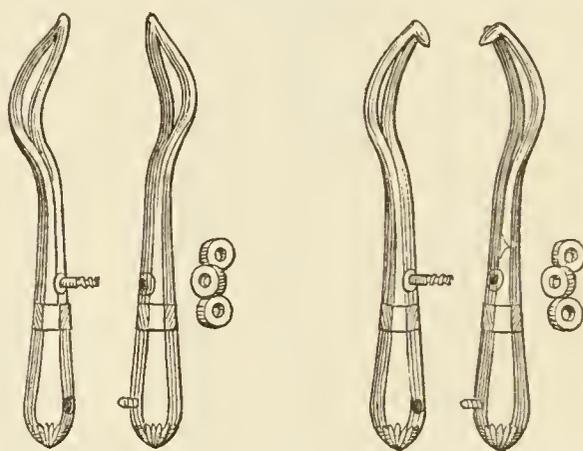


Instrument belonging to Mr. Falconer, Surgeon in London ;
supposed to have been invented about 1736. (Mulder.)

When Chapman published a drawing of his Extractor, Smellie informs us, the French began to adopt the same species of instrument. Doubtless it was this kind of forceps that Smellie saw Grégoire use, during his stay in Paris, in the year 1739. We at least know that seven years later (1746) Grégoire *fils* was using an instrument which corresponds with the description of Chapman's first instrument, viz., that where the union is effected by means of a screw. In all probability the instrument used by the son would be the same as that used by the father, for during these seven years no noteworthy change was made in the evolution of the instrument. Boehmer, in his edition of Manningham's *Artis Obstetricariae Compendium*, published in 1746, gives a sketch of the forceps of Chapman and Grégoire *fils* alongside one another ; his object in so doing being to illustrate the superiority of the English instrument. The most noteworthy point of the instruments is the comparative simplicity of Chapman's mode of

junction, as compared with that of the French instrument. Mulder reproduces a figure of the same instrument. But Chapman's instrument was not yet generally adopted in France; probably the knowledge of it had not extended beyond the capital. For in 1743 Mesnard was using an instrument which was entirely different from those used between the time of Gilles le Doux and the date in question. His instrument consisted, practically, of two symmetrical parts, each having a short pointed fenestrated blade, and a rounded wooden handle; the only difference between the parts consisting in this, that the left handle, as shown in the following diagram, contained a screw which fitted into a slot in

PLATE XI.



Mesnard's Extractor on left, his Double Crotchet on right.
(From his Treatise.)

the right blade, which screw, when in position, was retained by a rivet; and also, at the lower part of the left handle, there was a second slot to receive a metal pin projecting from the lower part of the right handle, when the instrument was fitted in position.

In 1742, Ould, in his Treatise published at Dublin, gives a detailed description of the mode of using the Forceps, from which the kind of instrument used by him may be easily arrived at. (At page 153, *et seq.*, of his work the reader will find the description.) Ould had come under the influence of the French school, he having studied in Paris, doubtless under Grégoire the elder. As far as it can be inferred, the instrument used by him was that of Grégoire *père*. Of it he says, "The best adapted instrument is the large Forceps, which is in general use all over Europe; wherefore it needs no particular description." But he leads us to understand that this instrument is joined by a Centre-pin, which is so screwed that

it is the axis on which the blades of the instrument move, and further, that the handles terminate in the form of hooks.

In 1747 Rathlaw published a dissertation entitled "Le fameux secret d'accoucher, du Sieur Roger Roonhuysen, découvert and publié par un ordre souverain, à Amsterdam en 1747, Par Jean-Pierre Rathlaw, Accoucheur en la dite Ville." This is the rendering which Levret gives of its Dutch title, because the original work was printed in that language. On 31st January, 1747, the States of Holland enacted, "that no one may give himself out as an Accoucheur, or may exercise that Art, until he has been specially authorised to so practise, after a competent examination passed before those who are appointed for the purpose." In accordance with this, Rathlaw presented himself for examination, but he failed to satisfy his examiners. Rathlaw should have been a capable man, as he had studied at Paris, under Boudon, Davernay, and Grégoire; and at London, under Cheselden, Amyand (*sic*), Haatkens (*sic*), Sandes, and others. He declared that the reason why he failed to satisfy his examiners was because of his want of knowledge of the "celebrated method" of delivering women, as it was practised by the practitioners of Amsterdam. This "celebrated method" was none other than by the instrument of Roonhuysen, which by this time had become known to the Amsterdam accoucheurs. Rathlaw thought it ridiculous that he should be rejected for this, as he justly says that accoucheurs, both in France and in England, had invented for themselves instruments for the same purpose, which they considered equal, if not superior, to all others; and further, he believed it to be impossible that one instrument could be devised to meet every such emergency in Midwifery. He tells us that nine years before this, viz., in 1738, he had, when in Paris, invented an instrument which was "almost alike" to that figured by Butter in the *Edinburgh Medical Essays*, and which instrument Levret declares was the same as the tire-tête of Palfyn, or, more properly, as that of Gilles le Doux, if one excepted the semilunar openings (*fenestrae*) in the blades, added by M. Dusé, Surgeon at Paris. Rathlaw believed that his instrument was better proportioned than that of Butter, and was more easily used than any that had appeared up till that time. In the same brochure he apprises the reader that Vanderswam, a pupil of Roonhuysen,

who had long been promised to be entrusted with the secret of his master, but who had become sick with deferred hope—during an unexpected interview of his master with the Burgo-master of Amsterdam,—seized this opportunity to examine the instrument, and make a drawing of it. Rathlaw gives a drawing of his own instrument and that of Roonhuysen, which we have photographed from Levet's work, to which we refer the reader for a fuller account of Rathlaw's disser-

PLATE XII.

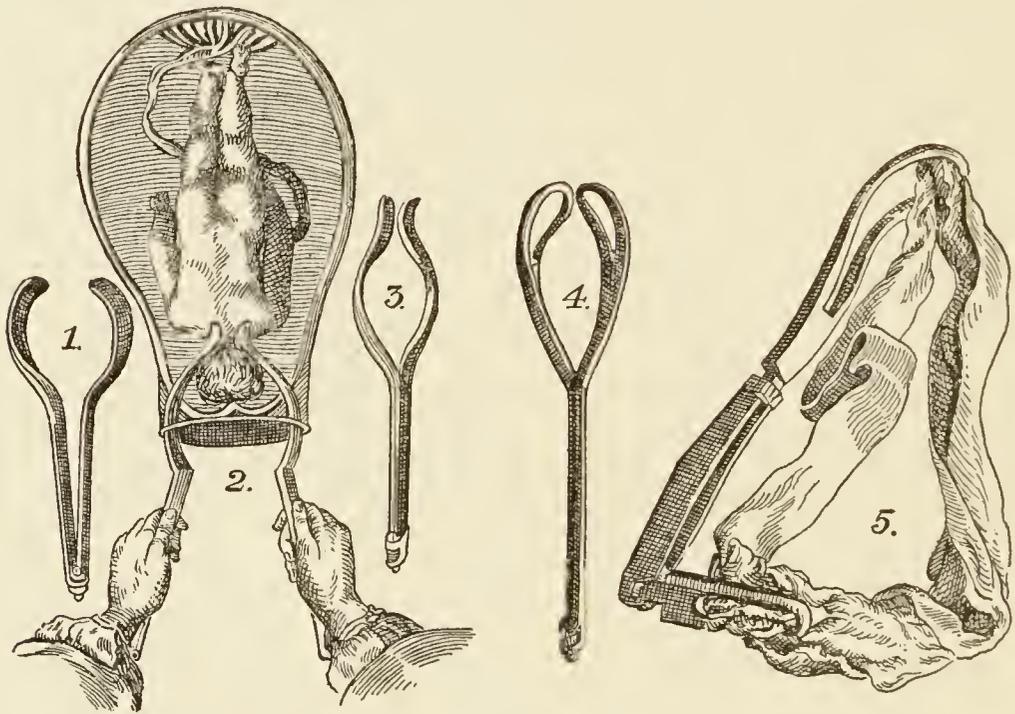


FIG. 1 represents Chamberlen's Forceps, according to Rathlaw.
 FIG. 2 shows Roonhuysen's instrument in use.
 FIG. 3. Roonhuysen's Extractor.
 FIG. 4. Rathlaw's Extractor.
 FIG. 5. The Extractor of Doctor Sandys (*vide* p. 43).
 (From Levet.)

tation. Regarding Roonhuysen's extractor, Rathlaw says, that some believe that this is the same instrument that the Chamberlens used, but that, in course of time, Roonhuysen changed their upper parts to enable them to be more easily introduced. Further, he describes the instrument as consisting of two elastic branches of steel about one inch in breadth, which are placed close, and directly opposite to each other; here they spread out, gradually contracting however towards the point; their extremities are then extended in breadth about one inch, and their ends are turned a little outwards. The blades of the instrument were covered with chamois leather, the seam of which was to be placed on the inside of the blades.

From the drawing it will be apparent that this instrument was intended to have two distinct uses; the first, to dilate

the soft parts of the woman, and the second, to extract the head. Rathlaw's own instrument is depicted in Fig. 4 of the same Plate. Mulder, however, in the following draught, gives a better diagrammatic representation of these instruments, which we also here reproduce.¹ In the same Plate, too, is giving a drawing of the extractor of Schlichting, which differs only from that of Rathlaw in being more expanded as to its blades.

PLATE XIII.

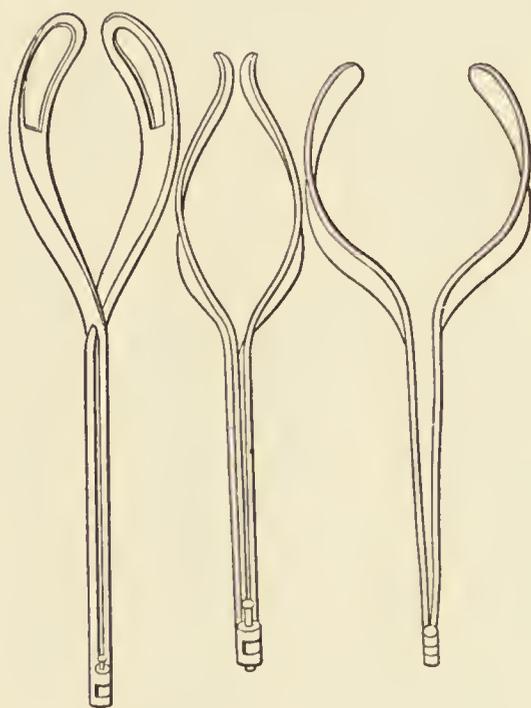


Figure on left is Rathlaw's Extractor ; in middle, Roonhuysen's Extractor (according to Rathlaw), 1741; on right, Schlichting's Extractor. (From Mulder.)

On the 2nd June, 1747, Levret presented to the Royal Academy of Surgery of Paris, a new curved Forceps, which, except in its new curvature, was practically similar to the usual French straight forceps. He took the idea of the curve of the instrument from the curved extractors which were used in the operation of lithotomy, and he believed it to be better adapted to assist the extraction of the head when it was arrested at or above the brim, than the straight instrument.

We have reproduced the original drawing from his work, *Observations sur les causes et les accidens de plusieurs Accouchemens laborieux* ; and it may be examined on referring to Plate 14. It is at once both a ponderous and a powerful instrument, and its mode of union is unnecessarily complicated. The instrument as to its joint, was however

¹ *Vide* Table ii., Mulder, Figs. 14 and 15.

modified in 1751, in the direction of greater simplicity. Some years after this, Levret invented another forceps. This was a three-bladed instrument. It was intended to be of

PLATE XIV.

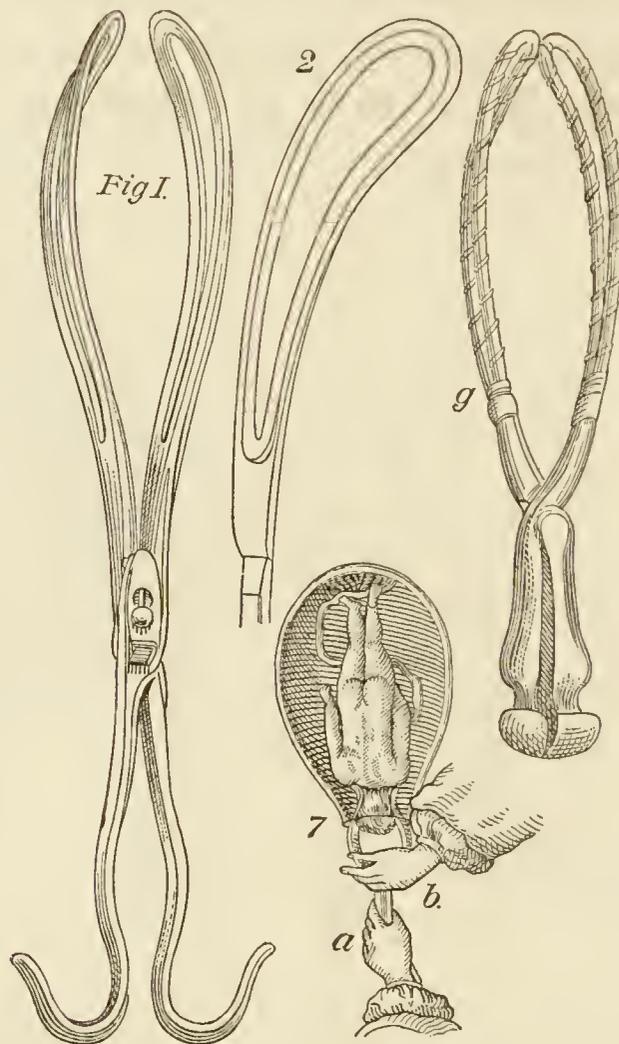


FIG. 1 represents Levret's Curved Forceps, invented 1747.
 FIG. 2 shows the curvature of the blade.
 FIG. g. Smellie's Straight Forceps.
 FIG. 7. Roonhuysen's Forceps in application.

particular service in delivering a head left *in utero*, the body having been severed from it, or to assist in the delivery of an after-coming head in breech cases, or where the foetus had been turned. Levret was much in love with this instrument, and in all probability, this partiality was born of the extreme ingenuity that was required of its inventor to contrive it. When the reader looks carefully at Plate xv., Fig. 1, and views the many parts of which the instrument is composed, and when he considers the ingenuity which would be necessary to put it into position, he cannot be surprised at the pride with which its inventor beheld it. We had intended in order to demonstrate the complexity to which mechanism in such instruments had attained in France, to give the reader a translation of his "analytical

Description of every part of the instrument"; but when we inform the reader that this description extends to 33 (thirty-three) printed pages of his work, and that it is of such a technical character that it does not lend itself to intelligent condensation, we may be spared the task. This instrument exemplifies mechanism running to riot. We cannot therefore wonder that Smellie calls it a complicated

PLATE XV.

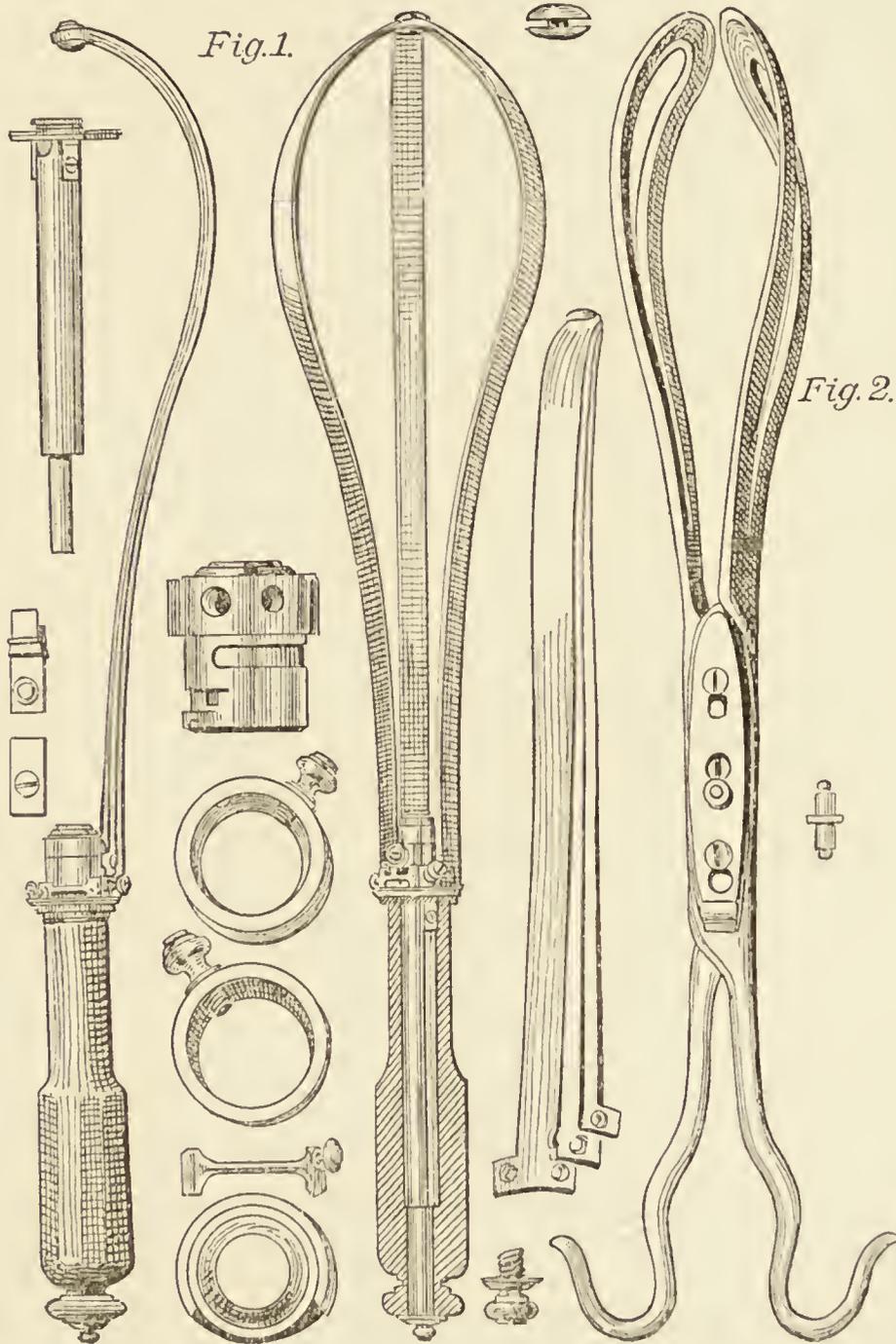


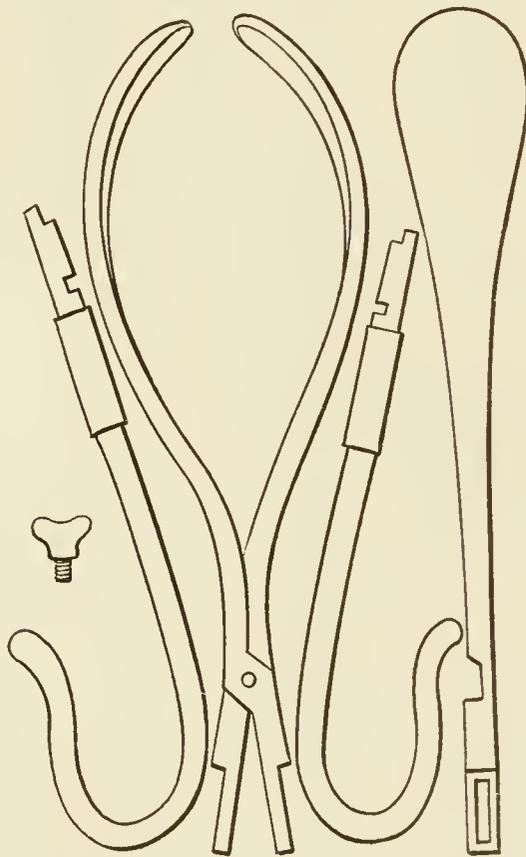
FIG. 1. Levret's three-bladed Forceps, and its constituent parts.
 FIG. 2. Levret's Curved Forceps, with movable axis.

and practically useless instrument. In this connection, we would only remark that this tendency to mechanical elaboration was apt to break out occasionally, and was in marked contrast to the simplicity obtaining in the instruments of Smellie's device. Levret was the first exponent of mechanical elaboration and complexity; the others were Leake, in England,

in another three-bladed instrument in 1774, and Coutouly, in France, with a ponderous weapon in 1788.

In the year 1750, there was published at Liepzig a Dissertation by Janckius, *On the Forceps*, etc. At page 211 thereof, he mentions instruments invented by Bingius, a surgeon of Copenhagen. This instrument is said to resemble the forceps of Grégoire *père*; but the blades of the forceps of Bingius were non-fenestrated. The following, from Mulder, represents the instrument in question. It has a hinged joint, and is a clumsy instrument.

PLATE XVI.

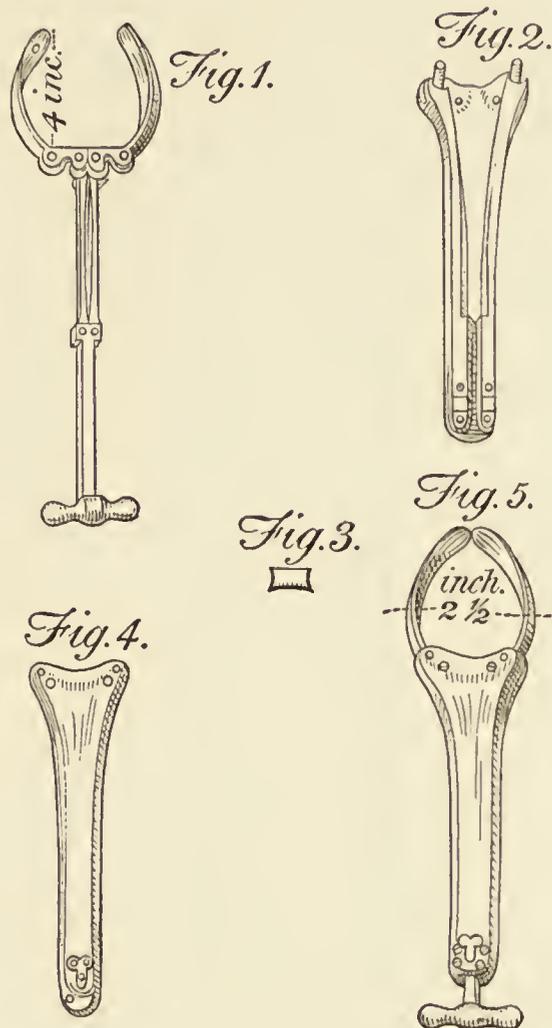


This figure represents the Forceps and its parts of Bing, or Bingius (1750).
(Mulder.)

We now come close to the time when Smellie published the first volume of his work. Burton published his work in 1751, and therein he vaunted the great superiority of his instrument. We give a reproduction of the plate from his book. The instrument is certainly entirely novel, but it is as certainly clumsy; and for a description of the mode of using it we refer the reader to page 274, where we deal with Burton and his criticism of Smellie. The instrument there delineated is what he calls his new instrument. In another plate, however, he gives a drawing of the older instrument then in use.

In 1752, Paulus de Wind, "Anat. Chir. et Art. Obst. Lector te Middelburg," published, in Dutch, a pamphlet on

PLATE XVII.



BURTON'S FORCEPS.

FIG. 1 represents the sides or wings of the forceps, each measuring 4 inches in length; the ends of the wings can be expanded to 5 inches; thickness of blade, one-fifth of an inch. Stem fits into two hollow plates (Figs. 2 and 4), screwed together.

FIGS. 2 and 3 are flat plates, about one-eighth of an inch thick, and hollowed in the upper parts to admit Fig. 1.

FIG. 4 is the other half of Fig. 2.

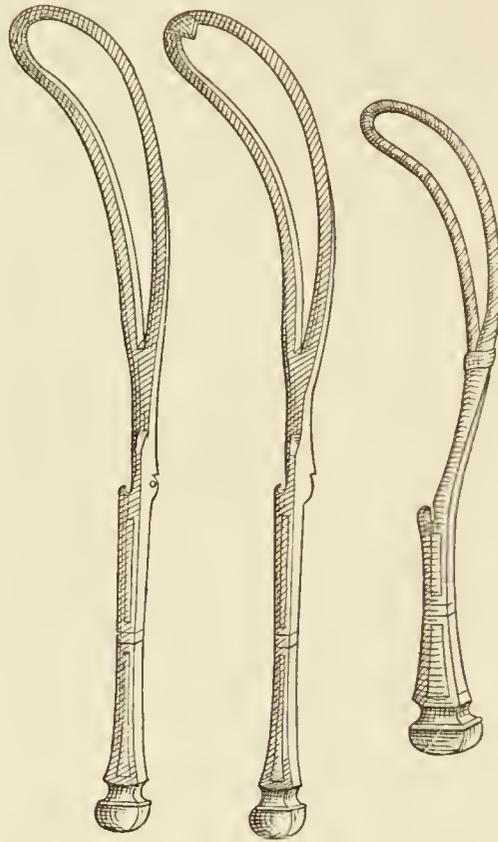
FIG. 5 represents the instrument put together, and ready for use. (From Burton's Treatise.)

midwifery, in which he gives a drawing of an extractor devised and used by himself. We have seen an original copy of this work in Smellie's collection of books, in which is given a drawing of the instrument. The forceps is of the most simple description. (*Vide* Plate XXV.)

In 1754, in his Anatomical Tables, Smellie published for the first time a drawing of his straight and curved forceps. We will leave a description of them, however, to another chapter, but they can be examined at this point by reference to pages 232 and 234. In the same year, Pugh published *A Treatise of Midwifery chiefly with Regard to the Operation*, etc.; to which are appended drawings of several instruments,

among them being his forceps. The reader will observe that the instrument is a double-curved one, and, like that of Smellie, the blades are spirally rolled with leather.

PLATE XVIII.



PUGH'S INSTRUMENTS.

Left Fig. His large Curved Forceps.

Length=fourteen inches=whole length of instrument.
Breadth of bow from outside to inside, near the top=one and three-quarter inches.

A String being strained from near the middle of the Bow, ought to be one Inch and a Half from the String to the outside Edge of the Bow (which shews the concave Part, or proper Curve inwards;) "which adapts them to the make of the Passage, and shews the great Preference between them and the common straight Forceps, both in introducing and extracting."

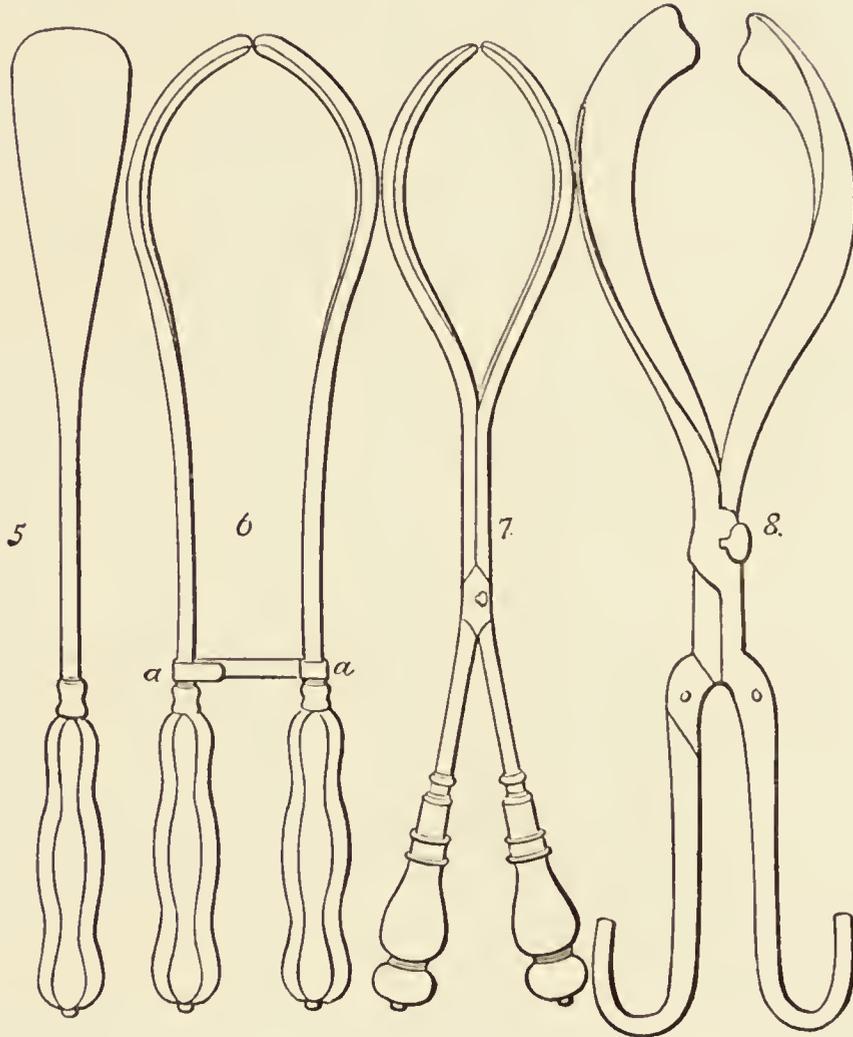
Middle Fig.—"A Forceps of the same Dimensions, with a small Crotchet fixed at the Top of the Bow, which I should prefer to the common Crotchets (though I have never made use of them)."

Right Fig.—"A small Forceps, in length eleven Inches, made in Proportion to the long ones, to be used when the Head lies low in the Passage."

This instrument of Pugh must not, in our opinion, be wholly ascribed as his invention. It will be observed that in all the three instruments the lock of Smellie is utilized as the mode of junction, and, as we have already pointed out, there cannot be a doubt cast upon the fact that this manner of joining the forceps is solely and wholly due to Smellie. Except as to the precise pattern of the handles and the crotchet-tipped instrument, they differ in no way whatever from the double-curved instrument of Smellie. As we discuss the question of priority of invention in another

place, we will not here pursue the question further, except to state that the makers of the instruments of both of these accoucheurs had their places of business in the same street, which probably accounts for the similarity of the lock. Best of Lombard Street made those of Smellie, and Stanton of the same street those of Pugh.

PLATE XIX.



FIGS. 5 and 6. Palfyn's instrument—two blades joined by a metal band.
 FIG. 7. Petit's instrument.
 FIG. 8. Duse's instrument as described by Butter—(From Mulder.)

CHAPTER XIV.

SMELLIE'S CONNECTION WITH THE FORCEPS.

WHEN Smellie began to practise midwifery in Lanark his appliances consisted of the blunt hook, the noose or fillet, the straight crotchet, and the scissors or perforator; to which may be added, a pair of intelligent hands. Such appliances were more frequently destructive than conservative, and, as we have already seen, their disastrous effects were to him far from satisfactory. In his earnest endeavour to preserve infantile and maternal life, he was constantly on the watch to discover some means whereby he could more effectually accomplish this design. Before his life was far advanced he had attained his desire, as we shall see. It is quite clear that for at least thirteen years after his settlement in Lanark he knew nothing of the forceps; Case 371, dated 1730,¹ is a description of the delivery of a patient with distorted pelvis, where destructive treatment had to be resorted to on more than one occasion, and by other practitioners besides himself. In the narration of it he incidentally makes this remark, "I question much, though I had then known the use of the forceps, if I could have saved them with that instrument; for I can very well remember, although now revising this with other cases in the year 1761, the fatigue that I endured at these two labours." And again, in Case 390,² he says, "even if I had at this time (1733) known the use of the forceps, they would have been of no service in the case."

In the following year (1734) Butter's essay and sketch of Duse's forceps appeared in the *Edinburgh Medical Essays*.

¹ Vol. iii., p. 120.

² *Ibid.*, p. 160.

That Smellie was conversant with this publication, and consequently with the above essay, is evidenced by the fact that his library contains a complete set of the first issue of these volumes. It is impossible to say how or when, after this date, he possessed himself of this instrument, but that he did so, he himself informs us. In connection with Case 186,¹ he says: "I procured a pair of French forceps, according to a draught published in the *Medical Essays* by Mr. Butter; but found them so long, and so ill-contrived, that they by no means answered the purposes for which they were intended." Whether he used them before 1737 or not, we cannot tell, but we know that, in that year, he applied them in a case of difficult labour, Case 281;² but, he tells us: "they were so long and ill-formed that I could not introduce them safely to take a proper hold." Dissatisfied with the instrument described by Butter, we know how, after perusal of the treatises of Chapman and Giffard "who had frequently saved children by a contrivance of this kind," he "actually made a journey to London, in order to acquire further information on this subject. Here I saw nothing was to be learned; and by the advice of the late ingenious Dr. Stewart, who was my particular friend, I proceeded to Paris, where courses on midwifery were at that time given by Grégoire. There likewise I was very much disappointed in my expectation. . . . As for the forceps, he taught his pupils to introduce them at random, and pull with great force, though he preferred Chapman's instrument to that of the French."³ This was in the year 1739. Even after he had settled in London, and by the year 1744, although he was then using the forceps, we find that he was imperfectly acquainted with their use. In Case 251,⁴ which was a tedious labour due to flat pelvis, he applied the forceps, "but the perineum was torn by the sudden delivery, because I did not then know how to make the proper turns, and proceed in the slow and cautious manner which I have since adopted." During this operation, the forceps slipped several times. The awkwardness of the instrument then used very soon induced Smellie to consider the whole question; and accordingly, he informs us,⁵ "I began to con-

¹ Vol. ii., p. 250.² *Ibid.*, p. 281.³ *Ibid.*, p. 250.⁴ *Ibid.*, p. 331.⁵ *Ibid.*, p. 251.

sider the whole in a mechanical view, and reduce the extraction of the child to the rules of moving bodies in different directions. In consequence of this plan, I more accurately surveyed the dimensions and form of the pelvis, together with the figure of the child's head and the manner in which it passed along in natural labours; and from the knowledge of these things I not only delivered with greater ease and safety than before, but also had the satisfaction to find, in teaching, that I could convey a more distinct idea of the art in this mechanical light than in any other, and particularly give more sure and solid directions for applying the forceps. From this knowledge, too, joined with experience and hints which have occurred and been communicated to me in the course of teaching and practice, I have been led to alter the form and dimensions of the forceps, so as to avoid the inconveniences that attend the use of the former kinds." It was in the course of the following year, however, that he first perceived the proper way to use the forceps. He specifically mentions this fact in Case 258,¹ which happened in 1745, where he says, after having successfully overcome an occipito-posterior presentation by rectification with the forceps, "my eyes were now opened to a new field of improvement in the method of using the forceps in this position, *as well as in all others that happen when the head presents.*" The italics are ours. Up till the year 1746, he was in the habit of using that kind of forceps, the handles of which terminated in the form of crooks. In Case 381,² which occurred in this year—a breech presentation—he tells us, "I introduced the curve of one of the handles of the forceps on the outside (they were not then altered from crooks to wooden handles, as I now have them) betwixt one of the thighs and the abdomen of the child."

There can be no doubt that it was about this time when he was discussing parturiency from the mechanical point of view, that he received that assistance from his friend Dr. Nesbit, in improving the forceps, which he mentions in vol. ii., p. 250, and that he benefited by the knowledge of Desaguliers, in respect of mechanical powers, during those visits which this philosopher paid to Smellie at his lecture rooms, of which we are informed by his pupil and defender.

¹ Vol. ii., p. 338.

² Vol. iii., p. 136.

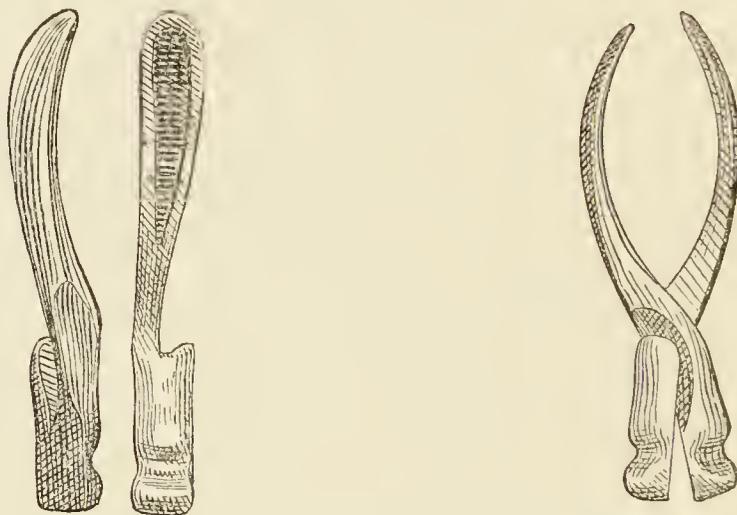
With that frank candour which characterized Smellie, he expressed his indebtedness to those who rendered him service in improving the forceps. In vol ii., p. 252, he tells us that "in London, Dr. Nisbet assisted me in improving the forceps." Robert Nesbit was the son of a London dissenting minister, and was a graduate of Leyden, his graduation thesis being "De Partu Difficili"; he was created Doctor of Medicine of Cambridge in 1728, and in the following year became a Fellow of the College of Physicians, in which body he filled several important positions. At the time Smellie knew him he lived in Basinghall Street. He was one of the leading practitioners in midwifery in London. What was the precise assistance he rendered Smellie we cannot discover.

It was also about this time—certainly before 1748, the date of publication of William Douglas' Letter to him—that Smellie made for himself a pair of wooden forceps. The precise time can be fixed from a letter which he wrote to Professor Monro of Edinburgh, dated September, 1747. There can be little difficulty in apprehending his reason for this expedient. In the first place the midwives had strong objections to the employment of male practitioners, and, in the second, equally strong objections were held both by midwives and patients to the use of instruments. As he himself writes to Gordon of Glasgow in the beginning of 1748, "The Design of the Wooden Contrivance is to make them appear less terrible to the Women; besides, they are portable, and make no Clinking Noise when used." For this reason forceps were used secretly, and were hidden when possible, from both the attendant midwife and the patient. Consequently, it would appear as if to prevent the objectionable metallic sound of the ordinary instrument the wooden instrument was fashioned. In vol. ii., p. 359, he tells us that he "had contrived a particular Kind of wooden forceps, with which I had delivered three patients." It would seem, however, from the information he gave to his pupil to enable that gentleman to reply to the attack of Douglas, that he had delivered at least four patients with this instrument.¹ The only pair of wooden forceps which we have seen belonged to the late Professor

¹ *Vide* p. 85.

Leishman, Emeritus Professor of Midwifery in Glasgow University. Unfortunately, their history cannot be traced, but the instrument corresponds in almost every particular with the instrument of Smellie. Whether this is the instrument which Smellie sent down to Professor Alex. Monro, *primus*, of Edinburgh, it is impossible to say; but the fact remains, that if it be not that original instrument, it conforms so closely in every particular with the dimensions, shape, lock and parts of Smellie's short forceps, that it must be a copy of the original instrument.

PLATE XX.



WOODEN FORCEPS.
(Smellie Pattern.)

We are able, through the kindness of Professor Leishman, to present the reader with illustrations of his instrument. It is very light, and is made of a close-grained wood. As will be seen, the form of the handles, the lock, and the general contour of the instrument resembles the instrument in metal, the only main difference being—and that is due to the necessity for preserving the strength of the instrument—the absence of fenestrae. In place of the fenestration, the blades are partly hollowed out, and the hollowed part is serrated at right angles to the direction of the blade, thus causing only the rounded contour of the blade to first catch the head. The measurements of the instrument are as follow :

Total length,	10½ ins.,	or following curve of blade,	11 ins.
Length of handle to fenestrae,	5 „	or to top of lock,	3 „
„ blade,	6 „		
Width between blades at tips,	1½ „	or at widest parts,	2¼ „

Smellie was evidently about this time in the heat of invention, for about 1748, as Denman informs us,¹ he, "after many trials, altered the forceps, and brought into general usage a kind of forceps, more convenient than any before contrived. These before they are curved do not measure more than twelve inches from the end of the handle to the extremity of the blade; and, when properly curved, little more than eleven inches, of which the handle measures near five inches. The widest part of the blade measures about one inch and five-eighths, and this gradually declines towards the handle, preserving at the same time, the flatness of the blade till it meets the handle. Being simple in their construction, applicable without difficulty, and equal to the management of every case in which the forceps ought to be used, I have, with very little alteration, adapted" certain rules to them. This instrument was provided with a lock, as Denman frequently speaks of it when dealing with the application of the instrument. This description of Smellie's instrument differs but little from his own. In the explanatory text of Table xxxvii. of the Anatomical Tables Smellie says, "the straight, short Forceps in the exact proportion as to the width between the blades, and length from the points to the locking part; the first being *two*, and the second, six Inches, which with five Inches and a half (the length of the handles), makes in all eleven Inches and a half. The length of the handles may be altered at pleasure. I find, however, in Practice, that this standard is the most convenient, and with less difficulty introduced, than when longer, having also sufficient force to deliver in most Cases, where their assistance is necessary." It is a noteworthy fact that this instrument was much shorter than those which were then in use both on the continent and in this country. The handles of the instrument were now of wood. In Case 253,² he incorporates a letter written to one of his pupils, dated London, 1749, in which he says: "I contrived the last forceps with shorter handles, on purpose that too great force might not be used."

The lock in this instrument was the invention of Smellie. Upon this fact no doubt can be cast. It is spoken of as Smellie's lock in most of the works on midwifery subsequent

¹ *Treatise of Midwifery*, vol. ii., p. 94, *et seq.*

² Vol. ii., p. 334.

to his time, is denominated by the French, the "English lock," and Mulder speaks of an instrument fashioned in this wise, as fixed "cum juncturâ Smelliana." It was invented by him sometime between 1744 and 1745, for we find in a letter which he wrote to "Mr. John Gordon, Surgeon, at Glasgow, dated January 12, 1747-8," the following: "About three years ago I contrived a more simple method of fixing the steel forceps by locking them into one another, by which means they have all the advantages of the former kinds without their inconveniences." This lock is figured in Table xxxvii. of his volume of Plates. It is therefore clear that, to fix approximately the date of his invention of the short

PLATE XXI.

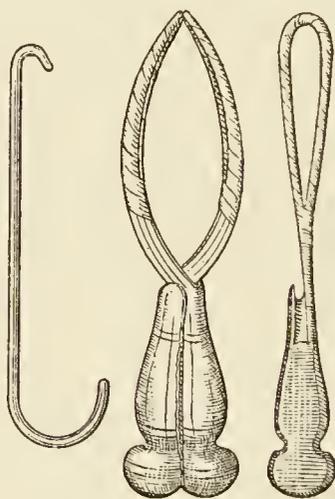


Figure to left shows Smellie's blunt hook and crotchet.
 Figure in middle his short straight forceps.
 Figure to right a single blade spirally rolled with
 leather, showing formation of lock.
 Consult also Plate xiv.

straight forceps known by his name, we must antedate Denman's year somewhat, and say, 1744-5, instead of 1748.

In addition to the straight short forceps, Smellie must also be credited with the invention of a *longer curved* instrument, but whether he is entitled to the claim of priority of invention is a question open for discussion. The time of his invention of this instrument is very uncertain in respect of a fixed point of time, but it can be limited within certain years. In the year 1752, he was called to assist a midwife in a breech case, in which the body being delivered and the head remaining fast in the pelvis, he attempted to deliver by means of the short straight forceps; "but," says he, "the head was above the brim of the pelvis, and the curvature of the os sacrum prevented their taking a proper hold so

as to be of any service. *This was the reason which prompted me to contrive a longer kind, the blades of which are curved to one side.*"¹ We find him, too, adopting the same expedient with like ill success in the year 1746 (Case 381), and in 1750 (Case 350). In 1753, in another case where he turned and experienced difficulty with the after-coming head, he applied his long-curved forceps and successfully delivered the woman of a living child. He had previously tried, but failed, to deliver with the short straight forceps. In narrating the case² and his mode of using the long forceps in this difficulty, he says: "*they (the long forceps) were contrived some years ago by myself, as well as other practitioners, on purpose to take a better hold of the head when presenting and high up in the pelvis, but I did not recommend their use in such cases, for fear of doing more harm than good, by bruising the parts of the woman when too great force was used.*" It was probably for this reason that Wallace Johnson in his *New System of Midwifery*, published in London in 1769, makes the following statement at page 172 of that work. Speaking of the invention of the curved forceps, he says: "The Doctor (Smellie) took the hint of this curvature, as I imagine, from Mr. Livret, for when I attended his lectures in 1750, there was nothing shown of this kind." Again, in the explanatory text to Table xvii. of his Plates, he says, "as I have had several Cases where a longer sort of Forceps that are curved upwards are of great use to help along the Head, when the Body is delivered first as in Table xxxv., the same are represented here in dotted lines. They may be used in laborious Cases, as well as the others, but are not managed with the same ease." In Table xxi. we find a figure showing the curved forceps applied, and in Table xxxv., one showing the instrument in position to deliver the after-coming head. These long forceps were twelve and a half inches longer than the short forceps.

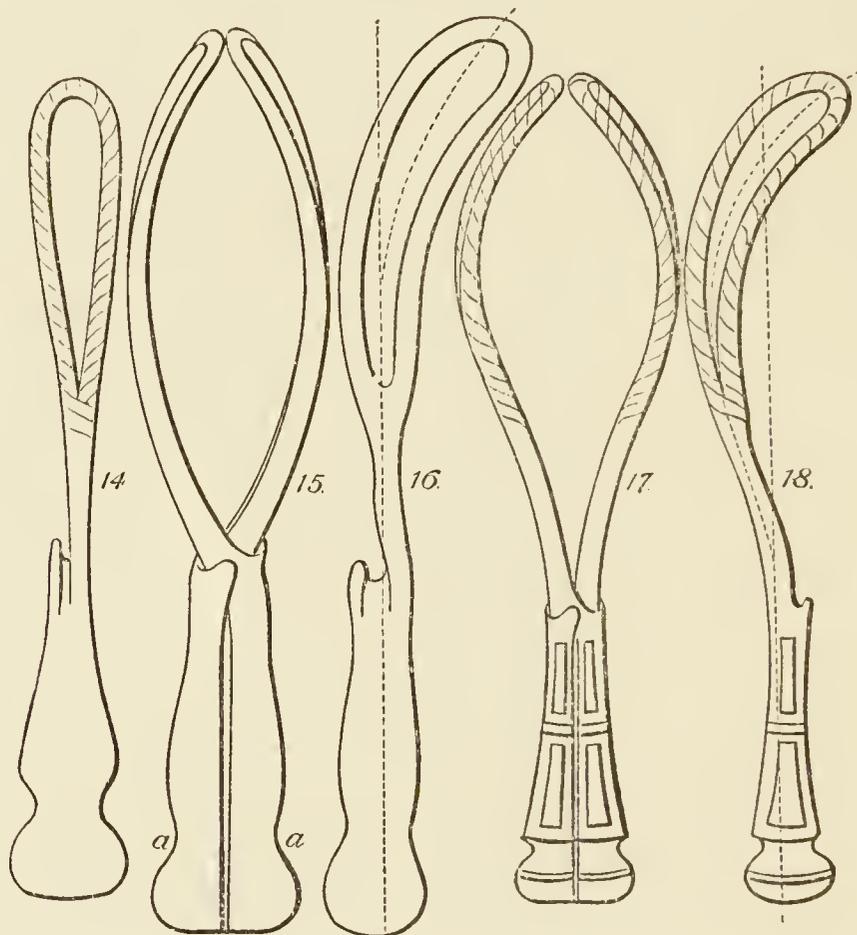
If the reader considers carefully the statements made in the two cases already mentioned, in connection with the long instrument, he will discover an apparent incongruity; that is to say, if Smellie, by reason of his failure with the short instrument in a case happening in 1752, set about contriving a longer and curved instrument to overcome the difficulty

¹ *Vide* vol. iii., p. 24, Case 315.

² Vol. iii., p. 89.

he then experienced, how could he, the following year, say that he had contrived it some years before that date? At first sight, this difference of statement is difficult to explain, but we think it is capable of explanation; and in this way. We must observe that he *does not say that it was because of his difficulty in this particular case in 1752* that he was prompted to contrive the longer and curved instrument, *but that*

PLATE XXII.



FIGS. 14, 15, 16. Smellie's instrument (double-curved).
 FIGS. 17, 18. Pugh's instrument (1754) do.
 (From Mulder.)

the difficulty he experienced generally with the short instrument "was the reason which prompted me to contrive a longer kind." Again, in the case in 1753, he tells us that he had invented this longer and curved instrument "some years ago," for the purpose of catching the head when it presented high in the pelvis as an ordinary cranial presentation; and it would appear as if he made his first essay to deliver the after-coming head in this particular case. It is noteworthy, too, that this is the first case in which he remarks having so used them, for the other cases in which he adopted the same tactics bear dates subsequent to this, viz., a second case in the same year, and a third in 1755.

Additional evidence which bears out our contention, is to be found in his preface to the second volume of his work, which was issued in 1754. He there informs the reader, that "in my first volume, among the improvements and alterations that have been made in the forceps, I mentioned a long pair, curved to one side, which I contrived several years ago, for taking a firmer hold of the head in the pelvis when high; but I did not recommend the use of them, because I was afraid of encouraging young practitioners to exert too great force, and give their assistance too soon. *Of late*, however, I have found them very serviceable in helping along the child's head in preternatural cases, after the body and arms of the foetus were brought down, and it could not be delivered without destroying the child, by overstraining the neck and jaw. On such occasions, they are more convenient than the short and straight sort, because they take a firmer hold. . . . They may be likewise used in laborious cases when the head presents, though I find the others are more easily managed in the application; and as I seldom have recourse to the forceps, except when the head is advanced in the pelvis, or, as the French term it, *la tête enclavé*, I commonly use the short kind."

We have here, then, the apparent incompatibility of statement solved; although he had contrived the long curved instrument, he had but seldom used it; in fact, there is only one case recorded in his works, where he distinctly mentions having used it in a head-high case; and as we have seen, he had used it with success in the delivery of the after-coming head. The case referred to is dated August, 1749.¹ Here he first applied the short forceps, but finding them to slip, he says, "I introduced a longer pair that were bent to one side." That this was his long curved instrument is conclusively shown by another remark he makes in the case, viz., "I obtained a firm hold, as the bending of the forceps fitted the curvature of the sacrum." We may then take it for granted that his favourite instrument was the short straight forceps, for it is a significant fact that in his plates, it is this instrument only which is figured as applied to the head of the child in cranial presentations; and that the long curved instrument was invented at least

¹Vol. ii., p. 287.

before 1749. In all the representations of Smellie's forceps, it will be observed that the blades are spirally rolled in leather; and so he recommended. This was done, evidently, to prevent them emitting a clinking noise when used, for, as we have already pointed out, male practitioners used the forceps privily. The secret use of the instrument was not because it was unnecessary, but, as he tells us,¹ in order that young practitioners "may avoid the calumnies and misrepresentations of those people who are apt to prejudice the ignorant and weakminded, against the use of any instrument, though ever so necessary, in this profession; and who, taking the advantage of unforeseen accidents which may afterwards happen to the patient, charge the whole misfortune to the innocent operator." So much did this occur, that we find him inculcating this practice of secrecy in the instructions he gives as to the mode of using the instrument. He gives full details in his first volume,² from which we quote the following: "The woman being laid in a right position for the application of the forceps, the blades ought to be privately conveyed between the feather-bed and the clothes, at a small distance from one another, or on each side of the patient; that this conveyance may be the more easily effected, the legs of the instrument ought to be kept in the operator's side pockets. Thus provided, when he sits down to deliver, let him spread the sheet that hangs over the bed upon his lap, and, under that cover, take out and dispose the blades on each side of the patient; by which means he will often be able to deliver with the forceps without their being perceived by the woman herself or any other of the assistants. Some people pin a sheet to each shoulder, and throw the other end over the bed, that they may be the more effectually concealed from the view of those who are present, but this method is apt to confine and embarrass the operator. At any rate, as women are commonly frightened at the very name of an instrument, it is advisable to conceal them as much as possible, until the character of the operator is fully established."

This covering with leather, although it was not unknown before Smellie's time, laid him open to very just and cogent

¹ Vol. i., p. 273.

² P. 265.

criticism at the hands of Burton. In the "Letter" of the latter to Smellie,¹ we find him writing as follows: "Leather wrapped round the Forceps, altho' well oiled or lubricated with Pomatum, will do greater Injury than polished Steel, with the same Advantage, and wrap the Leather spirally, as carefully, and as smoothly as possible round the Curvature (*sic*) of the Blade; yet one Part will rise higher than the other in a very little Time, if not at the very first; and it is evident also, that the Leather in this Case, when once wet, will never be so soft and smooth as at first; and I may add, that the Blood and Waters sucked up by the Leather, or that gets betwixt it and the Steel-work, will corrupt and stink; and in some Cases, perhaps, may convey Infection." It was not Smellie's intention to advocate the use of the same leather covering in more than one case, and it is quite clear that Burton must have misinterpreted that intention; for in the very volume which Burton was criticizing,² Smellie had recommended "that the blades of the forceps ought to be new-covered with stripes of washed leather after they shall have been used, especially in delivering a woman suspected of having an infectious disease." To this Burton urges the objection, "that every operator must learn the Art of covering the Forceps to Perfection, because an Artist is not to be found in all places." Levret also, in his work, adversely criticized Smellie's use of the leather covering.

Denman, it is interesting to note, many years after, and probably as the effect of the teaching of his master—Smellie—approved of this leather covering. He says of it, that it "renders their introduction more easy, and takes off, both in appearance and reality, the asperity of the instrument." One other word on this point only requires to be added, viz., that whereas this covering might be the best expedient in the circumstances in Smellie's time, latter-day opinion has given effect to the conclusion of Burton's condemnatory criticism.

A most interesting question arises out of Smellie's invention of the long, curved forceps, viz., what is the validity of his claim in reference to priority of invention? It is true that, to-day, the matter is of the most minor importance, but, historically, it is worthy of careful consideration. The claim

¹ P. 140.

² P. 287.

for priority lies between Smellie, Levret, and Pugh. Let us briefly review the position. The most definite thing we can say about the period at which Smellie contrived his instrument is, that it was "some years" before 1753; no more precise date can be fixed than August 1749, on which date he used them; so that they must have been invented before this date. He also informs us that a long curved forceps was invented by others besides himself. Levret published, in 1747, his work entitled *Observations sur les Causes et les accidens de plusieurs Accouchemens laborieux*, in which he makes mention that he has given a new curve to the forceps. This statement is borne out by the fact that in the preface to his *Suite des Observations*, etc., which was published in 1751, in answer to the anonymous critic who wrote in the *Journal des Sçavans* for August 1749, charging him with keeping secret the nature of the new curve, and hinting that his instrument was a pure speculation, he replied by producing authentic proof of his invention in the form of a certificate from the Royal Academy of Surgery of Paris, to the effect that he had presented to it such an instrument as he had described in his first work. The certificate is as follows:

"Extrait des Registres de l'Académie Royale de Chirurgie de Paris du 2 Janvier 1747.

"M. Levret a présenté à l'Académie un nouveau *Forceps* courbé, imaginé pour dégager la tête de l'Enfant enclavée au passage, et arrêtée par les *Os Pubis*. Ce *Forceps* est entaillé, de même que le *Forceps* droit, à sa jonction, il a les dimensions toutes semblables, et est évidé dans toute l'étendue des ouvertures qui sont à chacune de ses branches.

"Le présent Extrait a été délivré à l'Auteur pour en faire l'usage qu'il jugera convenable, par nous soussigné Secrétaire de l'Académie Royale de Chirurgie pour les Correspondances. A Versailles le premier Août 1749. *Signé* Hevin."

There can be no question, therefore, that Levret's invention dates from the first month of 1747. He did not, however, give a description of the instrument till *four* years later (1751), when he published his *Suite des Observations*, etc., indeed, as Mulder puts it, he kept it secret, "qualem vero reticuisse." Neither is there evidence of his having used this instrument much.

Benjamin Pugh, of Chelmsford, Essex, published his *Treatise of Midwifery, Chiefly with Regard to the Operation* in 1754. In the preface, he says: "I shall be as particular as possible in the Description and Use of all the instruments both in Midwifery and Surgery [which are my own Invention]. Their good Effects I have experienced many Years; and by the Help of these in Midwifery, I have succeeded in Deliveries without opening one Child's Head for these fourteen Years past; and I doubt not but every Operator will be soon Sensible of their Advantages. The Curved Forceps I invented upwards of fourteen years ago made me by a Man of Mr. Archers, Cutler, now living in Chelmsford. The Preference between them and the common Streight Forceps, in every Respect, is great." These forceps were invented for delivering brim cases, and measured 14 inches in length. On the strength of this statement, then, if we deduct fourteen from 1754, we get a date, viz. 1740, to which we can fix his inventive point. And this is not all. He further tells us, in the same preface, that he had intended to publish his treatise four years earlier than the actual year of issue, by subscription, "but" adds he, "it did not fill." Whether the preface which appeared in 1754, was the same as was intended to appear in the earlier issue, or was altered to suit the exigencies of the occasion, we cannot say; but if it remained unaltered, then we must go back still further four years for the exact date, viz. to 1736. If this be so, then, according to his own statements, to Pugh must be ascribed the honour of priority of invention of this instrument, although not the priority of publication, since the treatises of Levret and Smellie were both published in 1751. Mulder agrees in this, and so must every one who takes his evidence from dates. It is unfortunate for Pugh, however, that there is not the least corroborative evidence extant of his claim in this respect. He was acquainted with the work of Smellie, because he speaks of it also in the preface, and, therefore, he must have known of the existence of the instrument invented by Smellie. We are not inclined to be hypercritical, but, as has been already pointed out, the fact that Pugh's instruments possess Smellie's lock in all its essentials, makes it conclusive that his instruments as figured could not be the original instruments invented by him. We account

for the similarity of union of his instrument to that of Smellie, to the fact, that the maker of his instrument, and the maker of those of Smellie, were tradesmen in the same street, and that Smellie never entertained the least secrecy about his inventions.

Other writers who have investigated this subject, arrive, however, at a different conclusion in determining the priority between these three writers. Leishman, in the Fourth Edition of his Work,¹ divides the credit between Levret and Smellie, but inclines to the former, and M'Lintock, the editor of Smellie, concludes on this point, with these words,² "it is most probable that, as in the case of many other inventions, the same idea had spontaneously and independently presented itself to different minds, and with each of them was truly original." M'Lintock reaches this conclusion, because "neither he (Smellie) nor Pugh appears to have had any knowledge of what Levret had written upon the subject." However true this may be in respect of Pugh, and all the evidence goes to support this view, it is incorrect as regards Smellie, for in Smellie's library at Lanark, we find not only a copy of the first edition of Levret's *Observations*, published at Paris in 1747, but also written on the fly-leaf of the book, presumably in the handwriting of Levret himself, these words, "Donné par L'Auteur au Docteur Smellie." And in addition to this work, we find copies of Levret's *Suite des Observations*, etc., published in 1751, and *Observations sur la Cure Radicale de plusieurs Polypes de la Matrice*, etc., published in 1749. It is, at the same time, quite true that Smellie does not mention Levret's name in connection with the long curved instrument, but he does so in connection with the same inventor's three-bladed instrument, the tire-tête, and calls it a complicated and practically useless instrument; but, from the evidence we have above adduced, we cannot, as M'Lintock does, "fairly conclude that Smellie was ignorant of Levret's improvements in the instrument." Indeed, it is more likely that he attached so little value to the mere invention of an instrument, that he dismisses the fact of the invention of the instrument at all, in the words, that it was contrived by others besides himself; among the "others," being Levret.

¹ Vol. ii., p. 538.

Memoir of Smellie, p. 22.

The conclusion therefore to which we must arrive, is, that in respect of dates, the credit of invention must be given to Pugh, followed closely by Levret and Smellie, but that it is impossible to assign the credit as between the two latter. And it would appear that the full value of the instrument did not reveal itself to any of them, because Pugh speaks of turning as the "Pillar of Midwifery," Smellie preferred his straight instrument, and seldom used, and less seldom advocated, the longer and curved instrument, and Levret was not convinced of the all-round usefulness of this instrument, since he invented some years afterwards probably the most complicated obstetric instrument—the *tire-tête* of three blades—that was ever made. We do not think we are asking more credit for Smellie than his genius demands when we adopt the words of More Madden, that "To Smellie we owe what were, until very lately, the best types of the long and short forceps, as well as the clearest directions for using them 'on rational and mechanical principles,'" ¹ and those of Wallace Johnson, where he says: "his instruments were so well received that they have been generally used almost ever since."

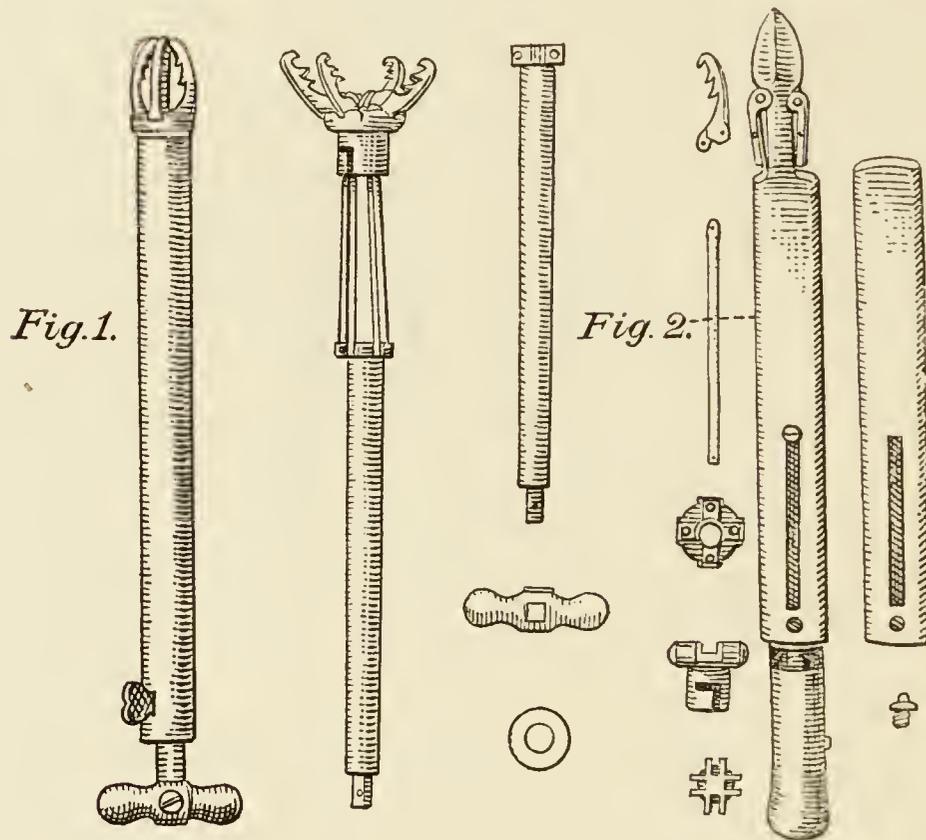
Nor did the inventive genius of Smellie stop at the forceps; he also effected improvements on the instruments used in craniotomy, viz., the double crotchet, and the sheath for that instrument, besides designing the perforating scissors. To Mesnard of Rouen must be assigned the credit of having made the crotchet double.² What Smellie did, was simply to adapt his "lock" to that instrument, "locking them together in the same manner as the forceps,"³—Mesnard's crotchet being joined by a nut-and-screw union,—and to improve their curvature. This instrument thus altered was incomparably superior to the single instrument, and quickly proved itself of great utility. The sheath which he invented for the instrument, was intended simply to cover its sharp point, so that it might on occasion be used as a blunt hook. Of the time of its contrivance and its object, he informs us in vol. i., p. 299. "Soon after the second edition of this treatise was published [that is, soon after 1752], I contrived a sheath to cover the sharp point of the curved

¹ *Dublin Medical Journal*, October, 1875.

² *Vide* Plate XI. ³ *Vide* vol. ii., p. 381.

crotchets, which may be introduced and used in the same manner as the blunt hook; the sheath may be taken off or kept on as there is occasion." Prior to Smellie's time, the instruments mostly in favour for opening the head, were the *tire-tête* of Mauriceau,¹ the scalp-ring of Simson of St. Andrews, and the *terebræ occultæ* of Ould of Dublin,² and

PLATE XXIII.



BURTON'S EXTRACTOR.

FIG. 1 represents the instrument ready for use, its length being from 12 to 13 inches. FIG. 2 shows that part of the instrument which pierces the foetal cranial vault.

The other parts of the drawing represent the remaining parts of the instrument.

Its application was made as follows:—The instrument, intended to extract a foetus from a contracted pelvis, or where, from any other cause, the head could not pass, was introduced into the vagina as in Fig. 1. When it reached the head, the part shown in Fig. 2, previously protected, was thrust upwards, thus piercing the skull and breaking up its contents; the serrated wings, as shown in the figure, are now expanded, and made to fix on the cranial bones; traction is now made on the head. "All this operation," says Burton, "may be done with ease in less than a quarter of a minute." (*Treatise*, p. 234.)

Burton of York. The latter is delineated in the above plate. As Smellie says, all these instruments may be used with success, if cautiously managed, so as not to injure the patient. He was, however, dissatisfied with their complexity, and as he believed that the simpler the instrument was in the hands of the competent, the better it effected its purpose, he invented the perforating scissors, which was the prototype of the modern perforator. This instrument may still be found figured among the obstetric instruments in the cata-

¹ *Vide* p. 143.

² *Vide* p. 160.

logues of modern manufacturers, but in practice it has long since been supplanted by improvements of it. The scissors measured nine inches in length, with rests near the middle of the blades. The blades themselves were constructed after the fashion of ordinary scissors, viz., sharp-pointed, with the cutting edges on the opposed surfaces.

PLATE XXIV.

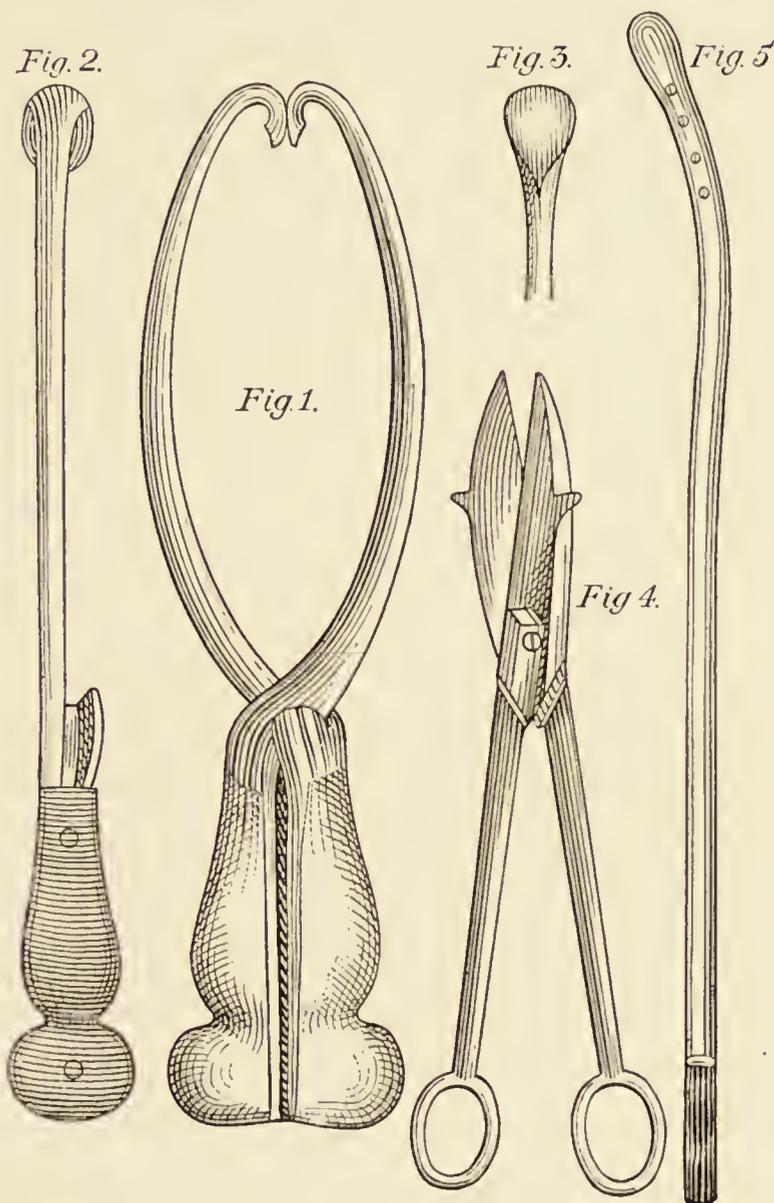


FIG. 1. Smellie's Double Crotchet.
 FIG. 2. One of its blades, showing half of lock.
 FIG. 3. Tip of one blade, front view.
 FIG. 4. Smellie's Scissors.
 FIG. 5. Female Catheter.

This instrument Burton criticized most severely, his chief objection being to its naked character. He commended his own or Ould's instrument, but particularly his own, because the cutting part was completely sheathed until it required to be put into operation. There can be little doubt that in the hands of the unskilful, or the rash, the latter instruments were likely to do less harm than the former. Smellie, however, largely believed in the personal equation in operative

midwifery, and further believed, that instruments could only effect what the intelligence and skill of the guiding hand and brain dictated.

During his practice in London, and even after he ceased to practice, Smellie was blamed not only for having himself used the forceps far too frequently, and in cases where Nature could herself have terminated the labour, but also, for inculcating their too frequent use to his pupils. His critics were vehement in their accusations during this time. He informs us in his *Treatise*,¹ that “a general outcry hath been raised against gentlemen of the profession, as if they delighted in using instruments and violent methods in the course of their practice; and this clamour hath proceeded from the ignorance of such as do not know that instruments are sometimes absolutely necessary, or from the interested views of some low, obscure, and illiterate practitioners, both male and female, who think they find their account in decrying the practice of their neighbours. It is not to be denied that mischief has been done by instruments in the hands of the unskilful and unwary; but I am persuaded that every judicious practitioner will do everything for the safety of patients before he has recourse to any violent method, either with the hand or instrument, though cases will occur in which gentle methods will absolutely fail.” As we will later deal at more length with those critics, we pass on by simply noting this fact.

From the great interest Smellie evinced in the perfecting of the forceps, it might have been expected that he would be prejudiced in favour of that instrument to a prominent degree, and to the exclusion of other expedients. The clear, detailed instructions which he laid down in his *Treatise* for their use—instructions which were given for the first time, too, in any work on midwifery, if we except Burton's for the use of his own complicated weapon,—attracted more attention to him and to the instrument, than to any other practitioner and writer of his day; to this doubtless, is due the fact, that the critics of instrumental delivery put him in the forefront of their attacks, and it probably accounts for his being blamed unwarrantably for their over-use. Before dealing with the instructions he laid down, let us briefly

¹ P. 240.

consider the charge against him of using the forceps unnecessarily, or too frequently.

There were four principal expedients in his time for the delivery of a woman in laborious or tedious labours, viz.: turning, the fillet, the forceps, and the vectis. Smellie not infrequently turned in suitable cases, and was quite alive to its value in such circumstances. In the case of a narrow, or contracted pelvis, the practice with him and his contemporaries was divided. Brudenell Exton, Pugh, Burton, and some others, strongly advocated turning, but Smellie, on the other hand, preferred first to use the forceps. He had no doubt, in his own mind, that in cases where the pelvis was too narrow, or the head too large, and when the foetus lay at or near the brim of a contracted pelvis, "the best method is to turn the child and deliver by the feet"; but, if the head was in the middle or lower segment of the pelvis, delivery was best effected by the forceps; and in the event of failure to deliver by either of these expedients, the only other available method left was perforation of the foetal skull, and extraction by means of the crotchets. He was strongly of opinion that, in a narrow pelvis, where a head of even ordinary size was advanced into the pelvis, no attempt should be made to turn, because the woman was then subjected to "a great deal of pain and yourself much unnecessary fatigue," as much from the initial difficulty of turning as from the possible after-necessity of perforating; but, rather that the forceps be used, and failing to succeed then to perforate the head and extract the foetus. By this method, he urged that the woman's strength was conserved.

The fillet was an expedient which he had used faithfully, but had found wanting in efficacy. The chief objections he had to this instrument were, first, the difficulty of application and fixation; second, the hurtful effects on the parts of the foetus to which it is applied, as, he says, "the fillet will gall, and even cut the soft parts to the bone"; and third, from the risk of laceration of the maternal parts, where, on great force being used, the head suddenly comes down. He had tried several kinds of fillets, but the one which he found best answered the purpose, was the one which was communicated to him by Mead in 1743. "As this fillet," says he, "could in all appearance be more easily

introduced than any other, I for several years carried it with me when I was called in difficult cases, and sometimes used it accordingly." But even this fillet shared the objections above mentioned, and he ultimately discarded it completely.

From his knowledge of the mechanism of parturition, and from the improvements he had made on the forceps, it is not wonderful to find that he could deliver with greater ease and safety with that instrument, in those cases where the other alternatives mentioned would have been used by others, and that, in consequence he preferred, things being equal, this expedient to the others. But, in spite of this, he tells his reader "not to imagine that I am more bigoted to any one contrivance than to another." As his chief object was to improve the art of midwifery, he was wishful to discuss the various expedients from the point of view of usefulness in practice, and from no other; and although he feels himself bound to assert his belief in the forceps, he, at the same time, says: "let not this assertion prevent people of ingenuity from employing their talents in improving these or any other methods that may be safe and useful; for daily experience proves that we are still imperfect, and very far from the *ne plus ultra* of discovery in arts and sciences; though I hope every gentleman will despise and avoid the character of a selfish secret-monger."

No one knew better than Smellie the tremendous risks that were incurred in placing such a powerful weapon as the forceps in the hands of the rash and unskilful, the danger which might result to the mother or child, or both, and the discredit to the instrument which was likely to arise from these circumstances. He knew, besides, that the error of the user would be laid down to the instrument, and therefore that the instrument might not find a fair field and but less favour. As a teacher, he inculcated its proper use, and as we shall see, conveyed to his pupils safe rules for their guidance; as an improver of the forceps, he took care to so construct the instrument that it was capable of doing the least harm, while, at the same time, it was able to effect much good. "In order," says he, "to disable young practitioners from running such risks [injuries to patients], and to free myself from the temptation of using too great force, I have always used and recommended the forceps so short in the handles that they cannot be used with

such violence as will endanger the woman's life; though the purchase of them is sufficient to extract the head when one half or two thirds of it are equal to or past the upper or narrow part of the pelvis." It was also for the like reason that he did not recommend to his students the use of the larger curved forceps, which he himself sometimes used, though infrequently.

Smellie had a strong belief in Nature, and waited upon her assiduously and patiently. He believed in the old Scotch proverb, "there's luck in leisure," and he could never be justly charged with precipitating a labour unduly. As a consequence, we find that he used instruments as seldom as he possibly could, and only when the safety of the mother, or child, or both, was involved; as he himself informs us in the preface to his second volume, "In my private practice, I have very seldom occasion for the assistance of the forceps or any other instrument; but I have often been called in by other practitioners to cases in which I have had opportunities to use it with success." In view of these statements, the charge against him of unduly using instruments at once falls to the ground. Besides, he seldom had recourse to the forceps until the head was advanced in the pelvis, and then he generally used the short instrument. Occasionally, however, he applied them at the brim, when, by reason of the shortness of the instrument, they locked within the maternal parts; in such circumstances, he especially warns the user to see that no maternal parts are included in the locking.

As Smellie was the first obstetric writer to lay down rules for the safe application of the forceps, it is due to him that we should carefully consider what he does say. Before his time, the use of the instrument was regulated only in this, that it was to be introduced in whatever direction it could most easily go, and that the traction to be used was to be continuously applied till the delivery. This teaching was responsible for a great deal of mischief, and, unquestionably, gave rise in some degree to the opprobrium against the use of instruments. But it was scarcely to be expected that anything better could then be taught, since the mechanism of labour was not yet comprehended. Smellie was in a better position, therefore, than any of his predecessors or contemporaries in this respect. Having mastered that problem, mechanical principles governed the rest. We again remind the reader

that during the whole of this time, and for a long period thereafter, the forceps was always used privily; certainly outwith the knowledge of the patient, and when possible, also, of the attendant midwife.

Let us now consider the rules he laid down for the use of the forceps. Having advised the accoucheur of the preliminary preparations for the comfort of the patient, he says: "Let the operator place himself upon a low chair, and having lubricated with pomatum the blades of the forceps and also of his right hand and fingers, slide first the hand gently into the vagina, pushing it along in a flattened form between that and the child's head, until the fingers have passed the os internum; then with his other hand let him take one of the blades of the forceps from the place where it was deposited, and introduce it betwixt his right hand and the head; if the point or extremity of it should stick at the ear, let it be slipt backward a little and then guided forwards with a slow and delicate motion; when it shall have passed the os uteri let it be advanced still further up until the rest at which the blades lock into each other be close to the lower part of the head, or at least within an inch thereof.

"Having in this manner introduced one blade, let him withdraw his right hand, and insinuate his left in the same direction, along the other side of the head, until his fingers shall have passed the os internum, then taking out the other blade from the place of concealment, with the hand that is disengaged, let it be applied to the other side of the child's head by the same means employed in introducing the first; then the left hand must be withdrawn, and the head being embraced between the blades, let them be locked in each other. Having thus secured them, he must take a firm hold with both hands, and when the pain comes on, begin to pull the head along from side to side; continuing this operation during every pain until the vertex appears through the os externum, and the neck of the child can be felt with the finger below the os pubis; at which time the forehead pushes out the perineum like a large tumour; then let him stand up, and raising the handles of the forceps, pull the head upwards also, that the forehead being turned half round upwards, the perineum and lower parts of the os externum may not be tore." He advocated slow dila-

tation of os internum or os externum with the forceps, and thus imitated the action of nature. "We must also," says he, "be very cautious, pulling slowly, with intermissions, in order to prevent the same lacerating; for which purpose, too, we ought to lubricate the perineum with pomatum during those short intervals, and keep the palm of one hand close pressed to it and the neighbouring parts, while with the other we pull at the extremity of the handles of the forceps; by which means we preserve the parts, and know how much we may venture to pull at a time. When the head is almost delivered, the parts thus stretched must be slipped over the forehead, and face of the child, while the operator pulls upwards with the other hand, turning the handles of the forceps to the abdomen of the woman. This method of pulling upwards raises the child's head from the perineum, and the half-round turn to the abdomen of the mother brings out the forehead and face from below: for when that part of the hind-head which is joined to the neck rests at the under part of the os pubis, the head turns upon it as upon an axis." . . . "In the introduction of the forceps, let each blade be pushed up in an imaginary line from the os externum to the middle space betwixt the navel and scrobiculus cordis of the woman; or, in other words, the handles of the forceps are to be held as far back as the perineum will allow. The introduction of the other hand to the opposite side, will, by pressing the child's head against the first blade, detain it in its proper place till the other can be applied; or, if this pressure should not seem sufficient, it may be supported by the operator's knee," and "before they are locked together, care must be taken that they be exactly opposite to each other and both sufficiently introduced." He usually applied the forceps when the woman lay on her side, but if difficulty was experienced in bringing down the head, he tied the handles of the instrument with a ligature, placed the patient on her back, and thus completed the delivery.

From the foregoing it will at once be obvious to the reader that Smellie was not only conversant with Nature's mode of delivery, but also that the rules he laid down in 1751 are practically those that obtain to-day. Perhaps the only point concerning which there exists some difference

of opinion in present-day practice, is in regard to the pendulum-like movement which he advised to be given to the forceps during traction. Present-day practice is still divided on this point, although tending in the direction of steady traction; equally competent authorities are found favouring, on the one hand, the practice of Smellie, and on the other, steady traction. Otherwise, the picture is complete in all its parts and details.

These teachings of Smellie as exemplified in the foregoing rules, although the abuse of them was safeguarded as far as he could do it, led not only to the more frequent adoption of the instrument by the profession of his time, but also had the unfortunate effect of attracting to its use men as unqualified as they were unscrupulous. In consequence of the deplorable results which followed its use in such hands a reaction quickly followed against it, and many men, eminent in their day in the department of midwifery, chiefly, however, after Smellie's time, declined to use it. Among these were William Hunter, Wathen, John Ford, Cooper, Cogan, Douglas, Sims, Dennison, Squire, Croft, and others. At the same time, many equally competent used the forceps. Thus it was, as it will ever be, that an useful instrument was visited with a condemnation which was quite undeserved, solely by reason of its abuse in improper hands. This was signally possible only at the time of which we write, for, as we have already pointed out, the regulations as to qualified practice were but ill looked after. Present-day practice, however, has amply justified the confidence which Smellie placed in his instrument, to the extent, even in some hands, of continuing the preference for a straight, over a curved, instrument. And while the fillet and vectis are practically forgotten and unused, the forceps remains in its greater perfection as the mainstay of the accoucheur in the many perils of parturition.

Of the vectis very little need now be said: Smellie not infrequently used a single blade of the forceps as a lever, and with good effect. So had Chapman done before him. De Prévile, the translator of Smellie's work into French, and Camper—a pupil of Smellie—in vol. xv. of the *Memoirs of the Royal Academy of Surgery*,—both declared that the secret of Roonhuysen was nothing more than the vectis. Rathlaw,

on the other hand, declared, as we have already remarked, that it was the forceps. Whether it was the one or the other, or both, is only now a matter of historical interest; but this fact is indisputable, that the vectis was a favourite instrument in different countries of the Continent, and, perhaps, chiefly so in Holland. In Great Britain it was in great repute both during, but mainly, after Smellie's time. It was used exclusively by many, as an alternative expedient by others. It was the instrument which was generally used when the reaction against the forceps occurred. By Denman's time, opinion was nearly equally divided between it and the forceps. At a later period, it fell into comparative desuetude; and now it is totally unknown. The kinds and varieties of vectes were legion. The reader has only to consult Mulder to be at once bewildered respecting their shapes and their sizes. It probably reached its climax in the instrument of Aitken of Edinburgh. He called his instrument the *living lever*. It consisted of an articulated blade, which, straight when at rest, immediately began to curve on being introduced by means of the manipulation of a screw in its handle. The vectis was used by some to act as a lever either to aid the descent of the occiput—a principle established by Moschion—or by others to bring down the chin. But the danger of lacerating the perineum was acknowledged by all to be a not infrequent result of its employment; and it was doubtless for this reason, chiefly, that it was abandoned.

From Smellie's intimate knowledge of the mechanism of parturition, he was enabled to introduce manoeuvres in the delivery of the foetal head—expedients which, too, were completely new to the practice of his time—when it came by an unusual presentation, and by reason of which it was arrested in the pelvis. In most natural labours he found, as he had already described, that the forehead of the foetus is turned to the side of the pelvis; but that in other cases, the forehead was turned either forwards or backwards. In these latter cases, the head was liable to be arrested, thus demanding assistance at the hands of the accoucheur. He found, besides, that he could rectify, not infrequently, this condition by the simple expedient of introducing his hand into the vagina, and moving the forehead

into a right position, *i.e.*, to one side of the pelvis. Let him, however, describe the situation in his own language. "If," says he, "the forehead sticks in its former situation without turning into the hollow (of the sacrum), it may be assisted by introducing some fingers, or the whole hand, into the vagina, during a pain, and moving it in the right position." Not only was he in the habit of rectifying these occipito-posterior positions by the aid of his hand, but he also used the forceps for the same purpose. In this he was distinctly the first, probably because he so accurately knew the mechanism of parturition in the more usual presentation. After the quotation which we have just made, the reader is directed by Smellie to refer to a further chapter, where he deals with the instrumental method of rectifying these awkward cases. His description must be quoted in full for its better appreciation. "When the forehead, instead of being towards the sacrum, is turned forwards to the os pubis, the woman must be laid in the same position as in the former case" (that is, on her back, her head and shoulders somewhat raised, and her breech a little beyond the edge of the bed); "because here also the ears of the child are towards the sides of the pelvis, or a little diagonally situated, provided the forehead is towards one of the groins. The blades of the forceps being introduced along the ears, or as near them as possible, the head must be pushed up a little, and the forehead turned to one side of the pelvis; thus let it be brought along until the hindhead arrives at the lower part of the ischium, then the forehead must be turned backward, into the hollow of the sacrum, and even a quarter or more to the contrary side, in order to prevent the shoulders from hitching on the upper part of the os pubis or sacrum, so that they may be still towards the sides of the pelvis; then let the quarter turn be reversed, and the forehead being replaced in the hollow of the sacrum, the head may be extracted as above. In performing these different turns, let the head be pushed up or pulled down occasionally, as it meets with least resistance. In this case, when the head is small, it will come along as it presents; but, if large, the chin will be so much pressed against the breast, that it cannot be brought up with the half-round turn, and the woman will be tore if it comes along."

In volume ii., in narrating Case 258, we are informed as to his discovery of this method. It happened in the year 1745. He tells us, that he felt the fontanel at the left groin, which pointed to the forehead being at that part. He at first tried to deliver the patient with the forceps in the ordinary way, but it slipped three times. He was very unfond to use the blunt hook, which, he informs us in the previous case, "was the common method when the head was large, and squeezed to such a length as to prevent the forehead's coming out, either with strong labour or with the forceps"; because its use was frequently accompanied by laceration of the perineum. Pausing and reflecting a little, he goes on to say, "I luckily thought of trying to raise the head with the forceps, and turn the forehead to the left side of the brim of the pelvis where it was widest, an expedient which I immediately executed with greater ease than I expected. I then brought down the vertex to the right ischium, turned it below the pubes, and the forehead into the hollow of the sacrum; and safely delivered the head by pulling it up from the perineum and over the pubes. This method succeeding so well, gave me great joy, and was the first hint in consequence of which I deviated from the common method of pulling forcibly along and fixing the forceps at random on the head; my eyes were now opened to a new field of improvement in the method of using the forceps in this position, as well as in all others that happen when the head presents." In other such cases, he sometimes liberated the head by bringing the forehead and face out from below the pubis, where he could not effect rotation. M'Lintock remarks on Smellie's plan of instrumental rectification, that it "may be considered somewhat bold and meddlesome; still it was based on correct mechanical principles"; and there cannot be the least doubt that it was prompted by reason of his intimate knowledge of the movements of the foetal head during normal parturiency. That the practice was distinctly new is evidenced by the fact that the usual practice taught by the contemporary writers for such a contingency was pedal version. It will also be obvious to the reader that Smellie was enabled to perform these rectifications by reason of his using the straight forceps.

When Smellie published his treatise in 1752, the practice of midwifery in difficult cases had so much improved, that the necessity for destroying the foetus did not arise so frequently as before. He had advocated that it should never be done, unless and until the foetus could not be delivered, either by means of the forceps, or by turning. This only happened in narrow pelves, consequently, he taught that after the above means had been tried without success, no dubiety should remain in the mind of the accoucheur as to the next operation available, viz., perforation; since by diminishing the bulk of the head, the operator did that which would most conduce to the preservation of the mother. "In this case," adds he, "instead of destroying you are really saving a life; for, if the operation be delayed, both mother and child are lost." Thus Smellie had none of the pious scruples which affected those of another religious persuasion, regarding this operation when it was required. He very properly left theological difficulties on one side, and consistently followed his practice of giving the mother the primary consideration. In reviewing the practice of the ancients in this operation, he mentions the various instruments which were used for the purpose. We need say nothing on this point here, as we have exhibited the instruments in another place.¹

Of the later contrivances, viz., Mauriceau's tire-tête, Simson's ring-scalpel, Ould's terebra occulta, and Burton's improvement on the latter instrument, he says, "they may be used with success, if cautiously managed, so as not to injure the woman." But he proposes a method, which, "if exactly followed according to the circumstances of the case, seems, of all others hitherto invented, the easiest, safest, and most certain, especially when it requires great force to extract the head." The instruments required were, a pair of curved crotchets (his improvement of Mesnard's instrument), a pair of scissors about nine inches long with rests near the middle of the blades, and a blunt hook; and the operation itself was as follows: The patient being placed either on her side or back, and the operator being seated on a low chair with his instruments handy but hidden, an assistant was made to steady the uterus. The operator then introduced his

¹ *Vide* p. 208.

hand till it came in contact with the foetal head, the scissors were guided along the hand and were gradually pushed into the skull till their progress was arrested by the stops; the handles of the scissors were then separated so that an opening might be made in the skull: they were again closed, turned at right angles to the first line of entry, and again expanded, thus making a crucial incision, and the original opening larger: the instrument was next to be pushed into this opening, even past the rests, and the structure of the brain to be broken down by the instrument being again expanded in this position, after which, it was to be completely withdrawn. Should the scissors fail to effect this end, the crotchet was to be substituted. The operator was then to remove any sharp splinters of bone, lest they should injure the maternal parts, or the fingers of the operator. Smellie was not particular to recommend that the instrument should only perforate the bone; he evidently saw no objection to it entering a suture. At this stage of the operation he recommended the young practitioner to try to extract the head with the small or large forceps; and he tells them that in some cases they will succeed. But where the pelvis is very narrow, and where forceps were of no use, he advised that the crotchet should be fixed in some part of the foetal head where a firm hold could be best insured, and, with the hand still in the vagina, to observe the progress of matters in order to avert the risk of the instrument slipping, and to make sufficient traction to effect delivery. If this expedient failed, he advised the introduction of the double crotchet, when it was possible, so that, by dint of traction and "humouring," the head might be brought along. In some instances too, he found the blunt hook of service, and thought it advisable to try it first, because its point, being blunt, gave less trouble than the sharp point of the crotchet. Hydrocephalic heads he treated exactly on similar lines. He says, respecting the instruments and the operation, that "although many people have exclaimed against the crotchets as dangerous instruments, from ignorance, want of experience, or a worse principle; yet I can assure the reader, that I never either tore or hurt the parts of a woman with that instrument. I have indeed several times hurt the inside of my hand by their giving way; till I had recourse to

the curved kind, which in many respects have the advantage of the straight; and I am persuaded, if managed as above directed, will never injure the patient; . . . before we had the curved crotchets, I have been so fatigued from the straight kind slipping their small hold so often, that I have scarcely been able to move my fingers or arms for many hours after; and if this force had not been used, the mother must have been lost as well as the child."

It may seem to the reader, in the light of modern practice, that he might have been spared the foregoing detail, but he must be informed that in the foregoing description, Smellie, for the first time, detailed the steps of an operation which, in practically every feature, has been followed by every enlightened accoucheur and by every writer on obstetrics since his day. Thus the experience of a subsequent century and a half but proves conclusively the lasting value of his teaching.

His operation was a great advance on the practice of that day in this difficult circumstance; the reader will be better able to appraise its value by contrasting with it the other operations practised, and the instruments used, by contemporary practitioners. We need say but little of Simson's instrument; indeed, it was but a toy instrument, ill-adapted for the operation, and ineffective. In short, it was never considered seriously. Mauriceau's operation was more difficult to perform, and the mechanism of his instruments was complicated by detail. He directed that an incision should first be made by a knife, into the head between the sutures, large enough to admit a round plate hinged on the end of a staff; when this was passed, a second round plate mounted on a hollow staff was threaded along the first staff till it caught on the outside of the scalp, when it was fixed firmly by means of a screw at the handle.¹ As Ould expresses it, "there must be a prodigious deal of Trouble and Time taken up, to bring this Instrument into a state of Action . . . in short, 'tis too complexed a Piece of Business to be used on this Occasion." Ould had a very grave objection to this operation of Mauriceau, because it necessitated the use of a naked sharp instrument at too great a distance from the hand to enable it to be

¹ *Vide* Plate II., page 143.

used with safety; in consequence, he set about devising an instrument which at once would be simple in its construction and in its use, and would avoid the presence of a naked sharp instrument within the maternal parts until it reached its point of application. This instrument he called *Terebra Occulta*; "being a Piercer, to perforate the Head of an Infant, in order to lessen the Size of it, by evacuating Part of the Brain; this Piercer is concealed in a Sheath, for the Preservation of the Mother, till conducted to the Part where it is to operate."¹

Burton next set himself the task of still further improving this operation by modifying the instrument of Ould. His improved instrument measured between twelve and thirteen inches in length. This piercer was intended not only to act as a perforator of the cranial cavity through a suture, but also as an extractor: for this purpose it possessed a cutting blade, which, hidden in a sheath, came into operation only when it came in contact with the foetal head. After perforation had been effected and the instrument pushed into the brain, certain wings which were fixed to the base of the cutting blade, and which up to this point lay flat alongside the weapon, were now expanded at nearly a right angle to the blade and were fixed in this position, thus taking a hold of the bones of the head within the cranial cavity; the instrument was then to be used as an extractor. Burton believed that this instrument could easily effect delivery, but anyone conversant with this operation will at once perceive that the instrument would be too slight to effect what was necessary in a very narrow pelvis where considerable traction was required. It thus had a very limited range of action, and besides, it was even a more complicated instrument than that of Ould. It has long since been forgotten.²

¹ *Vide* Plate V., p. 160.

² *Vide* Plate XXIII., p. 242.

CHAPTER XV.

PRETERNATURAL LABOURS.

SMELLIE defined a preternatural labour as one where any part of the foetus other than the head presented at the *os uteri*, and where, in consequence, the body had to be delivered before the head; so that in this definition were included footling and breech presentations and all others in which turning had to be resorted to, as funis presentations, other abnormal presentations, and cases of haemorrhage. He divided them into three classes: (1) When the feet, breech, or lower parts present; (2) when in consequence of violent floodings turning is required; (3) transverse presentations.

Deventer had taught that all preternatural and laborious labours directly proceeded from the wrong position or obliquity of the uterus. Believing that the placenta always occupied the fundus uteri, he concluded that that part of the uterus to which the placenta was attached was the fundus. Reasoning from this erroneous premiss, he constructed and elaborated his doctrine, which received considerable criticism at the hands of those who succeeded him. Smellie pointed out how unwarranted was this doctrine, and he stated that only in women with pendulous abdomen can there be any serious miscarriage of labour from the foetal head hitching on the pubis. In breech, knee, or footling cases, he advised, when the *os* was sufficiently dilated, to bring down the feet and to exercise traction until the breech appeared outside the vagina. At this point the operator was to observe the relation of the child's body to that of the mother. If the fore-part of the child was to the back of the uterus (*i.e.*, dorso-anterior in

modern parlance), well and good ; let him then persevere in his traction. But if the fore-parts were toward the os pubis or to one side (*i.e.*, dorso-posterior), he advised that the operator should turn the body of the foetus into the former position (*i.e.*, convert the dorso-posterior into a dorso-anterior case). This being effected, traction was to be continued until the shoulders were delivered. At this point the operator was to slide his hand along the child's face and introduce a finger into the child's mouth, "by which means," says he, "the chin will be pulled to the breast, and the forehead into the hollow of the sacrum. And this expedient will also raise upward the hindhead, which rests at the os pubis." Should the head then come down, the operator is to pull the body and head of the child "upwards, bringing the forehead with a half round turn from the under part of the os externum, which will thus be defended from laceration." He discusses these manoeuvres at greater length, thus : "The diameter from the face or forehead to the vertex, being greater than that from the forehead to the back part of the hindhead or neck, when the hindhead rests at the os pubis, and the forehead at the upper part of the sacrum, the head can seldom be brought down until the operator, by introducing a finger into the mouth, moves the same to the side, brings the chin to the breast, and the forehead into the hollow of the sacrum ; by which means the hindhead is raised and allowed to come along with greater ease ; and in pulling, half the force only is applied to the neck, the other half being exerted upon the head by the finger which is fixed in the mouth ; so that the forehead is more easily brought out, by pulling upwards with the half round turn from the perineum." When the head would not come down after this manoeuvre, presumably by reason of the arms being alongside the head, he advised that then the arms should be brought down ; "let the operator," says he, "run his fingers along the arm until they reach the elbow, which must be pulled downwards with a half round turn to the other side, below the breast. This must not be done with a jerk, but slowly and cautiously, in order to prevent the dislocation, bending, or breaking of the child's arm."

The plan which Deventer had proposed to overcome the difficulty of delivering the head in these circumstances, was

based on the erroneous assumption that the resistance lay at the coccyx or lower part of the pelvis. On this basis he advised that the shoulders of the foetus should be pulled downwards, so as to bring the occiput from below the pubis. Sometimes Smellie found this plan of Deventer succeed better than his own, "when the head is low down, and the chief resistance is in the lower parts; but," adds he, "this is very seldom the case." In certain cases, he found that the impediment to delivery lay in one of the arms of the foetus being jammed either between the face and the sacrum, or between the occiput and the pubis, instead of being disposed alongside the head. In ordinary circumstances, where the pelvis was not narrow, nor the head very large, he did not find that the position of the arms disposed alongside the head was any great barrier to delivery, since they were located at the widest parts of the pelvis. It was entirely different, however, when an arm got jammed in the positions already indicated; then, unless brought down, they became serious impediments. Consequently, his practice was to know always how the arms were disposed. M'Lintock very properly notes that in two points did Smellie's practice differ from that of the present day; first, in his endeavouring to hasten delivery by traction; and, second, in his not bringing down the arms before extracting the head. The practice in respect of either bringing down the arms of the foetus, or leaving them alongside the head differed among the various writers of that time. Mauriceau, Chapman, and Pugh always brought them down before delivering the head, whereas Deventer, Exton, and Smellie left them up if the birth could be accomplished easily; if not, they then brought them down. On these points, present day practice is superior to that of Smellie.

It must not, however, be understood that under all circumstances was the use of traction his practice. He certainly adopted it when the os was well dilated and the waters had been discharged. But when a breech case was diagnosed before the membranes had ruptured, he counselled a more patient practice. His plan, in these circumstances, was to permit the labour to proceed naturally until the breech came down to the middle or lower part of the pelvis, when the operator was to introduce the forefinger

of each hand into the flexures of the groins, and to pull gently along during the pains. In this manner the body would be born as far as the shoulders before the legs could be liberated; after that, the operator was to manage the head as before. Notwithstanding these two weak points in Smellie's practice, every one who is conversant with the literature of midwifery of that time must admit that his description of the management of breech cases was incomparably superior to that which obtained among his contemporaries, and also, that it anticipated in very great part the true method of overcoming the difficulties experienced by the accoucheur in such cases.

HAEMORRHAGE.

Smellie included cases of haemorrhage occurring during the last four months of pregnancy among preternatural labours, because turning had to be generally resorted to as the means of delivery, and of securing the safety of the patient. This was by no means a happy classification, but, in the light of his definitions, it had the merit of being logical. Violent haemorrhage, in the above circumstances, he deemed a serious complication, and he advised the accoucheur always to inform the relatives of the patient of its dangerous portent, and to procure the assistance of another practitioner eminent in midwifery to aid in the management of the case, and to share the responsibility. Haemorrhage, unaccompanied by any dilation of the os, he looked upon as specially dangerous. Here he advised steady dilatation of the os by the fingers, beginning with one, then with two, three, and so on, until the whole fingers, shaped as a cone, could be introduced; if, during this process, the operator found that labour had begun, he advised that the membranes should be ruptured, by which, says he, "the flooding will be diminished"; the case was then to be left to nature. But if the flooding still continued, the operator was to continue the process of dilatation, until the hand could be passed into the uterus and pedal version performed. He very properly points out, that "the greatest danger in this case frequently proceeds from the sudden emptying of the uterus and belly; for when labour comes on of itself, or is brought on in a regular manner, and the

membranes are broke, the flooding is diminished; and first the child, then the placenta, is delivered by the pains; so that the pressure or resistance is not all at once removed from the belly and uterus of the woman, which have time to contract by degrees; consequently those fainting fits and convulsions are prevented which often proceed from a sudden removal of that compression under which the circulation was performed." In order to anticipate this danger he orders an assistant to press upon the abdomen of the woman while the uterus is emptying; if then the flooding ceases, he leaves nature to expel the placenta; and, adds he, "we should never refuse to deliver in these dangerous cases, even although the patient seems expiring," for once the uterus is emptied, the flooding ceases, and the woman has then a chance of recovery. She must then be supported by frequent draughts of weak stimulants and by foods. Where the head is found by the operator in the pelvis, he can at once apply the forceps; this failing, then the head must be perforated and delivered with the crotchet. It is abundantly clear that Smellie was well acquainted with the conditions attaining in accidental and unavoidable haemorrhage. As Donald Munro pointed out in his paper in the *Edinburgh Medical Essays*, placenta praevia was well known to Smellie. In vol. ii. he narrates cases of this, where the placenta was delivered before the foetus, which was fortunately living.

The third class of preternatural labours included presentations of the foetus other than those previously considered; such as presentations of the hands and feet, abdomen, breast, shoulder, neck, funis, and some others. In all of them he advocated turning; and he discusses very fully the mechanism of each. He further discusses in connection with shoulder presentations, where the shoulder is so jammed into the pelvis that turning cannot be accomplished, the question of detruncation, *i.e.*, the severance of the body from the head of the foetus. This was a practice which was not uncommon in his day, and which he himself sometimes practised. It was because of this practice that obstetric writers of that period usually devoted not a little attention to the delivery of the head left *in utero*. It has, however, fallen into desuetude in modern days; but, as M'Lintock points out, it is a suitable procedure in proper cases, and the delivery of the head is

now more easily accomplished by the aid of the more recently invented cephalotribe. Before Smellie's time, all the ingenuity of the obstetrician was exercised to devise means to this end; hence Amand's purse or net, and other contrivances. Probably the most that Smellie did to improve the position of the operator in this dilemma—and in the light of his day it was not a little—was to point out various alternative expedients, to improve the instruments necessary for its performance, and, by indicating the ordinary mechanism of labour, to pave the way for a more enlightened practice. By means of his forceps, his crotchets, and scissors, he was always able to effect delivery in such cases, by the exercise of not a little skill, and much more patience.

There is no case on record of his having performed the Caesarean section during the life of a patient under any circumstances, but he gives us the notes of three cases in which the operation was done to try and save the foetus, immediately after the death of the mother. Nevertheless, he devotes a very interesting section to this operation, points out in what cases it may legitimately be performed, and details the steps to be taken both during and after the operation. Excepting Ould in 1742, and Burton in 1751, no writer during Smellie's time even mentions the operation; so we may reasonably conclude that it was not an operation that met with much favour. Ould speaks of the operation as an "unparalleled Piece of Barbarity," and as "this detestable, barbarous, illegal Piece of Inhumanity"; and he adversely criticized those who argued in favour of it. He believed that its revival at the beginning of the seventeenth century, and its more favourable consideration in France and Germany, were attributable to a theological doctrine laid down by the divines of the Roman Catholic Church, that as the soul of every child that is not baptized is annihilated, and that as the existence of the mother is already established, and as the rites of the Church were available for her, it was better for the child, whose spiritual existence was in jeopardy, to be saved, than the mother whose spiritual safety could be assured.

The last book of his work (the fourth) is devoted to the management of women from the time of their delivery to the end of the month, and to the various diseases to which they are subject during that period. Very little need be

said on this: his practice was sagacious and prudent, full of common sense. In laceration of the perineum he recommended surgical union at once, and of the vagina or uterus, absolute quietude on the part of the patient, with close attention of the accoucheur to symptoms as they developed. He discusses in a separate section the agency and effects of air, diet, sleeping and waking, motion and rest, retention and excretion, and the passions of the mind, on the newly-delivered woman. These, following the terminology of the time, he called the "non-naturals."

Of post-partum haemorrhage, too, he appreciated the causes, and he points out as the line of treatment to be adopted after the uterus has been cleared, anything that will produce contraction of the uterus. It is apparent, however, that he did not adopt, as a routine procedure in such cases, the manual compression of the uterus externally, nor any of the more heroic forms of treatment of present-day practice, unless we except the packing of the vagina with tow or linen steeped in vinegar. It is true that he mentions that other practitioners inject proof spirits warmed, or introduce a sponge soaked in the same into the uterus, but he does not applaud the practice.

The last chapter of this book deals with the qualifications he desiderates in an accoucheur and in a midwife. They are of sufficient value even to-day to entitle them to full quotation. Of the accoucheur he says that "those who intend to practise Midwifery, ought first of all to make themselves masters of anatomy, and acquire a competent knowledge in surgery and physic; because of their connection with the obstetric art, if not always, at least in many cases. He ought to take the best opportunities he can find of being well instructed; and of practising under a master, before he attempts to deliver by himself. In order to acquire a more perfect idea of the art, he ought to perform with his own hands upon proper machines, contrived to convey a just notion of all the difficulties to be met with in every kind of labour; by which means he will learn how to use the forceps and crotchets with more dexterity, be accustomed to the turning of children, and consequently be more capable of acquitting himself in troublesome cases that may happen to him when he comes to practise

among women; he should also embrace every occasion of being present at real labours; and, indeed, of acquiring every qualification that may be necessary or convenient for him in the future exercise of his profession. But, over and above the advantages of education, he ought to be endowed with a natural sagacity, resolution, and prudence; together with that humanity which adorns the owner, and never fails of being agreeable to the distressed patient; in consequence of this virtue, he will assist the poor as well as the rich, behaving always with charity and compassion. He ought to act and speak with the utmost delicacy of decorum, and never violate the trust reposed in him, so as to harbour the least immoral or indecent design; but demean himself in all respects suitable to the dignity of his profession."

Here, then, we have a picture of the ideal accoucheur, drawn by a man who proved their value and their practice in his own person. It would be difficult indeed, as M'Lintock remarks in a footnote, to surpass in brevity and appositeness, the above description of the qualities required of the accoucheur; certainly their truth cannot be gainsaid.

Of the midwife, too, he makes the following remarks: "A midwife, though she can hardly be supposed mistress of all these qualifications, ought to be a decent sensible woman, of a middle age, able to bear fatigue; she ought to be perfectly well instructed with regard to the bones of the pelvis, with all the contained parts, comprehending those that are subservient to generation; she ought to be well skilled in the method of touching pregnant women, and know in what manner the womb stretches, together with the situation of all the abdominal viscera; she ought to be perfectly mistress of the art of examination in time of labour, together with all the different kinds of labour, whether natural or preternatural, and the methods of delivering the placenta; she ought to live in friendship with other women of the same profession, contending with them in nothing but in knowledge, sobriety, diligence, and patience; she ought to avoid all reflections upon men-practitioners; and when she finds herself at a loss, candidly have recourse to their assistance. On the other hand, this confidence ought to be encouraged by the man, who, when called, instead of openly condemning her method of practice (even though it should be erroneous),

ought to make allowance for the weakness of the sex, and rectify what is amiss, without exposing her mistakes. This conduct will effectually conduce to the welfare of the patient, and operate as a silent rebuke upon the conviction of the midwife; who, finding herself treated so tenderly, will be more apt to call for necessary assistance on future occasions, and to consider the accoucheur as a man of honour and a real friend. These gentle methods will prevent that mutual calumny and abuse which too often prevail among the male and female practitioners; and redound to the advantage of both; for no accoucheur is so perfect but that he may err sometimes; and on such occasions he must expect to meet with retaliation from those midwives whom he may have roughly used." Smellie here seems to strike the real key-note of the position of his own time, a key-note which seems to us equally applicable to the present day. It was, nevertheless, only his charity toward all men, and women also, which could have prompted him to indite such advice as the foregoing, referable to the relations that should subsist between the practitioners of both sexes in this art. He knew that he was doing something toward the encouragement of male practitioners in the art, which, in turn, would operate to the detriment of the practice of the women. Further, even while he was writing these words, and for long after, certain of the midwives were systematically vilifying him both in his practice and in his person; but in spite of all that, to his honour be it said, his Christian charity prevailed.

CHAPTER XVI.

BURTON ON SMELLIE.

THIS Treatise from the pen of Smellie met with great acceptance. The second edition was issued the year after the first, although, at the same time, we are by no means clear that the first was a large edition; in any case, that it became a popular book on the subject is abundantly proved. Doubtless this was due to the acknowledged accuracy and novelty of his teaching on many important points, to the method of the book itself, and to the lucidity of its style. As was, however, to be expected, these new doctrines, although they had been making fast progress to the point of being the current opinion of the most advanced thinkers and practitioners of the time, were not to be allowed to pass unchallenged.

The first critic to enter the field to rebut his arguments and his teaching, was Burton, who published in 1753 "A Letter to William Smellie, M.D., containing Critical and Practical Remarks upon his Treatise on the Theory and Practice of Midwifery. Wherein the various Gross Mistakes and dangerous Methods of Practice mentioned and recommended by that Writer, are fully demonstrated and generally corrected," etc.

John Burton, M.D., was a practitioner in midwifery, resident in York. He formed the model for Sterne of Dr. Slop—"the Grotesque man-midwife"—in his novel of *Tristram Shandy*. Every biographer of Sterne is agreed upon this point; indeed, Traill, his latest biographer, states that in Dr. Slop "the good people of York were not slow

to recognize the physical peculiarities and professional antecedents of Dr. Burton, the local accoucheur, whom Archdeacon Sterne had arrested as a Jacobite. That the portrait was faithful to anything but the external traits of the original, or was intended to reproduce anything more than these, Sterne afterwards denied; and we have certainly no ground for thinking that Burton had invited ridicule on any other than the somewhat unworthy ground of the curious ugliness of his face and figure. It is most unlikely that his success as a practitioner in a branch of the medical art in which imposture is the most easily detected could have been earned by mere quackery; and he seems, moreover, to have been a man of learning in more kinds than one. The probability is that the worst that could be alleged against him was a tendency to scientific pedantry in his published writings, which was pretty sure to tickle the fancy of Mr. Sterne."

It is no part of our business here to show the manner in which Burton was caricatured, as, on this point, any one can familiarize himself by referring to the novel in question. It is sufficient to note that this critic of Smellie has been immortalized in this caricature, while his "scientific writings" have long since been forgotten. That he was, however, a man of pronounced opinions is at once clear from those political leanings which caused, rightly or wrongly, his arrest, and from the vigorous style he displays as a critic, as we shall presently see.

Burton, it will be remembered, published a *Treatise on Midwifery* in the same year as Smellie, and both of them were critically reviewed in the *Monthly Review*. We have already dealt with the review of the work of Smellie, which was of a very laudatory character. It would appear, however, that the review of Burton's treatise, which appeared in the above Review in September 1751, article 33, was not of such a favourable character, was rather indeed, of a disparaging nature; at which, it is very evident, Burton was much hurt. It is supposed that his real motive in addressing this critical letter to Smellie, was not so much that he had any ill-feeling toward him as a writer or practitioner, but that Smellie having received such an eulogistic review from that journal, whilst he himself had experienced the opposite, he thought, by criticizing Smellie,

he had an opportunity of paying back his reviewer. Be that as it may, however, it is perfectly certain that Burton smarted under the lash of his critic. The review in question was written by one Kirkpatric, an Irishman, and Burton deals with him and his criticism in an appendix to the above Letter. He therein accuses him of being "greatly deficient in candour," and generally lectures him on the qualifications of a reviewer, every one of which, he alleged, this reviewer lacked. In short, Burton declared that "partiality," "false and partial quotations," and "prejudice," characterize the review. It is somewhat surprising, however, to find that the very qualities he commends to his reviewer are precisely those qualities which are wanting in his letter to Smellie. He evidently found it easier to give advice than to practise what he preached. Whether this critique was the cause which inspired him to pen this "Letter" is, however, a matter open to question. It was not, certainly, a motive of retaliation as against Smellie. For though criticism of a personal kind was the rule between rival writers at this time, not only in this but in other departments of the healing art, this cannot be said of Smellie. Throughout his whole writings there is not a single sentence of criticism of this kind to point to; indeed, this very man who deals with him so unfairly is spoken of in a praiseful manner in his book; in short, Smellie tried to practise what he preached in the short chapter on the requirements of the accoucheur, which we have already quoted.

Burton's critique of Smellie's treatise extends to two hundred and fifty pages, and it does not by any means consist of "linked sweetness long drawn out"; it is rather the reverse; for the most part, indeed, after a careful perusal of the Letter, we find that there is not a single doctrine of Smellie to which he can range himself alongside, or which he applauds.

It would be very wearisome, as it would be equally unprofitable, to follow this critique in detail at this time of day; at the same time, since it evidences the differences in two schools of practice, we are bound to consider it at some little length. Burton begins by considering Smellie from different points of view, as an historical writer, as an anatomist, as a theorist, and as a lecturer and practitioner. He sets out on his task, he tells us, "for the sake, if possible, of coming at the

Truth, without the least Anxiety on my Part, to bring People, at any rate, into my Way of thinking"; and, addressing Smellie, he hopes that as an honest man, he "will not value a Victory in Point of Argument near so much, as you would be satisfied to see the Truth ascertained by our Labours, tho' Judgement should be given against you. The Case, therefore, betwixt us is, That we only differ in Opinion in an Enquiry after Truth; and not being able to convince each other, are willing to appeal to better Judges, that they may determine who has the greatest Probability on his side, without believing our Honours at Stake, whichever Way the Sentence is given."

This, unquestionably, was a laudable point from which to start, and had the inquiry proceeded on these lines, nothing could have been said but in its favour; but, unfortunately, he climbed down from this lofty pedestal, and adopted the language and style of the objectionable pamphleteer. He first of all attacks Smellie's introduction, which the reader will remember deals solely with the historical side of midwifery, and accused him of never having read the originals, but of simply plagiarizing Le Clerc and Freind chiefly; not only so, but he accuses him of wilfully misrepresenting several authors, and of general negligence in his history as a whole. He makes especial complaint that Smellie stops his historical sketch at the year 1743, and does not mention any author or his work subsequent to that date.

"To confound all Nature—all Distinction of Sex—To make Animals Vegetables, and one and the same Author two different Persons; and neither Character agree with the true one—To palm upon us an Author that never existed, etc., is such a Piece of History as the present Age cannot boast of; yet, strange as this may seem to be, you (Smellie) have done it." These criticisms, the reader must understand, depend on the reading of certain passages in the originals of the authors quoted, and refer to very trifling matters indeed; but Burton magnifies them in all the glory of quotation in Latin, Greek, and French. He caught Smellie napping, however, on one point. Smellie had put down as the name of an Author, "Lithopedus Senonensis." Burton pointed out that this was evidently intended for Lithopoedii Senonensis Icon, a petrified child which is mentioned in the writings of Albasius in

1582, and of Horatius Augenius in 1595. This was a very stupid mistake, but it had been discovered by Smellie before Burton pointed it out, for it was corrected in the second edition of 1752. Burton is so peddling and so pedantic that he even condescended to notice orthographical errors. Smellie had noticed the work and doctrines of "Daventer," as the name is spelled in the English translation of that author; Burton pointed out that it should be "Deventer." As Smellie did not profess to know Dutch, he contented himself with the spelling of the English translation. One of the gravest charges preferred against him by Burton was that he wilfully misrepresented the meaning of certain authors to countenance his own practice. Burton was a firm believer in Deventer's doctrine that the chief cause of preternatural labours is obliquity of the uterus; Smellie, on the other hand, entertained no such belief. Burton, after quoting from the writings of the ancients in substantiation of that doctrine, concludes thus: "After such indisputable Authorities, how can you call in question the veracity of so many honest and learned men, who assure us they frequently meet with this oblique Position of the Womb in the course of their Practice?" There was, perhaps, an additional reason why Burton should feel strongly on this point. Had not Smellie's reviewer stated that he (Smellie) had "rectified certain Mistakes of Deventer, touching the different Situations of the Uterus," mistakes, too, which had been repeated in Burton's own book? There are other like examples to the above, but we need not follow them. He then proceeds to examine the doctrines set down in the body of Smellie's treatise, and, as is not uncommon, takes up one of its last points first. Smellie had enumerated among the various qualifications necessary to the accoucheur that of being master of anatomy, and of acquiring a competent knowledge in surgery and physic; so he spends some time in examining Smellie's anatomy, with none of which, of course, he agreed. He adopts the practice which he so freely condemned in the reviewer of his own book, viz., of partial quotation, and, in consequence, he constructs many baseless criticisms. On one point, however, he obtained an advantage over Smellie. The latter in speaking of the structure of the uterus, said that it was without any muscular fibres except such as

composed the coats of the vessels, "or, if be muscular," said he, "the fibres are more close, and more intricately disposed, than in other muscular parts." Burton very properly pointed out that the contractile force of any part must be estimated by the number and strength of its muscular fibres, and accordingly, since the uterus exerts a considerable force of this kind during labour, that muscular fibres were likely to be present. Neither did Smellie believe in the *Musculus Orbicularis Uteri* which Ruysch said he had discovered, and which Buchwald defended. Burton, however, did; consequently he also defended this structure as described by its discoverer. It must be borne in mind that Smellie's description of the uterine structure only applied to the unimpregnated organ, hence not a little of Burton's criticism on this subject loses its point and cogency.

Having scalped him as an anatomist, as he believed, Burton goes on to discuss him as a theorist. He complains that while Smellie entitled his work "A Treatise on the *Theory* and Practice of Midwifery," he gives no definition of a theory. He supplies that want by defining a theory, as "that speculative Part of any Science which directs to the Rules of Practice," a definition which might suit his purpose, but does not accord with the modern definition of the word. To direct attention to what he terms Smellie's inconsistency, he points to a statement which is made in the first page of his book, where he tells his reader that he has "industriously avoided *all Theory*, except so much as may serve to whet the genius of young practitioners, and be as hints to introduce more valuable discoveries in the art." Whatever Smellie was, he certainly was not a theorist; he does here and there, in his book, indicate the main lines of theoretic teaching, but he is careful to avoid committing himself. Again, Burton attempted to controvert Smellie's teaching in regard to the mobility of the coccyx—teaching, which modern anatomy however has corroborated to the full. He then discusses his statements regarding the shape, dimensions, and measurements of the pelvis, which he viewed in the dry condition; but his criticism falls wide. So also the usual presentation of the foetal head. Burton declared that Smellie had borrowed this idea from Ould. In this he had become confused. It is quite obvious that, while

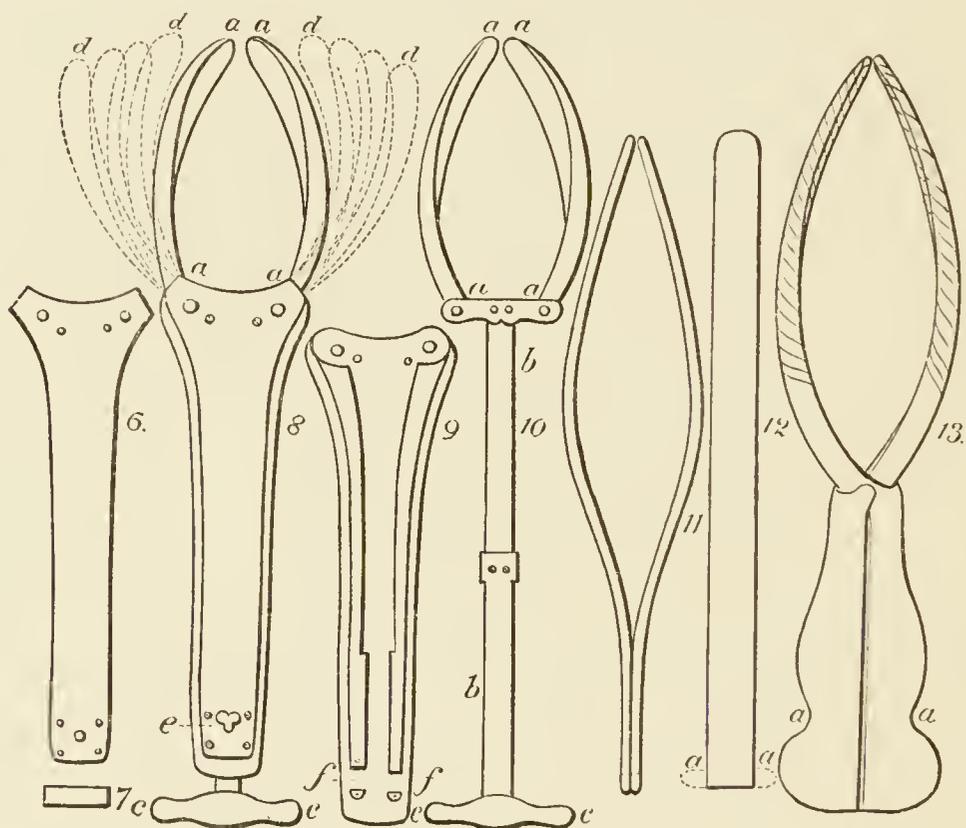
he may have comprehended in a general way what Ould intended to mean, he did not comprehend it in respect of the relation of the position of the foetal head to the shoulders. It was quite to be expected that Burton could not fall into line with the doctrines of either Ould or Smellie. Ould had declared "that the Breast of the Child does certainly lie in the Sacrum of the Mother, but the Face does not; for it always (when naturally presented) is turned either to the one side, or to the other, so as to have the Chin directly on one of the Shoulders." Ould here had but perceived the first point in the mechanism of labour. Burton thought he had quite disposed of this statement by saying "that whenever the Head presented *with the Chin to either side of the Pelvis*, the Birth was difficult and dangerous." Now Ould had never suggested that this was the usual position. Moreover, Burton still clung to the very ancient doctrine that, during the process of birth, the foetus "seems to creep into the World on its Hands and Knees." Neither did he agree with Smellie's description of the foetal posture *in utero*; nor with his doctrine that the head downward position was the most common during the major portion of pregnancy. Burton still believed and taught that it made a somersault sometime between the eighth and ninth month, and that the foetal head was *always* to be found at the *fundus uteri* until this time, "as Paraeus observed before."

Nor was his doctrine regarding the nourishment of the foetus accepted by Burton. Smellie had stated that the umbilical vessels "are supposed to do the same office in the placenta, which is afterwards performed in the lungs by the pulmonary artery and vein, until the child is delivered and begins to breathe"; and upon this, Smellie based the practice of not ligaturing the umbilical cord until the foetal lungs had acted freely. While on main lines this doctrine was sound enough, it is quite obvious that the intimate relations in the utero-placental attachment for the nourishment of the foetus were not comprehended by either of them; nor were they likely to be, for, as we know, it was not till very long afterwards that Goodsir was able to satisfactorily explain the phenomenon in question. Smellie's practice regarding the delivery of the placenta next comes under his review. We have already explained his views

and will not repeat them here. But Burton who believed in the immediate extraction of the after-birth by the hand *in utero*, was not likely to agree with Smellie's safer method.

It would be impossible, however, with a desire to be compendious, to deal with all the points of Burton's criticism; for there were but few points in the teaching of Smellie, that he did not adversely criticize. On the question of the use of forceps, Burton believed that that instrument should

PLATE XXV.



FIGS 6 to 10. Burton's Forceps (1751). The instrument was introduced into the pelvis in one piece, and its wings were made to adapt themselves exactly to the foetal head by the screw at the end of the handle, as shown by the dotted lines.

FIGS. 11, 12. The Forceps of De Wind (1752).

FIG. 13. Smellie's short straight Forceps.

(From Mulder.)

never be used when the child could be turned and extracted by the feet; and he criticized closely Smellie's directions for their use. Probably the strongest and most convincing objection which, in his whole "Letter," he advanced against Smellie's teaching, was in reference to the practice of the latter in wrapping the blades of the forceps with leather. Burton very properly urged, as we have already seen, certain objections to this, which were of a weighty character. He points to the risk of the discharges sinking into the substance of the leather, there putrefying, and perhaps setting up, in another case, serious disease; and to the greater

difficulty to be experienced in introducing the blades thus wrapped. The pertinency of the first objection is, however, lost when we remember that Smellie recommended them to be freshly rolled in each case ; but the force of the second objection always remained.

A great part of the "Letter" is taken up, besides, with a description of the greater merits of his own forceps over that of Smellie. He thought his instrument "as good, if not better, than any yet contrived"; because (1) having revolving blades moving on an axis it required only one, whereas a double-bladed instrument required a double introduction ; (2) the operation of passing these "wings" to the sides of the foetal head was less painful to the mother ; (3) the wings could be applied to fit any size of foetal head ; and (4) they could be fixed at any "determinate degree of expansion," thereby, as he believed, avoiding undue compression of the foetal head. Objections had already been taken regarding this instrument of Burton, chiefly because its bulk was an impediment to its introduction ; hence it was not adopted. But Burton considered that objection as purely chimerical, and he seized this chance of re-urging its claims. Then, again, Burton asserted the superiority of his instrument for perforating the foetal head over every previous instrument invented for the purpose. Burton did not believe in the use of naked instruments *in vaginam*, consequently he unequivocally condemned the scissors of Smellie, and called his method "a very dangerous and tedious operation," while alleging his own was "a much safer, casier, and expeditious one." His criticism, too, of Smellie's practice and treatment in floodings is simply negative ; he does not propose any better practice, nor does he even suggest anything new. The remainder of the "Letter" is taken up by a synoptical rendering of the comparative worth of his and Smellie's modes of operating, always, however, in favour of his own.

But eager to the last to find fault, and anxious lest he should omit any opportunity of saying something derogatory to Smellie's work, Burton even animadverts upon the advertisement in the treatise relative to the publication of the Anatomical Plates. Smellie's reviewer had said of the specimens of them which were being exhibited by his publisher, that "in point of Design and Anatomical Excellence,

he ventures to pronounce them as superior to any Figures of the kind hitherto made public." Burton gravely doubts the competency of the reviewer to pass an opinion on them. At this point his "Letter" concludes with the statement that, while willing to correct any error in it which could be shown to him, he was at present quite convinced of the rectitude of all that he had put down. Smellie, as was his habit toward his critics, paid no attention to the detractions of Burton. He evidently believed strongly in the after-judgment of the years, and was content to leave himself to be judged by time and posterity. It is quite possible, however, that he had discovered in himself an incapacity for polemical writing, and had felt himself unable to cope with such a critic as Burton, who was at once voluminous and pedantic. Burton, however, was not allowed to walk over the course. A former pupil of Smellie, as did another pupil on a previous occasion—but whether the same or not we cannot tell—took up the running for him, after waiting a judicious time to see if his master would not continue the contest. In a brochure entitled, *Reflections on Slow and Painful Labours*, etc., London, 1755, the author, Giles Watts, M.D., devoted some pages to the defence of Smellie. In a preliminary chapter he counsels those who write to confine themselves to the subject they know best, and so help to perfect that subject. "With respect to the Obstetrick Art, which is now in an eminent manner improved, and that chiefly by the indefatigable Application of the great Dr. Smellie," he begs to make certain contributions. Burton's Letter to Smellie is thus discussed by Watts. "I was extremely at a loss, when I first saw Dr. Burton's Letter to Dr. Smellie advertised in the Papers, in considering what could possibly be the Dr.'s Motive for treating the other in so severe a Manner, as he professed to do in the scandalous Title-page of that Piece. I was indeed naturally led to imagine that some unpardonable affront had been given on Dr. Smellie's Side; but, as I knew him to be remarkably inoffensive, I could not fix on any one that seemed probable: But alas! the Perusal of the Piece soon satisfied me with regard to this Particular; I there found, that with the Dr. it was, in Dr. Smellie, an unpardonable Crime, to have dared to write a better Treatise than, and that without having taken due

Notice of, and paid due Deference to, his (Burton's) own: And, for the Truth of the Assertion, I appeal to innumerable Passages in that Piece, in which he has but too plainly discovered, how greatly he has at Heart the Encomiums bestowed on Dr. Smellie's Performance by the learned Reviewers: However, I will not say, but the Loss of Business by Means of the too near Residence of some of Dr. Smellie's quondam Pupils, may have, in some Measure, as was the Case with Dr. Bracken of Lancaster, contributed to exasperate Dr. Burton against him; but, I think, 'tis sufficiently plain, the grand occasion of it was no other than the above-mentioned, to wit, the most laudable one of Envy. And this leads me, and that more especially in Consideration of Dr. Burton's having expressed his Approbation of the maxim of regarding 'In every Work the Writer's End,' to observe, what seems to have been the End the Dr. had in View in composing that Performance; and this indeed appears to be just as commendable as his Motive, to wit, that of derogating from the Merit of Dr. Smellie's Treatise, with the aggravating circumstance of endeavouring to add to that of his own. Whether or no Dr. Burton was afraid nobody would have done this had he not undertaken it himself, or rather was conscious of the abundant Merit of Dr. Smellie's, and the little of his own Performance and therefore was willing, by transferring from the first to the last, to render them more on an Equality, I shall not pretend to determine; but this I will venture to say, that in order to accomplish this End, he has robbed *Peter* to pay *Paul* with a Vengeance. Thus much then with regard to Dr. Burton's Arrogance, and Spirit of Envy and Detraction, and what trifling Cavillings, what wilful Misrepresentations, scandalous Plagiarism, unfair Argumentation, and abusive Language, may not the World reasonably expect from an Author, actuated by such base, not to say, detestable Principles? And indeed, I am much mistaken, if several instances of each of these may not be produced in the above Letter.

“That Dr. Smellie has made several, and some of them pretty considerable, Mistakes, especially in the historical part of his Treatise, and that it contains some few Inconsistencies and Inaccuracies, which are almost entirely unavoidable in a Work of that Length, and are more especially to be excused

in a Man, who is not possessed of the most happy Talent of expressing himself, all will allow. But then, on the other Hand, it must, it has been acknowledged, by some of the best Judges in Britain, that Dr. Smellie has made great improvements in Midwifery, that his Doctrines are judicious, and his general Method of Practice unexceptionable; and this, I am well satisfied, may be fully demonstrated to impartial Judges, notwithstanding any Thing that Dr. Burton has, or can, advance to the contrary: And surely he has been too unmercifully severe on a few Faults.

“What can have been Dr. Smellie’s Reason, for not having endeavoured to vindicate himself from at least Part of the Charge which relates to his Practice, is best known to himself.

“But sure I am, the publick Manner in which the other has accused him of Male-Practice loudly calls for an Answer, if not on his own Account, at least on that of his *quondam* Pupils, whose Business may be greatly affected by Dr. Smellie’s Reputation as a Man-Midwife, being thus publickly, however unjustly, traduced: Bé it indeed what it will, I am fully satisfied, ’tis not because Dr. Burton’s Objections are in any wise unanswerable: However, lest he may put such Construction on Dr. Smellie’s Neglect and look on it as giving up the Cause, may he Know that a *quondam* Pupil of his is, at any Time, ready (on Dr. Burton’s signifying his Approbation) not only to prove the Truth of the above Assertion with respect to his plagiarism, etc., but likewise to argue out the Case of the next Method of Practice of Dr. Smellie’s, which he has objected to in his Letter”; . . . and that “with a Man of so cavilling a Spirit, as Dr. Burton evidently is.”

CHAPTER XVII.

SCOTTISH GRADUATES IN LONDON.

IN reviewing the condition of things medical in London during this period, the student cannot fail to observe the fact, that a large number of Scotch Graduates and Scotchmen had found their field of work in the Metropolis, many of whom, besides, were occupying important medical positions. Samuel Johnson, whose anti-Scottish prejudices were notorious, on one occasion, retorted to a compatriot of Boswell, who was claiming for Scotland a certain picturesqueness and grandeur of scenery and prospect, that the noblest prospect which a Scotchman ever sees is the high road that leads him to England, intending thereby to reflect on the barrenness of the northern part of Britain. Whether he intended that his remark should be taken as seriously as Boswell would have us believe, from the prominence he gave to such sentiments of Johnson, or whether it was merely a form of banter which the lexicographer chose whereby to tease his biographer, is now a matter of little consequence. We believe, however, that it had its origin in the antipathy against the Scotch, which, at that time, was very current in London. This prejudice was in some measure due to the great success of Scotch merchants in the city. But what, probably more than any other factor, assisted to increase it, was the Scotch rebellion of 1745, and for participation in which not a few Scotchmen of title lost their heads, which were exhibited to the populace of London on Tower Hill. So much was this prejudice exhibited that before John Home, the author of *Douglas*, could have that play produced by Garrick at Covent Garden, it had to be looked over by an

Oxford undergraduate who was authorized to change those parts of it which were likely to betray the Scottish origin of its author. And Smollett, when he published *Roderick Random*, at first anonymously, almost apologizes to the reading public in his preface, for making his hero a Scotchman. Moreover, when the news of Culloden reached London, the populace of London were so elated and excited, that, as Dr. Carlyle, who was in the company of Smollett that night, informs us, it was not safe for a Scotchman to be out on the streets.

The *Monthly Review* was probably the leading literary journal of this time, and its chief contributor was Oliver Goldsmith. During this time, Hamilton, a native of Edinburgh, who had to leave that city hurriedly to avoid apprehension for his having taken part in the hanging of Captain Porteous, had established himself in London as a printer of some note. He had designs in the direction of setting up a rival to the *Monthly*, and having secured the services of Smollett, in 1756 he issued the first number of the *Critical Review*. There was little love lost between these rivals. The *Monthly* characterized the contributors to the *Critical* as "Scots scrubs and rascals, barbers, tailors, apothecaries, and surgeons' mates, who understood neither Greek, Latin, French, or any other Language." The *Critical* retorted in an "Address to the Old Gentlewoman who directs the Monthly Review." Probably this amounted to nothing more than an interchange of the civilities of literary life current at the time, but it is also evident that antipathy to everything Scotch had something to do with it.

Through the whole of this, however, Scotchmen in the profession of medicine were slowly but solidly pushing themselves to the front rank. Among the obstetricians were James Douglas, Smellie, William Hunter; and after Smellie's time, Maxwell Garthshore, David Orme, and John Leake, the last of whom, though born in Cumberland, may be claimed as of Scottish descent, in that his father, a clergyman, went from Glasgow to settle in Cumberland. Among the physicians were Alexander Stuart (or Stewart), who in his time was Physician in Ordinary to the Queen; William Fullerton, a native of Argyllshire, who was Physician to Christ's Hospital; James Monro, Physician to Bethlem Hospital; John Monro,

his son, a colleague in the same hospital (respectively son and grandson of Principal Monro of Edinburgh University); Donald Monro, son of the Professor of Anatomy of the same University, who was Physician to Saint George's Hospital; Samuel Mikles, a graduate of Glasgow University; William Mushet, Physician to the Military Forces in Germany, and who, after that campaign, was publicly thanked by the Houses of Parliament for his services, in addition to being offered a baronetcy, which, however, he declined; David Ross, who was Physician to Saint George's Hospital; Macgie, who was Physician to Guy's Hospital; Armstrong, the author of the didactic poem, "The Art of Preserving Health"; William Pitcairn, son of the Minister of Dysart, in Fife, who was Physician to St. Bartholomew's and Christ's Hospitals, and who became on two occasions President of the College of Physicians, on the latter of which occasions he held that office for ten years consecutively, and, on his retiral, received the public thanks of the College; John Clephane, the intimate friend of Hume the philosopher, Hunter, Smollett, and Smellie, who was Physician to Saint George's Hospital; George Lamont, a graduate of Aberdeen; Robert Pate, of the same University, who was Physician to Saint Bartholomew's; William Shaw, a graduate of Edinburgh, who wrote on "Stone in the Bladder," and published "A Scheme of Lectures on the Animal Economy"; Thomas Dickson, a native of Dumfries, a graduate of Leyden, and the friend of Smollett, who was Physician to the London Hospital; Sir William Duncan, Bart., who was Physician in Ordinary to George the Third; James Grainger, the translator of "Tibullus," and the author of an "Ode to Solitude," who was a Surgeon in the English army in the '45, and afterwards in the same capacity in the campaign in the Low Countries; Alexander Russell, who first of all settling in Aleppo, afterwards in London, became an authority on epidemic diseases, and was the adviser of the Government and Privy Council in the prevention of the plague in Britain; he became a graduate of Glasgow University in 1756, and in the same year was appointed Physician to St. Thomas' Hospital; Dr. Brisbane, author of the "Anatomy of Painting," a Glasgow graduate, and son of Dr. Matthew Brisbane of Glasgow; Sir John Elliot, Bart., a native of Peebles and a graduate of St. Andrews, who, later on, was one of the

Physicians in Ordinary to the Prince of Wales ; and Sir John Pringle, a native of Roxburghshire, and a graduate of Leyden, who was Physician to the Earl of Stair when in command of the army in Holland in 1742, and afterwards became Physician to the Royal Household and Physician in Ordinary to the Queen. He was, in addition, a member of nearly all the Foreign Societies, and President of the Royal Society. In addition to these, there were others whose names we have incidentally mentioned in other places in this volume.

The principal obstetric posts in London were held either by Scotchmen or Irishmen, among whom were Hunter, Kelly, Layard, Macaulay, and others. The teaching of midwifery in the Metropolis being, by this time, in a satisfactory and healthy position, as well from its clinical as from its theoretic aspect, we may now cast our eyes further afield to view how it fared in Scotland and in Ireland. According to M'Lintock in his memoir of Smellie, to Dr. Young of Edinburgh must be given the credit of being the first public teacher of midwifery in that city. It is said that he taught privately as early as 1750, and publicly when he was appointed professor of that subject, in 1756. We are not clear that this credit is properly assigned. There can be no doubt whatever that Mr. Joseph Gibson of Leith was the first Professor of Midwifery in Edinburgh, for in the first volume of the *Edinburgh Medical Essays*, wherein is contained his paper on the "Nutrition of the Foetus in Utero," he is designated "City Professor of Midwifery." We find his name mentioned in the third volume of Smellie's work, in the notes of a case of Caesarean section which had been communicated to Smellie by his friend Dr. Adam Austin, whose portrait is now in the Edinburgh College of Physicians. This case occurred in 1737. M'Lintock, on the authority of Dr. Malcolmson, states that Gibson did not lecture, but we have read in an historical sketch of the Edinburgh School that he taught midwifery as early as 1726. We certainly do know that the occupants of other Chairs which were founded at the same time did lecture on their respective subjects, and it is more than probable that Gibson would be on a footing with his colleagues in this regard. We have no account, however, of his course, or of its number of lectures, nor have we any other particulars on which to found. Dr.

Young, however, in 1750, printed a copy of his syllabus of lectures under the title: "A Course of Lectures upon Midwifery; wherein is contained a history of the Art with all its Improvements, both ancient and modern"; and from it we learn that the course consisted of twenty-two lectures, the fee for which was two guineas, and each student paid five shillings for the privilege of being present at a labour, and half-a-guinea when he delivered the patient.

We do not know who was the first public lecturer on midwifery in Glasgow, but we know that James Muir, surgeon, was advertised to give a course of lectures in 1759, and in all likelihood he had been doing so for some time previously. In the *Glasgow Journal*—a newspaper of the day—for Oct. 15 to Oct. 22, 1759, we find the following advertisement: "James Muir, Surgeon, will begin a course of Lectures in Midwifery, upon Monday the 12th of November. No woman will be admitted to these lectures unless her character for sobriety and prudence is attested by some person of reputation in the place she lives in. Mr. Muir continues as usual to deliver gratis all such women as apply in that way for his assistance.

"He intends to begin a course of Midwifery for the students of Medicine about the end of December, or beginning of January."

The Chair of Midwifery in the University of Glasgow, it will be remembered, was not founded till the year 1815.

In Dublin—we have it on M'Lintock's authority—the first public teacher was Dr. John Charles Fleury, who was Physician to the Meath Hospital. He began to lecture in 1761, and continued for eight years thereafter. Like Smellie in London, Young in Edinburgh, and Muir in Glasgow, Fleury attended poor women gratuitously at their own homes in order to provide suitable clinical instruction for his students. The first Maternity hospital in Dublin was founded in March, 1745, by Bartholomew Moss, in a house rented for the purpose in South George Street. He afterwards purchased the site of the present hospital, which was opened in 1757.

From 1752 onwards, Smellie's work both as a teacher and a practitioner grew largely on his hands. His classes were well attended, and his popularity as a teacher was considerable. We have not much information of his style

as a lecturer, but what little we have is from the pen of one of his pupils, and is, therefore, likely to be trustworthy. "His Method of teaching," writes his pupil in the Letter in reply to William Douglas, "is distinct, mechanical, and unreserved, and his whole Department so candid, primitive, and humane, that he is respected by his Acquaintance, revered by his Students, and beloved in the highest Degree by all those who experience his Capacity and Care." We have here a vivid though succinct account of him from a student's point of view: and, curiously enough, so far as we know, there is no further information on this point available to us, except the other remark of another pupil—Giles Watts—when he tells us that Smellie did not possess the happiest talent in expressing himself. Surrounded by his preparations, his diagrams, and his mechanical apparatus, he was less concerned with the literary form of his language when lecturing than with the desire to be lucid and understood by his students. Believing, as he firmly did, in the operation of ordinary mechanical laws in labour, he spoke less than he demonstrated; in short, his lecture was more a practical tutorial demonstration, than a set form of academic thesis. And it was precisely by this form of teaching that he attracted so large a number of students; for students have always been prone to believe that one ounce of practice is better than a pound of theory, and that a practical demonstration was of more lasting value than a lecture. Nor did Smellie confine his tuition to his lecture-room. Many a valuable practical hint did his students receive from him in their common visits to the houses of the poor, not only in midwifery, but also in humanity and philanthropy. Never pretending to rhetoric, though a student of *belles lettres*, he was so diffident of his literary powers that he could not trust his treatise to be launched into the literary world before it had received from the hands of a literary expert some of that grace of language, rotundity of phrase, but withal, lucidity of diction which characterize it. The reader of to-day, therefore, may read his meaning with ease; as it is unburdened with theory, so is it untrammelled by circumlocution.

In one of his chapters on preternatural labours, Smellie gives a detailed account of his idea of the department and

dress of the accoucheur in his attendance at a confinement. He says that the "operator ought to avoid all formality in point of dress, and never walk about the room with sleeves and apron; for although such apparatus may be necessary in hospitals, in private practice it conveys a frightful idea to the patient and female spectators; the more genteel and commodious dress is a loose washing night-gown, which he may always have in readiness to put on when he is going to deliver; his waistcoat ought to be without sleeves, that his arms may have more freedom to slide up and down under cover of the wrapper; and the sleeves of his shirt may be rolled up and pinned to the breast of his waistcoat. In natural labours, the sheet that hangs over the bedside is sufficient to keep him clean and dry, by being laid in his lap; but in those cases where he is obliged to alter his position, a sheet ought to be tucked round him, or an apron put on, but not before he is about to begin his work." From the foregoing it will be noticed that there is some incongruity of statement. Starting with the advice to avoid formality of dress, he goes on to speak of the use of a formal dress with other minutiae of a like character. In the first place, it is obvious from the latter part of the quotation, that, though he did not use any such formal apparel in natural labours, but contented himself with the bed-furnishings to keep himself clean, he did so when dealing with preternatural cases. There is, however, but scanty reference to this dress in his after volumes. The only occasion on which it is mentioned as having been used was in Case 394.¹ This was an exceedingly difficult case, and it caused Smellie very considerable physical exertion. He says, "the weather was remarkably cold for the season of the year; there was very little fire; and yet I sweated so much, that I was obliged to throw off my waistcoat and wig, and put on my night-gown, with a thin napkin on my head." The sight must indeed have been comical in the extreme, so far as Smellie was concerned. From the quotation also we can infer that such formal dress was not uncommonly used by the practitioners of midwifery of his time. Probably, when writing the above, he had in his mind the picture that presented itself to him on one occasion when he was called

¹ Vol. iii., p. 172.

to the assistance of a woman in labour, there being another practitioner in attendance.¹ Speaking of the practitioner, he says, "his dress was as forbidding as his countenance, consisting of an old greasy matted wrapper or night gown, a buff sword belt of the same complexion round his middle; napkins wrapped round his arms, and a woman's apron before him to keep his dress from being bedaubed. At the same time, to make him appear of consequence, he had on his head a large tie periwig." At this time, physicians wore swords as part of their usual attire. Mrs. Nihell made great game of this night-gown, as we shall see afterwards, and enlarged upon the theme *con amore*. She alleged that it was part of the male programme to adopt this attire in order to soften the asperities of the male figure, and to liken it more to that of the midwife. To us, in these days, it seems ludicrous that such an arrangement of dress should have found a place in a treatise of midwifery, although an uniform is not unknown even now, not only in hospital, but in private practice; but it must be borne in mind that the writers of that day did not consider it beneath their dignity or unworthy of their notice to deal with such matters as are now deemed of but trivial importance.

In pursuance of his original plan, Smellie, in 1754, published the second volume of his work, which was to be illustrative of the teaching of his Treatise. It contained the accounts of two hundred and seventy-four cases, some of which he quoted from the works of others, but the bulk of them had happened in his own experience. These were distributed over thirty collections, which in their turn were subdivided into numbers, the object of this arrangement being to expedite reference between the two volumes. It was supplied, also, with an index, notifying the kind of cases. In the Sydenham Society edition, certain liberties have been taken with the original. In the first place, the notes of twenty-seven cases from the beginning of the third volume have been transferred to the end of the second; and in consequence of this, the index is omitted; but the editor has hit upon the better plan of heading each case on the lines of the original index description.

Smellie did not hesitate to cull cases, to illustrate his text,

¹ Vol. iii., p. 320.

from various sources, not only to support his own experience but also to supply illustrations, when his own experience was wanting; so he borrows from La Motte, Mauriceau, Freind, Harvie, Saviard, Houston, Giffard, and others, but always with the fullest acknowledgment. Even at this time of day, perusal of this volume is of the greatest possible interest, not less as exemplifying the practice of a man who was an adept accoucheur, but as exhibiting his honesty of purpose. His candour is quite refreshing; for he acknowledges his mistakes in practice as freely as he fully demonstrates the success of any new practice. He conceals nothing, in the belief that we profit more from our mistakes than from our successful achievements. While he generally hides the names of his correspondents under an initial letter of the surname, he not infrequently, in the case of present or former pupils, breaks through this habit. There are but few works extant where the difficulties to be experienced are so well described and so intelligently overcome. Copious and carefully arranged have his notes evidently been. In short, method—his peculiar forte—is apparent through it all.

Along with the second volume, there appeared, in folio form, the *Anatomical Tables*, also illustrative of the Treatise. They were unquestionably the best of the kind that had ever been printed, and even to-day, in respect of accuracy of drawing and superiority of artistic design, they compare favourably with more modern works. The number of the plates was thirty-nine, although Hutchinson, in his *Biographia Medica*, declares they only numbered thirty-six. We have frequently seen and examined the author's first copy, with its marginal annotations in his own hand-writing, consequently there can be no doubt as to the number. The preparation of the plates for this work occupied some years, and even at the date of publication of the treatise, several of them had been completed. Smellie made known to the world his intention of publishing this work at least two years before it appeared, in the advertisement appended to the treatise, which is as follows:—

“ADVERTISEMENT (Second Edition, Corrected, 1752).

“Doctor *Smellie* having, with great care and expence, employed Mr. Riemsdyk to draw anatomical figures, as large as the human subjects themselves, for the use of those who attend his lectures, and in order to illustrate his theory

and practice of midwifery; and being desirous to render his drawings of more extensive and general use, by causing them to be engraved by able artists, a design which cannot be put in execution without a considerable expence; he proposes to publish the whole set by subscription, in the following manner:—

I.

“The work will consist of twenty-six plates, of about 18 inches by 12.

II.

“A full and distinct explanation of each plate, will be printed on a large sheet, of the same size with the figures, that they may be bound up together. For the use of foreigners, there will also be an explanation printed in *Latin*, and a list of the subscribers shall be published, if desired.

III.

“The price to subscribers will be two guineas, one to be paid at the time of subscribing, and the other at the delivery of the prints, with their explanations.

IV.

“The drawings will be put into the hands of the best engravers, as soon as a number of subscriptions are received sufficient to defray the expence of the work, which will be executed with as great dispatch as shall be consistent with the nature and accuracy of the performance.”

Then follows a brief description of each plate.

“N.B. These prints, and the treatise on the theory and practice of Midwifery, together with the Volume of Cases hereafter to be published, will compose a compleat system of the Art.

“Subscriptions are taken in by D. Wilson and T. Durham, Booksellers, at Plato’s head, near Round-Court, in the Strand, where two of the drawings are to be seen, as specimens of the work; as also by the booksellers of *Britain* and *Ireland, France* and *Holland*, where proposals, with lists of the prints, are to be had.”

From this advertisement, then, it will be seen that the original intention of Smellie was to publish but twenty-six plates, each about 18 inches by 12 in size, that they were but an elaborated reproduction of the diagrams used by him for teaching purposes, and that they were intended

for foreign as well as for home circulation; and from the fourth paragraph of the advertisement, it is obvious, that Smellie did not conceive the project as a money-making one, his object and desire simply being that the sale of copies should meet the expense. His intention to publish only twenty-six tables was changed, however, as the work progressed. As he himself informs us in the preface to the Tables (I quote from his own copy): "my first plan for these Tables confined them to the number of Twenty-two which Mr. Rymsdyke had finished above two years ago (*i.e.* 1752); but I soon saw that a further illustration, and consequently, an addition to that number was necessary." He then goes on to tell us of their preparation. "In eleven of these Dr. Camper (*formerly*) Professor of Medicine at Franqueer in Friesland (*now Professor of Anatomy and Botany in Amsterdam*) greatly assisted me; viz., Tables 12, 16, 17, 18, 19, 24, 26, 27, 28, 34, and 36. The rest were drawn by Mr. Rymsdyke, except the thirty-seventh and thirty-ninth, which were drawn by another Hand. The whole of the drawings are faithfully engraved by Mr. Grignion, delicacy and elegance, however, has not been so much consulted as to have them done in a strong and distinct Manner, with the view chiefly that from the cheapness of the work it may be rendered of more general use." (The words in the foregoing which are italicized and bracketed are in holograph of Smellie, interpolated in the text.) How many copies were subscribed for we cannot now ascertain, the only statement on this subject being that made by Hutchinson, on the authority of Hamilton of Edinburgh, that only eighty impressions were taken from the plates. Hutchinson, however, thinks this is an error, for, in his time, the work could be bought for £2 12s. 6d. The copy which the Faculty of Physicians and Surgeons of Glasgow possesses, was purchased for £2 6s. 6d., inclusive of the cost of carriage, and it is a first edition. There is every reason to believe, also, that an edition was printed on the Continent, as noted in the foregoing advertisement, soon after the London issue. It was printed at Nuremberg in 1758 by Huth, and its text was published both in Latin and in German. The engravings of this edition are by J. M. Seeligmann, and, according to Von Siebold, are at least as good as

some of those of other editions, indeed better than those of the English edition. A second edition of the Tables in large folio was published in London in 1761; and another in duodecimo in 1779 or 1780. What appears to have been a reproduction of the latter edition, appeared in Edinburgh in 1783, and of the former, in royal octavo, in 1787. The history of the production of this large size Edinburgh edition is quite romantic, and is narrated in the editor's preface to it. The edition is entitled "Anatomical Tables. By W. Hamilton, M.D., F.R.S., Prof. of Midwifery: University of Edinburgh. Printed for William Crouch, 1787."

"The value of Dr. Smellie's Tables was, at their first publication, in 1754, universally acknowledged by all the Obstetrical Practitioners of the time, and the Work was recommended to the Students of the Art from most of the Professorial Chairs in Europe. The number of impressions thrown off by the Author did not amount to 100, and he paid the debt of nature soon after their publication. Their great usefulness, and the great reputation they had acquired, occasioned a demand for a second edition: but the London booksellers could gain no intelligence of the original Copper-plates, and they were conscious of the almost utter impossibility of engraving them afresh, with that accuracy and precision which distinguished those executed under the immediate inspection of their eminent Author. After many years had elapsed in a fruitless search, one of the late Dr. Smellie's relations and heirs, offered the plates to an engraver, who was about to cut them up for other work, as they had been somewhat stained by sea water in bringing them from London. Receiving intelligence of this by accident, the Editor interposed, and rescued these accurate engravings from being destroyed by the coppersmith's hammer, and had them, with much labour and expense, reinstated to their original excellence." The part which Hamilton played in the production of this edition was that of adding some practical notes on the advancement of midwifery from the time of Smellie till his own day. The original thirty-nine plates were thus reproduced, and there was added to them one more—making forty in all—by the late Dr. Young of Edinburgh, of his own short double-curved forceps, Denman's perforator, a blunt hook, and a female catheter. The last

issue of Smellie's Tables in any form was in 1848. This seems to be a partial reproduction of the plates of the London duodecimo edition. The copy we possess shows that only twelve plates were reproduced. It was published by Samuel Highley, of Fleet Street, London. In order to give additional interest to our narrative respecting these plates, we have photographed the text of one of the tables, from Smellie's own copy, showing the corrections in his own handwriting, which had been made against the time of issue of the second edition.

PLATE XXVI.

T H E

F O U R T E E N T H T A B L E,

In a similar View and Section of the Parts with Table XII. shows the Forehead of the *Fetus* turned, in it's progression downwards, from it's position in the former Table, backwards to the *Os Sacrum*, and the *Occiput* below the *Pubes*, by which means the narrow part of the Head is to the narrow part of the *Pelvis*, that is, between the inferior parts of the *Os In Il. Ilium*. Hence it may be observed, that though the distance between the inferior parts of the last mentioned Bone is much the same, as between the *Coccyx* and *Pubes*, yet as the *Cavity* of the *Pelvis* is much shallower at the anterior than lateral part, the *Occiput* of the *Fetus*, when come down to the inferior part of either *Os Ilium*, turns out below the *Pubes*; this answers the same end as if the *Pelvis* itself had been wider from the posterior part than from side to side; the Head likewise enlarging the *Cavity* by forcing back the *Coccyx*, and pushing out the external parts in form of a large Tumor, as is more fully described in the following Table.

Vide Vol. I, II. as referred to in the preceding Table.

- A The *Uterus* contracted closely to the *Fetus* after the Waters are evacuated.
 B, C, D The *Vertebrae* of the *Locus, Or Sacrum* and *Coccyx*.
 E The *Anus*.
 F The left *Hip*.
 G The *Perineum*.
 H The *Os Externum* beginning to dilate.
 I The *Os Pubis* of the left side.
 K The remaining portion of the *Bladder*.
 L The posterior part of the *Os Uteri*.

*Water before this period there is no more to be
 N. B. Although for the most part, the waters are evacuated,
 and the membranes are broken, yet it often happens, especially in quick deliveries, that a
 larger quantity of mucus is discharged after the Child is
 delivered from the head of the vagina, and coming in close
 contact with the os uteri, and its external part.
 N. B. Although for the most part, at or before this
 period, the waters are evacuated, yet it often happens
 that more or less will be retained and not all discharged,
 till after the delivery of the Child; occasioned from the
 projecting part of the Os uteri coming in close contact
 with the lower or under part of the uterus, vagina, or
 os externum, immediately or soon after the membranes
 are broken.*

In the year 1756, as Denman informs us, an important conference was held by the most eminent obstetricians in London, "to consider," as Munk puts it, "the moral rectitude of, and advantages which might be expected from, the induction of premature labour in certain cases of contracted pelvis; when the plan received their general approval, and it was decided to adopt it for the future. The first case in which it was considered necessary was undertaken by Dr. Macaulay in 1756."¹ This is the same Macaulay who was the very intimate friend of Smollett and Smellie, and who communicated the cases narrated in vol. ii.,² and in

¹ Roll of the College of Physicians.

² P. 14.

vol. iii.¹ of the latter's work. There is every likelihood that Smellie took part in the above conference, but it is very curious to observe that he does not make mention in any edition of his treatise or elsewhere of this alternative mode of dealing with the delivery of a patient with narrow

PLATE XXVII.

T H E

T W E N T Y - N I N T H T A B L E

Represents in a front View of the *Pelvis*, as in Table XXII. the Breech of the *Fetus* presenting, and dilating the *Os Internum*, the *Membranes* being too soon broke. The fore-parts of the Child are to the posterior part of the *Uterus*, and the *Femur* with a knot upon it surrounds the Neck, Arm, and Body.

*

N. B. In this Case the Child if not very large or the *Pelvis* narrow, may be often delivered alive by the Labour-pains; but if long detained at the inferior part of the *Pelvis*, the long pressure of the *Femur* may obstruct the circulation. In most cases where the Breech presents, the effect of the Labour-pains ought to be waited for, 'till at least they have fully dilated the *Os Internum* and *Vagina*; if the same have not been stretched before with the Waters and *Membranes*. In the mean time whilst the Breech advances, the *Os Externum* may be dilated gently during every pain, to allow room for introducing a finger or two of each Hand to the outside of each Groin of the *Fetus*, in order to assist the delivery when the *Nates* are advanced to the lower part of the *Vagina*. But if the *Fetus* is larger than usual, or the *Pelvis* narrow, and after a long time, and many repeated pains the Breech is not forced down into the *Pelvis*, the Patient's strength at the same time failing, the Operator must in a ^{gradual} ~~quiet~~ manner open the parts, and having introduced a Hand into the *Vagina*, raise or push up the Breech of the *Fetus* and bring down the Legs and Thighs. If the *Uterus* is so strongly contracted that the Legs cannot be got down, the largest end of the bluoet Hook is to be introduced, as directed in Table XXXVII. As soon as the Breech or Legs are brought down, the Body, and Head are to be delivered as described in the next Table, only there is no necessity here to alter the position of the Child's Body.

Vide Vol. I. Lib. III. Chap. 4. Sect. 1, 2. Vol. III. Coll. 32.

The description of the parts in this, and the following Table, is the same as in Table XXII. only the dotted lines in this describe the place of the *Ossa Pubis* and anterior parts of the *Ossa Ilium* which are removed, and may serve in this respect as an example for all the other front Views, where, without disfiguring the Table, they could not be so well put in.

~~X If the pulsation of a *Arteria* in the *Arteries* can be felt by the touch, no further assistance is to be given to save the Child, but if not, it is to the labour unless the patient is in danger.~~

* Sometime after this and the following Table ^{was} ~~was~~ approved, Dr. Kelly showed me a subject he had opened, whose the Breech presented, and lay much in the same position with its head as in ~~the~~ ^{the} ~~figure~~ ^{figure} ~~turned~~ ^{turned} ~~down~~ ^{down} and the hands to the femur as here. I have sometimes felt in the case when labour was begun and before the ~~child~~ ^{child} ~~brisk~~ ^{brisk} was advanced into the *Pelvis*, ~~the~~ ^{the} ~~hips~~ ^{hips} ~~at~~ ^{at} ~~the~~ ^{the} ~~sacrum~~ ^{sacrum} and the other ~~parts~~ ^{parts} ~~above~~ ^{above} the *Ossa Pubis*, and the private parts ~~to~~ ^{to} ~~be~~ ^{be} ~~seen~~ ^{seen} but ~~they~~ ^{they} ~~could~~ ^{could} ~~not~~ ^{not} ~~be~~ ^{be} ~~seen~~ ^{seen} ~~until~~ ^{until} ~~the~~ ^{the} ~~hips~~ ^{hips} ~~were~~ ^{were} ~~turned~~ ^{turned} ~~down~~ ^{down} and the private parts ~~to~~ ^{to} ~~be~~ ^{be} ~~seen~~ ^{seen} ~~until~~ ^{until} ~~the~~ ^{the} ~~hips~~ ^{hips} ~~were~~ ^{were} ~~turned~~ ^{turned} ~~down~~ ^{down} and the private parts ~~to~~ ^{to} ~~be~~ ^{be} ~~seen~~ ^{seen} ~~until~~ ^{until} ~~the~~ ^{the} ~~hips~~ ^{hips} ~~were~~ ^{were} ~~turned~~ ^{turned} ~~down~~ ^{down} and the private parts ~~to~~ ^{to} ~~be~~ ^{be} ~~seen~~ ^{seen} ~~until~~ ^{until} ~~the~~ ^{the} ~~hips~~ 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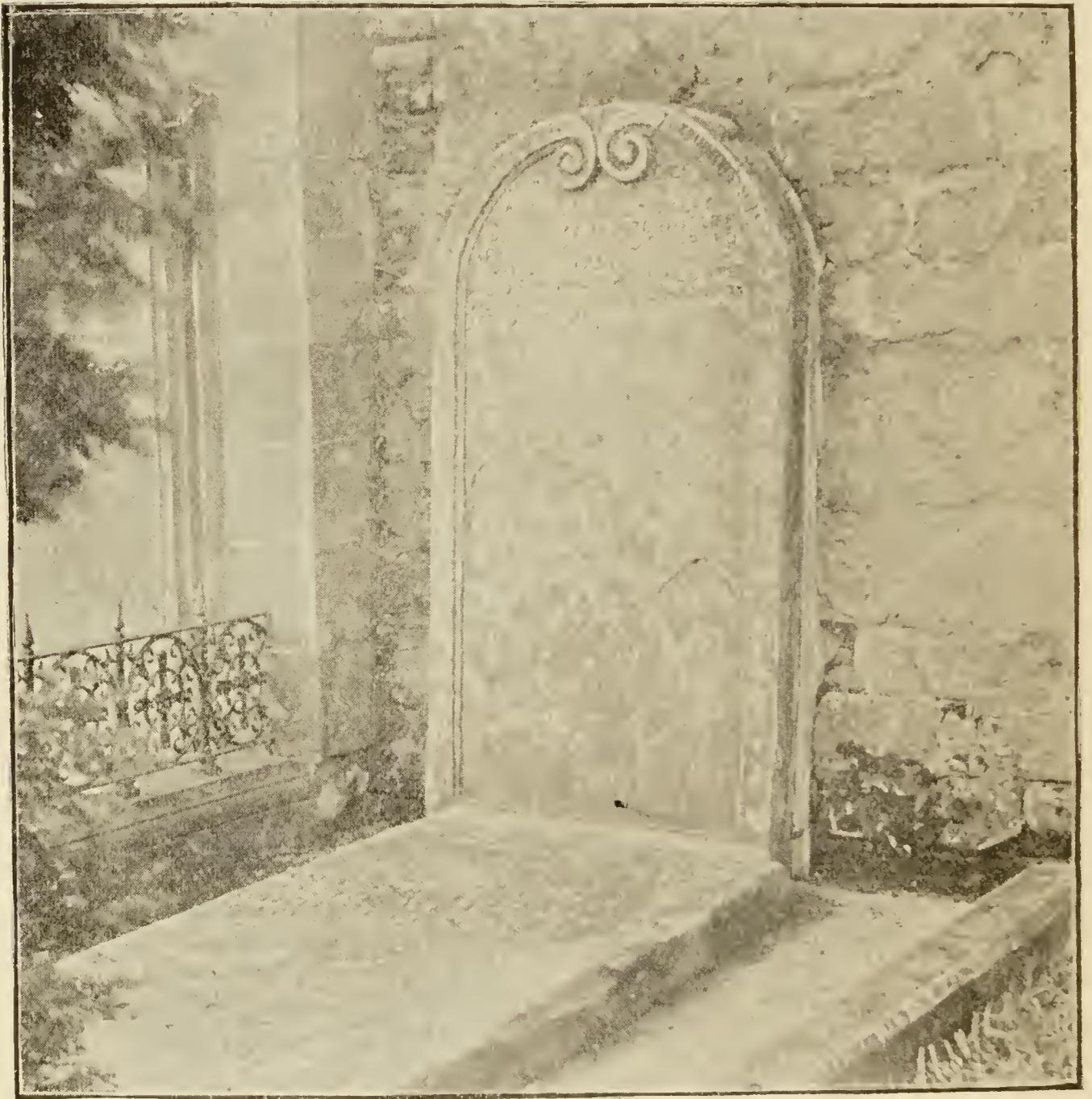
But Smellie was now getting old, and doubtless he felt the crippling hand of age upon him. The arduous character of his work, both in the country and afterwards in London, was now telling upon him; and no practitioner requires to be reminded of the exacting and toilsome character of large obstetric practice. By this time his activity for usefulness was becoming impaired, besides, by a bronchial affection. Moreover, he had now found one to carry on his work as a teacher. So he resolved to quit the busy life of London for the rural quietude of his native town. The summer of 1759 saw him back again in Lanark. The date is ascertained from a note which he makes in his third volume, but which is to be found in vol. ii,¹ of the Sydenham Society edition, where he speaks of a letter which he had received from a practitioner in midwifery "soon after I had retired from business," and which was dated September 25, 1759. He had still in his possession the different properties in the town and neighbourhood of Lanark which he had purchased during his earlier life; for, although in London, he had never cut himself adrift from Lanark and his old friends in the west of Scotland. Part of the property which he already possessed was afterwards to form a portion of the little estate which he now began to establish.

In the early part of 1760 he made further purchases of land in the neighbourhood of Lanark, called Kingsmoor or Kingsmuir. This land, together with contiguous portions which he had bought before leaving Lanark for London, formed a nice little residential estate which was called, presumably from the name of its owner, Smellom. This is the name it went by until sometime in the early part of the present century, when the spelling of the name was changed to Smyllum. Having erected upon this estate a small but comfortable residence, Smellie settled down to enjoy the remainder of his life in studious restfulness. But he was not to remain idle. He still had to complete, from the abundance of his notes, the second volume of cases, which was already in progress when the first volume was issued, and which was to form the third volume of his work. As he had informed the public in the preface to the second volume; "the other part (meaning the second

¹ P. 401.

volume of cases) was almost compleated, and, *though I should not live to see it in print*, will certainly appear to fulfil my scheme and promise to the publick." Strangely enough, this paragraph is not to be found in the preface of the Sydenham Society edition, although present in the copy we possess of

PLATE XXVIII.

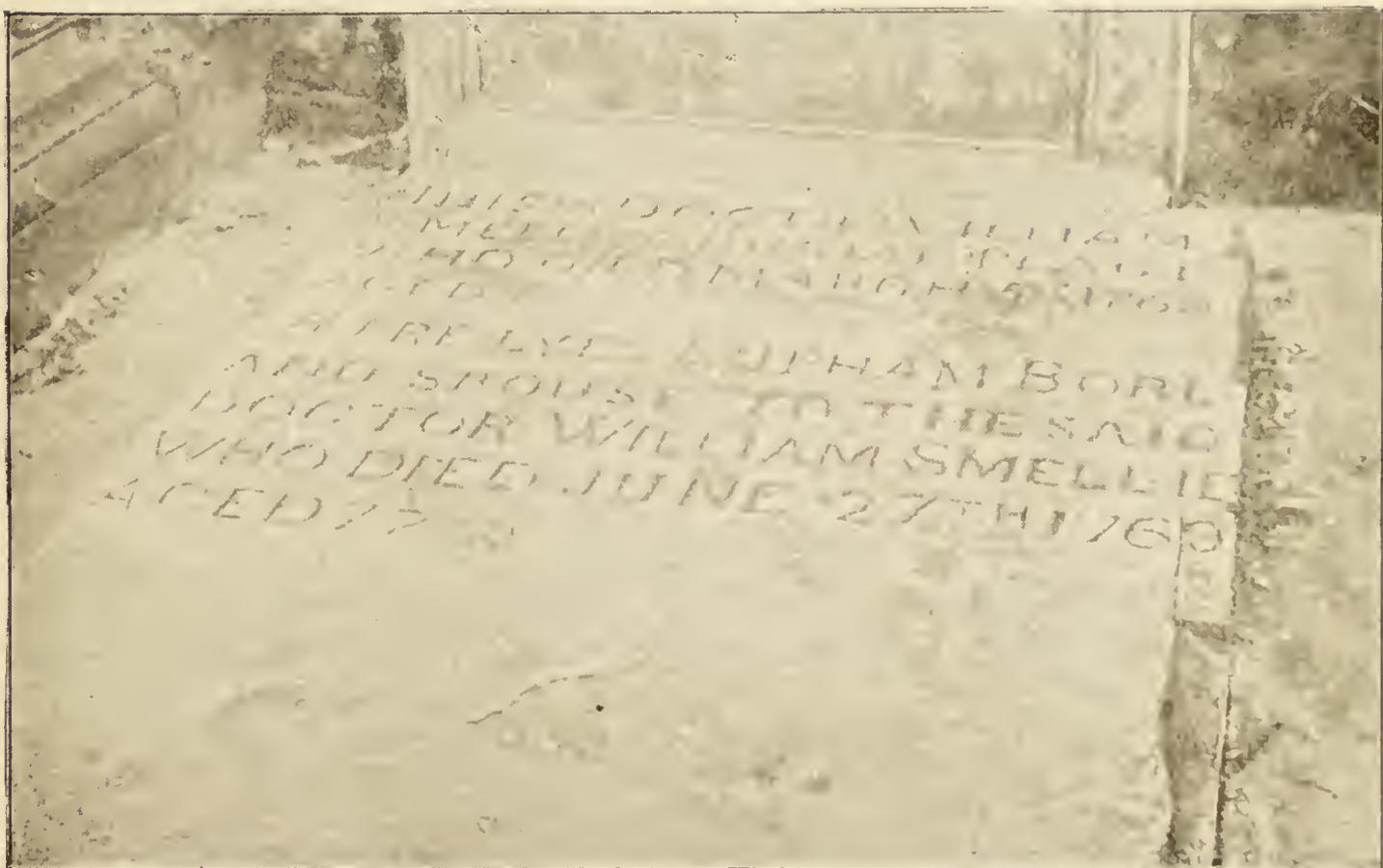


THE BURIAL-PLACE OF THE FAMILY OF SMELLIE
IN LANARK CHURCHYARD.

that published in 1764; the likelihood being that it also existed in the first, as it certainly did in the second, edition. Smellie evidently felt, during the progress of his third volume, that his shattered health might suddenly give way entirely, and thus prevent him from carrying out his purpose; doubtless this it was that prompted him to write of himself as he

did in the foregoing quotation. He was busy overhauling his notes and collating them during the year 1761, as we learn from the letter of a correspondent to him in the beginning of that year, in which he expresses satisfaction in hearing that Smellie is employing himself in finishing the second volume of cases. He was not destined, however, to see the volume in print (and in this respect his words were almost prophetic). The manuscript was finished, it had been transmitted to Smollett for supervision and editing, but before the printer had completed his part of the work, the old man died.

PLATE XXIX.



SMELLIE'S TOMBSTONE.

The date of his death was 5th March, 1763. He was buried in the old churchyard at Lanark, close by the ruins of the old kirk of St. Kentigern, in his father's grave, and the inscription which was placed on his tombstone runs as follows: "This is Doctr. William Smellie's Burial-Place, who died March 5th 1763, aged 66. Here lyes Eupham Borland, spouse to the said Doctor Smellie, who died June 27th, 1769, aged 72."

The two foregoing illustrations show Smellie's resting-place. The upright stone, built against the wall of the ruined

church, deals with the deaths of his father and mother, and reads as follows :

“ In . Hope . Of . A . Glorious . Resurrection.

“ Here . Lyes . Sara . Kennedy . Spouse . To . Archibald . Smellie . In . Lanark . Who . Came . Into . This . Life . April . 6 . 1657 . And . Departed . April . 20 . 1727.”

“ Also . The . Said . Archibald . Smellie . Lyes . Here . Who . Died . June . 25 . 1735 . Aged . 71.”

The first line is sculptured round the curve of the monument, and the remainder of the inscription on the body of the stone. The stone which bears the foregoing inscription of Smellie's death forms the floor of the grave, and consequently cannot be easily seen in the photograph ; but the photographer has so far succeeded in overcoming the difficulties of the position, that we are able to reproduce it. The reader will, however, experience some difficulty in making out the entire inscription.

There were but few contemporary notices of his death, and these are brief. The London newspapers which noted the death were *St. James' Chronicle*, *The London Chronicle*, and *The British Chronicle* ; and of the Scottish papers, the *Caledonian Mercury*, the *Edinburgh Evening Courant*, and *The Scots Magazine*. We will adduce only those of the *St. James' Chronicle*, March 10 to 12, 1763, and the *Caledonian Mercury*. The former reads thus : “ On the 5th Inst., at Lanark in Scotland, William Smellie, M.D., who for many years taught and practised Midwifery with much reputation ” ; and the latter, of date 12th March, 1763, is as follows : “ On Saturday last, died at his house in Smellom, near Lanark, Doctor William Smellie, late Man-Midwife in London, very much regreted. It is hoped his friends and acquaintances will take this as a proper notification of his death.” The others are nearly similar in terms.

We were interested to ascertain, if possible, the cause of his death, but for a long time, in the absence of official records at that time, the quest was fruitless. Before completing our manuscript, however, we overhauled the midwifery books of the Hunterian Collection, by the courteous permission of its curator—Professor Young of Glasgow University, to whom we now express our thanks—with a

view to discover if any further light could be shed on Smellie's life, and we were delighted to come across the link of information of which we were in quest. Perusing Hunter's copy of Smellie's works, we found on the fly-leaf of the Treatise, in what we believe to be the handwriting of Hunter himself, the following : "The Author died of an Asthma and Lethargy at his House by Lanark, in Scotland in March 1763." This threw a flood of light on many of the points already considered. It explains his retiral, his almost prophetic utterance regarding his death, and one or two other points of lesser importance. Thus, after forty years of unremitting toil Smellie's latter days were darkened by an ailment which, calculated always to produce misery to the sufferer, was, in all likelihood induced by his laborious nights and days devoted to professional work.

CHAPTER XVIII.

SMELLIE AND THE OPPONENTS OF MAN-MIDWIFERY.

FOR some years before Smellie left London, indeed from a point of time shortly after the publication of his Treatise, during the remainder of his life in Lanark, and for long after his death, his individuality and his work came in for a very large share of attention on the part of certain opponents of man-midwifery, who were not content to confine themselves to the discussion of the merits of that question, but who attacked Smellie with unmitigated virulence as being the chief exponent of the practice of man-midwifery, and as the most prominent teacher of male practitioners in London.

The correspondent of Smellie, in 1761, whom we have already mentioned, speaks in his letter of the "malevolence and envy of the ignorant, or self-interested" towards him. The editor of the third volume further alludes to this feeling when he says, "how unjustly a set of obscure and envious practitioners have charged our author with a dangerous predilection for the use of instruments in the practice of midwifery; a charge which it is amazing that any person should have the effrontery to advance; inasmuch as the whole work is interspersed with repeated cautions against all such extraneous aids, and it appears in this last volume, that he never had recourse to them without reluctance, even in Cases of the most urgent necessity, after every other method had been tried ineffectually."

Had his critics confined themselves to such criticism as this, little could have been said against its legitimacy, provided always that they grounded their charges on proved facts. Unfortunately, however, they wilfully shut their eyes to the

facts, and went on vituperating Smellie at considerable length. It seems to us, from a careful consideration of all the facts, that they were less concerned to establish such a case as the foregoing against Smellie, as they were to use it as a peg on which they might hang personal abuse, or, indeed, anything which would prejudice him and his doctrines in the eyes of the world. And, on the principle that if sufficient mud be thrown at a mark, however indiscriminately, some of it is almost sure to strike and stick, there is reason to believe that they succeeded in harming him as a writer, and, for a time, in obscuring the luminousness, and depreciating the value of his doctrines. But as was to be expected, not only did the teachings of Smellie prevail in the end, but more and more did the practice of midwifery fall into the hands of men.

Probably the foremost among his malignant detractors was

MRS. ELIZABETH NIHELL, PROFESSED MIDWIFE.

The above is the designation of the lady who championed the cause of her sex against male practitioners, in the demand that the practice of midwifery should ordinarily be confined to women, and that men should be employed only in those cases where women failed. She was a successful midwife in London, in her time, had studied at Paris, as she tells us, and she lived at and practised from her house in the Haymarket, where her husband, at the same time, cultivated another branch of the profession, he being a surgeon-apothecary. Smellie was the main mark of her abuse and criticism. It was against him especially that she soiled her fingers in the ink-pot, because she saw in his successful tuition of large classes of male students, every prospect of a large part of the practice which she and her sisters in profession had hitherto enjoyed, leaving them. This is not quite the place to discuss the reasons which prompted Smellie to popularize the practice of midwifery among males, but it is sufficient for our present purpose to note that this was the fact, and that this alone was the cause of her malevolence. Although for several years prior to 1760, she had done as much as she could, by verbal communications and otherwise, to malign Smellie, it was not until that year that she published a work, which she was pleased to entitle, "A Treatise on the Art of Midwifery, setting forth Various Abuses therein, Especially as to the Practice with

Instruments; The Whole serving to put all Rational Inquirers in a fair Way of very safely forming their own Judgement upon the Question; Which it is best to employ In cases of Pregnancy and Lying-In, *A Man-Midwife; or a Midwife.* By Mrs. Elizabeth Nihell, Professed Midwife. London. 1760." It is dedicated "To all Fathers, Mothers, and likely soon to be Either"; and it is dated from Haymarket, February 21. In the preface she informs us, that "in this attempt of mine there is no blamable ostentation," but she adds, "I own, however, there are but too few midwives who are sufficiently mistresses in their profession. In this, they are some of them but too near upon a level with the man-midwives, with this difference, however, in favour of the female practitioners, that they are incapable of doing so much actual mischief as the male-ones, oftenest more ignorant than themselves, but who, with less tenderness and more rashness, go to work with their instruments." This is the key-note of the book, and she rings the changes upon the above theme through the four hundred and odd pages which compose the work. Further on, in the preface, she tells us she set out on her task, by reason of the strong attachment which she had to her profession, and which had developed in her "an insuppressible indignation at the errors and pernicious innovations introduced into it, and every day gaining ground, under the protection of Fashion, sillily fostering a preference of men to women in the practice of midwifery." The book itself is divided into two main parts:—Part I. consists of argumentation as to the relative title of females and of males to the practice of midwifery; and Part II. of a demonstration of the insufficiency, danger, and actual destructiveness of instruments in that practice.

In pursuing her contention that midwifery should be confined to women, she quotes from the Old Testament, and especially Genesis, chaps. xxxv., 17; xxxviii., 27-28: and criticizes the account which Smellie gave in the Introduction to his Treatise as to the practice of the art among the Egyptians, quoting from the book of Exodus in refutation thereof. She attributes, however, the more recent habit of employing men to its having had inception in France. "The native inconsistency and levity of the French nation," says she, "opened the first inlet, in these modern times, to men-practitioners"; and fashion had fostered its growth in England.

She also, at considerable length, deals with the arguments levelled against the incompetency of midwives, and apparently, to her own satisfaction, refutes them; nay, she triumphantly declares their superior qualifications for their office; and, on the other hand, avers that the men-midwives have been the death of more children than they have preserved, and that they are stiff, perfunctory, ungainly, and maladroit in the practice. The term "man-midwife" raises her ire. It is as incongruous, she declares, to speak of a man-midwife as of a "woman-coachman." "Corn-cutter is indeed a homely plain English term, but if the teeth give from the Latin the appellation of dentist, as the eye that of oculist, what name, taking it from the *part* in question, will remain for that language to give the men-practitioners of midwifery, in substitute for that hermaphrodite appellation, that absurd, contradictory one in terms of *man-midwife*, or to that new-fangled word *accoucheur*, which is so rank and barefaced a gallicism? . . . Let us change it for the Latin one of *Pudendist*." She, however, did not stick to her own suggestion, for in different parts of the book she designates the "man-midwife" as "a lusty he-midwife," "he-practisers," etc. It is abundantly evident that she has nothing favourable to say of the male practitioner in midwifery under any circumstances. The instrument which the midwives as a class feared most, as likely to ruin their practice, and from the judicious use of which, even then, beneficent effects were becoming apparent, was the forceps. Smellie was probably more identified with its re-introduction into practice than any other man of his time. From the time of the Chamberlens the instrument had fallen into comparative desuetude in England, and Smellie had resuscitated it. From Mrs. Nihell's undisguised hatred of it, it was quite natural to expect that the weight of her criticism should therefore especially fall upon him. She declares that she has carefully examined "all that authors have been pleased to say of great, wonderful, and magnificent, with regard to the new forceps of Palfin, as it now stands after infinite corrections, as well in foreign countries as in this one, which have dignified it with the name of the English forceps, and I find all these great eulogiums reduced, at the most, to no more than the proving, as clear as the sun, that it is allowable for an operator extremely able and extremely prudent

to make use of it when the business might be perfectly well done without it. From thence I deduce my demonstration directly opposite to the pretensions of Dr. Smellie and of his followers." Smellie had incidentally spoken of the "interestedness" of midwives as shown in their objection to male practitioners. She says, in reply to this, that she has delivered "gratuitously and in pure charity, above nine hundred women"; and, continues she, "I doubt much whether our critic can say as much, unless he reckons it for a charity, that which he exercised on his automaton or machine, which served him for a model of instruction to his pupils. . . . In the meantime, does it become a doctor to call us interested, who himself, for three guineas in nine lessons, made you a man-midwife, or a female one, by means of this most curious machine, this mock-woman?" And as a parting kick to instrumentarians generally, she tells her reader that "most of the first founders of this new sect of instrumentarians in this country were, or I am greatly misinformed, neglected physicians or surgeons without practice, who, in supplement to their respective deficiencies," took advantage of the whim of fashion for men practitioners in the art.

Smellie's machine was another object of her satirical criticism. "This was," says she, "a wooden statue, representing a woman with child, whose belly was of leather, in which a bladder full, perhaps, of small beer, represented the uterus. This bladder was stopped with a cork, to which was fastened a string of packthread, to tap it occasionally, and demonstrate in a palpable manner the flowing of the red-coloured waters. In short, in the middle of the bladder was a wax-doll, to which were given various positions. By this admirably ingenious piece of machinery, were formed and started up an innumerable and formidable swarm of men-midwives, spread over the town and country." His students next came in for their share of her venom. She speaks of them as "that multitude of disciples of Dr. Smellie, trained up at the feet of his artificial doll, or, in short, those self-constituted men-midwives made out of broken barbers, tailors, or even pork butchers. (I know myself one of this last trade, who, after passing half his life in stuffing sausages, is turned an intrepid physician and man-midwife.) Must not, I say, practitioners of this stamp be admirably fitted, as well for the

manual operation, as for the prescription? . . . See the whole pack open in full cry : to arms ! to arms ! is the word ; and what are those arms by which they maintain themselves, but those instruments, those weapons of death ! Would not one imagine that the art of midwifery was an art military ?

“Think of an army, if but of barely Dr. Smellie’s nine-hundred pupils, let loose against the female sex, and of what an havock they may make of both its safety and modesty, to say nothing of the detriment to population, in the destruction of infants. . . . Behold swarms of pupils pullulating, and performing on the models before mentioned. Thus two or three maggots have produced thousands, . . . novices who watch the distresses of poor pregnant women, even in private lodgings, where, under a notion of learning the business, they make these poor wretches, hired for their purpose, undergo the most inhuman vexation.”

The recommendation of Smellie to his students regarding the use of a bed-side uniform or dress, when about to operate, also attracted her attention. We have already discussed what Smellie said on this point. It is quite obvious that what he intended was, that where instrumental interference had to be resorted to, the “loose washing wrapper” was a convenient dress to wear, the better to enable the operator to use his instruments privily. In an ordinary case no such dress was necessary. Some, who have evidently not read Smellie’s instructions carefully, have interpreted them to mean that it was a dress he used in every case, and, moreover, that it was intended as a sop to the female sex ; a kind of midway dress between male and female garments. This view, however, to our mind is unwarranted. At the same time, this advice of his afforded every facility for the sportive criticism of Mrs. Nihell, and she revelled in her opportunity. “Paint to yourself,” says she, “one of these sage deep-learned *Cotts*, dressed for proceeding to officiate, and presenting himself with his pocket night-gown, or loose washing wrapper, a waistcoat without sleeves, and those of his shirt pinned up to the breast of his waistcoat ; add to this, fingers, of which not the nicest paring the nails will ever cure the stiffness and clumsiness ; and you will hardly deny its being somewhat puzzling, the giving a name to such a heteroclite figure ?

Or rather can a too ludicrous one be assigned to it?" In another page she calls it "his margery field-uniform, this ridiculous piece of mummery." In a footnote to the above she further adds, "but if it is not too presumptuous for me to offer so learned a gentleman as the Dr. a hint of improvement for his man-practitioner's toilette, upon these occasions, I would advise, for the younger ones, a round-ear cap, with pink and silver bridles, which would greatly soften any thing too masculine in their appearance on a function which is so thoroughly a female one. As to the older ones, a double-clout pinned under their chin could not but give them the air of a very venerable old woman."

Douglas's sneer regarding Smellie's hands was not lost upon her either. She attempted, however, to improve upon his criticism. She speaks of his hand as "*the delicate fist of a great-horse-godmother of a he-midwife*"; and of his dress, she adds, "however softened his figure might be by his pocket night-gown being of flowered calico, or his cap of office tied with pink and silver ribbon; for, I presume, against Dr. Smellie's express authority, he [the pupil] would scarce go about a function of this nature in a full-suit, and a tie-wig."

As to the Forceps, she exclaims ironically, "all due honour be to the original author of the sublime invention of the forceps, whoever was the happy mortal! happy, I say, according to Dr. Smellie, who calls it a 'fortunate contrivance'; though, perhaps by fortunate, he rather means its having been so to himself"; at the same time, she does not believe this instrument better than the fingers of women: "there is nothing" she declares, "among the midwives of the puncturing, tearing with cold pinchers, maiming, mangling, pulling limb from limb, disabling, as must be inseparable in a greater or less degree from the use of those iron or steel instruments." She informs us, however, that some of the midwives attempted to use the forceps, but "they soon discovered that they were at once insignificant and dangerous substitutes to their own hands." Smellie's practice of using the forceps secretly, she condemns, as she equally condemns them used openly; but she wilfully, it appears to us, misconstrues his instructions as to their secret use, for the purposes of her argument. She next criticizes Smellie's forceps, declaring that "nothing

can be plainer, than its being just as insignificant and foolish a gimcrack as any of the rest." Levret's instrument she also falls foul of; and she concludes this very long and spiteful tirade by saying that "all the forceps and the rest of the surgical apparatus, especially the more complex instruments, very justly frighten the women, and their friends and assistants for them. Their introduction requires at once a painful, a shocking, and a needless devarication. The patients are put into attitudes capable of making them die with apprehension, if not with shame." In view of all the foregoing, it is somewhat pleasing to think that, by the time Mrs. Nihell published these sentiments, Smellie had retired from London—from what his critics tried to make for him a hot-bed—and was, in his cosy retreat at Lanark, able to deal magnanimously with the loud-spoken expressions of a female detractor, whose strictures were at times possibly amusing, and at others pitiful, but which all the time were not criticism. It is needless to add that no reply was vouchsafed to Mrs. Nihell's strictures; indeed no reply was needed; in the mind of every fair-thinking person they had missed the mark, and they had lost much of their point by their obvious malignity and unfairness.

PHILIP THICKNESSE.

This person, who was a surgeon-apothecary in London, deserves, in our opinion, to rank third in the order of virulency of the critics of Smellie. In his critical attempts, he would wish to make it appear as if he were but an ultra-opponent of man-midwifery generally, and as if Smellie was only the object of his criticism in this connection. But of this, more anon. His first publication was "A Letter to a Young Lady, 4to, 1764." In this pamphlet he is supposed to be advising this young lady on questions which might come up for her consideration at a future period of her married life. It is inconceivable to us, at this time of day, that any professional man could calmly sit down and write such a production as the above pamphlet—at all events, in this particular literary form. We must remember, however, that the tone of public morality of that day was not that of to-day, and it is just possible that it was *then* less an offence against the public taste than it would, doubtless, be now.

At any rate, the *brochure* was written ; and, in the exposition of his hatred of man-midwifery, he attacks Smellie, with whom we have, at present, more particularly to do. Let us briefly review the said pamphlet.

After expounding his views as to the advisability of employing women at confinements, and as to the indecency of male practitioners, he proceeds to adduce his evidence of the latter point. He says, "to confirm this, permit me to give you a few Extracts from a Book written by one Smellie, a Man-Midwife, upon this subject. "In his Direction of the Use of the Forceps, Page 264, he [Smellie] says, the Blades ought to be privately conveyed between the Feather Bed and the Cloaths ; and that the Operator spreading the sheet that hangs over the Bed upon his lap, should, under that Cover, take out and dispose the Blades on each side of the Patient. He also says, Page 265, that some People pin a Sheet to each Shoulder, and throw the other End over the Bed, that the Instruments may be more effectually concealed from the view of those who are present ; but that this method is apt to confine, and embarrass the Operator. However, that, at any Rate, as Women are commonly frightened at the very Name of an Instrument, it is adviseable to conceal them as much as possible, until the Character of the Operator is fully established. In Page 272, he says, let the Forceps be unlocked, and the Blades disposed cautiously under the Cloaths, so as not to be discovered ; and again, Page 273, he says, the next Care is to wipe the Blades of the Forceps under the Cloaths, and to slide them warily into your Pocket, and in the same Page, I have given, says he, Directions for concealing them, that young Practitioners, before their Characters are fully established, may avoid the Calumnies, and Misrepresentations of those People, who are apt to prejudice the ignorant and weak-minded, against the Use of Instruments, and who, taking the Advantage of unforeseen Accidents which may afterwards happen to the patient, charge the whole Misfortune to the innocent Operator.

"The meaning of the foregoing Passage is, in my Apprehension, plainly this, namely, that the Operator should conceal his Instruments to the End, that if the Patient should die of the Cuts, Bruises, and other Hurts, every Woman

is liable to from the Use of Iron Instruments, or should suffer so much thereby as that her life afterwards should be a Burden to her, and she should become (which is often the Case) loathsome to herself, and to her Husband; the bye-standers, not having seen the Operator use the Instruments, should not be able to charge him with being the Author of such Calamity, and Mischief." He then goes on to elaborate on the subject of Craniotomy, and after describing, in as naked a manner as possible, the steps of the operation, Thicknesse leads the lady to believe that it is an operation which is used by the man-midwife whenever it suits his inclination, instead of being, as Smellie had laid down, an operation only demanded of the direst necessity.

It is at once apparent, we think, that the object of the writer of the above, was to misinterpret and mislead. While it is true that the quotations he names are to be found in Smellie's book, he does not stop to inquire as to the relevancy of the manner in which he quotes them, but rather, by grouping them together he wilfully misconstrues his author; and by playing on the credulity and ignorance of the person to whom he addresses the letter, he doubtless succeeded in framing a diabolical picture of midwifery as he declared it was practised by the male practitioner of the day, but one which, at the same time, as regards the person from whose work the quotations were taken, is absolutely untrue and unreal. However much it may be tried to condone the above method of addressing a young lady on matters of which "ignorance is bliss," by referring it to the difference of the tone of the morals of the time, it would appear nevertheless that the public taste was shocked. *The Critical Review*, in reviewing the pamphlet castigated its author most mercilessly, as he richly deserved. That journal remarked that the author of the "Address to a Young Lady on her Marriage," was (though a pretender to decency) the most indecent creature himself that ever took pen in hand. Whether Smollett wrote this critique or not, we cannot tell, but it is fair presumption to think that he had some hand in it, for at this time, he was in the editorial chair. Be that as it may, however, the above Review stung Thicknesse severely, and to justify himself he retorted in another pamphlet published in the same year, entitled "Man-Midwifery analysed ;

or the Tendency of that Indecent and Unnecessary Practice Detected and Exposed," in which he further elaborates his charges of indecency against the men-midwives. That the lashing of *The Critical Review* had affected him is obvious when we notice that he refers to it in the early pages of his second effort ; and of it, he says "whether this resentment arose from the sting in the tail of the letter levell'd at these Book Midwives, or from their being chiefly composed of surgeons and men midwives, who murder books for want of infant practice, I must submit to the reader's judgement ; but they ought to have owned that every indelicate expression in that epistle is extracted almost verbatim from their friend Dr. Smellie's *Treatise in Midwifery*, a book written in English, the matter by Smellie, and the language said to be that of Dr. Smollet.

"That men midwives may think foolishly, and act wantonly is no more than I can easily conceive ; but that a man-midwife should sit down and write, and publish a serious book, and give therein serious directions relative to the practice of midwifery, so contrary to reason, so void of judgement, and so alarming to modesty, is astonishing beyond expression !" Before he published this pamphlet, he says he showed it to Dr. Lawrence, then President of the Royal College of Physicians, who said of it, "I think it bids fair to put a stop to a practice big with inconceivable mischief, and such as ought to be taken notice of by the legislative powers." Backed by this opinion, Thicknesse deemed himself justified in publishing his counterblast. It appears, at first sight, difficult to discover why Smellie should have been singled out for his criticism, but as we have already observed, and as Thicknesse himself puts it in the above pamphlet, Smellie was considered to be the "Father of Man-Midwifery" ; hence the criticism was to be directed against the chief offender.

Thicknesse had no intention to sit quietly under the lash of the reviewer ; indeed, he rather gloried in the opportunity afforded him again of establishing his thesis, as he thought. To prove the *indecent* of the Book, he quotes, *ad longam*, from Smellie's treatise, the anatomical description of the parts of generation, and enters into descriptive minutiae of the operation of "touching," and then triumphantly exclaims :—"Will any Man-midwife, Husband, Wife, or Widow, after reading the

above extract from Dr. Smellie's *Midwifery*, printed and published in the vulgar tongue, dare to charge me with indecency?" Following this up, he proceeds in the wildest conceivable manner, and with the most baseless innuendoes, to dilate on the immoral practice of "touching," declaring that it is pregnant with harm and danger to both practitioner and patient. "However high," says he, "the above scenery may be coloured, it is no more than is exhibited every day, not only in the capital of this Kingdom, but in every county town; for whichever way I go, far or near, every village is ornamented with a red door, and a bright knocker, and over it you are informed in gold letters, that the house is the property of J. Blowbladder, Surgeon, Apothecary, and Man-Midwife. Nay, often two names, as partners in this *mysterious business*, ornament the board."

Smellie's remarks on the subject of midwifery in Egypt were to him as provocative of wrath and scorn as they were to Mrs. Nihell. "Dr. Smellie," says he, "in the introduction to his *Treatise on Midwifery*, says—'It is natural to suppose that while the simplicity of the early ages remained, women would have recourse to none but persons of their own sex in diseases peculiar to it. Accordingly,' says he, 'we find that in Egypt midwifery was practised by women.' . . . What a pity," continues he, "it was that the use of hooks and crotchets, pincers, boring scissors, tapes and filleting, was not known to the poor Egyptians! That Egyptians who knew how to preserve dead bodies for three thousand years and to keep their living form should be so short of invention as never to have found out the method of scooping a child's brains out! and thereby have preserved the lives of the poor Egyptian ladies, is amazing! I suppose all the Egyptian mummies brought over here, besides that in the Museum, to be the bodies of poor Egyptian ladies who died in child-bed! and that the hieroglyphics on their sicamore coffins, could they be decyphered, would appear to be the lamentations of their surviving husbands, that no art could be discovered whereby nature might be corrected, and made more perfect." And in his best style of irony he adds: "Little did the poor Egyptian ladies think that it would be three thousand years before Dr. Smellie would be born, and the art of touching, and saving women's lives in this dangerous distemper, be

brought to perfection." After reiterating over and over again the propriety of retaining the practice of midwifery among persons of the same sex as the patient, Thicknesse boldly avers that there is nothing in the art that women cannot do as well as men, without the disadvantage, too, of indecency; and as instances of intelligent and capable midwives, he mentions the names of Mrs. Maddocks and Mrs. Draper, the former of whom, if not, indeed, the latter also, was educated by Smellie, and whatever she had of ability for her work was due to his tuition. But he had evidently forgotten or did not know that fact. He next directs his attention to the forceps and the injurious effects following its use, of which we think we have already said sufficient. And last of all, he deals with the character of "the oracle of Midwifery, Dr. Smellie," as he designates him.

"It would be endless to quote the number of alarming circumstances, both to men and women, with which Smellie's ingenious book abounds; and which I earnestly recommend to the perusal of those who are desirous of being convinced of the danger, and the indecency of employing male midwives. I shall therefore conclude with observing, that Smellie says, the Accoucheur ought to act and speak, with the utmost delicacy and decorum; and never violate the trust reposed in him, so as to harbour the least immoral or indecent design; but demean himself in all respects, suitable to the dignity of his profession! And to say the truth, and to do justice to the memory of Dr. Smellie, I believe he was a skilful man in the practice of midwifery; but I believe also, that either age or long practice, or both together, had divested him of every idea of delicacy, sentiment, and judgement in every thing else: or he would not, whatever he taught in private, have published in the vulgar tongue, a Book, that however well it may instruct the young practitioner, cannot fail to do hurt to the practitioners in general, and in time, restore the practice to women again, to whom it by nature so properly and justly belongs: Which that we may all live to see, is the sincere Prayer of the Author." The above quotation is to be found in the second edition, published in 1765; but in the fourth and last edition, published so late as 1790, the writer, in alluding to the above wise counsel of Smellie, exclaims: "So Parsons preach! but do they

practise accordingly? So Doctors write! and Smellie, I sincerely believe, was, in his old age at least, silly and serious enough to think he was doing good when he was writing the most bawdy, indecent, and shameful Book which the Press ever *brought into the World*."

Of the foregoing, we content ourselves with only observing that it is remarkably rare to find a man so devoid of the sense of the relative fitness of things. It never seems to have occurred to him that what was absolutely necessary to be treated of in a work of midwifery, lost its proper setting in a shilling pamphlet, printed for notoriety. The author presumes that, because Smellie's work had been printed in the "*vulgar tongue*," it was likely to become a book for popular reading by common folks. It would be as equally probable to suppose that the old apple-woman at the street-corner would wile away the leisure gaps in her tradings with a manual on quadratic equations, or the average workman with a treatise of numismatology.

For long after Smellie's death, too, did this controversy rage regarding man-midwifery, and very unwillingly did its opponents retire from the fray. In 1772, there appeared the second edition of a pamphlet entitled, "The Danger and Inmodesty of the Present too general Custom of Unnecessarily Employing Men-Midwives. Proved Incontestibly in the Letters which lately appeared under the Signature of a Man-Midwife," etc. The writer of this declares that he has long been convinced of "the many dangerous Consequences which attend the depraved Custom of employing Men-Midwives unnecessarily"; of offences against Modesty, and of the evil of preventing mothers nursing their tender offspring. Not content with this general statement of his case, he goes on, in particular, to declare, "it is to the almost universal custom of *Employing Men-Midwives* that I attribute the frequent *Adulteries* which disgrace our country"; but "in praise of *Scotland and Ireland*, be it spoken, the women of these countries are still too modest to employ them." This latter remark, in its application to Scotland, is not absolutely correct; for however true it was of the poorer classes, whom midwives attended, it ceased to be in respect of the better classes, who were able to afford a physician's fee. He quotes largely from Mrs. Nihell's treatise in defence of his statements; and he evidently thinks it of

some importance that his reader should know that he is a bachelor. His object in making that statement was evidently intended to disabuse the public mind of a suspicion that had arisen, that he was the husband of Mrs. Nihell. He goes on to tell us that "true modesty is incompatible with the idea of employing a Man-Midwife . . . except when those *very rare* instances occur, which do not happen once in two thousand labours"; and "*any woman of experience*, in my opinion, is *infinitely safer* than even Dr. Hunter, *except in very extraordinary cases.*" The criticism which had been passed on Smellie, he now applies to Hunter, and he declares that "boys think themselves qualified for Men-Midwives, by having attended one or two courses of lectures under Doctor Hunter." All instruments he anathematizes.

In the succeeding year, 1773, another pamphlet made its appearance, under the title, *The Present Practice of Midwifery Considered*. The author of it, like him of the preceding, attributes to the employing of men all the "forwardness, effrontery, and even profligacy of the (female) sex" which, he says, are being loudly declaimed against in the public prints. "So lately," says he, "as the beginning of the present century, it was by no means an usual thing to employ them in common cases; or if they were so employed, it was looked upon as something extraordinary, fit only to be talked of in whispers, and she who employed them was considered as a woman of spirit, and not very squeamish." Since that time, he believes that Fashion has had much to do with the change; and that though the men-midwives assume no little credit to themselves for that change, they do so unwarrantably.

"The progress of midwifery, say they, and the improvements which the men are capable of making in it, were, for many ages, obstructed by the *false modesty* of the women; but the introduction of *polite literature*, by degrees, got the better of this false modesty, and of course paved the way for the quicker progress of this art, in the hands of male practitioners." In a footnote to this quotation, he adds, "These are pretty nearly the words of a grave and a very useful writer on midwifery; I mean Dr. Smellie, to whom I take this opportunity of acknowledging my obligations, for many articles of information referred to in these pages. I know it is become a fashion to decry and hold him cheap, and to talk of his

ignorance in matters of learning, etc. But this is nothing to the present purpose, nor ought it to invalidate the authority of any quotation made from him. I knew him well—He was an honest man, and not only a faithful compiler of the doctrines and sentiments of other writers on the subject, but whatever he advanced as new, and properly his own, was founded on real facts and observations: and, what ought still more to recommend them, and enforce his authority with those of his fraternity, he was an enthusiast in his profession; man-midwifery was the idol of his heart; and he believed in his forceps as firmly as he did in his bible.”

As to instruments, he says it is possible that the first inventor of the more modern contrivance had the desire to be of use to women, but at the time he writes, he thinks the principal motive was to secure possession of a “lucrative branch of business.” For himself, he declares against all instruments, dubs the forceps as useless as either the fillet or blunt hook, and not only as useless, but a “very pernicious instrument.” Women, adds he, are not more capable than men in affording assistance in child-bed, but they are equally capable, and all the dictates of decency, delicacy, and modesty, demand that they alone should be employed.

CHAPTER XIX.

SMELLIE'S THIRD VOLUME.

OF the contents of this volume very little requires to be said. In the words of its editor, the reader will perceive in it, "the same honest plainness, candour, perspicuity, and precision which distinguished the two former volumes." This, with the preceding volumes and Anatomical Tables, was the fruit of Smellie's forty years' work and experience, which, to still further quote his editor, "enriched with an incredible variety of practice, contains directions and rules of conduct to be observed in every case that can possibly occur in the exercise of the obstetric art; rules that have not been deduced from the theory of a heated imagination, but founded on solid observation, confirmed by mature reflection and reiterated experience. It stands in no need of invidious comparison, which the author has ever carefully avoided; nor does it depend for success upon cabal or misrepresentation, arts which have been shamefully practised against it, to the confusion and disgrace of its enemies; but the great demand for the two volumes already published, and the high esteem in which it is held by foreigners, who have translated them into different languages, are such proofs of extraordinary merit, as all the efforts of envy will not be able to overthrow."

These are the words of Smollett. And as one of his correspondents and admirers also remarked, that though the ignorant and self-interested may cavil, yet after-ages would value his works as standing monuments of the improvements in midwifery. In view of the assistance rendered by Smollett in preparing these volumes for the press, one

naturally looks for the impress of the editor's hand and style; and all the more so, knowing that Smollett had already distinguished himself in another department of literature. Neither do we look in vain; although less frequently in the second, than in the third volume, we can recognize the style of Smollett in the descriptive settings of particular cases, in little character sketches, and in felicity of language. A very interesting chapter might be written on this, but we must refrain, and conclude our notice of this volume with the statement that it is but an amplification of illustrations of the text of his Treatise. But we cannot omit to notice that, in this volume, from an incidental remark dropped by Smellie, our attention was directed to a case of medico-legal interest, which, probably for the first time, so far as we know, established the legal doctrine of "contract" between practitioner and patient in midwifery engagements. It is therefore of sufficient interest and importance to deserve some detailed attention here. The case is narrated at page 48 of vol. iii., and in the Sydenham Society edition is numbered Case 328. It has the following heading: "A violent Haemorrhage in the eighth month of Pregnancy; the Placenta presenting at the os uteri, and neglected by an eminent Doctor; Version. Death of Patient." This case happened in 1746. A midwife had sent, early on a Sunday morning, for Smellie to this patient, "who was excessively weak and low from a violent flooding." On inquiry, Smellie found that another accoucheur had been bespoke, but he was told that this gentleman was engaged. This excuse was untrue, but he had been told this lest he should decline to attend. Smellie thereupon attended the patient, and on account of the bleeding continuing, he turned and delivered. In an hour after, however, "she fell into faintings and convulsions," and died. Smellie was then informed of the true state of the case. This "eminent Doctor" had formerly attended the patient, and when the midwife, on this occasion, sent for him by reason of the haemorrhage, he came and prescribed; "but the complaint increasing, and he being otherwise engaged, the midwife was sent for at his desire, on Tuesday night, when she found the patient had a small degree of flooding, which increased and diminished at intervals; but as she found nothing like labour beginning, she desired the patient might still continue

to take what was prescribed by her physician. She was again called next evening, when she found something like labour-pains, the mouth of the womb a little open, and some soft substance like the placenta presenting. On this, the doctor, being again sent for, declared what presented was only a large coagulum of blood; and went away, after ordering some other medicine. As the flooding continued to gain ground, the husband went for the Doctor about ten at night, but did not find him at home. The hæmorrhage increasing, and the woman appearing to be in imminent danger, he went again about twelve, and found the Doctor in bed; who said he could not go with him, because he expected to be called every minute to another patient to whom he had been previously engaged. In a word, he could not be prevailed upon by all the entreaties the gentleman could make; so that immediately on the husband's return I received a call.

“After this information, the midwife proceeded with bitter exclamations, inveighing against the Doctor for abandoning the woman, and leaving her in extremity, as he had done frequently in other dangerous cases. . . . I understood, afterwards, that the above gentleman thought himself above being in friendly correspondence with midwives, from too much self-sufficiency.” In a little time after this occasion, he was, for “neglecting a patient in the same circumstances, exposed, sued, and cast in a considerable sum of money.” This is the whole account of the matter as narrated by Smellie.

Being interested in the circumstances, not less from the relation of the case of this practitioner, than from its medico-legal interest, the writer searched the literature of the period, and ultimately chanced to come across the account of a trial by a gentleman of London against a medical man for neglect of a case in nearly similar circumstances. This account is published in pamphlet form, and was evidently used by its anonymous author as a peg whereon to hang a series of interesting cases from Deventer. The pamphlet has the following title, and what follows is a *résumé* of the trial:—“Trial of a Cause Between Richard Maddox, Gent. Plaintiff, and Dr. M——y, Defendant, Physician, and Man-midwife, Before Sir Michael Foster, Knt. One of the Justices of the King's-Bench. At Guildhall, London, March

2, 1754. By a Special Jury. In an Action upon the Case, brought by the Plaintiff against the Defendant for promising and undertaking, and not performing his Office as a Man-midwife in the Delivery of the Wife of Mr. Richard Maddox, the Plaintiff. With the Opinions of several Physicians and Man-midwives upon the Case, as given in Evidence upon the Trial. Whereupon the Jury thought proper to give £1000 Damage to the Plaintiff. To which is added, Some extraordinary Cases in Midwifery; extracted from the Writings of that very eminent Physician and Man-midwife, Dr. Deventer, of Leyden. London. Printed for H. Jefferys, in Mercer's Chapple, Cheapside, and Sold at the Royal Exchange. (Price One Shilling.)”

The pamphlet begins with “Admonitions to all Husbands”: showing the necessity of securing a skilful Midwife, and, if necessary, the assistance of a skilful Man-midwife. “The Plaintiff declared against the Defendant in an Action upon the Case; for that the Defendant using and exercising the Art, Mystery, or Profession of a Man-midwife; and the Plaintiff's Wife being Pregnant and in Labour, he, on the 29th May, 1753, retained the Defendant to aid and assist her in her Delivery; and that the Defendant did promise and undertake to attend on and assist the Plaintiff's Wife in such her Delivery. But the Defendant, notwithstanding such his Promise and Undertaking, did neglect and refuse to attend and assist the Plaintiff's Wife in her Labour, though required so to do; whereby the Plaintiff's Wife underwent great Labour and Pain, and for want of the Defendant's Aid and Assistance, was brought into such a State and Condition, that she from that Time languished until the 30th of August, then next ensuing, when she died. And the Plaintiff laid, with several other Counts, his Damages at £5000.”

“To this the Defendant pleaded, that he did not promise and undertake in Manner and Form as the Plaintiff declared against him, and put himself on the Country; and the Plaintiff did so likewise.

“On Saturday, the second Day of March, 1754, this Cause came on to be tried before Mr. Justice Foster, at Guildhall, London, by a special Jury.” Mr. Hussey opened the case. Mr. Hume Campbell followed for the Plaintiff,

and expatiated on the nature of the Cause, and after appealing to the feelings of the Jury as married men and fathers of families, ended his speech by setting forth "that this Action was brought by the Plaintiff against the Defendant, not only to receive Damages for the great Loss he had sustained by Means of the Defendant's Neglect and Default in his Profession (that being irreparable), but in order to deter others of the same Profession from the like contemptuous Negligence of their duty, in Cases where the least Delay may occasion the Loss of the most valuable Lives."

The facts were these. Mrs. Maddocks, plaintiff's wife, had engaged Mrs. Hopkins, "a Midwife of great experience and Reputation" to attend her in her confinement. Mrs. Maddocks took ill on the 29th May. Mrs. Hopkins attended, and from the symptoms present in the case, desired "the Assistance of a Man, fearing it would be too hazardous and difficult for her to undertake alone." Mrs. Maddocks desired, in that case, Dr. M——y to be called. That gentleman called and declared "he was of opinion that Mrs. Maddox was in a dangerous Way; that if she was to be then delivered she would not live half an Hour; and therefore they must wait a more favourable opportunity, or to that Effect. . . . He said he would go Home"; but notwithstanding that it was represented to him that the resources of the house were quite adequate for his comfort, he still persisted on going home in spite of the protestations of the midwife. On being asked his reason for such conduct, he replied, that on a former occasion with Mrs. Maddocks he had not been paid to his satisfaction. The husband of the sick woman, Mr. Langley, his apothecary, and Mr. Flower, a friend of Mr. Maddocks, were in the Parlour below, and hearing of Dr. M——y's determination to go, "used all the Arguments they could think of to engage him to stay; Mr. Maddox offering to give him what Money he desired." The apothecary, however, interfered, saying it was not customary to pay a Fee till the work was done, and until the amount of trouble caused by the case could be experienced. Still the doctor refused to stay, but promised to attend "whenever he should be sent for," and Mr. Langley, the apothecary, agreed to give him notice. Two hours after, the midwife, seeing the symptoms

greatly altered, informed Mr. Langley, who, thereupon, went in a Coach to the "Doctor's House in Lincoln's-Inn-Fields," when he informed the doctor that he was required by the patient; but the doctor refused to come. "And Mrs. Maddox being at this Time in the greatest Distress, and Flooding to an excessive degree" the midwife desired that some other doctor be at once sent for. Accordingly, Dr. Hannakin, "a very experienced and judicious Person" was sent for. He came at once, but on seeing the precarious condition of the patient he asked the assistance of another medical man; and thereupon Dr. Middleton was sent for, who attended immediately.

The following witnesses were called for the Plaintiff:—Mrs. Hopkins, the midwife; Mr. Langley, the apothecary; Mr. Flower; Dr. Hannakin; Dr. Middleton; Dr. Schomberg and others. Dr. Hannakin deposed "that if Dr. M——y had attended when sent for, and had performed his Duty, the Train of ill Consequences, occasioned by his Neglect, would have been prevented." Dr. Middleton proved that Mrs. Maddocks languished from the 29th of May—the time of her confinement—till the 30th of August—the date of her death—"and never recovered from the Disorders (Dropsy) brought upon her, by the very great and excessive Floodings and other Injuries she received, for Want of Assistance, and being delivered in due and proper Time."

Then Mr. Serjeant Prime, Counsel for Defendant, followed. He pleaded "that Dr. M——y was a Physician of great Eminence in his Profession, and esteemed and employed by Persons of the highest Rank and Distinction, not only in the Practice of Physick, but as a Man-midwife"; that his client was under no obligation to remain with Mrs. Maddocks, since, in his opinion, she was not then in a fit state to require his services; that the reason for his client not attending the second call was to be attributed to the fact "that he was in Bed, very much out of Order, and in a very great Sweat, and that it would have been dangerous for him to go out in that state"; that his client "was not only a Physician of great Eminence, and very extensive Practice, but was likewise a most kind, beneficent, and humane Man, always ready and desirous to aid and assist all Persons without Distinction"; and that he—the Counsel—was pre-

pared to lead evidence to show “that if the Doctor had attended her at the Time he was called for, it would have made no Variation in it; and that her Flooding in the Manner represented by the Plaintiff’s Witnesses, would have had the same Consequences, as were insisted on by the Plaintiff’s Witnesses, whether he had been there or not.”

The following witnesses were then called for the Defendant. The first was Dr. Sands, “a Man-midwife,” who “then gave a very long and learned Account of the Course of Practice in such Cases, with Precedents and Instances of the like Nature, as well such wherein he had been himself concerned, as what he had read in Treatises of Midwifery.” On being interrogated, however, whether “he was of opinion, that Dr. M——y ought to have continued with Mrs. Maddox when he was with her, or if he ought to have come again to her, when the Apothecary came to call him, he very candidly declared, that for his own Part he should have done it, and that the Doctor ought to have done so too.” Sir William Brown, Bart., a physician, was next called. On being asked the same question as Dr. Sands, he replied that he understood “that the Doctor was called as a Physician, and not as a Man-midwife; that he was sent for to administer Physick, and not to lay the Patient.” He concluded his evidence by attributing blame to Dr. Hannakin for not delivering the patient at once, without any further assistance. Then followed the testimony of the doctor’s servant-maid, The Right Honourable the Lord Dungavon and Earl of Cork, and Sir Edward Fawkner, and other witnesses, the whole of whom, except the servant, bore witness either to the eminence of the defendant as a physician, or to his humanity. Counsel having addressed the Bench, the judge summed up; upon which the jury retired, and, after an absence of about fifteen minutes, brought in a “Verdict for the Plaintiff, and one thousand Pounds Damages, with Costs of Suit.” The pamphlet concludes as follows:—“*N.B.*—It’s generally believed that the Plaintiff, who is a gentleman of generous Principles, as well as opulence, will apply the Damages he has recovered on this remarkable occasion, to some charitable Use.” Then follows the “Extraordinary Cases in Midwifery” extracted from Deventer’s work.

From the internal evidence contained in the pamphlet,

it is clear that, although the full surname of the doctor is not divulged, his identity lay concealed between the letters "M" which begins the name, and "Y" which terminates it. From the evidence of some of the witnesses, it was evident that he was, at least, a member of the College of Physicians, and that he did the work of a physician, because it was contended in his defence, that he only attended the patient in question as a physician, and not as an accoucheur. We, naturally, then, looked to the records of that College for the clue, but we found that we were not assisted much; because we discovered the following names about this period (1746-1754) in London which began and ended with the same letters, viz: Macaulay, Massey, Maty, Monsey, Morley, and Munckley.

George Macaulay, M.D. of Padua, became a Licentiate of the College of Physicians in 1752, and was physician and treasurer to the British Lying-in Hospital in Brownlow Street, in 1751. He came to practise in London some time after the year 1746, although he then was an Extra-Licentiate of the College, which meant that he at that time practised outwith the London area. He was a noted accoucheur in London in Smellie's time. Although at first sight, Macaulay might appear to be the defendant of the foregoing trial, two facts seemed to us to negative it, the first being, that he was not in practice in London in 1746, the date of the case referred to by Smellie, and the second, that in the light of Smellie's opinion of that practitioner, he was hardly likely to be friendly with him in 1759, the year in which Macaulay communicated Case 305 to him. Richard Middleton Massey, is the second name. He became an Extra-Licentiate of the College in 1706, and settled in practice at Wisbeach; became a Doctor of Medicine of Aberdeen in 1720, went in that year to live in Stepney, and was admitted an Honorary Fellow of the College of Physicians, 1725-6. He died in 1743. So it could not be he. Matthew Maty, M.D., did not become a Licentiate of the College till 1765, and he was principally known for his connection with literature. He was a sub-, and afterwards chief Librarian to the British Museum. An interesting fact about him is that he wrote in French an Ode on the Rebellion in Scotland in 1745. Neither could he be the man. Messenger Monsey, A.B., was physician to Chelsea

Hospital from about 1738 to 1788, when he died. He was hardly likely to be the defendant. Matthew Morley, M.D. of Leyden, was created M.D. of Cambridge by royal mandate in 1739; admitted a Candidate of the College of Physicians in 1738, and became a Fellow in 1740. He died in 1785.

There is no fact recorded of this man which would preclude him being the defendant, although we can find no evidence of his having attached himself to the practice of midwifery, as Smellie's remark would lead us to infer, except the fact that his graduation thesis was upon "De Profluvio Muliebri." Nicholas Munckley, M.D. of Aberdeen in 1747, is out of count, because we have no information that he was in practice before obtaining a degree; and, moreover, he did not become a Licentiate of the College till 1752, and M.D. of Cambridge, by royal mandate, till 1753, although after that time he rose to fill important offices in the College.

From careful examination of the whole facts, everything pointed to Morley being the defendant, although, perchance, it might be Macaulay. We then thought that some information might be obtained from the law side, and from legal records. We thereupon applied, through legal sources, for the desired information, if it were obtainable, and our surmise turned out to be correct. We have to thank Mr. M'Ilwraith, Barrister-at-law, London, a graduate of Glasgow University, for his valuable assistance in this. It will be noted that the surname of the plaintiff in the pamphlet is "Maddox"; this is incorrect, although it is a trifle: it should be "Maddock." The information further obtainable from a perusal of the Indictment is as follows:—Richard Maddock, Gent., complained that *Matthew Morley*, had on the date, already given (29th May, 1753), held himself out as skilled in midwifery and practised that art in the parish of St. Bride's, Farringdon-without, London, and that having agreed with the plaintiff to attend his wife at her approaching accouchement, he failed to implement his agreement.

CHAPTER XX.

SMELLIE'S WILL.

SMELLIE had not long returned to Lanark till he began to put his affairs in order. This was doubtless prompted by his advancing ill-health. His will was written by himself on 5th September, 1759; and it contained also the following four codicils, viz., of date 24th Dec., 1762; 20th Jany., 1763; another undated; 4th Feb., 1763; and administrators of the will were appointed on 8th Feby., 1763.

The following is a verbatim extract of the will from the official records.

MARCH 30TH, 1763.

TESTAMENT OF DOCTOR WILLIAM SMELLIE.

In Presence of Mr. William Cross, Advocate, Sheriff Depute of Lanark, Compeared John Gairdner and Thomas Tod, both Writers in Lanark, as Procurators, and gave in the said Testament under written desiring it to be Registrate in the Sheriff Court Books of Lanark, Which desire the said Sheriff Depute granted and Ordained the same to be done accordingly, whereof the tenor follows:—I, Doctor William Smellie, of Smellom, with the special advice and consent of Eupham Borland my Spouse, and I, Eupham Borland for my self and for any right, title, or interest, I have, or can pretend to the subjects after mentioned, and we both with with (*sic*) one mutual consent and assent, for removing all debates and controversies that may arise concerning the succession to us in our goods and Estate, as well heritable as moveable, which at the time of the decease of us or the longest liver of us

shall happen to pertain to us, Oblige us to sign a valid Disposition and Assignation of our Estate in favour of ourselves and the heirs to be procreat of our body, which failing, to any person whatsoever we shall think fitt to nominate and appoint by a Writing duely signed by us, and failieing such nomination To Anne Hamilton Spouse to Dr. John Harvie Physician in London, her heirs and assignies, with the burden of payment of the Legacies following to the persons after-named and designed, Vizt., To her brother, Mr. James Hamilton Minr. of the Gospel at Pasy, One Hundred Pounds Sterling. To her brother Robert Hamilton Wiver at Burnbank one hundred pounds sterling. To her brother Francis Hamilton Merct. in Glasgow one hundred pounds sterling. To her sister Rachel Hamilton two hundred pounds Sterling. To our Nephew James White Merchant in America ten pounds Sterling. To our Nice Rachal White one hundred pounds Sterling. To Robert Kennedy of Aughtefardel Ten pounds Sterling. To Adam Kennedy of Romana ten pounds Sterling, and the Consort Organ. To Archibald Bartram of Nisbet ten pounds Sterling. To Sara Boyd Spouse to Brisen, shoemaker in Glasgow ten pounds sterling. To ——— Boyd in Killwining and Sister to the above Sara Boyd five pounds Sterling. Which Legacys we hereby ordain the said Anne Hamilton to pay to each of the forenamed persons Legatees at the first term Whitsunday or Martinmas next after the decease of the longest liver of us two with a fifth part of each of the said Legacys of liquidate penalty in case of failie together with the due and ordinary annabrents of the said Legacys from and after the said term of payment ay and while payment. And that this our Destination may be more effectual, Wee by these presents now as then and as now give, grant, and Dispone, to the heirs to be procreat of our body our whole means and Estates, Lands, houses, Bonds, South Sea Annuitys, Household furniture, and other Goods and Gear, moveable and immoveable, Whatsoever presently belonging to us or which at any time be acquired and at the time of the decease of the longest liver of us two Shall pertain to us with the burden of the Legacys above mentioned giving to her and them full power in a Legall and more Special manner to Establish, as accords of the Law, a valid right to every particular comprehended

under the above general Denomination, secluding hereby all others from any succession to us in heritage or Executory and from all benefite any except those above mentioned can thro' our decease pretend to, Declaring alwayes that is shall be in our full power during life *ac in articulo mortis* to revocke or alter these presents which if not Revoked or altered Shall be effectual tho' not delivered by us and tho' found after our decease lying among our other goods and papers. Consenting to the Registration hereof in the Books of Councill and Session or others compitent therein to remain for preservation and if need bees that all execution necessary on a Charge of six days may pass hercon in form as Effeirs and Costitute

Our pros. etc.

In Witness whereof we have subscribed these presents consisting of this and the two preceding pages (Wrote upon Stamp paper by me the said Doctor William Smellie) At Smellom, near Lanark, the fifth day of September one thousand seven hundred and fifty nine years, before these Witnesses, William Hutton, Wright in Lanark, and James Lockhart his servant.

(Signed) WM. SMELLIE. EUPHAM BORLAND.

WILLIAM HUTTON, Witness.

JAMES LOCKHART, Witness.

December twente fourth one thousand seven hunder and sixty two, I, Doctor William Smellie for the regard I have for the School of Lanark bequeth to the same all my Books, Mapps, and Pamphlets, except those of Medecine Surgery and Pharmacy for to begin a LibRARY there. Also I bequeth two hundred pounds Sterling for repering the School House according to a Plan I have left.

(Signed) WM. SMELLIE.

Further Janry. the Twentieth one thousand seven hundred and sixty three, the foresaid two hundred pounds to build or repair the School at Lanark is not to be payed till half a year after my or my wife's decise Nor the books to be delivered till the room is prepared for them which are all marked in an Alfabetical List in my Studdy. As it is interlined One hundered pounds to Rachael White, now Mrs. Arcer, the same one hundered pounds is bequethed to her,

and as Mr. James Hamilton of Pasely does not want any money so much as his sister in place of one hunderd pound he only bequeths to him ten pound, also in consideration that his Brother Robert Hamilton wants only subsistance in place of the one hundered pounds St. he orders his Executors and his wife's to pay him yearly five pounds Sterling.

(Signed) WM. SMELLIE.

I also bequeth to the School of Lanark nine English Floots with the thick quarto gilt Musick Book. To Mr. Ja: Hamilton our Nephew my violoncello and Oswalds Scotts Tunes. To Adam Kennedy of Romana The Consort Organ and Handels Opera Songs. Mr. Jo. Loudoun & Sone a Bass and Consort Floot abec. Mr. Archer Junr. a German Floot and Thomsons Sets Songs. To Mr. Jonn Loudoun Bremner Scotts Songs. My other two German Floots to Dr. Jon Harvie with all my other Musick Books excep the 8 Vol of Country Dances and Minuets to Fran: Hamilton. To John Lockhart of Lee my gold headed Cane and Pen Maker. The School House to be a Cumsild Storie higher, with a Sclett Roof, the lower Storie as at present for teaching, the upper to be divided into two rooms one for the Master or Doctor and the other for the Books Maps & other implements for the use of the School, every part of the building within to be plastered. The Baillies, the Ministers of the Presbitry, and Schoolmaster to see the same executed, the Comesild Storie to be twelve feet high wt. fire places in each room. The Stair either from the Schoolmasters House or other Wayes.

(Signed) WM. SMELLIE.

Further I the foresaid Doctor William Smellie this fourth day of Feberwar one thousand seven hunder and sixty three bequeth to Robert Kennedy of Aughtefardel after my and my wifes decise (besids the ten pounds for Murning in page first) my little mahogany Writing dask in the Parlour also to Mrs. Bartram Younger of Nisbet my Rosewood Press in the Studdie, I also live for the Liberary Room at Lanark the three Pictures in my Studdie viz:—My Fathers Mothers and my own drawn by my self in 1719. I also desire that non of the Books be lent out, and to accomodate readers I live for their use to be in the foresaid Room my large reading dask with the table-flap that hangs to it and stands in the Lobie with the lether Chair

and smoaking little cheir in the Studdie, as also the high steps there to take doun the Books which must be contained in locked presses with weil tirlised doors, the Schoolmaster to be the Librarian and to be accountable to the Bailies and Ministers of the Presbitry of Lanark once a year at the vacation time. After a more deliberate consideration, and as my collection of Medical Books are prettie complete, both as to the antient and modern practise and may be of use to the Medical Gentlemen of this place to improve and consult on extraordenar emergencys I also bequeth all of them to the foresaid Liberary and along with them two printed Books on the Composition of Musick and a Manuscrip one. The Liberary room aught to be at least twintie four feet long and I think better with an outstair of which if spared time I shall live a draught. (Brought over the foresaid day and date.) If after rebuilding or adding a second storie to the Schoolhouse and compleetly finishing the same, and if any part of the two hundered pounds remains, the same is to be expended in furnishing the Liberary with the Classics and other useful books. It will also be necessary to caus print a catalogue of the books with proper Statutets to be observed. All the above legacies and regulations I leave to be regulated and completed by our Executer or her order after my own and my wifes decise.

(Signed) WM. SMELLIE.

(„) EUPHAM BORLAND.

I Doctor William Smellie with the Special consent of my Wife Nominat Doctor John Harvie Conjunck Administrator and Hear with his foresaid wife Anne Hamilton their heirs procreat betwixt them and their Assignes as specefied in the first page of this our Testament. In Witness Whereof we have subscribed these presents consisting of this and the five preceeding pages (wrote upon two sheets of stamp paper by me the said Doctor William Smellie) at Smellom near Lanark, the eight day of Feberwary one thousand seven hunder and sixty three years before these Witnesses George Fauls Gardiner and William Purdie our servants.

(Signed) WM. SMELLIE. EUPHAM BORLAND.

GEORGE FOWLS. Witness.

WILLIAM PURDIE. Witness.

Extracted upon this and the twelve preceding pages by me Sheriff Clerk Depute of Lanarkshire at Lanark the ninth day of December Eighteen hundred and eighty two years.

(Signed) W. B. ALLAN, S.C.D.

The Principal Deed above Extracted consists of two Sheets, the first impressed with a cumulo duty of one shilling and six pence and the second also with a cumulo duty of one shilling and sixpence.

Certified by me

W. B. ALLAN,
Sheriff Clerk Depute of Lanarkshire.

We have but little concern with the private affairs of Smellie's will, but being anxious to ascertain if there still existed any article belonging to Smellie, such as his gold-headed cane, or pen-maker, we applied to the present representative of the Lockhart family of Lee, who, however, wrote to the effect that there does not now exist any trace of either of them in that family. Moreover, the Kennedys have long since disappeared from Auchtyfardle, consequently we are unable to lay our hands on any article mentioned in the will. Apart from these private bequests, the chief interest in his will centres on that especial bequest of his collection of books, which he himself considered to be "prettie complete, both as to the antient and modern practise"; of the portraits of his father, mother, and himself; and of certain articles of furniture to the school of Lanark, coupled with the sum of two hundred pounds for the purpose of building a room wherein to house the library. The only contemporary evidence of the status of the Lanark Grammar School at this time has been put at our disposal by Dr. Hill, Clerk to the Faculty of Physicians and Surgeons of Glasgow. It is a most interesting document, and is so explanatory and descriptive of an interesting function which was held annually in the school, that we make no apology for quoting largely from it. In the light of this document, too, we can all the more readily appreciate the reasons which prompted Smellie to make his bequest to the school:—

Abstract of a letter from Sir Henry Stewart, Bart., of

Allanton, in reference to the Lanark Grammar School, and more particularly *apropos* the Latin valedictory oration which was delivered by the late Laurence Hill, Esq., when a boy at that school in the year 1770. The letter is dated from "Allanton House, 7th Aug: 1830," and is addressed to Laurence Hill, Esq., of Glasgow, son of the orator. It informs us that he (Stewart) was a pupil in the school at Lanark in that year (1770) along with Hill, and that he was present during the delivery of the oration. The oration "was taken from an old MS. of most of the orations brought forward at the public Examinations of that well known seminary, and copied and corrected by one of my (Stewart's) grandsons. Like other relics of former times, though not altogether perfect as to prosodial accuracy, yet I may say, that, in its present shape, it forms an *Editio expurgata prioribus longe emendatior*.

"The School of Lanark was at this period by far the most celebrated in the West of Scotland. It was conducted by Mr. Robert Thomson (brother-in-law to the poet Thomson of The Seasons, and of the same name, he having married the sister of the latter), a most respectable man and an able and indefatigable instructor of youth. Mrs. Thomson, with little of her brother's genius, was a woman of no less sterling merit than her husband; and so high and universal was the esteem in which both were held, that the boarding-house they kept in the ancient town of Lanark, was for several years filled with young men not only of the first families in the County, but with many who were sent from America and other foreign parts."

At the time the oration was pronounced, Hill was dux of the fifth or highest class, while Stewart was a little boy who had recently entered the first class. "These far-famed orations of which you have heard so much, were, I assure you, no contemptible compositions, whether the authors or the auditory be considered. They were no fewer than *Ten* in number, some in prose, and some in Verse, *Two* of them were in *Greek*, *four* in *Latin*, and *four* in *English*, and were spoken at the examinations by the fourth and fifth classes of the School. The Valedictory Oration, of course, closed the whole, and when the boy who pronounced it (which he generally did with considerable feeling and energy)

came to the concluding words *Iterum iterumque Valete!* he melted into tears in which he was accompanied by many of his companions:—tears as bitter, and as of long duration, as the joyful month of August, and the immediate approach of a six weeks' Vacation might be supposed to admit. The speech was as follows:

“VALEDICTORY ORATION

“SPOKEN BY MASTER LAURENCE HILL AT LANARK SCHOOL,
AUGUST THE 9TH, 1770.

“Magnifice Proceres! adjuncti fascibus urbis
Lanarcae, augusti venerabilis ordo Senatûs,
Praeclari patriae Patres, tutamine quorum
Sepositis curis, segura ac tuta quiescant
Pectora, quae imperio vestro sunt subdita; precor,
Floreat haec semper schola sub moderamine vestro.
O Praeceptores! studiis qui fulcra dedistis,
Quae vestris meritis persolvam praemia digna,
Qui perfudistis tenerum me mente paternâ
Artibus ingenuis quas qui non possidet artes
Non homine similis, verum magis aequat agreste
Brutum, persumptas operas tantosque labores
Vobis devinctum, manent dum vita superestes,
Me puto: sed grati quod fons exaruit omnes
Eloqui, infigam cordi, citroque virenti
Vestrorum inscribam meritorum palmia, Valete.
Dilecti Socii; devotaque pectora Musis
Ad vos me verto, vobis quod sacra Minervae
Tractastis mecum; permotis pectora grates
Si qua mea vobis exempla commoda quaevis
Affere haec quaeso studiis impendite vestris;
Semper ego certe grato, quaecunque tulistis
Emolumenta mihi, ac memori sub pectora condam.
Vivite vos nostri memores, dum vita manebit,
Vos animis nunquam tollent oblivia nostris,
Sic longum valete, Socii, iterum iterumque Valete!

“You will perceive, I am certain, as the son of a true Lanark scholar, that the plan, as well as the execution of this Valedictory Address has some merit. In the first place we have the Magnifici Proceres, or Patrons of the School, that is the worthy Provost, Baillies, and Town Council of the Burgh, who are addressed in terms of appropriate and splendid en-

comium. Next, we have the Praeceptores, or Masters, at the head of whom was the respectable Mr. Thomson, already delineated; and Lastly, come the *Dilecti Socii*, or dear companions of the speaker, whom he reminds of their past studies with emphatic earnestness; and takes leave of them in a style of affectionate attachment, which is quite worthy of the occasion." (Here are quoted the last three lines of the above.)

"You can figure to yourself these Magnifici Proceres the Provost and Bailies of our ancient County town, seated aloft in due state at one end of the hall: the head Master, the Usher, and his assistant, with the graceful line of Ten Orators stationed at the other end. Behind this line was ranged the great body of the Students, the *Dilecti Socii* of the day, all with countenances highly animated, and anxious for the progress of the ceremony. On the side of the Hall, over against the door, were seated the clergy and Gentlemen of the town and neighbourhood as chose to attend; and on the opposite side was seen the *Vulgi stante corona*, or townsmen of the place, who had sufficient interest to procure admission; thus having an ample space in the centre, both for the purpose of giving effect to so grand an exhibition, and for keeping the entire view between the Proceres and the orators unobstructed.

"When all were assembled, and the above arrangements completed, the meeting was opened by prayer, and the examination commenced. It was conducted with due form and ability by Mr. Thomson himself, assisted by some of the most intelligent of the Clergymen, in Greek, Latin, English, Arithmetic, Geography, etc., and, in general, with considerable credit to the teachers. The tall and portly figure of Thomson then appeared in the midst of the hall, when he besought permission of the distinguished Patrons to close the session of the School, as usual, with the Orations or Speeches, with which their learned ears had been regaled on former Occasions. Leave being of course granted, a beautiful Ode of Anacreon or Pindar was usually recited in lieu of the first Oration: The second, being a Speech from Xenophon, next followed, and to these succeeded eight others, Latin and English alternately, on various usual and interesting topics. The Valedictory Oration, as given above, came last of all, and closed the addresses.

“This, indeed, was a moment of indescribable exultation to the worthy man; and his feelings were strongly indicated by the glow of delight which played over his fine and open countenance, and by the various gesticulations that animated his frame during the course of the exhibition. Although at a great distance of time, I have still” says Sir Henry “the whole scene before me; not forgetting the glorious tumult, which soon marked the dissolution of the assemblage, and the deafening vociferation, and reiterated huzzas, that immediately followed and announced the emancipation of the boys. How few are there probably now alive to attest these circumstances! Beside myself, I know of none, excepting Robert Graham, Esq. of Whitehill, —— Hill, Esq., resident at Sweet-hope, and Dr. Weir (I believe) now at the head of the military Medical Board in London.”

Laurence Hill—the orator of the foregoing oration—was a handsome lad of fourteen on the date in question: many years after, the Honorary Freedom of the Burgh was conferred upon him by the Corporation of Lanark in connection with his services at the formation of the North and South Lanarkshire Turnpike Road Trust, and with the passing of the Act of Parliament for that purpose. He was the grandfather of William H. Hill, Esq., LL.D., the honoured Clerk of the Faculty of Physicians and Surgeons of Glasgow, and of other important bodies in Glasgow.

Let us now return to the terms of the will. As his will was drawn up with equal testatorship on the part of his wife, its terms enacted that it was not to operate until the death of the survivor of either of them, that is, until they both deceased. Smellie had not only arranged for the care of his books, by nominating the Baillies and Presbytery of Lanark, along with the Schoolmaster, as Trustees, but he had, with his own hand, drafted the plan of the addition to be built to the schoolhouse, wherein the books were to be placed. We turned to the records of Presbytery for information as to whether that body had accepted the trust, but we were informed that there were no minutes in their records bearing on this subject, nor, so far as we have been able to ascertain, is there any note of the matter in the records of the Burgh of Lanark. The likelihood, therefore, is, that the Trustees kept a separate minute book of its meetings.

According to a statement made in Davidson's History of Lanark, published in 1828, it is evident that records did at one time exist of the Trustees' deliberations, but no trace of them can now be found.

After the death of Mrs. Smellie, in 1769, the trustees set to work to carry out the provisions of the will; for, by the year 1775, the alterations on the school, then situated in the Broomgate, were completed at a cost of £220 13s., a few pounds, it will be observed, in excess of the sum originally bequeathed for this purpose. A great many meetings were held for the purpose of framing regulations for instituting the library on Smellie's foundation, but they were not matured till February, 1803, when the regulations were issued. In 1814, the trustees, with the view of making the library more popular, made a departure from the original regulations, and they agreed that the books should be lent out. This movement, however, did not have the desired effect, for we find two years later, that a motion was made that the new section of the library—that is, the books added by purchase—should be broken up. This was only carried into effect in 1819, when the purchased volumes were apportioned among the subscribers. From that time, then, Smellie's collection proper was allowed to remain undisturbed within the locked presses, and no one seemed to take the remotest interest in it. In consequence, the books, for want of a caring hand, fell a prey to dust, insects, and other destroying influences. As Davidson remarked in 1828, "Never was a donation so handsome, attended with such trifling effects. The intentions of the generous donor have been completely lost for want of a bestirring spirit on the part of the trustees; and the reduced state of the seminary has completely defeated the laudable intentions of the amiable gentleman. The books have, consequently, become useless lumber, and, for want of proper attention, must soon be destroyed by moths." When the Grammar School was changed from its old site in the Broomgate to the newer building in the Horse-market of Lanark, the library was transferred thence. The writer made his first acquaintance with it when he was a scholar of the school about thirty years ago. Even then, however, his acquaintance with it was chiefly confined to an external view of the presses. Locked receptacles are ordinarily a

temptation to the curious boy, and so did the cases in question prove to the boys of the school. We were anxious to know the contents, and we did what we could to achieve our purpose. It was the custom of the Rector to retire to the Rectory, about half a mile distant from the school, during the lunch hour, and to permit, on occasion, scholars who came from a distance to remain in school, under lock and key, during inclement weather. This was our opportunity. It was in vain, however, to attempt to gain entrance to the presses, the "weil tirlised doors" being an effectual barrier. We next directed our attention to the top of the presses. There we came across a "find" in the form of a collection of loose thick paper sheets, on which were drawings of a kind that we had never seen before. Most of them were unintelligible to us; but, in the light of the knowledge subsequently acquired, the writer at once recognized in memory that they consisted of many of the drawings of the Anatomical Tables, besides other diagrams for teaching purposes. Later on, in the early seventies, when a student of medicine, we were afforded our first intimacy with the contents of the library, and we have renewed that acquaintance on many occasions since. On one of these occasions we made a catalogue of the contents, a portion of which was unfortunately lost some years ago from among our papers on Smellie. On the first occasion, we chanced upon the author's interleaved copy of his Treatise, which contained copious holograph notes. This with the diagrams have long since disappeared. The library was again transferred to a new school in the Wellgate, some years ago, and here it is now located. A few years ago it was, while in this school, unhappily exposed to a fire, but thanks to the public spirit of the inhabitants most of its contents were saved from the flames. On the restoration of the school it was placed in new cases, and the books are now in a better condition than they have been any time during the last twenty years, thanks to the present rector, who, in addition to caring for the books, has made a new catalogue. On the passing of the Education Act in 1872, the curatorship of the library became vested in the School Board, which, it must be owned, has jealously guarded its treasure; so jealously, indeed, that when we applied for the temporary

loan of certain works therein contained—books which could not be procured in any of the libraries of Scotland, so far as we could discover—for the purposes of this biography, the request was courteously declined. We were, however, permitted, although at much inconvenience, to visit the library and to peruse such works as we required.

Smellie's original intention in bequeathing his collection to this school, however much it might have been of value to the medical men of the town in his day and for a time afterwards, and however laudable that intention was, has long since been frustrated by the passage of time and the negligence of its curators; and, indeed, not less now than formerly. The medical books can only now be looked upon as valuable in illustrating the doctrines obtaining in medical practice prior to and during Smellie's time. They are of no contemporary value to-day, except from the point of view of the bibliophile and the medical antiquarian. And it is very unfortunate that the collection of books of a man who was so well known in his own department during his life, and whose name is still held in such respect even in these modern days, should be permitted to moulder gradually into the condition of what Davidson calls "useless lumber." And although an offer has been made by the Faculty of Physicians and Surgeons of Glasgow, from which Incorporation, as we have shown, Smellie first received his title to practise, to properly care for the books in special cases within its own library in Glasgow, *in curâ* for the Lanark trustees, the School Board has not been able to see its way clear to depute its curatorship in this manner. So it has come to happen that Smellie's collection, of no use now to any one in Lanark, and every year becoming more deteriorated by the ravages of time, still remains in the Grammar School. It is not in accordance with the spirit of the age that the best monument to the highly useful life of a pioneer in medicine should remain in such obscurity, where it is unappreciated because unused.

Besides the Collection of books, Smellie also left to the school his "large reading desk with the table-flap," the "lether cheir," the "smoaking little cheir," the "high steps," the "nine English floots," and some music-books. These have long since disappeared, if, indeed, they ever found their way to the library. But his most valuable bequest of this

character, was the three pictures which hung in his study, viz., "My father's, mother's, and my own, drawn by myself in 1719"; as he words his will. If these pictures ever were placed "in the library room" in the Grammar School, they also have long since disappeared from it. No trace of the portraits of his father and mother has been obtained; but, fortunately, the portrait of himself has shared a better fate, inasmuch as it is now in the hall of the Royal College of Surgeons of Edinburgh. Our frontispiece is a photogravure of the portrait, which we obtained by the kind permission of the President and Council of the College. The history of the portrait is as follows. As will be seen from the following Minute extracted from the records of the College, for which we are indebted to the kindness of Dr. Cadell, the honorary secretary, it was presented by John Harvie, Esq., Writer to the Signet of Edinburgh, a son of Dr. John Harvie, Smellie's successor in London, and joint-heir.

" 15th January, 1828.

"The President stated that he had received from Mr. John Harvie, Writer to the Signet, a portrait of the late Dr. Smellie, author of the plates on Midwifery, to be placed in the Collection of the Royal College, that the Portrait was now in the Hall, and besides being an excellent likeness of Dr. Smellie, it possessed very superior merit as a Painting.

"The College unanimously voted their thanks to Mr. Harvie for this very handsome gift, and the President was requested to write him with their thanks accordingly."

The President of the College, who was the medium of the presentation, was Dr. David Maclagan. Many years thereafter, Dr. Matthews Duncan, in order to establish the identity of this portrait with that mentioned in the will, asked the late Mr. James Drummond, R.S.A., of Edinburgh, to make a careful examination of the painting, who reported that, in his opinion, it was "the original picture painted by Smellie himself and not a copy"; and as M'Lintock happily puts it, "if so, the value of the portrait is increased a hundredfold; and the College of Surgeons may well be congratulated on possessing not alone the only portrait extant of the greatest of British accoucheurs, but more than this, a portrait drawn by his own hand." Let us carefully look at

the portrait. The wig which is worn is the full-wig. In this alone, we have a corroboration of the identity of the portrait with the date (1719) at which it was painted. It was not till about 1720 that the full-wig began to disappear in favour of the queue, which prevailed, in its turn, till the end of last century. A white neckcloth, tied, encircles the neck, and a single-breasted coat, of a golden brown colour, and a waistcoat, cover the body. The face is an open and frank one, denoting candour, with firmness of character; M'Lintock seems to us to have fallen into mistake when he describes the face as "that of a man in the prime of life." It is true that the age of a person, from a portrait, is difficult to divine, and that there is a certain range of years within which it is practically impossible to fix a precise date; but it appears to us as the face of a man younger than the prime of life. Possibly M'Lintock's view arose out of the appearance of ageing which a clean-shaven visage, surrounded by a full-wig, naturally gives. If we agree with Drummond's opinion that this is the original portrait, then we know that it was drawn by Smellie in 1719, at which time he was but twenty-two years of age. This, it will be observed, corresponds with our reading of the age of the portrait. Apart from this, however, the interest attaching to any portrait painted by the man himself is great, and all the more so, in this case, when we consider the period at which the painting was done. It was no inconsiderable feat for a man like Smellie in 1719, to paint himself in a picture. He could not call photography to his aid, for it was not till about one hundred years later (1814) that Neipce's heliograph was discovered, and not till 1839 that Daguerre made his discovery. Indeed, the only available method at his disposal, was the reflection of himself in a mirror. Obviously, from what we have said, although the College of Surgeons is in possession of this portrait, we are unable to discover any legal right which enabled Mr. Harvie to present it to the College. We do not regret their possession of it, however, nay, we rather rejoice; for, had it been left in Lanark, it probably would have disappeared long ere this, and so an interesting souvenir of a distinguished man would have been lost.

Mrs. Smellie survived her husband about six years. She

died, as we have already noted, on 27th June, 1769. We find in August of the same year, an instrument of sasine recorded in which the bulk of the landed property belonging to her, as having survived her husband, was handed over to their niece Anne Hamilton or Harvie, and to her husband Dr. John Harvie of St. Ann's Parish, London. This property included the residence at Smellom and about twenty acres of land. Mrs. Smellie at the same time made a special bequest in favour of Eupham Harvie—the daughter of Dr. Harvie—of the house in which she and her husband lived when they were in Lanark, “for the love and favour” she bore to her grand-niece.

CHAPTER XXI.

OTHER CRITICS OF SMELLIE.

IT is with a sense of relief that we turn our attention to those critics of Smellie, who, recognizing his advanced position in the world of obstetrics, brought to bear on his doctrines and his practice the enlightened canons of legitimate criticism. In him they saw one who was anxious to improve the art of midwifery honestly and openly, and they tintured their criticisms with the virtues of honesty and frankness. The only important contemporary critic of Smellie, other than Burton, and one whose criticism was altogether on a higher plane, was Levret.

“M. Andreas Levret, du College et de l’Académie Royale de Chirurgie, Accoucheur de Madame la Dauphine, etc,” as he is designated in the various works from his pen, was one of the leading, if not, indeed, the most prominent accoucheur in France of last century. He principally engaged himself with the instrumental side of midwifery, and did for France what Smellie did for our own country. Indeed, as Baudelocque says in his work on Midwifery, “if Smellie and Levret had not set out on the same principle, the art would have made no progress in their hands”; and he also remarks, when speaking of the practice of the beginning of the eighteenth century, that “the art had not then counted Smellie and Levret among its masters.” There is good reason for believing that these two eminent men, while criticizing honestly and fearlessly the practice of each other, were perfectly cognizant of the excellent parts of each other’s work. Whether they were correspondents or not, or, if so, but casual correspondents, does not much

matter ; but we were interested to discover in Smellie's collection of books, copies of Levret's works, and especially a copy of the first edition of *Observations sur les Causes et les Accidens de plusieurs Accouchemens Laborieux*, Paris, 1747, on the fly-leaf of which, in the handwriting presumably of Levret, are written the following words : "Donné par L'Auteur au Docteur Smellie." This, to our mind, indicates a certain amount of friendliness existing between them ; and it is not difficult to imagine an extension of it beyond the point of which we have any evidence. In the *Suite des Observations sur les Causes et les Accidens*, etc., 3rd Edit., 1762, Levret takes a critical view of the forceps of Smellie. In Article VIII., p. 226, which is entitled, "Du Forceps de M. Semellié Anglois," he devotes himself to a consideration of the points of Smellie's instrument. Starting at the outset with the statement that the instrument is a most ingenious one, he proceeds to inform his reader that its handles are composed of wood, and its blades of steel. The instrument differs greatly in every part from the *Tire-tête*, said to be amended by Palfyn, and which is commonly used in France, though its appearance shows that it is only a simple improvement, rather than an invention due to Smellie. In short, says he, there are *four* things which essentially differentiate this Forceps of Smellie from all those which have come under his notice, viz., (1) its volume, which is less than that of all others ; (2) the superior part of the instrument—the blades—differ from the blades seen on other instruments ; (3) the aperture of the curvilinear angle which the upper branches form near the place destined for their junction ; and lastly, (4) the mode of joining the two parts of the instrument—by locking. He remarks that, although the handles are very different from those of ordinary forceps (as used in France), they are not new, for they resemble those of the *Tire-tête* of Gilles le Doux ; neither is the mode of adjusting them when in position, by a band or fillet, new, for the same author used also the same means. It is true that the forceps in question, continues he, is covered by leather in every part, and that those in use in France are not so treated ; but it must be recollected that the forceps of Roonhuysen and of Rathlaw were also covered with chamois leather. Thus far, he tells us, the instrument is not new. But there are other aspects and features of the instrument

which *are* novel—important ones, he acknowledges them to be—and he adds, “let us examine them without any partiality.” In the first place, he says, it is true that Smellie’s forceps, being of less volume than the others, is more portable; but at the same time he thinks that every one will agree that the blades, being narrower in every sense, or, to put it better, in each of their parts, will take less hold, and consequently will have less power. But he believes that the greatest defect of the instrument is not in this point, but in respect that the blades are comparatively small, and consequently could take a slighter hold of the foetal head; they would be much more liable to slip—a fault which straight forceps generally have—and in slipping might do injury to the maternal parts. But, continues he, “I find a great advantage in the aperture of the curvilinear angle of the lower part of the blades, and I believe it preferable to that of our own forceps. I do not even except my own, for the correction of which I shall profit with pleasure in this the latest perfection.” In regard to the length of the blades, although at first sight they appear much shorter than those of our own straight forceps, nevertheless, by reason of the angle-aperture before mentioned, they are found to be of sufficient length; and the space left between the blades is roomy enough, where the head has wholly descended into the vagina, and where the face is not found entirely turned to the side, or even where it has so come down; for until the head is below the brim, there is only his own curved forceps which can seize it, especially if the base of the foetal head is still above the pelvic brim. Thus, adds he, we can profit from the curvature of my forceps, to correct those of Smellie, or, if we add to my instrument the aperture of the curvilinear angle of his, we would truly have an instrument more perfect than any other, and one, too, more generally useful in different kinds of cases.

He goes on to say that the ingenious contrivance by which the two parts of Smellie’s instrument are joined together—by the simple pressure of their middle parts, cut in deep notches which receive each other mutually—is infinitely more convenient than the junction effected by a screw. On the other hand, there is this to be said, that the junction cannot be so reliable if the parts of the instrument are not made exact, and there is a liability to unsteadiness in the junction from this particular form

of union, in spite of the fillet or band which binds the handles when the instrument is in position. He acknowledges, at the same time, that one cannot refuse to adopt this kind of union, but can work to make it more exact, without complicating or degrading it; and that experience alone will lead to that manner of union which will most closely attain to perfection. He adds, "that I have already worked to follow this faithful guide; but as I am not yet fully satisfied with my efforts, I will defer, till another occasion, my ideas on this point. . . . I can meanwhile say here in passing, that I have tried with this instrument to relieve the head of an infant whose face was downward, but which did not reach the tuberosities of the ischium, although it was arrested (the waters having drained away twenty-four hours before), at the upper part of the pelvis, without any advancement in spite of strong pains. It did not appear to me possible to push back the head, in order to deliver the child by pedal version; but having succeeded, with Smellie's instrument, in obtaining a good hold of the head, I attempted to push it back by giving it slight movements, upwards, downwards, and laterally. I accomplished my end with greater facility than I had at first hoped, and I was enabled to deliver the patient, as was my intention. I did not wish to use, in this case, my own curved forceps, because I found that the head was not far enough advanced to catch it with that instrument, although it is much longer than that of Smellie, and because its length would have been more harmful than useful in doing the operation. Besides, the angle of Smellie's forceps, being much more open at its junction than the angle of my own instrument, it embraced better that part of the head which first presented itself. This attempt enabled me at least to discover, that if, in this case, the smaller forceps could not bring the head out, it could serve to replace it within, and that without danger, since I was enabled to bring forth a living child. These remarks, therefore, prove, that in the art of midwifery, one cannot be too rich in knowing different devices and different modes of practice. The public, then, ought always to be much obliged to those who, practising this art, willingly communicate their productions, so that all interested may profit by them."

In respect of the leather, he continues, which covers the forceps, one perceives that the contriver has had in view, by

this mounting, to remove from the instrument the clanking noise liable to arise when naked blades are used, and, in consequence of which noise women in labour were unnecessarily alarmed; and that he also had the evident intention of removing the cold feeling which metals naturally excite, if they have not been warmed prior to being used. But, in spite of these apparent advantages, he (Levret) foresees a number of drawbacks. For example, when the covering becomes wetted, it is obvious it will not remain so well applied to the blades as when dry; that the leather will be liable to slide up and down on the metal, and would thereby prevent the head of the child being equally caught by the blades; and, besides, that the covering would be a distinct hindrance to introduction, rather than a help. He acknowledges that by the liberal use of oily or unctuous substances, this might to some extent be overcome, but even with this inunction the blades cannot be so easily introduced as when free of such covering. But, he adds, there is another and still more impressive objection, and one, too, which it would be impossible to prevent, viz., the leather would become more or less saturated with discharges, these would, in course of time, putrefy, and therefore, in its liability to convey infection, the covering would become a menace to succeeding patients. Moreover, concludes he, to change the covering on each occasion after one had to use the instrument would be embarrassing.

We do not think that there was ever written of the forceps of Smellie a fairer criticism than this, and it contrasts strongly, in its tone and fairness, with that of his other critic—Burton. Since Levret has alluded to his own instrument, we will put before the reader a description of it. He used a curved forceps, uncovered as to its blades, and fenestrated, which measured about eighteen inches in length. In delivering, he always adopted the “back” position. His method of using the instrument was as follows:—Before the first blade was passed, a garter or fillet was passed through the fenestra; and so also one of its free ends through the second blade. The instrument thus introduced, and the handles fixed, the ends of the garter were tied together, so as to hang down in a noose about six or seven inches in length; the forceps being grasped in the right hand, and the handles being raised and traction being made, the left hand exercised traction on the noose, thus converting

the instrument into a lever of the third kind, *i.e.*, the moving power lying between the point of support (the hand) and the point of resistance (the foetal head); and so delivery was effected. In this method of using the forceps, we have undoubtedly the prototype of the instrument of Tarnier, and of his school.

In addition to Levret, whose criticism was contemporary, and as we have seen was solely confined to the forceps of Smellie, there are two other outstanding French critics who deal in more general criticism of Smellie's work, but whose works did not appear till further on in the century. These were Leroy and Baudelocque. We will consider them in their chronological order.

LEROY.

In 1776 there was published at Paris a work entitled "La Pratique des Accouchements, Première Partie, contenant l'Histoire critique de la Doctrine et de la Pratique des principaux Accoucheurs qui ont paru depuis Hippocrate jusqu'à nos jours, etc. Par M. Alphonse Leroy, Docteur-Regent de la Faculté de Médecine de Paris, Professeur de l'Art des Accouchements et des Maladies des Femmes." In this work the author pays considerable attention to Smellie, and generally speaks of him in words of praise. He asks his reader¹ to contemplate, with admiration and grateful acknowledgment, a man who, after having carefully watched the mechanism of labour from nature, disclosed to the world its simplicity, and taught the practitioners of the art to look to nature as their sole guide. He tells us that England was conspicuous, in that several medical men of the greatest merit had reached forth their hands to succour suffering women in their hour of need, and Doctor Smellie was of this number. He goes on to inform his reader that Smellie, misdirected in his early studies, did not at first recognize the value of his own wholesome observations, but followed the false doctrines of the foreigner; that he came to France, and listened to the teaching of Grégoire and others, who taught the art of midwifery publicly in Paris; but that later on, he planted his feet more firmly on the rock of experience and gained

¹ *Op. cit.*, p. 103.

for himself better and more trustworthy lines of treatment. He made mistakes, and who does not? but he set himself to discover the cause of them, and when he perceived that he had gone wrong he acknowledged it, and set himself to correct his blunder. Leroy then goes on to quote from Smellie's work the substance of the paragraphs in which he deals with what he saw of the Parisian practice,¹ and in which he tells us, that it was evident that the mechanism of labour was not known then by Grégoire, and how he set himself to study the whole problem of parturition from the mechanical point of view, from the dimensions and form of the pelvis, and from the figure of the foetal head.

Leroy continues, that experience both affirmed and confirmed more and more this excellent practitioner in the true doctrine; and that after having practised for a long period, he published his theory of the Art, the substantiality of which he demonstrated by two volumes of observations and, on another opportunity, by the plates which he believed necessary to make his principles more lucid and more easily appreciated. This excellent work, distributed in four volumes, did not appear as a French translation until 1754, that is to say, eight years after it had been published in England. We are indebted for the translation to Riche de Prévile, a physician near Coutances, who, perceiving the value of the English writer, and believing him to merit well of the French public, thus put them in a position to profit by the work. We would only interpolate at this point one remark, viz., that while Leroy's date of the translation is correct, he is quite astray respecting the period that had elapsed between the English and French issues. In Smellie's Collection, we find an original copy of the translated work, and it bears the following title, "Traité de la Théorie et Pratique des Accouchemens. Trad. de l'Anglois de M. Smellie, D.M., Par M. de Prévile, M., Auquel on a joint le Secret de Roonhuisen dans l'Art d'accoucher, trad. du Holl. Paris, 1754." Leroy then proceeds to consider the salient features of Smellie's work. He tells us that Smellie began by examining the pelvis and its dimensions; that he proved geometrically that when the pelvis is divided into parts, its widest part is not that from the mean anterior to the mean posterior;

¹ *Op. cit.*, vol. ii., pp. 250-251.

that is to say, from the symphysis pubis to the sacrum, as was then believed everywhere in France, but rather from the latero-anterior part to the opposite latero-posterior; that is to say, from one cotyloid cavity to the sacro-iliac synchondrosis of the opposite side; and that consequently it was in this widest part that the greatest diameter of the head should be situated. Although, as Leroy says, Ould, as also La Motte, had already conceived that the foetal head occupied the oblique diameter, it was not till Smellie that we were furnished with the geometric reasons for it. And not only does he indicate to us the position of the foetal head in the pelvis during labour, but he also considers the position of its body as a whole within the uterus; for, he tells us, the foetus is situated within the womb, so that its body corresponds to one of the sides of the mother, and not to the centre of the pelvis. Leroy goes on to note that Smellie proves that, in the progress of labour, the occiput ought to descend first, or, in some few ordinary cases, the chin. Next, that Smellie considered the head in different positions in the pelvis; to wit, those where the occiput is situated anteriorly, whether to right or left, and where it disengages itself from beneath the symphysis pubis; and those where the occiput is situated posteriorly, and where it disengages itself at the extremity of the coccyx. Smellie knew well, says he, that when the head descended by the forehead instead of by the occiput, the delivery was often impossible; and that, in these circumstances, his practice was to elevate the forehead with his fingers and bring down the occiput, which simple manoeuvre Deventer also knew, although it was left to Smellie to clearly demonstrate it, for which Leroy thinks he ought to receive the gratitude of posterity. The more it appears natural and easy, adds he, the more it merits our praises; and when a truth of nature is unveiled, as this was, it appears to us so simple and so clear, that we have a difficulty in believing any other expedient could present itself to the mind. He further notes that Smellie's practice of certifying wrong positions was very commendable, and was more worthy of imitation than the prevailing doctrine, which was, that in all such cases pedal version should be resorted to. Smellie considered the risks to the foetus in performing pedal version indiscriminately to be so great, that he thought his own

plan not only gave the child a better chance of life, but it also saved the accoucheur much unnecessary, and often toilsome, trouble. Where the head proves, after version, to be relatively too large for the pelvis, the foetal risks are very serious; whereas, after rectification of the mal-position with forceps, there is a much greater chance of saving the life of the child. With all this Leroy heartily agreed. The reader will at once perceive in this the beginning of a controversy as to the respective merits of version and forceps in the case of a tight brim, which, from that time till now, has been waged at times very keenly between the exponents of the different schools. Leroy notes that Smellie's attention was so much taken up with the passage of the head through the pelvis, that he paid no attention to the mechanism of the passage of the after-coming body of the foetus. In this he is perfectly right. Smellie says nothing specifically about this in any of his volumes, and Leroy puts it fairly when he says, that Smellie "has not reduced these manœuvres to the same geometric principles as those he had laid down for the head, so that this part of his book is not so clearly developed." He further points out, that starting from such wholesome principles of practice, Smellie had little need for instruments; that, indeed, he only used them in cases of extreme necessity, but that, even in such cases, he only used the small forceps of Chamberlen, described by Chapman, to which he had given an advantageous curvature. He also notes that Smellie rejected not only the forceps of Levret, but also his *Tire-tête*, which latter he regarded as a too complicated machine; that he laid down most judicious rules for the use of the forceps, "rules so sure that this great man has been able to use them oftener" than the ordinary practitioner; and that he never abused them. He always left to nature her rights, and gave preference, early in a case, to time and medicinal assistance; he employed heroic remedies, such as volatile alkalies and opium, according to circumstances, as Deventer had done before him. Notably did he give opium in false labour, or in cases where the pains were too vehement, because he believed that this agent assisted in the moulding of the head and ameliorated suffering; and we can see from the observations which he left that he had the greatest confidence in

the remedies which he employed. Leroy says further, that in more than six hundred observations which Smellie had published, we find, with difficulty, a dozen where he used instruments, and that he set himself to moderate the imprudent impetuosity of those who seemed to consider the forceps the most expeditious method of accomplishing delivery, and the most likely to help to make their reputation. In this connection, too, Leroy quotes approvingly the case recorded in vol. ii.¹ of Smellie's works, wherein he restrained an ardent, young, and rash practitioner from over-hasty action. This practitioner had had very little experience in midwifery, and after attending this patient for a night and a half, and there being no sign of her early delivery, he determined to accomplish that end by turning the child; but before doing so, he thought it better to have an experienced person beside him while he operated, and accordingly Smellie was sent for. Smellie says, "I was much struck with his apparatus, which was very extraordinary, for his arms were rolled up with napkins, and a sheet was pinned round his middle, as high as his breast." Smellie, after examination, at once saw that the time had not arrived for any operation to be performed, and he concluded that the tediousness of the labour was due to the premature rupture of the waters. He therefore gave the young man "a friendly advice in private," advised patience and opium, the result of the latter being to give the patient some needed rest to recuperate her fatigue, and of the former to enable nature afterward to assist herself. The patient delivered herself early the next morning.

Smellie, continues our critic, reduced the learning of the whole art of midwifery to a small number of interesting principles, viz., to acquire an exact knowledge of the size, shape, and various dimensions of the pelvis; to assure ourselves, at the same time, as to the volume, diameters, and position of the foetal head and the position of the body of the child. But he omits one essential point—that is, to take into account the position of the womb relatively to the child, and of the position of the foetus to the womb—important points which Deventer had scrupulously considered. Leroy believes that this omission leaves a gap in Smellie's work; that it even influenced his practice, without, however, making it any the less successful, which

¹ P. 178, Case 121.

it might, and probably would have done, if the rest of the knowledge which he possessed on the mechanism of parturition had not furnished him with means to remedy any possible confusion. Almost every author has reasoned after his observations had been made, but Smellie began his work by meditating upon his subject and reasoning afterward, before putting his views down on paper. He had an excellent judgment. When called to patients he saw the true difficulty, and operated accordingly; and as his multiplied observations are clear and easy to catch, they contribute infinitely to give intelligence to his practice; neither upon any one of them can grave reproach be drawn—not one which through his fault has been deplorable, either to the mother or child. This is praise which, perhaps, he alone merits, and which probably Deventer would have shared with him had his practice squared with his theory. Smellie, adds our critic, was an accoucheur almost as able as it is possible to be. He is so much the greater because, in spite of the erroneous views which he held in his early years of practice, he was able, by the sole force of his genius, to see clearly what was good in those writers who had preceded him, and to strike out for himself a new and sure way, athwart deep-rooted prejudices and superstitions. At the same time, while his observations demonstrate the excellence of his method, on the other hand his method is not presented with that lucidity and point which animates the reader. Important truths are often either neglected, forgotten, or omitted; Smellie, so full of his subject in its true proportions, does not see sufficient necessity to confound error. And a doctrine wholly opposed to national practice, and one which demands study, and which removes from the restless activity of youth the means, and also the desire, of trying new and dangerous practices, can with difficulty take any permanent root in France. “I have endeavoured,” concludes Leroy, “to free this author from the charge of omission, of which he seems to me so unjustly condemned; he is the only accoucheur whose work I have put into the hands of those young men who have destined themselves to the study of this important branch of surgery. I have reduced all my praises to say that his judgment and observation made Smellie one of the most useful men to humanity.”

BAUDELOCQUE.

Five years after Leroy's work had been published, Baudelocque published *L'Art des Accouchements*, which was translated into English in 1790 by John Heath, Surgeon in the Royal Navy, and Member of the Corporation of Sugeons of London.

The author begins his work by stating that the art of midwifery is a practical art, the principles of which are sure, and that delivery is "a mechanical operation subject to the laws of motion." "Indeed," says he, "if Smellie and Levret had not set out on this principle, the art would have made no progress in their hands." Astruc before Baudelocque had laid it down that "the whole art is reducible to the following mechanical problem: an extensible cavity, of a certain capacity, being given, to extract from it a flexible body of a given length and thickness, through an opening dilatible to a certain degree." Baudelocque, a strict follower of the mechanical school, did not however, agree with the above problem. He says that Astruc would have been more correct had he said that a given body had to be extracted through "a bony canal, of a given form, size, and direction, and incapable of any kind of dilatation." As Smellie was the first to promulgate the view that the process of parturition was an operation guided and governed by mechanical laws, Baudelocque, a faithful disciple of his, naturally paid much attention to any definition affecting this view.

Of the many authors of works on midwifery, Baudelocque highly appreciated some, and strongly condemned others. They could, said he, be easily classified. "The Mauriceaus, the Smellies, and the Levrets" stand so pre-eminently above the general crowd, that they deserve to be separated "from the crowd of the Viardels, the Peus, Portals, Deventers, Amands, and an infinite number of others." It will hence be noteworthy, that, like other French and German writers, he only mentions, among English writers, the name of Smellie as deserving one of the foremost places. He further declares, that, with Smellie and Levret, "began the most brilliant epoch of the art. The forceps, recently invented, but scarcely yet perfectly sketched, having received a new form from the

hands of these two celebrated men, but especially from those of Levret, entirely changed, as I may say, the face of the art."

By the year 1790, however, the pendulum of opinion, which, immediately after Smellie's time had been swinging forceps-wards, had begun to swing in the opposite direction. The translator of the work, indeed, deplures the fact that practitioners had reverted to the almost sole reliance on nature, and had left instrumental assistance almost quite alone. He believed that a judicious combination of natural effort and artificial assistance, when natural forces showed signs of failing, was the perfection of practice. There can be little doubt that William Hunter's example had much to do with this state of matters in England. But to return to Baudelocque. This writer reviewed very carefully the teaching of Smellie, and, in most respects, heartily followed it. In considering, for instance, the delivery of the placenta, and after dealing with the usual routine practice, he adds that there are certain cases where it is far from advisable to extract the whole of the placenta, and where there is imminent risk of laceration of the uterus in so doing. "Smellie," adds he, "gives us an example of this sort in his excellent work; where we find he thought it better to follow this method than to risk tearing the *uterus*, by endeavouring to detach a portion of the *placenta* which appeared to him to be *schirrhous*"; in such cases, he tells his reader, "we must act as Smellie did." After all, however, Baudelocque pays most attention to the use of the forceps in Smellie's hands, and to the instructions he lays down for their use. Leroy had said in his work "that Smellie used them (the forceps) but ten times in the space of thirty years"; a statement which was totally incorrect. Baudelocque was far from friendly to Leroy, and gives at some length in his book several reasons why he was so. These, however, find no place here. He points to the above quotation from Leroy, and adds, "Let any one look into his (Smellie's) collection of cases, and they will see that he used them at least five and forty times instead of ten, and that he often regretted he had not used them more frequently. No one had more confidence in them than Smellie, no one rendered them of more general use, nor applied them more methodically, or with greater success." He further declares

that Leroy had an object in view in attempting to minimize the number of times in which Smellie used the forceps. He asserts that while in 1776 Leroy was in favour of the instrument, by 1780 he had turned round to the opposite opinion, and that he was trying to gain evidence in support of his later opinion when he made the foregoing statement.

Speaking of the alterations given to the form of the forceps, Baudelocque, highly impressed by the important services in this direction by Smellie and by his countryman, Levret, says that none have laboured more successfully in this way than these two men ; so much did they change the form and extend the advantages of the instrument, that we might even look upon them as the authors of it. Among the corrections they made in it, none, continues he, is of more importance than the double curve which they added to it ; but it would be difficult to decide to which of those two equally celebrated men the art is most indebted in this respect. Baudelocque notes, also, that the English forceps differs a good deal from that of Levret, and he believes the latter instrument to be the more perfect ; while Levret's three-branched *tire-tête* he considered, "though very ingenious, to be useless." While, however, he naturally always stoutly maintained the superiority of the French instrument, it is noteworthy that he himself did not use Levret's instrument, but one two inches longer, after the pattern of M. Péan. Baudelocque considered that there were two applications of the forceps by Smellie, in which he distinctly was the pioneer, and that to him must be given all the credit attaching to them. In a chapter dealing with the use of the forceps when the foetal head is above the brim, he says that Levret makes no mention of the use of the instrument in such circumstances, but that "Smellie, on the contrary, has left us little to wish for on the subject ; it is to him we are indebted for the idea of carrying the forceps so far." In another place, he states that most authors have not used the forceps till the foetal head was descended into the cavity of the pelvis, or, at least, was engaged a third or half its length ; but that Smellie was the first to depart from that rule and to employ the forceps while the head was still above the superior strait. It was particularly with that

view Smellie constructed his second forceps longer than those used at first, and added a new curve to them, similar to that of Levret's forceps. Smellie, he adds, not only knew the possibility of carrying them so far, but also that it was easier to apply them there than when the head is engaged transversely in the superior strait, and its sides strongly wedged between the *pubis* and *sacrum*; further, he notes that no one knew better than Smellie the disadvantages and dangers of the instrument in unskilful hands, and it was for this reason that he did not use them publicly or even demonstrated their use to his pupils. It had been contended on the Continent, by some writers, that Roederer was the first to use forceps above the brim; but Baudelocque points out that this statement is totally erroneous. As he further shows, it is noted in Smellie's works that in 1743 a Mr. Puddicombe used the forceps in such circumstances.

The second application of the forceps which Smellie pioneered, was in the delivery of the after-coming head in breech cases, or after version. Smellie, always desirous of saving the life of the child, and believing that in the above circumstances the lives of children were not infrequently sacrificed by unusual force being applied to the neck by traction on the body, thought that this might be avoided by the application of forceps; not only so, but he put his belief into practice, and delivered in some cases successfully. In this Smellie was the first, of which Baudelocque takes note.

De Leurie, in a work published in 1770, had stated that Smellie had only hinted the use of the forceps in these circumstances and had not described the manner of applying it. Baudelocque chides his countryman for this stupid misstatement, and puts him right. He charitably puts it down to forgetfulness on the part of De Leurie. As imitation is the sincerest flattery, Baudelocque could confer no higher form of praise on Smellie's practice in this regard than by his statement, "I have trod in his steps."

Baudelocque also applauds Smellie's procedure in face cases. He counselled that the lever or vectis ought only to be used in correcting certain mal-positions of the head, and thus favour its exit, and that it should never be used as an extractor. Baudelocque thought highly of Smellie's

manner of performing craniotomy, and, speaking of his scissors, says, "When we cannot procure Smellie's perce-crane," we can use another instrument, pointed and sharp; but "an instrument which, like Smellie's scissors, would make the incision at one stroke, would doubtless be preferable to any other." He also adds that Smellie was highly esteemed in France.

APPENDIX.

I.

BIBLIOGRAPHY OF THE WORKS OF SMELLIE.

- “COURSE of lectures upon midwifery, wherein the theory and practice of that art are explain'd in the clearest manner: more particularly the structure of the pelvis and uterus; of the foetus in utero and after parturition; the management of child-bearing women during pregnancy, in time of labour, and after delivery; the manner of delivering women in all the variety of natural, difficult, and preternatural labours, perform'd on different machines made in imitation of real women and children.” 7 pp., sm. 4to. 1742.
- Another edition. 1748.
- Another edition. 1753.
- An answer to a late pamphlet, entituled, A Letter to Doctor Smellie, showing the impropriety of his new-invented wooden forceps, etc. 27 pp., 8vo. London: C. Corbet. 1748.
- A Treatise on the Theory and Practice of Midwifery. [First edition.] 8vo. London. 1752.
- Vide* Catalogue of Library of Obstetrical Society of London.
- A Treatise on the Theory and Practice of Midwifery. 454 pp., 8vo. Second edition, corrected. London: D. Wilson and T. Durham. 1752.
- The same. Third edition, corrected. 448 pp., 8vo. London: D. Wilson and T. Durham. 1756.
- The same. Fourth edition, corrected. 448 pp., 8vo. London: D. Wilson and T. Durham. 1762.
- The same. Fifth edition, corrected. 448 pp., 8vo. London: D. Wilson and T. Durham. 1766.
- The same. Sixth and Seventh editions. (?)
- The same. Eighth edition. 286 pp., 12mo. London. 1774.

The same. A new edition: to which is now added a set of anatomical tables, with explanations. 456 pp. 39 plates. 8vo.

London: W. Strahan (and others). 1779.

The same. *Traité de la théorie et pratique des accouchemens. Trad. de l'anglois par M. de Préville (de Coutances). Auquel on a joint le secret de Rooenhuisen dans l'art d'accoucher, trad. du Holl.* 486 pp., 8vo. 1 plate. Paris: Delaguette. 1754.

The same. 8vo. Paris: P. F. Didot le jeune. 1771.

The same. *Theoretische und praktische Abhandlung von der Hebammenkunst. Aus dem Englischen übersetzt von Johann Ernst Zeiher.* 492 pp., 12mo. Altenburg: P. E. Richter. 1755.

The same—*Verhandeling over het bespiegelend en bewerkend deel der vroedkunde; na de derde druk in't Hollandsch gebragt, en met eenige weinige aanmerkingen en zaaken vermeerderd, door Matthys van der Haage.* 266 pp., sm. 4to. Amsterdam: J. Morterre. 1765.

These different editions are of volume i.

A collection of cases and observations in midwifery, to illustrate his former treatise, or first volume, on that subject. 512 pp., 8vo.

London: D. Wilson and T. Durham. 1754.

The same. Second edition. Same publishers. 8vo. 1758.

The same. Third edition. Same publishers. 8vo. 1764.

The same. Fourth and Fifth editions. (?)

The same. Sixth edition. 357 pp., 12mo. London: 1774.

The same. A new edition. 451 pp., 8vo.

London: W. Strahan (and others). 1779.

The same. *Observations sur les accouchements, en suite de la théorie et pratique de cet art. Trad. de l'anglois par M. de Préville.* 605 pp., 8vo. Paris: Delaguette. 1756.

The same. *Eine Sammlung besonderer Fälle und Bemerkungen in der Hebammenkunst, um seine erste Abhandlung oder den ersten Band von dieser Materie zu erläutern. Aus dem Englischen übersetzt von D. Georg Heinrich Königsdörfer.* 520 pp., 12mo.

Altenburg: Richter. 1763.

The same. *Verzameling van vroedkundige gevallen en waarnemingen. Om het bespiegelend en bewerkend deel van deze konst, of zyn eerste deel op te helderen; na het tweede deel in't Hollandsch gebragt, door Mathys van der Haage.* 262 pp., sm. 4to.

Amsterdam: J. Morterre. 1766.

The foregoing are named volume ii.

A collection of preternatural cases and observations in midwifery, completing the design of illustrating his first volume on that subject. Fifth edition. 380 pp., 12mo. London. 1774.

The same. A new edition. 493 pp., 8vo.

London : W. Strahan (and others). 1779.

The same. Observations sur les accouchemens, en suite de la théorie et pratique de cet art. Trad. de l'anglois. 606 pp., 8vo.

Paris : P. F. Didot le jeune. 1765.

The same. (German.) Königsdörfer. 1770.

The same. Verzameling van tegennatnurljke gevallen en waarnemingen in de vroedkunde. Volbrengende zyn voorneemen om het eerste deel handelende over dit onderwerp, op te helderen; na het derde deel in't Hollandsch gebragt, door Matthys van der Haage. 304 pp., sm. 4to.

Amsterdam : J. Morterre. 1766.

The foregoing are of volume iii.

The same—to which are added, a Set of Anatomical Tables, and additional Plates of instruments by the late Dr. Young. 3 vols., 12mo.

Dublin. 1764.

The same. 3 vols. Edinburgh. 1784.

The same. 3 vols. Edinburgh. 1788.

Editor supposed to be Prof. A. Hamilton of Edinburgh University, and from which New Sydenham Society edition was printed.

Treatise on the Theory and Practice of Midwifery. Edited, with annotations, by Alfred H. M'Clintock, M.D. (with portrait and memoir). 3 vols., 8vo. London : New Sydenham Society. 1876-8.

A Sett of Anatomical Tables, with explanations, and an abridgement of the practice of midwifery, with a view to illustrate a Treatise on that subject and collection of Cases. 39 plates, fol. London. 1754.

The same. London. 1761.

The same. 12mo. London. 1779.

A set of anatomical tables, with explanations, and an abridgment of the practice of midwifery, with a view to illustrate a treatise on that subject, and collection of cases. A new edition, corrected; to which is added two additional tables, with explanations, by the late Dr. Thomas Young and Dr. John Evans. 72 pp., 41 plates, 8vo.

Edinburgh : C. Elliot. 1785.

Bound with Alexander Hamilton's Outlines of the theory and practice of midwifery. 8vo. Edinburgh. 1784.

The same. To which are added, notes and illustrations, adapted to the present improved method of practice, by A. Hamilton, 1, Worcester edition, with an entire new set of plates. 84 pp., 40 plates, 8vo.

Worcester, Mass. : J. Thomas. 1793.

The same. 98 pp., 40 plates, 8vo.

Philadelphia : T. Dobson. 1797.

Bound with A. Hamilton's Midwifery. 8vo. Phil. 1797.

The same. An abridgement of the practice of midwifery; and a set of anatomical tables, with explanations. Collected from the works of the celebrated W. Smellie. A new edition. 56 pp., 39 plates, 12mo.

Boston: I. Norman. 1786.

The same. A new edition, carefully corrected and revised, with notes and illustrations, adapted to the present improved method of practice. By A. Hamilton. 40 plates, folio.

Edinburgh: W. Creech. 1787.

The same. Observations sur les Accouchemens. Trad. de l'anglois, par M. de Préville. Tome iii., contenant les planches relatives à la théorie et à la pratique de cet art, ainsi qu'aux observations, avec les explications des figures de chaque planche. 79 pp., 40 plates, 8vo.

Paris: veuve Delaguette. 1758.

The same. Traité de la théorie et pratique des accouchemens. Trad. de l'anglois, par M. de Préville. Tome iv., contenant les planches relatives à la théorie et à la pratique de cet art, ainsi qu'aux observations, avec les explications des figures de chaque planche, et la table générale de tout l'ouvrage. 21 pp., 40 plates, 8vo.

Paris: P. F. Didot le jeune. 1765.

With which is bound, at end: Découverte de l'instrument de Roonhuisen, pour les accouchemens.

The same. Verzameling van ontleedkundige afbeeldingen, met derzelver uitleggingen; benevens een kort begrip der vroedkunde; dienende tot opheldering eener verhandeling over derzelver bespiegeland en bewerkend deel; als ook van eenige gevallen en waarneemingen, deze Konst betreffende. In't Hollandsch gebragt, en met platen vermeerderd, door Mathys van der Haage. 78 pp., 43 plates, sm. 4to.

Amsterdam: J. Morterre. 1765.

The same. Text Latin and German, by G. L. Huth. Plates by Seligmann.

Nürn. 1758.

The same. Sammlung anatomischer Tabellen, mit Erklärungen, und einem Auszuge der praktischen Hebammenkunst, Aus dem Englischen übersetzt. Nebst Nachricht und kurze Prüfungen der Sigaultschen Operazion von Dr. C. L. B(ecker). 38 pp., 40 plates, 12mo.

Augsburg: E. Kletts sel. Wittw u. Franck. 1782.

The same. 152 pp., 40 plates, 12mo. Same publishers. 1797.

Obstetric Plates, with Explanations; selected from The Anatomical Tables of William Smellie, M.D. 12 plates, 12mo.

London: S. Highley. 1848.

II.

CHRONOLOGICAL TABLE OF SMELLIE'S CASES WHILE IN
LANARK.

YEAR.

1722,	-	Case 5,	-	vol. ii.,	page 11.
		„ 29,	-	„ ii.,	„ 65.
		„ 40,	-	„ ii.,	„ 82.
		„ 382,	-	„ iii.,	„ 142.

Where he designates himself as one of the “young practitioners,” and states
“it was one of my first cases.”

1723,	-	Case 30,	-	vol. ii.,	page 66.
		„ 380,	-	„ iii.,	„ 135.
1724,	-	„ 10,	-	„ ii.,	„ 19.
		„ 150,	-	„ ii.,	„ 209.
		„ 282,	-	„ ii.,	„ 376.
		At Hamilton.			
		„ 369,	-	„ iii.,	„ 118.
		„ 405,	-	„ iii.,	„ 192.
		At Wiston.			
1725,	-	„ 181,	-	„ ii.,	„ 244.
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		„ 197,	-	„ ii.,	„ 269.
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		„ 451,	-	„ iii.,	„ 250.
1726,	-	„ 35,	-	„ ii.,	„ 73.
		„ 207,	-	„ ii.,	„ 277.
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1727,	-	„ 6,	-	„ ii.,	„ 12.
		„ 63,	-	„ ii.,	„ 102.
		„ 277,	-	„ ii.,	„ 370.

“Some distance in the country.”

		Case 406,	-	vol. iii.,	„ 193 <i>et seq.</i>
		At Carluke.			
1728,	-	Case 23,	-	„ ii.,	„ 41.
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		„ 367,	-	„ iii.,	„ 116.
1729,	-	„ 87,	-	„ ii.,	„ 132.
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		„ 183,	-	„ ii.,	„ 246.
		„ 184,	-	„ ii.,	„ 247.
		„ 354,	-	„ iii.,	„ 92.

“Eight miles in the country.”

		Case 407,	-	vol. iii.,	„ 195.
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YEAR.					
1730,	-	Case 47,	-	vol. ii.,	page 87.
		„ 200,	-	„ ii.,	„ 271.
		„ 220,	-	„ ii.,	„ 290.
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		„ 383,	-	„ iii.,	„ 144.
		„ 386,	-	„ iii.,	„ 149.
		„ 441,	-	„ iii.,	„ 239.
		“Some distance in the country.”			
1731,	-	Case 25,	-	vol. ii.,	„ 59.
		„ 65,	-	„ ii.,	„ 103.
		„ 142,	-	„ ii.,	„ 200.
		„ 321,	-	„ iii.,	„ 32.
		“Some distance in the country.”			
1732,	-	Case 14,	-	vol. ii.,	„ 26.
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1736,	-	„ 353,	-	„ iii.,	„ 90.
		“Some distance in the country.”			
1737,	-	Case 222,	-	„ ii.,	„ 291.
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		“Trial of Butter’s Forceps.”			
		Case 323,	-	vol. iii.,	„ 37.
		„ 362,	-	„ iii.,	„ 102.
1738,	-	„ 303,	-	„ iii.,	„ 1.
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