

THE CONTRIBUTIONS OF WILLIAM SMELLIE TO OBSTETRICS.*

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(With three illustrations.)

MEDICAL history for the most part is interesting to the student only from a historical viewpoint and practical knowledge gained in this way as a general rule is not of great value. However in obstetrical science this is not true for not only are the lives and achievements of the obstetricians of the 17th and 18th centuries historically interesting, but the practical study of their works is of utmost value to the present-day practitioner of obstetrics. In no other field of medicine have there been so few changes in operative technic and it is safe to presume that certain obstetric procedures such as podalic version, breech extraction and forceps application were performed by these men with as much skill and dexterity as obtains to-day.

Up to the present day no obstetrical author ancient or modern has contributed so many principles of obstetrical science as William Smellie, a Scotsman born in 1697 and died in 1763. Some idea of the fascinating medical career of this man may be gained by mention of his intimate friends such as William Hunter, James Douglas, Tobias Smollett, William Cullen, and John Gordon and of some of his contemporaries Samuel Johnson, Joshua Reynolds, David Garrick, Oliver Goldsmith, Lawrence Sterne and others.

It is, however, the purpose of this short paper to only speak of Smellie's great work on midwifery, to point out the contributions for which his name stands and to stimulate if possible a desire among

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BORN, 1697

WILLIAM SMELLIE, M. D.

DIED, 1763

(From a portrait painted by himself.)

practitioners of to-day to devote some time to the practical study of this great master of obstetrical science.

This great work which was published originally in three volumes is not only a tribute to Smellie the author and teacher, but it exemplifies Smellie the practitioner as an adept obstetrician and an honest man. He acknowledges his mistakes with the same frankness as he points out his successes, and not the least interesting is the fact that the revision of this treatise was made by that master of literary art, his one-time pupil, Tobias Smollett.

A contemporary author speaks thus of William Smellie "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 observation; and what ought still more to recommend him and enforce his authority with those of his fraternity, he was an enthusiast in his profession—manmidwifery was the idol of his heart; he believed in his forceps as firmly as he did in his Bible."

This then is the man who in the preface of his midwifery writes "Neither did I pretend to teach midwifery till after I had practised it successfully for a long time in the country; and the observations I now publish are the fruits not only of that opportunity, but more immediately of my practice in London during ten years, in which I have given upward of 280 courses of midwifery, for the instruction of more than 900 pupils, exclusive of female students; and in that series of courses 1050 poor women have been delivered in presence of those who attended me; and 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 hath 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 performance will not be unserviceable to mankind."

Of the early editions of this work the one that is of the greatest historical and practical interest is that published in 1779 at London by Strahan, Cadell, and Nicol in the Strand, and Fox and Hayes in Holborn, to which was "added a set of anatomical tables with explanations."

These remarkable examples of medical art were thirty-nine in number and each plate was accompanied by a description. We are told that twenty-six of these were engraved from drawings done by Mr. Ramsdyke and that in eleven others the author was assisted

THE THIRD TABLE

Exhibits a Front-View of a distorted *Pelvis*.

A The five *Vertebrae* of the Loins.

B The *Os Sacrum*.

C The *Os Coccygis*.

D.D The *Offa Ilium*.

E.E The *Offa Ischium*.

F The *Offa Pubis*.

G.G The *Foramina Magna*.

H.H The *Acetabula*.

From this Plate may appear the great danger incident to both Mother and Child when the *Pelvis* is distorted in this manner; it being only two inches and an half at the Brim from the posterior to the anterior part, and the same distance between the inferior parts of each *Os Ischium*. *Vide* Tab. XXVII. where the *Pelvis* is one quarter of an inch narrower at the Brim than this, but sufficiently wide below. Various are the forms of distorted Basins, but the last mentioned is the most common. It is a great happiness however in practice that they are seldom so narrow, though there are instances where they have been much more so. The danger in all such cases must increase or diminish, according to the degree of distortion of the *Pelvis*, and size of the Child's head.

Vide Vol. I. Lib. 1. Chap. I. Sect. 4, 5. and Vol. II. Coll. 1. No. 3, 4, 5. Also Coll. 21. 27. and 29.

THE

NOTE.—The legend above is taken directly from Smellie's book, together with the illustration on the opposite page.



FIG. 1.

by Dr. Camper, professor of anatomy and botany at Amsterdam. It is probable that Smellie had much to do with the production of all the plates for we know that he was an artist of no mean ability, a fact testified to by the painting of his portrait by himself, a reproduction of which is included in this article.

The superior quality of these engravings may be judged somewhat from the accompanying illustrations. Fig. 1 shows the admirable



FIG. 2.

arrangement of text and plates. Fig. 2, the twenty-eighth plate, is well described as follows: "The twenty-eighth table gives a side view of a distorted pelvis with the head of a full-grown fetus squeezed into the brim, the parietal bones decussating each other and pressed into conical form. The table shows the impossibility in such a case to save the child unless by the Cesarean operation, which, however, ought never to be performed, excepting when it is impractical to deliver at all by any other method. Even in this case after the

upper part of the head is diminished in bulk and the bones are extracted, the greatest force must be applied in order to extract the bones of the face, the basis of the skull as well as the body of the fetus."

These plates and their accompanying text bring out Smellie's principles and practice in so excellent a manner that one is immediately impressed with the practical value to-day of this text-book



FIG. 3.

written one hundred and fifty years ago. Instance the twenty-first plate (Fig. 3), text in part "shows the head of the fetus in the same position as in the former table (*i.e.*, occiput posterior) . . . Forceps are applied to the head as described in this figure and brought along as it presents; but if that cannot be done without running the risk of tearing the perineum and even the vagina and rectum of the woman, the forehead must be turned backward to the sacrum." Later on, "M., the vesica urinaria much distended

with a large quantity of urine from the long pressure of the head against the urethra, which shows that the urine ought to be drawn off with a catheter in such extraordinary cases, before you apply forceps, or in preternatural cases where the child is brought footling."

There is no question but that the most outstanding feature of Smellie's treatise is his teaching concerning the mechanism of labor. His views on this subject were far ahead of anyone of his time and it has been said that he here laid the keystone of scientific midwifery. Before this time most writers held that throughout parturition the face of the fetus looked toward the sacrum and the occiput toward the pubis, *i.e.*, in the anteroposterior diameter of the pelvis. That the mechanism was at all intricate was not dreamed of. Smellie's solution of this problem was no mere accident for he showed by the case books that he kept during his thirty years of practice that he was a diligent student of Nature. He tells us "I diligently attended to the cause and operations of Nature which occurred in my practice, regulating and improving myself by that infallible standard; nor did reject the hints of other writers and practitioners from whose suggestions I own I have derived much useful information."

Smellie primarily recognized the fact that Nature always chooses the path of least resistance and from his studies of the form and dimensions of the pelvis and of the fetal head saw that here lay the basis of the position of the fetus. He realized that the measurements of the pelvic inlet were almost the reverse of those of the outlet and that therefore the anteroposterior diameter route was not the path of least resistance.

Here then was the secret of the mechanism of parturition, that the longest diameter of the fetal head should become engaged at the pelvic brim in the widest diameter of the pelvis and throughout the whole progress of labor that this relationship should be maintained.

Another doctrine that we attribute to Smellie is that regarding the position of the fetus in utero during pregnancy. Previous to his time the generally accepted teaching was that the fetus lay in the breech position until some time between the seventh month and the onset of labor, when the reverse position was assumed. In his treatise Smellie demonstrated not only the position of the fetus with relation to the mother but also described the correct ovoid posture of the fetus as we know it to-day.

Smellie pointed out that the fetus was but a passive agent during the course of labor and changed the theory then current that a dead

child was born with greater difficulty than a living one. He also first showed that an eighth month child had more chance of survival than a seventh month child, a fact that curiously enough among the laity to-day is not generally known.

By showing that the placenta might be attached to any part of the uterine cavity he thus exploded the idea that it was always attached to the fundus uteri. His method dealing with the delivery of this organ is most instructive and was opposed to the prevalent method of his day. After tying the cord with one ligature and cutting the cord his practice was one of expectancy for a time after which he urged the patient whenever possible to deliver the placenta herself by straining or bearing down. He writes (page 354, vol. ii): "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."

Among the most notable of Smellie's achievements was his modification of the obstetrical forceps. When he first began to practice his instruments consisted chiefly of the perforating scissors, the blunt hook, the fillet and the straight crotchet. It is not known just when he first used forceps but we are told on page 311, vol. ii, "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 purpose for which they were intended." Later on in his treatise he says "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."

Smellie first designed the short straight forceps about the year 1744 and the so-called English lock is undoubtedly his invention. In this connection his biographer John Glaister quotes a letter dated Jan. 12, 1747, to Mr. John Gordon, Surgeon at Glasgow. Smellie writes "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 the inconveniences."

He also devised a longer curved instrument for use in mid and

high positions. To him also must be accredited the perforating scissors that bear his name at the present day. Not only did Smellie greatly improve the forceps of his day but to him belongs the credit as the first obstetric writer to lay down safe rules for the application of these instruments, and these rules formulated in 1751 are practically those that obtain to-day.

Smellie's treatment of persistent occiput posterior is worthy of mention. He not only used manual rotation for this condition but also the forceps. The value of his straight forceps in this connection is obvious.

Smellie was well acquainted with accidental hemorrhage and placenta previa and he also pays especial attention to puerperal diseases and discusses under this head diet, air, sleep, rest, excretion and the "passions of the mind." For laceration of the perineum he recommends immediate surgical repair.

Smellie perfected the obstetrical manikin which he used in his teaching and from the description of his apparatus it is doubtful whether at the present day any apparatus of that nature may be found as ingenious or as complete.

An interesting chapter found in the latter part of the first volume bears the title "Of the Requisite Qualifications of Accoucheurs, Midwives, Nurses Who Attend Lying-in Women, and Wet and Dry Nurses for Children." His words to accoucheurs are worth closing this article with, not only because of the lofty minded sentiments expressed but because they depict the noble character of the man who wrote them. He writes "but over and above the advantages of education he ought to be endued 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 harbor the least immoral or indecent design; but demean himself in all respects suitable to the dignity of his profession."

59 COLLEGE STREET.

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MEMOIR OF
WILLIAM SMELLIE, M.D.

BY THE EDITOR.¹

As a teacher, author and practitioner, there is no British obstetrician—certainly none of the eighteenth century—who deserves so high a place in our estimation as William Smellie. Nay, more, under whichever of these several aspects we may regard him, he scarce has an equal. Whilst of all the men, British and foreign, who have most largely contributed to the advance of sound obstetric knowledge, Smellie may justly stand in the foremost rank. No accoucheur, ancient or modern, unfolded so many of the principles of true obstetric science, and in his practice so consistently acted up to them.

William Smellie was a native of the same county, Lanarkshire, which was the birthplace of Cullen and William Hunter. He was born most probably in the town or immediate neighbourhood of Lanark, some time in the year 1697.² Of his early life and medical

¹ The materials out of which this sketch (for it is no more than a sketch) has been composed were very scanty: and on several points of interest in Smellie's life, information is still wanting. The sources from which I have compiled are, Smellie's own statements, scattered through his writings; Hutchinson's 'Biographia Medica;' Dr. Maurice Onslow's short sketch in 'London Medical Repository,' vol. xv; Foart Simmons's 'Life of William Hunter;' Thompson's 'Life of Cullen;' Siebold's 'Geschichte der Geburtshilfe;' Sir James Simpson's address before the British Medical Association; and personal investigations made at Lanark by Dr. Maxwell Adams, of that town, and by myself, in July, 1875. To Dr. Adams, as well as to Dr. Matthews Duncan, I am greatly indebted for the effectual aid they most freely rendered to me when pursuing these inquiries.

² A writer in the 'Ed. Med. and Surg. Jour.,' vol. lxi, p. 414, describes Smellie as being "a native of Lesmahagow, in the upper ward of the same county,"—Lanark; but a careful search in the registry of that town failed to discover his name.

education nothing is known nor even where he obtained his medical degree.¹ He appears to have started as an apothecary in the town of Lanark, and in this capacity he began medical and obstetrical practice about the year 1720.

Dr. Maurice Onslow, in his sketch of Smellie written in 1821, states he had heard that Smellie began life as a surgeon or surgeon's mate in the navy, but he does not vouch for the truth of this, and I am strongly inclined to discredit it altogether, as Smellie could only have been 22 or 23 years of age when he commenced general practice at Lanark.

Of Smellie's life at Lanark, Simpson thus writes: "While settled at Lanark he did not succeed, as we learn from one of his subsequent detractors,² in getting above the position of second medical practitioner in that small community, and I have seen some of his accounts showing how miserably small his fees were. In fact he eked out his scanty income by keeping a shop as a village cloth merchant as well as by practising as a village doctor.² But in those long ordeal years he was busy in self-instruction, and especially in reading such medical books as he could manage to borrow or afford to buy. In a letter to Baillie Cullen, 'surgeon in Hamilton,' he writes, "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 something in him. I could not get that book from Glasgow or Edinburgh, but I have sent to London for it." What induced him to leave Lanark I know not. The story goes that after disappearing from Lanark for a few years, and in the interim studying under Gregoire, at Paris, he astonished at last his

¹ 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.

² The only authority for this statement is Dr. William Douglas, the writer of a coarse scurrilous letter to "Dr. Smelle"—so he calls him—in 1748. I shall again have occasion to refer to it, and to the correspondence arising out of it.

³ This story of Smellie having kept a cloth shop at Lanark, is borrowed, I presume, from Dr. John Thomson; but the only authority he gives for it is, that he "had been told" it (see his 'Life of Dr. Cullen,' vol. i, p. 18). This author also gives a copy of the letter from Smellie to Baillie Cullen, quoted by Simpson.

friends at home by sending them word he was alive and a thriving doctor in London. That there was any long interval between his leaving Lanark and settling in London, is quite at variance with Smellie's own statements. For example, in the preface to the second volume of his midwifery, he writes "Between the years 1722 and 1739 while I practised in the country I took notes," &c. Again in case 303, we find him saying, "In 1738, the year before I settled in London, a midwife sent for me to assist in a labour," &c. At the same time there is some collateral evidence (which I shall just now mention) to favour the idea that after leaving Lanark and before taking up a permanent residence in London, he may have spent some months in travelling and attending the obstetrical lectures of Gregoire at Paris. The grounds for this supposition are, that I find only one of his recorded cases to have happened in 1738 (case No. 303), and that there is no case bearing the date of 1739.

The Register of Seizins for the Royal Burgh of Lanark record different purchases of land by Smellie. The first of these was in 1728, when he is described as "Apothecary," and that Eupham Borland was his spouse. Again under date of May, 1736, another entry occurs in which he is still designated "Apothecary;" whilst in May, 1742, the register styles him "Doctor." It is fair to conclude from these quotations that some success attended Smellie in Lanark, and that he was not driven away from it through poverty; and further, that he obtained his medical degree some time between 1736 and 1742.

From the very outset he seems to have devoted himself with great earnestness to midwifery practice, "taking notes," he says, "of all the remarkable cases that occurred," and in proof of this we find that the dates of his cases commence from the year 1722 (*vide* Nos. 29 and 382), at which period he could only have been a short time practising. He remained at Lanark, as we have seen, in the active pursuit of his profession until the year 1739, when he changed his residence to London. Why he ventured to take so bold a step we have not the means of knowing positively, but the observations he makes on case 186 supply us with some clue to the circumstances which induced him to settle in London as a teacher and practitioner of midwifery, and these I shall now advert to. In the beginning of his practice he knew nothing of the use of the forceps, Chapman's treatise (the first to give instruction about it) not being then published, nor for some years afterwards. Consequently he was often

obliged to resort to instruments of a destructive kind to the child, and this, he tells us in case 186, gave him "great uneasiness," and in order to avoid this "loss of children," he "procured a pair of French forceps, described by Mr. Butter in the 'Medical Essays,' vol. iii. (This instrument was none other than the forceps of Dusé, pictured by Mulder, tab. 1, fig. 8, Butter's description of which appeared in 1733, the same year that Chapman's work issued from the press.) He afterwards studied the treatises of Chapman and Giffard (1734), but not satisfied with that, he "actually made a journey to London in order to acquire further information on this subject;" but he adds, "here I saw nothing was to be learned." The only teacher of midwifery at that time in London was either Maubray or Manningham; and Smellie's observation is certainly not complimentary to the teaching then pursued. Being thus disappointed in London he next proceeded to Paris (where Gregoire was then lecturing), and made a stay of about three months. There likewise he was "much disappointed in his expectations." Being dissatisfied with Gregoire's manner of instructing, Smellie goes on to say, "I considered that there was a possibility of forming machines, which should so exactly imitate real women and children as to exhibit to the learner all the difficulties that happen in midwifery; and such I actually contrived and made by dint of uncommon labour and application." He certainly does not mention the date of this trip to London and Paris, but I think we can be at no loss to fix it about 1739; for in case 281, which bears the date 1737, he tried and had reason to be disgusted with Butter's (or more properly Dusé's) forceps; it must therefore have been subsequently to this date that he resolved on going to London in search of information. This brings us so near the time, 1739, when we know he left Lanark, that it seems more than probable the cause of his leaving it was the eager pursuit of obstetric knowledge, and 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. Such then would appear to have been the reason of his selecting London as the place of his future residence, and so speedily commencing there to give courses of instruction in midwifery.

In the year 1741 (that is about two years after Smellie settled in London), William Hunter, then only three and twenty years of age, came to seek his fortune in the great city, and took up his abode

with Smellie. As they were both natives of the same county, Lanarkshire, it is more than probable they had some previous acquaintance. Mr. Pettigrew, in his 'Medical Portrait Gallery,' says that Smellie was at this time an apothecary practising in Pall Mall, but gives no authority for this; and I feel disposed to question the accuracy of the statement, since it must have been about this very time that Smellie began to teach midwifery; and moreover from the entry made on the fly leaf of some of the books in his library we know what *two* of his London addresses were, viz., Gerrard Street, and Wardour Street, St. Anne's, Soho, but not Pall Mall.

His success as a teacher must have been very great, for in ten years he had more than nine hundred pupils (exclusive of females), and gave 200 courses of lectures. This is the more remarkable, when we recollect that all these were voluntary pupils, attending his courses for sake of the information to be derived from them, and not for the "certificate" only, as is too commonly the case in the present day. He acquired at the same time considerable reputation as an accoucheur, and his private practice became "pretty extensive," as he himself expresses it. He continued teaching and practising till the middle of 1759, when he resolved to be released from the arduous professional duties which he had been discharging for nearly forty years. Having made over his class, museum, and teaching appliances to Dr. John Harvie, he left London and returned to his native county. The Dr. John Harvie here mentioned is doubtless the same who communicated cases 39 and 419. We know that Smellie's heir was a Dr. John Harvie who was married to his niece; and I think we may with every certainty identify this individual, as being the same Dr. John Harvie who was Smellie's successor in the lecture room and who sent him the accounts of the two cases just alluded to. There can be little doubt, also, that he was the author of a small work published in 1767, under the title of 'Practical Directions showing a method of preserving the Perineum in childbirth,' &c. I have never seen this book, so I can say nothing of its contents. I saw in Smellie's library at Lanark a printed copy of the syllabus of Dr. Harvie's course of lectures "At his house in Wardour Street, Soho, London." It bears the date of 1763 and the number of lectures comprised in the course was seventeen.

After he took up his residence near the town of Lanark, Smellie employed his leisure hours in methodising and revising his papers, and in finishing the collection of cases which form the last volume of his

'Midwifery;' the three volumes having appeared consecutively with intervals between. He only just lived to complete this great work, but not long enough to see it all in print. At the request of Dr. Matthews Duncan, careful inquiry was made by Dr. Maxwell Adams, of Lanark, for Smellie's grave in the burying ground of the old Kirk of St. Kentigern adjoining that town, and after a "long search" he succeeded in finding it: over the grave is a "table stone" very much defaced, but "with some little difficulty," writes Dr. Adams, "the following inscription can be made out."

"This is Doctor 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 79."

I visited the churchyard in July, 1875, in company with Dr. Adams, and confirmed in every particular the accuracy of his reading of the inscription on the tombstone.

Smellie's wife was seven years older than himself and they died without issue. His house, which is close to the town, remains and is inhabited. The place was named "Smyllum," after him or his family, and this name it still retains. To the school at Lanark he bequeathed the sum of £200, and all his books, maps, and pamphlets "for to begin a library there." He also left to the said school "nine English floots with the thick 4to gilt music book:" also "for the library room," the three pictures in his study, viz., his father's, mother's and his own, drawn by himself, 1719. Further, "to accommodate readers I leave for their use to be in the foresaid room, my large reading desk, with the table flap that hangs to it, and stands in the lobbie, with the leather chair, and smoaking little chair, in the study, as also the high steps there to take down the books, which must be contained in locked tirlised doors." Further on he adds—"after a more deliberate consideration, and as my collection of medical books are pretty complete, both as to the ancient and modern practice, and may be of use to medical gentlemen in this place to improve and consult, on extraordinary emergencies, I also bequeath all of them to the foresaid library and along with them two printed books on the composition of music and a manuscript one."

The library, considerably reduced, is still extant under lock and key, but the books as might be expected are in a terrible state of dust and decay. I have examined the original catalogue of this

library : it contains the titles of about 300 volumes, consisting of works on anatomy, medicine, midwifery, history, music, and general literature. Some of these are in French, some in Latin, and the rest English. The collection of works on midwifery, as might be expected, was very considerable, and included all the standard treatises of that day, and many of the old authors. Were we to judge of the man from his library, we might fairly say its owner was not only well read in his own special department, but was also a well informed man on general subjects, and therefore deserving of Mulder's epithet "doctissimus." "The portraits," "large reading desk with table flap," "leather chair," and "smoking little chair," and "high steps" have not been seen for years and years. The portrait of Smellie "drawn by himself 1719" would possess a special interest for us, far beyond a Reynolds or a Kneller! It is some satisfaction, however, to know that the Royal College of Surgeons (Edinburgh) possesses a portrait of him. It was presented to that body in 1828 by Mr. John Harvie, writer to the Signet, an immediate descendant of Smellie's heir : and the then President of the College, Dr. David MacLagan, through whom the presentation was made, stated at the time that "besides being an excellent likeness of Dr. Smellie it possessed very superior merit as a painting."

At the request of Dr. Matthews Duncan this painting has been carefully examined by Mr. Jas. Drummond, R.S.A., of that city ; and his authoritative opinion (which is corroborated by local and family tradition) is that it is "the original picture painted by Smellie himself and not a copy." 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 !

The face is that of a man in the prime of life, and at once suggests frankness of disposition and firmness of purpose, as salient traits in his character. A certain degree of dignity, with very great intelligence, is expressed in the countenance. Besides this portrait of Smellie, there is, at the College of Physicians, Edinburgh, a medallion likeness of him.

That Smellie must have been a close, accurate observer, as well as an industrious, painstaking man, of very methodical habits, is evident from his writings. To very extensive experience of obstetrics (in his time a rare thing), he joined a high degree of sagacity and

solidity of understanding—rare at all times.* But in addition to this, he seems to have been thoroughly devoted to midwifery, and to have possessed qualities that eminently fitted him for practising it successfully. One of these was a strong natural taste for mechanics, which doubtless led him to improve the forceps, and to investigate with such remarkable success the physics of parturition. A contemporary and former pupil of his own tells us how he (Smellie) was distinguished “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.” (*Answer to the late Pamphlet entitled a Letter to Dr. Smellie, &c., 1748.*)

The author of a pamphlet which appeared in 1773, entitled ‘*The Present Practice of Midwifery Considered,*’ the design and object of which was to decry man-midwifery, thus speaks of Smellie: “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 observation; and what ought still more to recommend him and enforce his authority with those of his fraternity, he was an enthusiast in his profession—man-midwifery was the idol of his heart; he believed in his forceps as firmly as he did in his Bible.”

The indomitable perseverance he displayed in very many of his operative cases is most remarkable; and considering the strong popular prejudices then existing against instruments and male practitioners, it must have required no small degree of moral courage, and confidence in his own resources, to have acted as he did.

On different occasions he reviews his own practice with perfect candour, and freely confesses the errors he committed through want of judgment or unskilfulness. Thus, after describing a difficult case (No. 382) of turning in shoulder presentation, he observes: “By these efforts, and the exertion of great force, a considerable flooding was brought on; and this alarmed me not a little, especially as it was one of my first cases and I had not yet attained that calm, steady, and deliberate method of proceeding, which is to be acquired only by practice and experience. I had over-fatigued myself from a false ambition that inspires the generality of young practitioners to perform their operations in the most expeditious manner.”

He is liberal in his acknowledgment of obligation to those who

aided him by their advice or suggestions; and to other authors and practitioners he fully accords the merits due to their advice or improvements. Thus, in his comments on case 186, he writes, "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. Inglesh, of Lanark, in Scotland; the first made me acquainted with the blunt hook, the other with the noose; and in London Dr. Nisbet assisted me in improving the forceps, and Dr. Hunter in reforming the wrong practice of delivering the placentas." Again he adds, "I took all opportunities of acquiring improvement, and cheerfully renounced those errors which I had imbibed in the beginning of life." This is corroborated by the testimony of one of Smellie's old pupils: "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."

That he was a close observer and correct interpreter of nature, all must admit. But, more than this, he seems to have been actuated with a sincere desire for the advancement of his art, and to have been free from all narrow-minded or selfish prejudices in favour of his own improvements. If any man had reason to be proud of his skill in the use of the forceps, and of the perfection of the rules he had deduced for its employment, that man was Smellie; and yet we find him remarking: "From what I have said the reader ought not to imagine that I am more bigotted to any one contrivance than to another. As my chief study hath been to improve the art of midwifery, I have considered a great many different methods with a view of fixing upon that which would best succeed in practice," &c. And again, after pointing out the inutility of the lack or fillet, and its vast inferiority to the forceps—an opinion fully endorsed by all succeeding experience—he adds, "but 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." Such language bespeaks a candid and philosophic mind, as well as a modest estimate of the important services he had rendered to operative midwifery.

Smellie was said to have been a man of shallow acquirements;

but that he was not an ignorant man (as Burton insinuated) is very certain. Besides the proof his works afford of knowing the literature of his profession, his attendance on the lectures of M. Gregoire, at Paris, indicates that he was acquainted with French; and we find the English translator (Tomkyns) of Lamotte publicly expressing in the preface his acknowledgments to Smellie for "comparing the translation with the original." Though his style of writing is plain and devoid of elegance, still it possesses the great merit of perspicuity, and his clinical histories are terse and graphic. That he may have been distrustful of his own capacity as an author is very probable, but this cannot be taken as any proof of ignorance. He confesses to having submitted his writings to the revision of a friend, and it is supposed that this friend was no other than Smellie's own countryman, the celebrated Tobias Smollett—the same, I presume, who communicated the case (No. 2) in vol. ii of the 'Midwifery.' This case is dated 1748, and it was not long afterwards, viz., in 1750, that the author of 'Roderick Random' took out his M.D. at Marischall College, Aberdeen. Had Smellie been an ignorant, illiterate man, it surely is not possible he could have become so eminent as a teacher, and have attracted such numbers of pupils to his class-room. But we are not doing full justice to Smellie's acquirements, if we only say he was well versed in the literature and practice of midwifery; have we not good evidence before us that he also cultivated the muses, and had made proficiency in music and painting?

Smellie was not exempt from the lot of all reformers and discoverers. There were many of his contemporaries who envied his fame and success, and therefore tried to sully the one and lessen the other. His professional reputation and character were freely assailed from various quarters; but he showed himself very indifferent to the imputations that were cast upon him, insomuch so that a friend and *quondam* pupil of his own—Dr. Giles Watts—rather complains of Smellie's not having vindicated himself from Burton's charges. Perhaps the bitterest of his slanderers was Mrs. Nihell, a celebrated midwife, who lived in the Haymarket; but by far the ablest and most persevering of Smellie's detractors was Dr. John Burton, of York—better known to the world under Sterne's designation of Dr. Slop. A Dr. William Douglas, who styles himself "Physician to His Royal Highness the Prince of Wales' Household, and Man-Midwife," was another virulent assailant of his, but I

merely mention his name to point out that he was *not* the Douglas after whom Douglas' space is called, and under whom William Hunter began his brilliant career in London; this was Dr. James Douglas, a distinguished anatomist and accoucheur, and the friend of Cheselden; nor yet was he the Douglas who wrote on 'Rupture of the Uterus,' for his name was Andrew. The only title to fame of this William Douglas is that he wrote against Smellie, for his letters are full of nothing but offensive observations and vulgar abuse of Smellie's person, practice, and character. Among other things Douglas charges Smellie with having "a paper lantern, wrote upon, *Midwifery taught here for five shillings.*" In his answer, Smellie completely vindicates himself from the imputations of mal-practice and unprofessional conduct, but takes no notice of the lantern.

It would, I think, be unprofitable to enter further upon this subject. No one supposes that Smellie was infallible, or that his works are free from errors and inconsistencies; that they contain so few, is what we must admire.

I have said that he himself took little notice of these flippant scribblers, but his friends were not equally apathetic. Giles Watts, in his 'Reflections upon Slow and Painful Labours' (1755), warmly defends Smellie and censures Burton very severely for his 'Letter to Smellie,' and boldly charges him with "trifling cavillings, wilful misrepresentations, scandalous plagiarism, unfair argumentation, and abusive language," and finally, Watts declares himself "ready, if called upon, to prove the truth of the above assertions." That Watts was not a blind worshipper of Smellie is shown by his stating "that Dr. Smellie has made several, and some of them pretty considerable mistakes," and that his treatise "contains some few inconsistencies and inaccuracies which are almost entirely unavoidable in a work of that length." But after all, the ablest vindication of Smellie was effected by time, and proclaimed by the unanimous voice of posterity.

In appearance and manner Smellie would seem to have been unprepossessing and awkward. He is described by William Douglas as "a rawbon'd, large-handed man." The same writer ridicules his "monstrous hands fit only to hold horses by the nose whilst they are shod by the farrier, or stretch boots in Cranbourne Alley." Smellie alluding to this part of Douglas' vituperations, says—"But if Dr. Douglas had perused La Motte's 'Midwifery' he would not

(probably) have exclaimed against my hands which (by-the-bye) are none of the largest. That French author ridicules the objection and confirms his arguments by bringing in the example of Mingot, who was one of the most famous accoucheurs in Caen, and whose hands were remarkably big." When midwifery was a less perfect art than it now is, and when, consequently, force often took the place of skill, a strong hand and arm were very valuable to the accoucheur. A most eminent and successful accoucheur of this city (Dublin), in the early part of the present century, got the nickname of "big-paw," on account of his immense hand, which the author of a lampoon declared was "only fit to scrape out the crater of a volcano."

We have seen that Smellie began lecturing a year or two after he settled in London, *i. e.*, about 1741. Though not the very first, yet we may claim for him to have been among the earliest teachers of midwifery in Great Britain, and, without doubt, the style and matter of his lectures far surpassed the two men (and only two) who preceded him in this path. Dr. John Maubray (author of 'The Female Physitian,' and 'Midwifery brought to Perfection by Manual Operation') is reputed to have been the first lecturer on midwifery in Great Britain (Denman). He gave lectures at his house in Bond Street, about 1724. Somewhat about this time lived Sir Richard Manningham. He established in 1739 a ward in the parochial infirmary of St. James', Westminster, for the reception of lying-in women only, which was the first of the kind in the British dominions. At this ward he gave lectures, and students had opportunities for being qualified for practice. He died about 1750. I possess a copy of his 'Abstract of Midwifery, for the use of the Lying-in Infirmary,' which is nothing more than a very lengthy and prolix syllabus of his lectures.

Dr. Young, of Edinburgh, gave private courses on midwifery about 1750, and was elected professor in 1756.¹ He had two predecessors, but Dr. Malcolmson says neither of them lectured on midwifery. I possess a printed copy of his syllabus of "*A Course of Lectures upon Midwifery; wherein is contained a history of the Art with all its Improvements, both ancient and modern,*" Edinburgh, 1750. The number of lectures contained in the course was twenty-two, and the fee for attending it two guineas: for being

¹ The following clever and witty epitaph on this Dr. Young, I believe, was copied from an old work entitled 'Anthologia Hiberuica' (see opposite page):—

present at a real labour each gentleman paid five shillings, and "half a guinea when he delivers." The first lecturer on midwifery in Dublin was Dr. John Charles Fleury, physician to the Meath Hospital. He began lecturing about 1761, and continued to do so for eight years. He attended with his class poor women in their labours, for he strongly maintained, that without clinical instruction, no one could ever learn practical midwifery.

Smellie's lectures soon attracted much attention, and a numerous class of pupils resorted to him. With regard to the remuneration for his lectures, Smellie had a great advantage over the medical teachers of our day, as each course consisted of twelve lectures only, and from a printed syllabus of his lectures now before me, dated 1748, I find his terms to have been as follows—"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." Besides this the pupils had to pay from five to ten shillings for each labour case they attended, and six shillings more to a common stock for the support of the parturient women. For the purpose of illustrating his lectures he had a "collection of fœtuses, together with other useful preparations collected from time to time for the information and improvement of students," and also a machine (or phantom as we call it nowadays), which was considered a marvel of ingenuity, for exemplifying the process of parturition and the different midwifery operations. A somewhat similar contrivance was used by Gregoire and gained him great celebrity as a teacher all over Europe; but Smellie completely eclipsed him by the great

Hic jacet
 Qui Venerem sine Lucinâ
 Lucinam sine Venere
 Coluit.
 Filios post mille
 Reipublicæ datos
 Sine liberis decessit:
 Bella inter intestina
 Forti manu,
 Sed sine Marte,
 Patriæ liberatoris nomen
 Adeptus est.
 An. æt. 57 jam juvenem
 Decessisse:
 Abi, Viator, et lege.

superiority of his phantom. In a pamphlet of 1750, entitled 'A short Comparative View of the Practice of Surgery in the French Hospitals,' &c., the writer gives a full description of the phantoms of Gregoire and Smellie. Of the former he says "'tis so rude a work that a common pelvis stuck into a whale without any embellishment would be as like nature as this machine which has been so much admired." It was made of basket-work covered with coarse cloth; the pelvis was human, covered with oil-skin; and a real fœtus was used, which seemed to be the only merit of the apparatus. Then he goes on to say, "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, whose machines are really curious: they are composed of real human bones armed with fine smooth leather and stuffed with an agreeable soft substance." Beyond a doubt the true secret of Smellie's great success as a teacher was the fact that from the outset of his career as such he combined clinical with oral instruction. In some of the cases related in his 'Midwifery,' we find him foregoing any fee from the patient on the sole condition that his pupils might be allowed to be present at the delivery. It seems highly probable that the establishment of maternity hospitals about this time, in London, for clinical teaching, was in some measure the fruit of Smellie's influence and example. Thus the British Lying-in Hospital was founded 1749; the City of London Lying-in Hospital, 1750; Queen Charlotte's, 1752; Royal Maternity, 1757; and the General Lying-in Hospital, 1765. The Dublin Lying-in Hospital had been founded some years earlier, viz. in 1745; one of the great objects of its founder, Dr. Moss, being that it might afford facilities for clinical instruction, and thus save students the necessity of resorting to Paris to learn this branch of the healing art.¹

¹ Dr. Bartholomew Moss was in many respects a most remarkable man. His genuine philanthropy, farseeing wisdom, and extraordinary devotion to the great work which he initiated and completed, justly place him in the foremost rank of medical philanthropists. Moss was the son of a clergyman, and was born in the Queen's County, in 1712. He obtained his surgical licence at Dublin in 1733. He opened a small maternity hospital, in a house hired for the purpose, in March, 1745, the expenses of which were defrayed chiefly out of his own pocket. Three years afterwards he purchased the site of the present lying-in hospital, which was not completed till 1757, when it was opened and the patients were transferred from the temporary hospital in South George's

Among the pupils who learned midwifery from Smellie we cannot doubt but that William Hunter was one, as he lived for some time with Smellie on first going to London, and was his junior by over twenty years. In one of the cases (No. 408) related in his 'Midwifery' Smellie states that "Dr. Hunter was present and assisted at the operation." Dr. David McBride of Dublin was another distinguished pupil of his; and I have his original certificate from Smellie and his MS. notes of the twelve lectures comprised in a course; as well as the printed syllabus.¹ Denman also studied under him ('Gentleman's Magazine,' vol. 85, part 2, p. 566). Another illustrious pupil of Smellie's was John George Roederer, afterwards Professor of Midwifery at Gottingen and author of 'Elementa artis obstetriciæ.'

Street. Moss died in 1759. His highest eulogy is contained in the sentence under his bust at the hospital:—*Miseris solamen instituit.*

Without fortune, without influence, without patronage, without precedent, he conceived the project of affording relief to a certain class of the community; and with extraordinary energy, prudence, and perseverance, by never relaxing, never despairing, he carried it into execution. A most interesting memoir of him, by Sir William R. Wilde, will be found in the second volume of the 'Dublin Quarterly Journal of Medical Science,' p. 565.

¹ Dr. McBride was an eminent practitioner of medicine and midwifery in Dublin during the middle of last century. He was born in the County Antrim in 1726, and died at his residence, Cavendish Row, Dublin, in 1778. He published several original essays on subjects connected with chemistry, and especially pneumatic chemistry, in which department he made some valuable discoveries; and was the author of a large treatise on the 'Practice of Medicine.' As an accoucheur he was much employed, and his fee book shows that he attended 1065 midwifery cases from 1767 to 1777, inclusive. As I have elsewhere mentioned, Dr. McBride was the first British author to describe pudendal hæmatocele. He also gave lectures on the practice of physic at his own house. Such was his reputation in Dublin as an obstetric physician, that he was elected a governor of the lying-in hospital in the year 1774, and requested by the Master and the Board to give lectures in the hospital upon midwifery and the diseases of women and children. Those of his first course were published in London in 1772, and were subsequently translated into Latin and published at Utrecht in 2 vols. octavo. (For a full account of the life and writings of this eminent physician, the reader is referred to the third volume of 'The Dublin Quarterly Journal of Medical Science,' p. 281).

² The first edition of this celebrated work appeared in 1753. This was followed in 1759 by a second edition, which was translated into French and published at Paris in 1765. This French translation contains fourteen en-

Smellie would seem not to have been endowed with those personal attributes in regard to appearance, manners, and address, which sometimes take the place of real ability, and prove a passport to eminence among persons of wealth and quality. He is said to have been coarse in his person and awkward and displeasing in his manners, "so that he never rose into any great estimation amongst persons of rank." Dr. W. Douglas's description of Smellie I have already quoted, but we must bear in mind that it is only the exaggerated language of a bitter opponent.

When Sir Richard Manningham, Dr. James Douglas, and Dr. Sandys had passed away, William Hunter rapidly gained the highest place as an accoucheur in public estimation. In accounting for this his biographer, Foart Simmons, thus speaks: "He (Hunter) owed much to his abilities and much to his person and manner, which eminently qualified him for the practice of midwifery and soon gave him a decided superiority over his countryman Smellie, who to the weight of great experience united the reputation he had justly acquired by his lectures and writings." Alluding to this very point, the author of the 'Eloge' upon William Hunter, in the Académie Royale des Sciences, bears high testimony to the sterling honesty of Smellie's character. He writes—"M. Hunter se livra principalement à la pratique des accouchemens, bientôt il n'eut qu'un rival à Londres. Heureusement pour sa fortune, ce rival, M. Smellie, n'avoit pas joint à ses talens l'art de se rendre agréable à un sexe qui, accoutumé au langage de la flatterie, est étonné d'entendre celui de la vérité, même dans la bouche de son Médecin, voudroit qu'il s'occupât de plaire encore plus que de guérir, et sans doute est excusable de le vouloir; car les défauts des femmes sont l'ouvrage des hommes, comme les vices des nations sont le crime de leurs tyrans. On craignoit le Docteur Smellie, on attendoit pour l'appeler, que son secours fût absolument nécessaire, c'est-à-dire qu'il fut inutile. Il avoit donc rarement des choses consolantes à

gravings, all of which, with one exception (a drawing of a lying-in chair), are well executed fac-similes of plates in Smellie's collection, but reduced to the size of an octavo page. The lettering and explanations of these plates are borrowed from Smellie. I have failed to discover in the book any acknowledgment of the source from which these plates were obtained. Roederer's second edition contained no plates of any kind. The translator's name is not given; the title-page merely states "traduits sur la dernière Edition par M. * * * *, avec figures," which would imply that the translator introduced the "figures."

dire, et on l'en craignoit encore davantage ; aussi n'eut il jamais une pratique étendue dans ce qu'on appelle la bonne compagnie, et il fut très-heureux pour les Dames Angloises, que M. Hunter unit à une habileté pour le moins égale, la douceur et les agrémens dont l'austère et savant Smellie avoit été privé." ('Histoire de L'Académie Royale des Sciences,' Année 1783, p. 31.) Dr. James Douglas, the early patron and friend of Hunter, had gained considerable reputation in obstetric practice, and this circumstance probably directed Hunter's attention to the same department, especially as he had no liking for pure surgery. Dr. Douglas died in April, 1742, aged 66.¹ In 1748 Hunter was elected one of the surgeon-midwives to the Middlesex, and soon afterwards to the British Lying-in Hospital, and this also assisted in bringing him forward as an accoucheur.

Besides the great benefits which Smellie conferred upon midwifery as a science, by his teaching and writings, he also rendered valuable service to it as a profession by helping to overcome the strong prejudices then existing in the public mind against male practitioners and the employment of the forceps. This he did by the weight of his character not less than by his forbearance and good temper. He frequently came into collision with midwives and other strenuous opponents of the obstetric surgeons, and he seems to have acted on all these occasions with such sound judgment and discretion, as to subdue prejudice and win respect—making friends even of those who a little before were bitter enemies. In one case to which he was called, owing to a keen dispute having arisen between the attending doctors and midwives, he quaintly describes how by mildness and remonstrance he "brought them to a better temper and they were at last reconciled," and he adds, "Indeed I thought it always my duty to make up such breaches for the general good of society, as well as for the honour of the profession."

Attending patients with his pupils sometimes brought trouble upon him. For example, he was called at night to a labour in one of the narrow lanes in broad St. Giles, where the arm of the child presented : "When I came in," says the doctor, "the room was crowded with the pupils to the number of twenty-eight. Such a number going in had so alarmed the lane that a great mob assembled

¹ For some interesting particulars relating to this physician see p. 734, vol. ii, of Thompson's 'Life of William Cullen, M.D.'

and began to exclaim 'that we were trying practises.' Some of the women also told us that the parish officers were sent for, who at that time were glad of showing their authority. On these accounts I was obliged to deliver the woman in a hurry. The child was alive, and when this was told the mob, and that the woman was also safe, they all dispersed" (case 502).

Again in relating another case (319) he says, "Having sent for my principal midwife and the rest of my pupils, I desired her to keep the patient quiet in bed, which indeed was only a little straw laid in a cold garret; for at that time we were obliged to smuggle our patients on account of the barbarity of the churchwardens."

We can, perhaps, hardly realise the difficulties which beset a man in Smellie's position. To do so we must remember that he lived at the beginning of a new era and in that stage when a great transition was being effected. The practice of midwifery, so long monopolised by women, was changing hands and passing over to the surgeons and physicians. To this transfer the female practitioners, as might be expected, were strongly opposed, whilst patients themselves, as a general rule, were also decidedly averse to it. The fact of a surgeon being called in, Chamberlen tells us, was inseparably associated in the minds of women with the performance of some terrible operation, commonly ending in the death of mother or child, and this feeling was prevalent, Smellie says, in his day also. No wonder, then, that lying-in patients should have dreaded the appearance of the man-midwife at their bedside; and, such being the prevailing sentiment, we cannot attach blame to Smellie for laying down directions how to use the forceps "privately," and without the patient's knowledge. The discovery of the forceps doubtless contributed to dispel this deep-rooted notion; and its judicious employment proved eminently serviceable to the cause of male practitioners, as well as to parturient women. Smellie was endowed with qualities and possessed of attainments which peculiarly fitted him to aid in the revolution that was taking place. His sound judgment and great experience, together with his command of temper and discreet behaviour, could not fail to commend his profession to public confidence, and I am fully persuaded that we are more indebted to him than to any other single individual for bringing about this much needed reformation.

At the time Smellie published his famous treatise he had been over thirty years practising midwifery, and, besides his private practice, which was very considerable, he had attended with his class

1150 poor women in labour. He had, moreover, been actively engaged in teaching obstetrics for ten years. Six years were spent preparing the first volume of his work for publication, the contents of which were based on the matter of his lectures. When he tells us in the preface to this volume that "it was not cooked up in a hurry," he makes a very modest assertion; for beyond a doubt there have been very few medical authors who, on their first appearance as such, possessed so matured a judgment and so ample an experience as he did. His second and third volumes are taken up with the histories of cases (of which there are 531), interspersed with observations and practical comments. In thus separating the clinical narratives and putting them by themselves, he admits that he follows the plan of Mauriceau, and no doubt this plan has some advantages. The cases are not promiscuously disposed, but are carefully classified and distributed into groups or "collections," with subdivisions, all being grouped with a strict regard to systematic arrangement. In each collection reference is given to the particular part of the first volume which the cases are intended to illustrate. In the three great divisions of his work—viz. the principles, the cases, and the plates—reference is constantly made to the particular part in the two other divisions where the same subject is brought forward, thus enabling the reader to pursue the study of each subject in connection with the clinical and pictorial illustrations relating to it. This arrangement is excellent, and gives a coherence and unity to the whole work, but is very inconvenient for reference, and must have imposed a good deal of additional trouble on the author. Smellie, however, was a man who seems to have thought nothing of trouble.

As already stated, Smellie was a keen and accurate observer of nature, and exercised the utmost care in obtaining correct data on which to found his conclusions. Here was the secret of his unrivalled success as a reformer and improver of midwifery. He acknowledges this himself, for in reviewing his practice (Case 186) he writes, "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.*"

He did not start with any preconceived theory, and then endeavour to make facts square with its requirements; but he observed first, and reasoned afterwards; and it was from neglecting this inductive method that the art of midwifery remained so long in a barbarous condition.

Up to his time there prevailed in the works of most of the Continental writers "a tendency to exalt theory at the expense of fact," as Leishman expresses it. But the eminently practical nature of Smellie's work, the clear and consistent principles which he unfolded, "had the result of turning the minds of his Continental contemporaries into that more practical channel, by a close adherence to which they were at length enabled to add to and to develop" his views and observations; but, little was left them to correct or to alter, of what he did, such was the accuracy of his observation and the fidelity of his description.

He cleared away an immensity of the rubbish and superstition which enveloped the whole theory and practice of midwifery, and he laid down the true principles on which obstetric science should be based. He corrected and extended our knowledge of the anatomy of the gravid uterus, and of the positions of the fœtus in utero; and he recognised with far greater distinctness than had been done before the successive steps in the process of natural labour. He was the first to investigate accurately the shape and measurements of the female pelvis and the shape and dimensions of the fœtal head, paying special attention to the pelvic diameters in which the head moves during its passage through this cavity. Thus he made a great advance in our knowledge of the mechanism of parturition, on the solitary but important fact discovered by Fielding Ould. His observations on all these points tended to revolutionise the art of midwifery, and were brought to bear on the mode of applying and using the forceps; and accordingly we find him laying down admirable rules for guidance in this matter—rules based upon definite principles and far surpassing all those hitherto set forth.

"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.' Nay, on comparing his writings with those of his successors for upwards of eighty years, we find that when, in the course of time, Smellie's teachings were supplanted by those of W. Hunter, Osborne and Denman, and even down to the date of Blundell's and Collins' works, midwifery retrograded." (T. Moore Madden, in 'Dub. Med. Journ.,' October, 1875.) On this point the great Baudelocque thus expresses himself:—"No one had more confidence in the forceps than Smellie, no one rendered them of more general use nor applied them more methodically or with greater success."

He considerably modified the form and dimensions of Chapman's forceps, and his joint or lock (universally known as "the English" or "Smellie's lock") for the blades of the instrument, was in itself a great acquisition, and is superior to any other mode of adaptation that has been invented. That it was really the invention of Smellie can hardly admit of question. Neither the forceps of Chapman or Giffard had such a mode of connection, and in his letter to "Mr. John Gordon, surgeon, at Glasgow, dated January 12th, 1747-8" (contained in the answer to Dr. W. Douglas's first pamphlet), Smellie says, "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."

Besides lengthening the forceps to suit special cases he added a second or pelvic curve, thus producing the long double-curved forceps. Whether he or Levret was the first to make this improvement, has been disputed, but Smellie was undoubtedly the first British accoucheur to recommend this form of the instrument.

In case 352 (A.D. 1753), Smellie tells us he completed the delivery by the employment of a long double-curved forceps, and he adds, "They 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." Levret's treatise describing the double-curved forceps was published in 1751; but as his name is not mentioned in Smellie's introduction nor in connection with the long forceps, we may fairly conclude Smellie was ignorant of Levret's improvements in the instrument. Smellie's treatise was published two years before that of Benjamin Pugh, but the latter states that he invented a double-curved forceps fourteen years previously, and had always used it in preference to the short straight forceps.

The credit of adding the second, or pelvic curve to the forceps, has thus been claimed for Levret, for Smellie, and for Pugh. In the 'Dublin Medical Journal' for June, 1876, p. 564, I have given the results of my researches on this point, the sum of which amounts to this—that whilst Pugh, according to his own representations, appears to deserve the credit of priority in the construction and use of the double-curved forceps, yet that in the publication

of the improvement he was preceded by Levret, and by Smellie, both of whom published in the same year (1751) their respective descriptions of the instrument in question. Smellie does not set up any claim for originality in the matter; he only says, "they were contrived by himself as well as other practitioners;" and neither he nor Pugh appears to have had any knowledge of what Levret had written upon the same subject. It is most probable, therefore, 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.

A few years after setting up in London Smellie made a wooden forceps, which he seems to have used on three occasions only, and then discarded. "The design of the wooden contrivance is to make them appear less terrible to women; besides, they are portable and make no clinking noise when used." Such are his own words in a letter to Surgeon Gordon, of Glasgow: and an allusion to the wooden instrument occurs in case 269. This wooden instrument was the ostensible ground of Dr. Wm. Douglas publishing a very abusive letter against Smellie, of which I make mention elsewhere.

Smellie advantageously altered the instruments used in performing craniotomy; devised the double crotchet, the sheathed crotchet, and the perforating scissors, which last was a very decided improvement on the instruments previously in use for this part of the operation, and is still preferred to the perforator, by many practitioners.

The great work on midwifery which has immortalised the name of Smellie, was published originally in three volumes, which came out at different periods. The first volume, containing the principles and practice of midwifery, as we would now say, though dated 1752, really issued from the press the latter end of 1751, and the critical notice of it appeared in the 'Monthly Review' for December of this year. A second edition of it appeared in 1752, which I have reason to believe was only a reprint; and a third edition was issued in 1754, along with Vol. II, which contained the first part of his collection of cases. Vol. III was published in 1764, about a year after Smellie's death. These two latter volumes are taken up with the cases (of which there are about 530), and the clinical observations thereupon. Several editions—eight at least—were published at London; besides others at Dublin, Edinburgh, and Philadelphia. Soon after its first appearance it was translated into French by M. Preville; into German (Altenburgh) by Zeiher and Königsdörfer; and into Dutch

(the first volume only) by Van der Hagen. The London publishers of the early editions were D. Wilson and T. Durham; but in the year 1779 a "new edition," in 3 vols., large 8vo, was published at London by Strahan, Cadell, and Nicol, in the Strand, and Fox and Hayes in Holborn, to which was "added a Set of Anatomical Tables with explanations." A fine copy of this edition is in the Library of the London Obstetric Society. The plates are those of Smellie, very well executed, but reduced in size; at the foot of each plate are the names of the publishers, and the date, "January 1st, 1779."

In 1754 Smellie published a volume of 'Anatomical Tables,' in atlas folio, designed to illustrate the anatomy of the gravid uterus, the positions of the fœtus, the progress of labour, obstetric instruments and operations, &c. Besides giving a description of each plate, it also contains a very concise abridgment of his obstetric principles and practice. There are thirty-nine of these engravings, all admirably executed. Twenty-six of them were engraved from drawings done by Mr. Rymsdyke, and in eleven others Smellie tells us he was assisted by Dr. Camper, Professor of Anatomy and Botany at Amsterdam. As we know that Smellie was an artist of no mean pretensions, we may infer that he himself took some part in the drawings that Camper "assisted him in." These plates have been universally admired for their accuracy and their execution; in which important particulars they far surpassed anything that had ever appeared before, and have seldom been equalled since. An octavo edition of these plates, engraved by A. Bell, appeared in the reprint of 'Smellie's Midwifery,' brought out at Edinburgh in 1783, it is supposed, by Professor A. Hamilton, and dedicated by him "To the Students of Midwifery and of the other branches of Medicine in the University of Edinburgh." A few years later, namely, in 1787, the plates just alluded to appeared in a separate form, in royal 8vo size, edited by Professor A. Hamilton, "with notes and illustrations adapted to the present improved method of practice." The plates are fairly executed reduced copies of the original folio plates. One engraving is added by Professor Young (of Edinburgh), representing his short double-curved forceps, Denman's perforator, a blunt hook, and female catheter. The editor's "notes and illustrations" are so few and unimportant as not to have been worth mentioning on the title-page.

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William Smellie.*

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WHEN I sought an appropriate subject for a Presidential address, my first thought was to obtain the necessary material from my 25 years' experience as a gynæcologist and obstetrician. During my browsings in literary fields, I recollected having come across a statement by a flippant Frenchman, to the effect that one ought never to act on first impulses, as they are usually generous. I trust, however, that other and worthier motives have induced me to forsake the more familiar and concise ground of pathology and surgery for the nebulous domain of history. I think that we should ever be on guard against becoming too materialistic. Reverence for the abstract, while courting the concrete, is to be commended, but if we idolise the latter, and allow it to dominate our actions, life will assuredly lose its savour. Nothing can be more salutary than to abandon for a time the turbulent ocean of professional life with its flotsam and jetsam, and betake ourselves to some sheltered cove to muse on the benefits which have accrued to mankind, through the unselfish endeavours of our predecessors. He, who merely regards the practice of medicine as a commercial enterprise, will find at harvest time that he has gleaned ashes. Complete immunity to spiritual and mystical influences would be deplorable in a profession, where the ravages of ruthless nature are daily witnessed.

A brief review of William Smellie's life and work appealed to me, also, for the following reasons. From my boyhood I have been a constant visitor to the neighbourhood of Lanark, the town in which Smellie was born, where he practised and died. Lanark should have a special interest for Scotsmen, for it was there our national hero, William Wallace, lived for some time after his marriage. It was in Lanark, in the year 1297, that he slew the English Sheriff Heselrigg, and expelled the soldiery, an event which proved the beginning of the national struggle for inde-

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pendence. Later in life I formed domestic and other ties in this district, and for some years I have been responsible, in a consultative capacity, to the Public Health Authorities of the County, for the treatment of serious obstetrical and gynæcological cases occurring in this area. Many of the patients, therefore, come from the territory in which Smellie practised for nineteen years. It would have been remarkable if such an association had failed to influence me, and so you can readily understand my choice of subject.

As far as can be ascertained, William Smellie was born in the town of Lanark in the year 1697. The date of his birth does not appear in the Lanark Register of Baptisms, but this is not surprising as such lists were kept in a haphazard fashion. This is, however, the date which is inscribed on his tombstone. His father resided in Lanark, and married a Miss Kennedy, who was related to the Kennedys of Auchtyfardle, a mansion-house which stands near the main road from Glasgow to Carlisle, just beyond Lesmahagow. In all probability Smellie was an only child, and received his education at the Grammar School in Lanark. He never lost his affection for the district and the school, for quite early in his career he acquired a small property there, and in his will he directed that:—

I, Dr. William Smellie, for the regard that I have for the School of Lanark, bequeath to the same all my Books, mapps and pamphlets, except those of Medicine, Surgery and Pharmacy for to begin a Librery there. Also I bequeth Two Hundred Pounds Sterling for repering the School House, according to a Plan I have left. (Sgd.) William Smellie.

His passion for music may be realized from the circumstance that he bequeathed to the "School of Lanark 9 English Floots with the thick quarto gilt Musick Book." His friends and relatives inherited other musical instruments and some volumes of music.

Smellie desired that his medical books should be at the disposal of the medical practitioners of Lanark, so that they might consult them in the event of "extraordenar emergencies."

The only way of entering the profession at that time was by serving an apprenticeship with a medical practitioner. We cannot discover with whom Smellie studied, but probably it was with Dr. Gordon as he refers to Gordon as an "old acquaintance." Gordon was a well-known practitioner in Glasgow, and it was with him that Tobias Smollett, served his apprenticeship. This circumstance would account for the friendship which formed

between Smellie and Smollett. For a long time nothing was known regarding the School of Medicine from which Smellie obtained his degree. Thus McClintock states in the edition of Smellie's *Treatise on Midwifery* published by the new Sydenham Society. "Of his early life and medical education nothing is known, nor even where he obtained his medical degree." In a footnote it is added: "The registers of the Universities of Edinburgh, Glasgow, St. Andrews, Leyden, Utrecht, and Aberdeen have been examined with a negative result." McClintock thought that Smellie might have obtained his degree at St. Andrews, as the register about this time is defective. All doubt on this matter has been dissipated by two of our citizens, who were known to me personally. The late Dr. A. Duncan, who was for many years librarian of the Faculty of Physicians and Surgeons in Glasgow, while turning over the Faculty returns of the 18th century, unexpectedly discovered the entry of Smellie's admission to the membership of the Faculty, as a surgeon. The date is 1733, several years after he had started practice in Lanark. Lanark was within the territorial jurisdiction of the Faculty, as defined by their Charter. At that time, town and country members of the Faculty had to subscribe to the "Quarter Accounts" which were allocated for charitable purposes. From the year of his admission to 1745, Smellie's name does not appear in the annual list of contributors. As he removed to London in 1739 he was not under any obligation to pay the tax, but in 1745 he paid the eleven year's arrears, and continued his annual contribution up to 1749. The following entry occurs in that year "Dr. John Gordon paid to collector Four Pounds Scots due to the Faculty by Dr. William Smellie of London, for the current year, and the three succeeding years."

The late Innes Addison, who was Registrar at the University of Glasgow when I was a student, found that the degree of M.D. of that University was conferred on Smellie on February 18th, 1745. It is interesting to observe that the note recording the conferring of the degree upon Smellie, was signed by William Leechman; he was an ancestor of the late Prof. Wm. Leishman who occupied the Regius Chair of Obstetrics in our University for many years. Smellie was twenty-three years of age, when he began practice in Lanark about the year 1720, and a few years afterwards he married a Miss Borland, who survived him six years. There was no issue of the union. For about nineteen years he carried on a large general practice from Lanark, which at that time was a small town of about 2,000 inhabitants. There was a large agricultural population in the district, and, although Smellie

had to undertake professional work of all descriptions, he kept an accurate record of his obstetrical cases from the outset, his bias towards obstetric practice being manifest from the start. As an instance of his ability to cope with serious emergencies in general surgery, I append a copy of a bill drawn by Smellie upon Mr. James Mair of Bankhead in the parish of Lesmahagow :—

“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 payt. and oblidge your humble Servt.

(sic subscribitur) Wil. Smellie.

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

(Accepted thus) Accepts June, 1723.

(sic subscribitur). Ja. Mair.

From a study of his notes we learn that he had patients as far west as Hamilton, while he also went to Biggar in the East. Now, the distance between these places is 26 miles, and all journeys had to be undertaken on horseback or on foot, as the roads were in miserable order. In addition the climatic conditions of the upper ward of Lanarkshire are extremely severe in winter; I have been forced to abandon my car in this territory during a snow storm and seek shelter in a shepherd's house. Smellie would be exposed on many occasions to the fury of the elements and his remuneration must have been small, for the vast majority of the people were poor. Wages were low in this country until comparatively recent times, and I know a farmer in the district, who started life as a herd-boy at 15/- a half-year. His grandfather, a stonebreaker in Lesmahagow never received a higher wage than ten shillings a week. Thrift was then a characteristic of our race, and Smellie, despite his scanty remuneration, was able to buy property in Lanark before leaving for London.

It is greatly to his credit that the hardships he endured in practice did not prevent him from carrying on his studies, for we know that he borrowed medical works from his distinguished friend Cullen, who was practising in Hamilton for some years, before Smellie left Lanark for London. Their friendship remained uninterrupted until Smellie's death. Cullen, who was an exceptionally gifted man, was born in Hamilton in 1710, where his father was factor to the Duke of Hamilton. The most brilliant of his articulated pupils was William Hunter who entered into

partnership with him, part of the agreement being that, during each winter one of them should be responsible for the practice, while the other pursued his studies elsewhere. The first winter was spent by Cullen in Edinburgh, where he was one of the originators of the Royal Medical Society. Hunter left during the next winter for London, but, like many more Scots before and since, he failed to return. Cullen magnanimously cancelled the partnership. At a later date Cullen settled in Glasgow and was appointed to the Chair of Medicine in the University. Four years afterwards he joined the staff of the University of Edinburgh, where he occupied the Chairs of Chemistry and Medicine.

Some of you may know the anecdote of the old Scottish farmer who summoned his family round his death-bed, and, while communicating to them the fact, that they would inherit very little on his decease, imparted to them a piece of advice, which would be invaluable to them, and that was, to "aye haud South." Probably Smellie was dominated more by a desire to acquire a greater knowledge of Obstetrics than to increase his modest fortune, when he left Lanark for London in the year 1739. On his arrival he was so disappointed at the chaotic state of his speciality there, that he soon proceeded to Paris to study under Grégoire. He did not form an exalted opinion of French teaching, so he very soon returned to London, and settled in Pall Mall. It was to Smellie's house that Wm. Hunter came on leaving Hamilton in the year 1741 and doubtless he did so on the recommendation of Cullen, who was a mutual friend.

Two years after his departure from Lanark, Smellie started teaching Obstetrics in London, where competent instruction was urgently required, as obstetrical practice was mainly carried on by women, profoundly ignorant of the subject. Immediate success attended his efforts, and a large number of students of both sexes came from all parts of Britain to his lectures and demonstrations. More commodious premises became necessary, and consequently, he removed first to Gerrard Street and later to Wardour Street. Being an excellent mechanic he designed ingenious models for use in the lecture room, and realizing that clinical experience was of the utmost importance in this branch of medicine, he instituted a large obstetrical practice among the poor. Gradually the value of this work dawned on the lay members of the community, with the result that the chief obstetric charities in London came into existence. Even if he had accomplished nothing else in his career, the planting of these charitable germs which have blossomed so luxuriantly since, should have earned him the perpetual gratitude of the citizens of London.

The fatigue involved must have been enormous, for, during the first ten years of practice in London, he, in the role of instructor, delivered 1,140 women. At the same time all his records were being carefully kept, as, indeed, they had been from the time he started practice in Lanark. The sequence is only interrupted in the year 1739, when he was devoting himself to further study in Paris and London. This practice of note taking he maintained for a period of almost 40 years.

He was continually improving his models, and in his simple way in referring to his "phantoms" and "dummies" he states: "I considered that there was a possibility of forming machines, which should so exactly imitate real women and children, as to exhibit to the learner, all the difficulties that happen in midwifery, and such I actually contrived, and made by dint of uncommon labour and application."

Despite his busy life, he found time for carpentry, and the study of music and painting. As far as I can ascertain, the only portrait of Smellie is that, which hangs in the hall of the Royal College of Surgeons in Edinburgh. It was painted by himself, and was presented by John Harvie, W.S., Edinburgh, the donor being a son of Dr. Harvie, who succeeded Smellie in London.

It must not be supposed that Smellie's success as a teacher continued without opposition. Here was a pioneer, who was out fearlessly to attack and demolish the fortress of ignorance and superstition, which had hitherto sheltered a band of ignorant women-practitioners. Pamphlets contributed by male and female scribes appeared, and to-day it is difficult for us to comprehend the mentality of the community, which could countenance such scurrilous attacks. The most bitter of his critics among the midwives, who now realized that the day of reckoning had arrived, was Mrs. Elizabeth Nikell of Haymarket. A wonderful contribution by this ironic female appeared in 1760, at a time when Smellie's expert students were rapidly depriving the unskilled midwives of their practice. It was entitled, "A Treatise on the Art of Midwifery," and in it, scathing reference is made to Smellie's methods of instruction. She thus alludes to his phantom and dummy: "This was 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 was given various positions. By this admirably ingenious piece of machinery were

formed and started up an innumerable and formidable swarm of midwives." She cautions women against getting into the clutches of Smellie's pupils, who have been trained at the feet of an artificial doll, and suggests to Smellie an 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 anything too masculine in their appearance on a function, which is so thoroughly a feminine one. As to the older ones, a double clout pinned under their chin could not but give them the air of very venerable old women."

There is no doubt, however, that Smellie's phantoms and dummies were ingeniously contrived. The abdominal contents had a most realistic appearance, the os could be seen to dilate and contract, and the foetal head was so elastic that, while it moulded on pressure, it quickly regained its original shape. He realized the importance of the relative measurements of the pelvis and foetal head while his knowledge of the mechanism of labour was of infinite value to him in dealing with cases of malposition. Thus he resorted to manual rotation of the head in persistent occipito-posterior cases. You will remember the discussions, which took place some years ago, regarding the "new" method of treating this type of cranial malposition by employing forceps as the rotatory force. Let us observe what William Smellie, nearly 180 years previously had to say regarding this supposed innovation.

"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 one (on her back, with the breech 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 backwards 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 difficult turns, let the head be pushed up, or pulled down, occasionally, as it meets with least resistance." An account of his discovery of

this method will be found in Volume 2 of his works, case 258. It was in 1745, that he was in attendance on a case in which the position was an R.O.P. Like innumerable practitioners who have followed, he attempted to deliver in the ordinary way, and found that the forceps always slipped. We all know how frequently this event is the first indication to the young practitioner of malposition of the head. Baulked of success by this means, Smellie states, that he first thought of using the blunt hook, but, after considering the matter for a few moments, he decided on the method described above. He states: "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 at random in this position." Smellie was unquestionably the originator of this method, the usual practice at that time for such cases being podalic version.

Few men have equalled Smellie in the skilful use of forceps, an instrument which he greatly improved. Apart from the pelvic curve he fashioned the lock, which is now in almost universal use in obstetric forceps and he also gave minute directions as to its employment. Although Smellie was largely responsible for improving and popularising this instrument, a study of his notes indicates that forceps was unknown to him during the first thirteen years of his professional career. Meddlesome midwifery had no attractions for him, and his sagacious views on this subject are worthy of quotation. In writing to his old master, Dr. Gordon of Glasgow, he says, "I have laid it down as a maxim to myself, and to 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." If this practice were rigidly adhered to the death rate among women and children would fall considerably. Again, Smellie, when communicating with Munroe of Edinburgh, stated: "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." The qualifications he considered necessary in doctor and nurse are equally commendable. Of the accoucheur he remarks, "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 crochets 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. . . . 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." He considers that the nurse should be "a sensible woman, of middle age, able to bear fatigue; . . . 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 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."

All honour to Smellie that, at a time when the nurses were vehemently maligning him, he besought the accoucheurs in their dealings with nurses, "to make allowance for the weakness of 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."

In the year 1751, Smellie published his *Treatise*, but for many years previously he had been busily engaged in the compilation

of this work. This publication was based on thirty years' experience as an accoucheur, and ten years as a teacher, and he was fortunate in obtaining the assistance of Tobias Smollett in its preparation. This circumstance may partly account for the literary quality of its composition. After Smellie's death, his widow was visited at Lanark by Smollett, who was in declining health. He died five years later at Leghorn.

This work marks the beginning of a new outlook on the practice of obstetrics. It would not have been nearly so valuable, if it had not contained the ripe experience of a man who refused to be hampered by the antiquated, and, in many instances, almost superstitious views, which had been accepted by writers from their predecessors. Supported by the evidence contained in his carefully recorded notes, Smellie could face the onslaught of his opponents fearlessly. Smash went all the mediæval superstition, which had hitherto stifled progress, and, with torch aloft, Smellie pointed out clearly the path which led to success. A perusal of this work cannot fail to impress the reader with Smellie's unflagging industry towards the elucidation of facts. His observations on the mechanism of labour, which were arrived at after long and unremitting efforts, were greatly in advance of any previous publication. Glaister does not err in describing Smellie's work on the mechanism of parturition as being "the key-stone of scientific midwifery." Smellie also understood many of the factors involved in accidental hæmorrhage, placenta prævia, and post-partum bleeding. The ill effects of perineal lacerations were recognized by him, and his practice was to suture all vaginal and perineal tears. Cæsarean section was never performed by him during the life of the patient, but on three occasions he resorted to this operation, in an endeavour to save the child after maternal death. At the same time, it is worthy of note that he indicated the range of this operation, as well as the after-treatment of such cases. He does not mention the introduction of sutures into the uterine wound.

Smellie's success soon drew a broadside from his opponents, one of the chief being Burton of York, who is the original of Dr. Slop in Stern's novel of *Tristram Shandy*. From an admirable beginning Burton's critique degenerates into an analysis, which is both prejudiced and objectionable; but it must be remembered that such publications in those days were often characterized by a frankness, which now would be considered repulsive. Burton scores on only two points, in connexion with: 1. Smellie's view on the distribution of muscle tissue in the uterus, and 2. his practice of encasing forceps with leather at each delivery. A great

part of his diatribe deals with the superiority of his own forceps. Smellie was always conscious that polemical writing was not his forte, but his pupils were ever ready to arm in his defence. Burton was dealt with in a brochure entitled, "Reflections on Slow and Painful Labour" by Giles Watt, M.D., and the pugnacity of this writer may be judged from the following extracts. He says, "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 in this particular. I there found that, with the Doctor 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) . . . 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." He asks, "What may not the World reasonably expect from an author, actuated by such base not to say detestable principles?"

It is not generally known that Burton was an ardent Jacobite and for his devotion to the cause of Prince Charles Edward (our Southern friends would call him the Pretender) he languished for several months in prison. Later he entertained Flora Mac Donald at his house in York:

Another venomous pamphleteer was William Douglas, who writes thus when comparing Smellie's phantom and dummy with those in Paris, "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 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." He questions the Charity, Disinterestedness, and Beneficence of Smellie in attending poor women with his pupils and suggests that, by adopting this altruistic role, "though without any real foundation, crafty men have often succeeded in their schemes, when all other Arts have proved ineffectual." Again one of Smellie's friends took up the challenge, and in reply, while declaring his contempt for Douglas' conduct, counsels him, "to fall upon some laudable

method of publishing his own existence, and raising himself from obscurity, than that of scandalizing his betters."

So Smellie's genius and merit did not receive universal recognition but success often rests on flimsy foundations, and time generally elapses before the real value of an individual's work can be estimated. Looking backwards, I see Smellie's figure towering above all others, while Burton and Douglas occupy a very small niche in the gallery of celebrities. As the founder of the modern practice of obstetrics, this plain, blunt, and indefatigable Scot has left a memory, to be cherished by all interested in this special department of medicine.

The arduous nature of Smellie's existence deteriorated his health and consequently, about 1759, he relinquished his practice, and returned to Lanark. He purchased a portion of land on the outskirts of the town, and adjacent to the ground which he had secured before leaving for London. This constituted the small estate of Smellom, which probably derived its name from the owner. Afterwards, the title was changed to Smyllum, and the property is now the settlement of a Roman Catholic Orphanage. Idleness was so foreign to Smellie's nature, that he busied himself in his retirement with the preparation of his third volume. In the preface of the second volume, he states "The other part was almost completed, and, though I should not live to see it in print, will certainly appear to fulfil my scheme, and promise to the publick." On completing his task, he sent the manuscript to Smollett, but, before the work was published Smellie died. On the fly-leaf of William Hunter's copy of Smellie's Treatise, there is the following note in Hunter's handwriting:—"The author died of an Asthma and Lethargy at his House by Lanark in Scotland in March 1763." He was buried close to the wall of St. Kentigern's Kirk in Lanark. Thus ended the life of one who devoted his time, genius and energy towards the advancement of obstetrics. He revolutionized the teaching of this subject; he placed before the profession novel and accurate observations, and by educating pupils in a practical yet scientific manner, he despatched among the populace a multitude of expert practitioners, who sallied from his school, untrammelled by superstitions and strange beliefs to exercise their art for the benefit of humanity.

There appears to have been a slight disturbance of the friendship, which existed between Wm. Hunter and Smellie about the time of Smellie's departure from London. The late Professor John Young of the University of Glasgow discovered two notes which bear on this matter. The first was sent to Dr. Clephane and the second, which is entitled, "A letter of Exculpation" was

addressed to Dr. Pitcairn by Smellie, after he had retired from practice. There is a note in William Hunter's handwriting, which refers to the Clephane letter. It reads as follows:—"This letter from Dr. Smellie was written to Dr. Clephane from Scotland, after Dr. Smellie left London. Before he went off, Dr. Hunter heard that he complained of him, and Dr. Hunter, knowing that it was without reason, wrote to him to beg and insist upon a meeting at the British Coffee-House with their common friends, Drs. Clephane and Pitcairn before he went off. This was the occasion of the letter, for he went away without giving that satisfaction. Dr. Clephane gave me the letter." In the letter to Clephane, Smellie remarks, "This way, I thought safer, after retiring to the gloomy regions, than to have mett in the British Coffee-House Dr. H's. glib tongue." Smellie exhibited discretion in avoiding a crossing of swords with dapper, little Wm. Hunter. The latter, with his brilliant intellect and wonderful gift of expression, would have triumphed over his unsophisticated adversary. The cause of Smellie's dissatisfaction is obscure, and we cannot find in Hunter's publications any item to which Smellie could take exception.

The "Letter of Exculpation," addressed by Smellie to Pitcairn, and with a recital of which I close, is a unique document of self-analysis; it portrays the man exactly. In it, Smellie invites Pitcairn to become his literary executor, and explains that he bases this letter on that written by Locke, on the character of Dr. Edward Pocock. The letter is written in two parts, the first giving a description of his character and work, the second declaring his motives.

1. The works he published, shew him a man of learning and experience in practice, his acknowledged care and sympathy to all his patients, of every denomination, sheued his virteous inclinations.

2. His excellent disposition and quelfications was so hid by an unaffected modesty and selfdenyal, that they were not fully knoun but to his intimate acquaintances, who could distinguish his disinterested behaviour both in his public and private life.

3. When not ingaged in business his great pleasure was home, improving his mind by reading the best authors, both in his own profession and other gentile an usefull branches of learning: his other amusements by way of relaxation, was designes in drauing and musick; but no more than what was fitt for a gentleman to know, and he used to jock those who spent too much time in these recreations, by axing if they were not ashamed to perform so well.

4. He was mild in conversation, spoke little, but when he did

it was always to the purpose; his modesty was so great, that he would frequently hear others and sit as a learner in disputes on his own profession, and not interup, even although he was more master of the subject, rather than shew his superiority.

Though he was not forward or assuming in discourse, he was not morose, but frank and open, and would sometimes when occasion offered, speak well on other subjects, as well as on these where he excelled.

His shunning to meddle in other peoples affairs, or enter into debates, consid his merit: but I knew of non more quailed to judge in matters of controversy, or more capable to give better advice.

Arts of superiority and selfconceit, practised frequently by others, were what he dislik'd and alwayes shunned.

He never entered into disputes in company, but rather gave his opinion in a mild and friendly manner, and when invidious reports were spread of him abroad by the worthless, he neglected taking any notice, but those of character he reproved in private.

He gained respect and business by real merits, and never used flattery or other arts to gain patients, and when others success was mentioned on these methods, he commonly waved the discourse, and only said he had enough, and what he thought might even satisfie any unreasonable man.

In his way of living he was temperate, free from show or ostentation, kind and beneficent: he had many friends; but was only intimate with a few select ones, with whom he sometimes though rarely would take a chereful glass. He was a social Husband and a kind Master, his servants stayed long, and many were married from the family: when any thing was amiss he used to tell them in a jocose manner that there mistress and he would punish them by making them unfit for any other service.

When he had by honest industry got a moderate competency, he retired from business to Scotland his native country, to employ the remainder of his time, in revising his works and to finish the second volume of cases, that he had promised to the Publick,

He left his business and apparatus for teaching of midwifery to one that had been long in his house without any gratuity.

On this opposite page I likewise send what I really think your friend if alive, would have wrote as an honest reasons for all his actions and way of life, that appeared so amiable to his friends, and take no more to himself than was his own.

1. As to his learning that was his industry in his riper years, for he was very idle and dull at school, was taken more up with

carving and painting than his books : as to his works, on intention was good, but the principal was to acquair the name of a learned author.

He must have been dull indeed, if a long course of practice, accompanied with blunders as well as success did not give experience : as to his care and simpaty to rich and poor, this procured him patients and money, else he could never have made a fortune to retire, not indeed enough for this place ; but sufficient for his poor country.

2. I own his modest disposition, denayal and disinterested behaviour, seemed natural to him ; but these proceeded from great caution, and a pride in supporting that character.

As to the third, what is said there I know to be true ; but as he had little time he could not improve much ; besides I have heard him say that his memory often cramp his judgement ; and although he had a good memory for visible objects, yet it was deficient in other affairs.

The above confession will clear up most of the foluing incomiums, for having a bad memory, his ideas and reflections came in so slow, that he could not reddely find materials to keep up conversation or argument with any tollerable quickness and in this case it shued his wisdom to be silent.

It is rare that wisdom and memory are joined in a great degree in any one person.

Fools have frequently great memorys and are continually chattering. A middle degree of both make sober, able good speakers. Good sence with little memory produces taciturnity, Those who are possessed of both in an eminent manner excell every way.

It was no wonder that he spoke well on his own profession, considering that he had repeated the same things several hundred times in his Lectures ; but being contious of this defect in other things, which prevented his reddy expression, he shuned publick companies, and exposing a naturall failing he could not help.

From this it seems reasonable to suppose that the different characters of mankind proceed mostly from memory and judgement combined in innumerable wayes, and these perhaps originally, from the various forms and modulations of the bodies of different men, and still altered more in some degrees by the different kinds of education.

Every person has two sides or appearances, there good qualities are too much exagragate by friends, and there falts on the reverse side by there enemies, when commonly a medium is

nearest the truth, for the worst of men have something good and the best have there failings.

You see by this, thinking to join many of the sentences of the incomiums, I have fairly turned philosopher.

His living, his business, and apparatus without any gratuity; this in truth was no less than giving a fortune to his nice, who is married to that Gentleman, to inable him to support his family and supply your friends defficiency of children, and indeed if they go one as they have begun, will in time be numerous and perhaps useful to society."

Smollett's guiding hand is obviously absent in this contribution.

From a perusal of this document, we realise that Smellie was acutely conscious of his own limitations. It would be a fortunate thing for mankind if more of us were similarly endowed.

He was well aware that his chief merit was his industry, but, nevertheless, it is praiseworthy that his constant exertions and sound common sense accomplished so much.

Those of you, who desire additional information regarding this remarkable man, should consult Glaister's excellent volume, entitled "The life of William Smellie."