Dusée : his forceps and his contemporaries / by Alban Doran.

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Dusée: His Forceps and His Contemporaries

BY

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"Addendum" attached to back Cover.

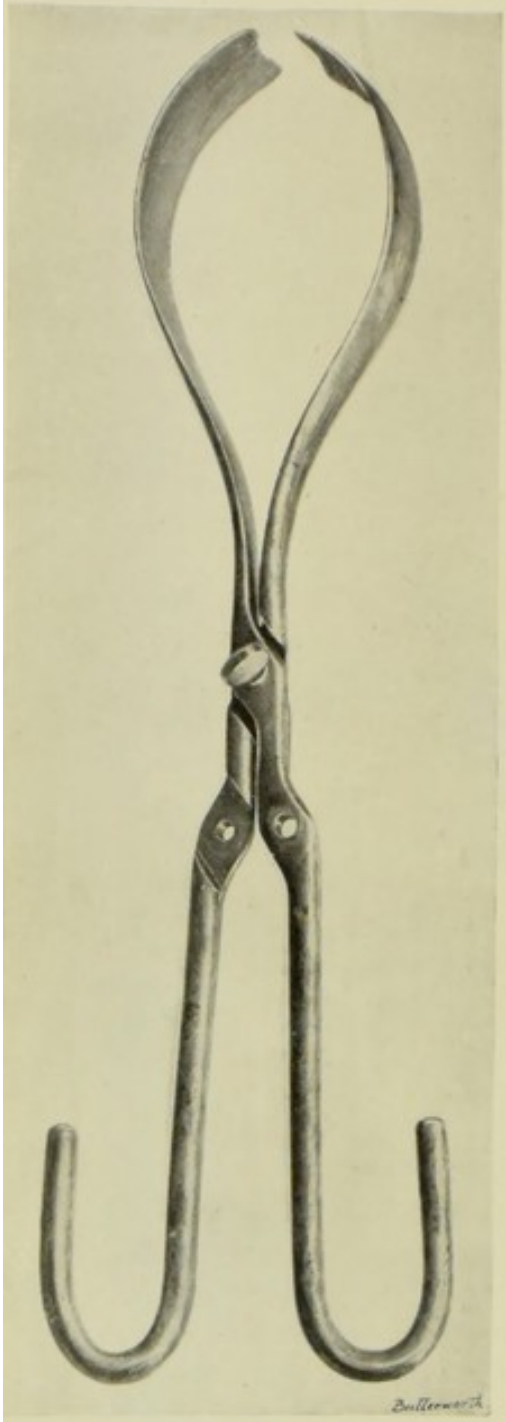

Fig. 1.

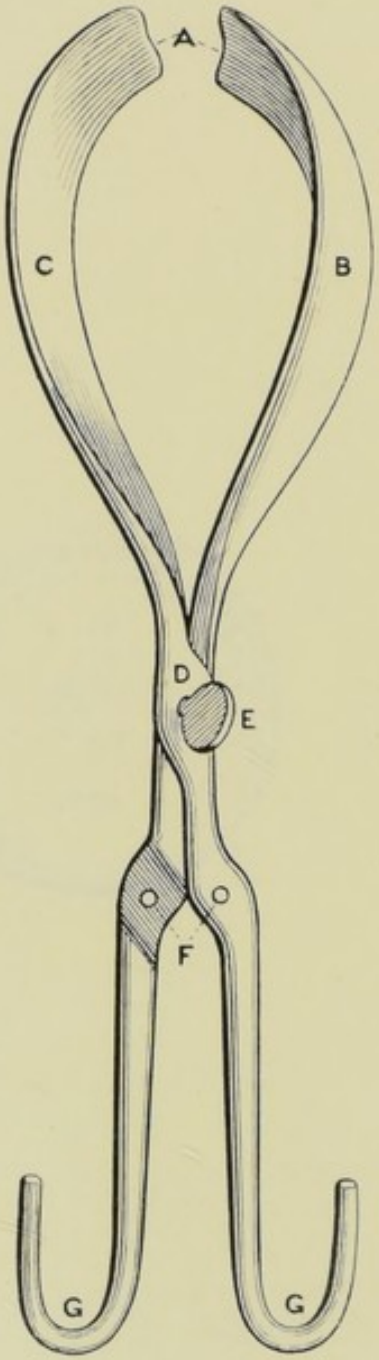

Fig. 3.

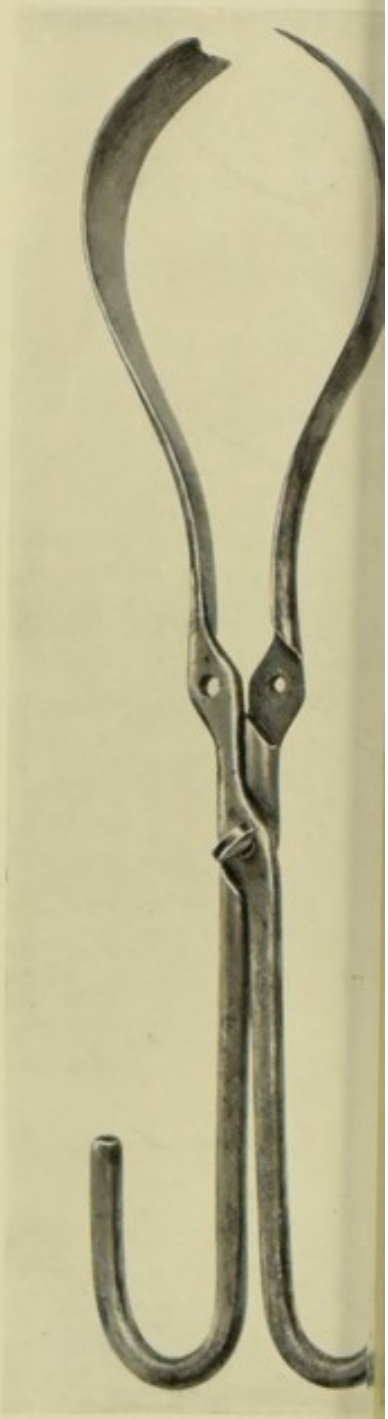

Fig. 2.

Dusée : His Forceps and His Contemporaries.

By Alban Doran, F.R.C.S.

A large and valuable collection of obstetrical and gynæcological instruments, formerly the property of the Obstetrical Society of London, has been presented to the Royal College of Surgeons by the Royal Society of Medicine. It includes a great part of the celebrated series exhibited at a conversazione held by the Obstetrical Society at the College of Physicians in 1866. Among them are a formidable array of cephalotribes, an instructive set of obstetric forceps from Dusée-Palfyn's and Levret's, devised in the middle of the eighteenth century, to Simpson's, Aveling's, Barnes's, and Matthews Duncan's, in use when the series was exhibited, and many contrivances invented by foreign obstetricians, such as the elegant pelvimeter made by Professor Rizzoli, of Bologna ("Nuovo Pelvimetro-isterometro," Memorie Chirurgiche ed Ostetriche del Professore Rizzoli di Bologna, 1869). Dr. David Davis's ingenious contrivances, asymmetrical forceps, the blades being uneven, osteotomists, etc., also come under the same category; their use is explained in Dr. Davis's *Operative Midwifery*, a fine illustrated work which appeared in 1845. A considerable number of obstetrical and gynæcological instruments were presented during the past year by Mr. Penrose Williams, of Bridgwater. Among them are certain contrivances, like Marion Sims's guarded tumour hook and several écraseurs for fibroids, of relatively recent invention, now all but obsolete owing to the great progress which has been made in the surgery of fibromyoma of the uterus. Mr. W. Dunnett Spanton has likewise added to the collection, since the last annual show, some interesting gynæcological instruments, amongst which are a few antiquated pessaries.

The above paragraph appeared in the *Annual Report on the Museum of the Royal College of Surgeons of England by the Conservator*, Professor Keith, issued last June. Before the above additions were made the collection of surgical appliances in the College Museum was decidedly poor in obstetrical and gynæcological

instruments, excepting an instructive series of ovariotomy clamps, cauteries and forceps presented by Sir T. Spencer Wells in 1878. The additions from the old Obstetrical Society's Museum include a cephalotribe of the type to which the name of Baudelocque *neveu* is attached. According to the *Transactions of the Obstetrical Society,* Vol. vii, p. 208, Sir Charles Locock presented to the Society's Museum the cephalotribe actually used by Baudelocque, its inventor, himself. It was obtained by Locock from Madame Petitjean. Unfortunately, the cephalotribe added to the College collection, though undoubtedly Baudelocque's instrument, could never have been his property, for it bears the name of the Brothers Lollini, of Bologna, and it undoubtedly formed part of a set of instruments presented to the Obstetrical Society in 1866 by Rizzoli. The fate of the original cephalotribe I have failed to ascertain. It was probably given in exchange to some French Museum, but I can find no record of the fact in the Society's archives. Perhaps some reader of this JOURNAL may clear up the mystery.

Among the other additions of interest is a remarkable instrument, which when displayed in the Obstetrical Society's Museum was labelled "Antique Forceps, No. 2." I have carefully examined it, compared it with drawings in old and modern text-books and atlases, and found that it is an authentic sample of Dusée's forceps.

Dusée, whose name is sometimes misspelt Dusé, Dusè, Duse or Dusse, is closely associated with that public diffusion of the knowledge and use of the short forceps which occurred between 1720 and 1740. The Chamberlens kept their secret well. But when Dr. Hugh Chamberlen, junior, died in 1728, another obstetrician, Drinkwater,* who had used the forceps secretly, dying the same year, Palfyn had made public his forceps or *mains de fer* eight years previously. In 1733 Dusée's forceps was exhibited, not by the inventor in France, but by a Scotchman in Edinburgh. In the course of the same year, but apparently later, Chapman wrote on his forceps, and in the next the posthumous works of Giffard, with full accounts of how his forceps or extractor was used in his own practice appeared, edited by a colleague.

Thus Dusée and his forceps are subjects of high interest to the obstetrician. The forceps now in the Museum of the College of Surgeons will first be described, and Butter's remarkable account of it then given in full. A brief sketch of the Chamberlens, as gleaned from the writings of Aveling, Norman Moore and Gordon Godwin will follow. Then I will add quotations direct from the original writings of Chapman and Giffard, contemporaries of Dusée, and

* Robert Wallace Johnson *(A New System of Midwifery,* 1769*)*, inventor of the perineal curve, had in his possession a forceps which had been used by Drinkwater who was in practice as early as 1668 and died in 1728.

show what authorities have had to say concerning Dusée, his relations to Palfyn, another of his contemporaries, and his claims to be regarded as a man justly prominent in the history of the forceps.

The Forceps in the College Museum.

The Dusée's forceps in the Museum of the College of Surgeons (Figs. 1 and 2) weighs 1 lb. 6½ oz., or 640 grammes, and measures 16 inches, or 40·5 cm., in length. Each blade is a solid piece of elastic steel. In the illustration to Butter's report (Fig. 3) the length is reduced to 5¼ in., or about one-third. The blades measure 7 inches, or 17·7 cm., to the upper lock, and 9¼ in., or 23·5 cm., to the lower lock. There is reason to believe that it is the identical instrument figured by Butter's artist ("*R. Cooper fecit*"). It is true that its handles turn up a little more, but the artist might have been inaccurate in this respect. The blades appear identical, both are concave at the termination, the screw is the same although its head is drawn a little out of perspective, and the drawing represents the metal around the lower screw hole as coarsely cut and bevelled, precisely as is seen in the forceps in the Museum here photographed. Ingerslev's (Fig. 5) is not the same, being shorter and different about the lower screw holes—but the artist here again might have been inaccurate. The drawing was probably taken from Kilian's *Atlas*, presently to be noted.

I have tested both locks and they appear to work satisfactorily. In one photograph (Fig. 1), as in Butter's drawing, the screw pivot is seen applied to the upper lock. The drawings of Dusée's forceps in atlases and monographs on obstetrical instruments make the screw holes of the lower lock too small. In the forceps preserved in the Museum the holes are ¼ inch, or 6·3 millimetres, in diameter, and the screw fits into them perfectly. As I cannot find a drawing of this forceps with the screw fitted into the lower lock elsewhere, I have added the second photograph (Fig. 2).

I have corresponded with the curators of Scottish museums about Dusée's forceps. Mr. Kinghorn, writing from the Hunterian Museum, Glasgow University, informs me that there is no sample of this instrument in that collection. Professor Arthur Robinson, in reply to a similar enquiry, states that there is no Dusée's forceps in the Museum of the University of Edinburgh. Dr. R. W. Johnstone has reminded me that that University has smaller museums in its special departments, and that among them is an obstetrical collection which possesses two Dusée's forceps. He has very kindly forwarded to me photographs of the two instruments. I find that one is smaller and narrower than the College of Surgeons specimen and bears a different screw. It is, as Dr. Johnstone has assured me, the same which is figured in Sir Alexander Simpson's Address, to which I shall presently return. The second forceps, in

general configuration, corresponds exactly to the College specimen. But it bears the name of a maker, "Still," clearly not a Frenchman. The College specimen bears *no* name. Again, each blade is distinctly *convex* at its extremity. In the College specimen (Fig. 1) a distinct *concavity* is a prominent feature. It tallies with the drawing illustrating Butter's report (Fig. 3). "*A* is the Extremities (*sic*) of the Blades *made more concave in the Middle than is necessary to fit them to the Surface of the convex Head of the Child, in order, as Mr. Dusée said, to hinder them to compress the temporal Arteries.*" Thus Butter lays stress on an essential feature of this forceps as originally designed by Dusée. Lastly, the Edinburgh forceps is more highly finished, and the distance between the upper and lower locks is distinctly greater than in the College specimen, which, once more, accords with Butter's drawing. Hence we may reasonably conclude that this Edinburgh forceps represents an improved instrument constructed by a British maker after the directions of Butter, who records his objections to the concavity at the end of each blade, or of Smellie himself, who, it seems, employed Dusée's forceps before he designed his own with the pelvic curve.

Professor Paul Bar, in reply to enquiries made by myself about French museums, writes (August 20 1912): "J'ai fouillé les collections à la Maternité et à la Clinique. Nulle part il n'y a de forceps de Dusée!" M. Collin, instrument maker in Paris, possesses a large collection of forceps, but he recently informed Dr. Bar "nous ne possédons pas le forceps de Dusée."

Professor Kouwer of Utrecht informs me: "I have found a forceps in Mulder's collection, which is in my clinic, that *almost* answers to the description and the picture of Dusée's forceps according to Mulder's book, but not quite."

As so many references to Butter's report are to be found in old and current works on midwifery, I think that a reproduction of the report in full may prove of interest to obstetricians. The book is not accessible to everybody as it is only to be found in a few medical libraries.

Butter's Report on Dusée's Forceps, 1733.

The volume from which I have taken this report is unmutilated. It belongs to the Museum of the Royal College of Surgeons. I reproduce the words on the title-page:—

Medical Essays and Observations. Revised and Published by A Society in *Edinburgh*. Volume III. The Second Edition corrected. Edinburgh: Printed by T. and W. Ruddimans, &c. M.DCCXXXVII.

Butter's paper, p. 322, will now be given in full. It was read in 1733.

The Description of a Forceps *for extracting Children by the Head when lodged low in the* Pelvis *of the Mother; by Mr.* Alexander Butter *Surgeon in Edinburgh.*

The *Forceps* for taking hold of a Child's Head, when it is fallen so far down among the Bones of the *Pelvis,* that it cannot be pushed back again into the *Uterus,* to be extracted by the Feet, and when it seems to make no Advances to the Birth by the Throws of the Mother, is scarce known in this Country, though Mr. *Chapman* tells us, it was long made use of by Dr. *Chamberlane* who kept the form of it a Secret, as Mr. *Chapman* also does. I believed therefore that a Sight of such an Instrument which I had from Mr. *Dusè* (*sic*), who practises Midwifery at *Paris*, and who believes it to be his own Invention, would not be unacceptable to you, and the Publication of a Picture of it may be of Use to some of your Readers.

Tab. V. *Fig.* 4 represents this Instrument seen obliquely, of one third of its real Dimensions. [Fig. 3 in this communication, same scale.]

A. Is the Extremities (*sic*) of the Blades made more concave in the Middle than is necessary to fit them to the Surface of the convex Head of the Child, in order, as Mr. *Dusè* said, to hinder them to compress the temporal Arteries.

B. Is the convex Side of the one Blade.

C. The concave Surface of the other.

D. The Hinge where the two blades cross.

E. A large flat Button of a Screw, which serves as an *Axis* to the Hinge and can be taken out at Pleasure.

F. A second Hinge by which the Blades can be joined when the Child is higher up than can be conveniently reached by the Instrument, when the other Hinge is employed.

G.G. The Handles.

When this Instrument is to be used, the *Axis* of the Hinge* is to be taken out, and each Blade, being directed by one Hand in the *Vagina*, is to be introduced separately along the Side of the *Vagina*, and betwixt it and the Side of the Child's Head, as far as immediately above the Ears, then the two Blades of the Instrument being crossed, the *Axis* is put into the Hinge, which the Operator finds most convenient to employ, after which the Child's head is to be taken firm hold of, and the Operator pulling by the Handles, extracts the Child.

I think Mr. *Chapman* is in the right to desire the *Axis* not to be put in, for it is very troublesome to take out and put in again, when any (*sic*) of the Blades quit their Hold, and the Instrument can easily be managed without it, in extracting the Child in the Manner mentioned; and in several Cases where it may be requisite to dilate

* "As we should say, the pivot of the lock." Sir Alexander Simpson.

the lowest Part of the Passage at the same Time that the Extraction is making, the Blades of the *Forceps* require to be separated, and are not to be crossed or moved upon a Hinge.

You'll easily see, that often when the Head of a Child is a little too far foreward on the *Ossa Pubis*, or turned too far backwards, that one Blade only of this *Forceps* can be employed to bring it to a right Situation, and to assist the Birth.

Such is Butter's report. We must bear in mind certain passages when we peruse Chapman's writings later on. Butter exhibited the forceps in 1733. In that year Chapman issued the first edition of his *Essay*.

Who was Dusée?

Of the man himself, little is recorded. In Gurlt and Hirsch's *Biögraphisches Lexicon der Hervorragenden Aerzte aller Zeiten und Völker* (1885), his name is mis-spelt "Dussé" at the head of the article devoted to him. That article begins by stating that the name of this Parisian obstetrician of the 18th century is recorded in the history of forceps because he was the first to modify Palfyn's instrument so as to make it really of service for its purpose. Then follows a description of the two forceps. The lexicographer states that Dusée's addition of a screw to the blades in 1734 "naturally put an end to the trade-secret (Geheimnisskrämerei) of Chamberlain's forceps." Then the article adds: "It is most astonishing that the description and portrayal and consequently the popularization of the forceps is to be traced not to France but to England." Butter is quoted in explanation. Dusée, the article adds, never wrote anything about his forceps. It is known that he laid before the French Academy a work advocating circular friction of the gravid and parturient uterus through the abdominal walls as the best method of checking hæmorrhage, and that he died in 1734. When we note the date of Butter's report, it would seem that Dusée may have died before he had time to write about his forceps. Then, as Aveling said of Pugh, who introduced the pelvic curve (before 1740) but did not publish an account of his forceps till after those of Smellie and Levret had been made known, publication was expensive in those days. Dusée may, too, have had reasons for fearing to publish an innovation through the medium of the very few societies and journals then in existence.

Dusée's Pupil De Wind and His Forceps.

Mulder, it will be seen, shows that Paulus de Wind was a pupil of Dusée's, and furnished Mulder with measurements of his teacher's forceps. Dr. Paulus de Wind, member of a medical family, studied, Gurlt and Hirsch inform us, in Leyden in 1730, and in Paris in 1734, and wrote a dissertation on abortion in 1735. Later on he

designed a vectis. But Mulder, in his *Historia Forcipum et Vectium*, of which more will be said, figures a forceps (Pl. III, Figs. 11, 12)* designed by De Wind, which we reproduce (Fig. 4). Mulder thus describes it (*loc. cit.*, p. 41): "Doctiss. PAULUS DE WIND, Anat. Chir. et Artis Obstet. Lector Medioburgensis, ex praecepto CHAPMANNI separata potius Brachia, quam conjuncta, ad Caput Fœtus extrahendum, in usum esse vocanda sibi persuadens, in eo sedulo incumbebat, ut talia sibi compararet, ad dimensiones Pelvis Maternae and Capitis Foetus, quantumpote formata. Haec sua inventa circa annum 1752 publici juris fecit. Instrumentum illius Viri constabat ex duabus laminis chalybeis, non elasticis [elasticas enim magis ad resultandum aptos esse censebat; involucrum rejiciebat, quia crassities inde citra necessitatem augebatur. *Footnote*], nullo involucro praeditis, ubivis ejusdem latitudinis, ad unum extremum incurvatis, quo Caput amplectantur. Ad alterutrum latus Capitis istius modi laminam introducebat, et singulâ manu singulam retinens illarum ope so Foetum feliciter eduxisse testatur.

De Wind seems to have used his curious forceps a great deal, for he changed the length of the blade four times (8, 9, 9¼ and 9½ inches), ultimately adopting the longest measurement 9½ inches. The breadth was in all three-quarters of an inch. It appears to be the smallest forceps ever constructed.

I have introduced Kilian's drawing of De Wind's forceps because it is better than Mulder's.

Thus Dusée's pupil, De Wind, thought that the curve in his teacher's forceps was too abrupt, and Chapman and Butter were of the same opinion. But Chapman and Giffard adopted a medium curve, as in the Chamberlen's forceps, whilst De Wind went too far, making the curve too wide. Yet he seems to have delivered the fœtus *feliciter* somehow.

Aveling, in his paper on "The Curves of the Midwifery Forceps—Their Origin and Uses" (*Trans. Obstet. Soc.*, Vol. xx, 1878, p. 133), gives three diagrams to show why a blade cannot be easily introduced if its curve be too abrupt or too open. No doubt, that fact was generally recognized in 1878, but it was not so in Dusée's days. Yet the Chamberlens before Dusée and De Wind and the later English obstetricians understood what the right head-curve should be.

THE CHAMBERLENS: THE FORCEPS IN THE DAYS THAT IT WAS KEPT SECRET.

In considering the question of the making public of the forceps, so closely associated with the name of Dusée, it is impossible to avoid dwelling for a while on the Chamberlens who kept it secret. Full details of the "Asclepiad family" are to be found in the works

* Also figured in Kilian's *Armamentarium Lucinae*, pl. xv, fig. 6.

of Aveling and the more recent articles on the family in the *Dictionary of National Biography* by Norman Moore and Gordon Godwin.

William Chamberlen, a Huguenot refugee from France, and probably a surgeon, settled in Southampton in 1569. He had two sons, both christened Peter. The elder Peter practised first in Southampton, came up to London in 1596, and was admitted into the livery of the Barber Surgeons. With his quarrel with the College of Physicians and his imprisonment we need not concern ourselves. We must bear in mind the fact that he was a distinguished obstetrician who attended Anne of Denmark and Henrietta Maria, that is to say, he was present to assist the Court midwife in case of need. The calling in of a surgeon or "man-midwife" direct, without the aid of a female expert, was not in fashion until Louis XIV employed a doctor for the La Vallière in 1663. There can be little doubt that Peter the elder was the inventor of the short forceps. In reference to Dr. Peter Chamberlen, Smellie wrote of "Peter the uncle's invention," a statement supported by evidence derived from other sources. He died in 1631. Peter the younger (1572—1626) his brother and namesake, also practised obstetrics and became a Barber-Surgeon. He attempted, without success, to organize the London midwives. Peter the younger's son, always distinguished as Dr. Peter Chamberlen (1601—1683), unlike his predecessors, was fully qualified. Educated at Emmanuel College, Cambridge, he took the degree of M.D. of Padua in 1619, and was afterwards incorporated at Oxford and Cambridge. He was admitted a Fellow of the College of Physicians in 1628. Like his father, he failed in a scheme to organize midwives. He mixed himself up with many other projects, political, religious and social, yet he prospered, and died at Woodham Mortimer Hall, Essex, in 1683. The famous set of forceps now in the Library of the Royal Society of Medicine was discovered there in 1818. They show progressive improvements, but as to which particular member of the family such improvement was due history is silent.

Aveling quotes a document addressed to the Archbishop of Canterbury by the College of Physicians concerning Dr. Peter's scheme for the instruction of London midwives. There is a reference to "the use of iron instruments." "The date of this document is *circa* 1640, and there can be little reason to doubt that the 'iron instruments' mentioned referred to his forceps" (*loc. cit.*, p. 132). Thus the Chamberlens were using their forceps in 1640, so that they must have introduced the instrument into their practice much earlier.

Dr. Peter's son, known as Dr. Hugh the elder, was born about 1632; something will have to be said about the date of his death. There is no clear evidence that he ever took or obtained a degree in

physic (G. Godwin). Like his father, he entered into all sorts of schemes, but they brought him to poverty.

In 1670 Dr. Hugh Chamberlen the elder was in Paris. It is said that he offered to sell his secret to the Court physician of the King of France. But he failed, after indiscreet boasting, to deliver a rachitic dwarf confided to him by Mauriceau. Two years later, in 1672, Dr. Hugh senior published a translation of Mauriceau's treatise on midwifery. In his introductory remarks he deprecated Mauriceau's advocacy of destructive instruments, and made the important statement that his father Dr. Peter, his brothers Paul* and John and himself had long practised a way to deliver women, saving them and also the children. He declined to publish the secret because his father and brothers were living. His father before, and Chapman after him, put this ethical question differently in their writings. Dr. Hugh, senior, was called in to attend Mary of Modena at the birth of the Old Pretender, a fact which shows that he must have been held in high public esteem. His wild schemes, or his Jacobitism, ruined him, and he retired to Amsterdam where he practised midwifery. He left England, it seems, in 1688. A few years later he communicated his secret, somehow, to Rogier van Roonhuysen. The remarkable history of the secret as kept by van Roonhuysen and betrayed, it is said, when he turned aside from a labour to speak to a Burgomaster, and the strange regulations of the Medico-Pharmaceutical College of Amsterdam about the secret do not concern us. When Van de Poll† and De Visscher bought the secret from the daughter of a doctor who used the forceps, intending, on principle, to publish the secret, and received a single blade, the forceps of Palfyn, Dusée, Chapman and Giffard had long been known. Rathlauw's exposure of van Roonhuysen was made public in two books published in 1747 and 1754, the era of Pugh, Smellie and Levret.

We must return, however, to Dr. Hugh Chamberlen, senior, for among other things his last days, though the precise date of their termination is unknown, were synchronous with the days of Palfyn and Dusée himself.

"Although every search has been made, nothing can be discovered with regard to Chamberlen's latter days" (Gordon Godwin), but he was living (as a legal document testified) at the end of 1720. Now, it was in 1720 that Palfyn exhibited and explained his *mains de fer* in Paris, the first public demonstration of any form of "saving" midwifery forceps.

* Paul (1635—1717) had a large obstetric practice; he was given to open charlatanism. John (died 1700) also practised midwifery with success.

† Van de Poll ultimately settled in England, assumed the name of Dawkins, and practised in Canterbury (Churchill, *Operative Midwifery*, 1841, p. 76). Rogier van Roonhuysen, not Hendrik, his father, was the "hero of this" Dutch episode.

The last of the Asclepiad family, Dr. Hugh, junior (1664—1728), son of the elder Hugh, graduated M.D. at Cambridge in 1687. He had a large medical and obstetrical practice, and was a great "social success." We need not trouble about his effigy which "disfigures the north choir aisle of Westminster Abbey" (Norman Moore), bearing Bishop Atterbury's epitaph. We must, on the other hand, bear in mind that Dr. Hugh Chamberlen, junior, died in June 1728, and was recorded as the last of the Asclepiad family who practised midwifery in England, except Dr. Walker, of Great Suffolk Street, Dr. Peter's grandson. In the same year, 1728, died Dr. Drinkwater, who, as Dr. R. W. Johnson afterwards made public, used the forceps as early as the end of the 17th century. Space will not allow us to dwell on that obstetrician's claims.

In dismissing the Chamberlens—except their dates which we must keep in our memory—we cannot help remembering their secrecy and the queer episode, never cleared up, of the sale of the secret to a Dutchman and its after-history. Their advocates may justly note that it was once quite usual for medical men to keep such secrets in their families. More than one Chamberlen, as we have seen, was a university man. Thus a man-midwife in the 17th century might be a "gentleman of parts who had received the benefits of a genteel education" as folks would have said in those days. The Chamberlens must surely have been men of mechanical ability.

Secrecy, however, is bad, and, like all bad things, its demoralizing effect tends to intensify itself. Norman Moore doubts whether the Chamberlen family may be "credited with any invention at all, and from the purely commercial spirit in which they treated their knowledge, it is possible that it was originally acquired by purchase from some obscure and forgotten practitioner." Dr. Peter clearly, as Moore shows us, did not pull well with his colleagues of the College of Physicians. He published in 1647 *A Voice in Rhama, or the Cry of the Women and Children echoed forth in the Compassions of Peter Chamberlen.* "In that pamphlet," says Moore, speaking of Dr. Peter as De la Motte spoke of Palfyn, "he can find no better excuse for keeping secret knowledge capable of saving hundreds of lives, if widely known, than that 'the draper is not bound to find cloth for all the naked because he hath enough in his shop, nor yet to afford it at the buyer's price.'"

The "shop" parallel appears to us very indiscreet, and Dr. Peter graced his cause but little in speaking for himself in his *Compassions*, but because a man is a bit of a snob it does not follow that he is necessarily devoid of the inventive faculty.

Palfyn, 1720.

Thus, thanks to the labours of Aveling and other writers, it is clear that from early in the 17th century the Chamberlens,

beginning with Peter the elder, used in secret the forceps which they probably invented and certainly improved. It will be shown that other obstetricians were using forceps secretly in this country—one, Drinkwater, in the later part of the 17th century, others, Giffard and Chapman early in the 18th. But Ingerslev is apparently correct when he insists that the first man to exhibit a "safe" forceps and explain its use, the saving of the child as well as the mother, was Palfyn.

The life of Palfyn (1650—1730) is better known than that of Dusée. From his student days he was an enthusiastic anatomist, and when teaching anatomy at Ghent he got into trouble for body-snatching. He studied in Paris and also in London. What he learnt in the British Metropolis is not recorded. It is quite possible that he heard of the Chamberlens.* In 1710 the first edition of his work on surgical anatomy was published at Leyden. He came to Paris in 1720 to superintend a French edition, and exhibited his forceps at a meeting of the Académie Royale des Sciences. In 1723 the instrument received the approbation of the Faculty in Paris. These *mains de fer*, neither crossed nor jointed, are familiar to the readers of illustrated works on obstetrics. Levret, in a later generation, admitted the merits of Palfyn, who was held as of small account by his contemporaries and by Portal and others after him. He wrote several works, yet in none does he make any mention of his forceps or *mains de fer*, although he exhibited them before what was in his days the highest medical tribunal in the world. It was Heister, of Helmstadt, a friend, who first described and figured Palfyn's forceps in a published book (1724). He did not believe much in its utility nor even in that of his own modification. In a depreciatory paragraph in a second edition (1743) quoted by Ingerslev, Heister stated that he had tried the forceps and saw little advantage in them. Gilles le Doux, of Ypres, modified Palfyn's forceps by uniting the handles with a cloth; he claimed, unjustly it appears, complete priority over Palfyn.

In a passage, often quoted, in his *Traité Complet des Accouchements* (Edition of 1721), De la Motte spoke strongly against secrecy in obstetrical practice, picking out "a certain surgeon from Ghent" who "a few years ago" exhibited his forceps at Paris. De la Motte made out, in speaking about the instrument to a "Maître Chirurgien de Paris," that its use was impossible, but that if any man had actually invented an instrument of real value in difficult labour and kept it secret he deserved a fate akin to that of Prometheus.

Why de la Motte complained that a man who exhibited his forceps in public had made *un secret de ces instruments*, we cannot

*Levret, it appears, according to Sir Alexander Simpson, once stated that Palfyn had a sight of Chamberlen's forceps when in London.

understand. There is some mystery about the expression "a few years ago," *il y a quelques années*, as De la Motte's work was published in 1721 and the forceps was exhibited before the French Academy in 1720. Perhaps Palfyn had shown the forceps privately to a French obstetrician before that date. The most remarkable feature about De la Motte's diatribe against secret obstetrics is the well-known fact that the Chamberlens, and, as will be seen, others, had for long used the forceps, and that before De la Motte's death in 1737 one of his countrymen, Dusée, had contrived a forceps and made it known through a foreigner in a foreign land. Did De la Motte really make an erroneous statement unwittingly or was he aware that an efficient forceps was already in use? In the latter case he may have meant to hit at somebody else and not the "certain chirurgien de Gand." We shall see that Petit believed that Palfyn stole the design from Douglas.

Palfyn cared for little except teaching and gratuitous practice amongst the working classes. It is not surprising therefore to learn that he died poor and forgotten. The date of his decease, 1730, is important in relation to Dusée.

Chapman and His Forceps, 1733.

Let us now turn to Chapman, a distinguished contemporary of Dusée. The first edition of his *Essay on the Improvement of Midwifery* I find, from a copy in the Museum of the Royal College of Surgeons, bears, on the title-page, the date 1733, and at the foot of the dedication to Dr. E. Milward, "Drake Street, Red-Lyon (*sic*) Square, Aug. 20 1733." The dates are in white and black, otherwise after a perusal of this interesting *Essay*, we might distrust a man who had such a good opinion of himself as to write in his preface:

"If I mistake not I am the first *Englishman* that has written originally and professedly on this Subject, one only excepted, who wrote about a *Hundred* Years ago, and that very indifferently." He adds that "we are in this branch very much beholden" to works "only translated from the *French*."

Still Chapman was a man of note. In his first chapter *Of a Child presenting with its* Head, he dwells on "the Method of saving a Child whose Head presents, and lies fixed in the *Pelvis*, and must of necessity be born that way." There are two ways of saving it, "*viz.*, Either by slipping a *Fillet* over the Head, in such a manner as to extract the Child thereby (which I have sometimes done with great success), or by taking the Head with the *Forceps*." Neither, he adds, can be of use "if the Head does not lie very low." As for the fillet, "I must beg leave to be silent in, as being entirely an Invention of my own," and claims Dr. Chamberlen's secrecy as a precedent. "As to the *Forceps*, which, I think, no Person has yet any more than barely mentioned, it is a noble Instrument to which

many now living owe their lives, as I can assert from my own Knowledge and Practice." Of course, when we remember that Dr. Chamberlen's forceps were probably in use in 1640, "yet" and "barely mentioned," written in 1733, sound sarcastical. It is odd that Chapman should word the sentence above quoted in that manner directly after his open declaration that he has followed Chamberlen's example as to his (Chapman's) fillet. Chapman very "barely mentions" his wonderful fillet. Then he immediately proceeds to proclaim his forceps and explains its use, which he does very well indeed (p. 13). Let us note these words in the edition of 1733: "It is much better, as I have just observed, that the two parts of the *Forceps* should not be joined or fixed together by a Screw."

At page 15 we find a very important statement: "For many Years my *Forceps* happen'd to be made of so soft a Metal as to bend or give way, or suffer some alteration in their *Curve*." Once more I may note these words were written in 1733. Chapman then relates how he fashioned a movable screw which could be taken out. "This screw I happened to lose in the *Cloths* at the Delivery of a Woman." All did well, he was sent for to another case "presently after" and "being indeed forced to make the Trial, found that the Instrument did its Office much better without the *Screw*,* or the two parts being fixed."

The second edition of Chapman's *Treatise* appeared according to the title-page in 1735, and the dedication ends, "Orange-Street, Red Lion (*sic*) Square, 1735. At p. 27 the author apologizes:—"I must acknowledge myself short, in not giving the Figure of my *Forceps* in the former Edition. I was not indeed so thoroughly sensible of this Defect till I found my *Essay* honourably mentioned by a learned Society established at *Edinburgh* for the Improvement of *Physic* and *Surgery*, in the *Medical Essays and Observations*, etc., Vol. iii, Art. xxxi. As these Gentlemen, by saying I have not given a Description of that Instrument, as I used it, seem to insinuate that something is wanting to render this Work more complete and satisfactory; I have now subjoined an exact Draught of my *Forceps*, which is very little different from that used by the late Mr. *William Giffard*; and which I apprehend too of a Make preferable to those represented Table V of the *Medical Essays*, etc., as taking better hold of the Child's Head than can be done by an Instrument whose *Curves* are broad and not divided and formed into a Sort of Ring as in the Figure here exhibited; in which the most protuberant Parts of the Head lie naked, whilst the *Extractors* last mention'd the whole is covered and the Instrument of course takes up more room." What this somewhat clumsily worded criticism refers to is evident. For Chapman is quoting from the same volume as that which contains

* Butter (*vide supra*) was entirely in agreement with Chapman about the screw or "axis."

Butter's report on Dusée's forceps. At p. 403 of the *Medical Essays* the "insinuation" will be found. "He (Chapman) condemns the Make of the *Extractors* he has seen others employ but does not describe his own, nor his Manner of slipping a Fillet over the Child's Head." With the latter reproach we must all agree.

Again, "those represented Table V of the *Medical Essays*" are Dusée's, the forceps which we reproduce, Fig. 3.

So much for the relations of Chapman to Dusée, chronological and professional. The drawings of the former's forceps, locking after the English fashion without a screw, are instructive.

Butter, we saw, reproached Chapman for keeping the form of his forceps a secret. In 1736 John Douglas, Surgeon to the Westminster Hospital also took Chapman to task for having kept his secret so long. Douglas wrote after the second edition of Chapman's *Treatise* had appeared (1735). We cannot be surprised if, as seems clear, Douglas disliked the tone of Chapman's writings. A man who openly declares that he keeps his fillet secret, but publishes his forceps, naturally lays himself open to criticism. A century later Von Siebold implied that Chapman was really forced to declare himself about his forceps by Butter when that surgeon made Dusée's instrument public.

The following important paragraph in Chapman's *Treatise*, Second Edition, Introduction, p. 5, shows that author's latest attitude to the Chamberlens and their secret:—

"The chief Books on this Subject extant in our Language are Dr. *Chamberlen's* Translation of *Mauriceau* and the Translations of *Dionis, Daventer (sic)*, etc., which I shall have occasion to mention hereafter; and shall only observe here, that the Secret mentioned by Dr. *Chamberlen* by which his *Father*, two *Brothers* and himself saved such Children as presented by the Head, but could not be born by natural Pains, was, as is generally believed, if not past all Dispute, the Use of the *Forceps*, now well known to all the principal Men of the Profession both in Town and Country."

Thus Chapman publishes the fact that the forceps was in general use in 1735, and implies that he did not learn its use from the Chamberlens.

Giffard and His Forceps, 1733—1737.

William Giffard was a distinguished contemporary of Dusée. He is honourably mentioned in the Scotch *Medical Essays and Observations*, Vol. iii, p. 400, in a summary of medical work "since the Beginning of the year 1733"—the edition here quoted from was published in 1737,* but the summary was apparently prepared and

* It speaks of "Dr. *Hody*, the editor of Mr. *Giffard's* Book," which appeared in 1734, the year after Butter exhibited Dusée's forceps. The reference may have been added in the second edition of *Medical Essays*.

read at the end of 1733 or early next year. This summary makes mention of Giffard's "extractor." We must, however, turn to "*Cases in Midwifry* (*sic*), Written by the late Mr. William Giffard, Surgeon and Man-midwife. Revis'd and Publish'd by Edward Hody, M.D., and Fellow of the *Royal Society*." The copy in the Library of the College of Surgeons is in good preservation. The title-page bears the date 1734, and Hody's Dedication (to John Hollings, George the Second's Physician) is dated "*London, July* 30, 1733," Hody stated that Giffard "was a plain Man, remarkable for an honest frank Behaviour." Hody "could wish indeed to have found his Language more correct;* but it is with Books as it is with Men, we ought principally to regard the *Use* they are of to Mankind." Hody's ethics were sounder than Chapman's.

Opposite the first page of Giffard's *Cases in Midwifry* is a plate representing "*Mr. Giffard's Extractor*" and "*The Extractor as improved by Mr. Freke, Surgeon to St. Bartholomew's Hospital.*" These plates were prepared in 1733 at the latest, and published in 1734. The "extractors" are midwifery forceps. Chapman (*loc. cit.*, 2nd ed., p. 28) admits that his forceps were modified from Giffard's. Whilst Chapman contrived the English lock, devoid of a screw or pivot, much as it is now constructed, Giffard, according to the drawing of his instrument, had already discarded the pivot, but had fixed a short catch on the inner side of each blade immediately below the hinge. In Giffard's forceps, as in Chapman's, the handles bear hooks (not rings) which turn inwards, whilst in Dusée's the hooks are everted, as the drawings Figs. 1, 2, 3 and 5 show, later French obstetricians adopting that pattern. But whilst Freke, like Chapman, made his forceps with a simple English lock, the hook on one blade served as "a blunt Crotchet," and on the other bore "a Flap that shuts down and covers a sharp Crotchet."

Two hundred and twenty-five cases are reported in full in Giffard's work. The date of the first is "January the 5th 1724–5," of the last October 17 1731, two years before the exhibition of Dusée's forceps in Edinburgh. On September 12 1725 Giffard attended a case (IV) where the head was "engaged and locked in the passage." After waiting with "Patience," he noted that "I was now able to take hold of the Head and soon released it out of Prison" (*loc. cit.*, p. 11). It is not clear whether he applied his "extractors" as he called his forceps, but as Hody said apologetically his language was not always correct. Case XIV is dated April 8 1726. There was a lingering second stage. Giffard used "my Extractor," but was not able to fix it, so he perforated and delivered (p. 30). Case XXIII

* The heading of "Case LXXXVII, *A Delivery where the back part of the Head was sunk in the* Vagina *and there it stuck*," is not "correct" in an eighteenth century sense, but is quite good enough for its purpose. The book was published before Johnson (Samuel, not Robert Wallace who added the perineal curve to the forceps) introduced a style which played havoc with our language.

occurred on June 28 1728; the child "sticking in the Passage," as the heading states, "I passed my Extractor and drew it with much difficulty forwards without the Labia, and then taking hold of the Head on each side with my hands (which cannot be done whilst it lies in the vagina) I drew the Shoulders out; the other parts readily followed. . . . The Child was born alive. This Case proves that a Child presenting right, but sticking in the passage may be brought alive (I won't say always) without either the use of Hooks, or lessening the Head, contrary to the opinion of most former Writers" (pp. 48–9). One month later (July 29 1728), in Case XXVI, "where the Head stuck in the Passage," Giffard applied his extractor, but one blade, being already cracked, broke and "he was forced to send home for another." When it was brought to him he adjusted the forceps and delivered the child alive. In conclusion, he states that he published that case to show that the arrested head "may by a proper Instrument be brought out, without destroying the Child with the pernicious use of Hooks." In later cases recorded in the work the forceps was often employed.

Thus Giffard's forceps were in active service in 1726, were doing good work in 1728, and were reported in print in 1734 (Giffard died March 6 1730–31 according to Hody). Giffard apparently never used Freke's forceps which is figured in his *Cases in Midwifry*. In his last instrumental labour (CCXVI) not long before his own death he speaks, as he spoke in relating Case XIV and all others where the forceps was applied, of "my *Extractor*." Hence we may assume that the drawing of Freke's forceps were inserted by the editor, Dr. Hody. I can find but one reference to "Dr. *Chamberlain* [the most noted Practitioner in Midwifry in his time in *England*]," but it is in respect to the administration of "a carminative Clyster and an Opiat Draught," which was the course "Chamberlain" (which?) "always pursued when the pains were irregular and weak and the Labour was lingring." There appears to be no allusion to the family forceps.

Thus Chapman could write of his own "knowledge and experience" of the forceps in 1733, and Giffard must evidently have used the forceps long before 1726, as he speaks of the use of "my *Extractor*" in a case that year, as a matter of course. The case came in his later experience shortly before his death and he had practised midwifery for years. In England, then, the forceps was a *secret de Polichinelle*. If Walker, the Chamberlen's relative, Drinkwater, Giffard and Chapman used it, surely others employed it. Yet Palfyn, after all, was the first man to make a forceps public, a queer very un-Chamberlen type of forceps it is true. At that very time

* I here take the opportunity of turning the reader's attention to Hody's "*Continuation of the* CLXXXVIth *Case, Page* 437, *by the Editor*" (p. 518). It was apparently an instance of deciduoma malignum following the discharge of a hydatidiform mole.

Dusée was probably using a forceps of his own, much more like the invention of the "Asclepiad family." It might have been inspired by some knowledge of the Chamberlens' instrument. This problem cannot be solved. It is certain, on the other hand, that Butter exhibited Dusée's forceps in 1733 and that he made observations on that occasion which together with the remarks of another writer in the summary appended to the *Medical Essays* led to the making known of the forceps to the profession in general. Hence Dusée occupies a prominent position in the history of the obstetric forceps. Let us now read what obstetrical authorities and teachers had to say about Dusée and his instrument.

Obstetrical Authorities on Palfyn and Dusée.

Petit.

Antoine Petit* makes no mention of Dusée in his once famous course of lectures on obstetrics. In 1770 he taught his pupils that, "There are three kinds of forceps, Palfyn's, Smellie's, and Levret's. The first was devised in London by Dr. Douglas,† about sixty-eight years ago. It was for a very long time unknown in France; it is only some thirty-six or forty years since Palfyn, surgeon at Ghent, brought it to Paris and passed himself off as the inventor. At the same time a certain Gilles Ledoux, surgeon at Ypres, invented something very similar and reported his pretended discovery to Palfyn, in consequence of which the invention of that instrument is much disputed. It bears different names; in France it is called *Palfyn's forceps,* in England *Douglas's forceps,* and in Flanders *Gilles Ledoux's forceps.*" Then, ignoring Dusée, Petit turns to Smellie's and Levret's instruments. We will explain shortly how Mulder quoted from an earlier work of Petit's where a forceps much of the same type (*istius modi*) as Dusée's was described.

Mulder.

If we turn to Mulder of Leyden's *Historia Litteraria et Critica Forcipum et Vectium Obstetriciorum* (Leyden, 1794) we find mention of Palfyn and Dusée's forceps with interesting details. Palfyn, Ledoux and Heister's instruments are considered, and then Mulder speaks of *Nescio quis* who introduced a jointed forceps, French pattern

* *Traité des maladies des femmes enceintes, des femmes en couche, et des enfants nouveaux nés rédigé sur les leçons d'Antoine Petit et publié par* les Citoyens Baignères et Perral, Paris, An. vii (1798–9). "L'ouvrage que nous publions fut le sujet des leçons qu'Antoine Petit donna en 1777 à ses élèves" (Introduction).

† I have failed to find Petit's authority for this statement. The dates show that the Douglas mentioned could hardly have been John, surgeon to the Westminster Hospital.

which he figures (*op. cit.*, Pl. I, Fig. 7, *forceps incogniti**) adding (p. 17) that this remarkably modest gentleman (unique, I suspect) was approved of by Petit. Then (p. 18) follow the words, "Istiusmodi Forcipem, qualem ex PETITO descripsimus, in usum vocavit Expert. Obstetricator Parisiensis DUSE." Thus Petit described an instrument something like Dusée's, but not the same. Mulder adds that Dusée's was devised with blades constructed so as to avoid damage to the fœtal head high in the pelvis. Then he states that Dusée pointed out these advantages to Alexander Butter, an Edinburgh surgeon, who forthwith gave a description of the forceps with a drawing at a meeting in the year 1733. *Ipsum instrumentum cernere mihi non licuit,* Mulder informs us. He figures the forceps (*loc. cit.*, Pl. I, Fig. 8) a larger drawing than that accompanying Butter's communication but unshaded, being half the natural size of the instrument, and adds in a footnote that he had been obliged to rely on Butter for the account of the instrument which he had never seen. Butter, however, did not publish a drawing of the forceps as seen sideways. For its characters laterally Mulder had to consult a descripton given by Paulus de Wind "*Discipulus Dusei dignissimus,*" of whom we have already spoken. Mulder includes Dusée's and the unknown obstetrician's forceps in his very carefully prepared tables of measurement accompanying the plates. The Dusée forceps has very broad blades with exaggerated cephalic curves and the double lock arrangement is its most peculiar feature. The *forceps incogniti* has narrow blades, much less curved. In both instruments the blades are not fenestrated.

Thus Mulder confirms the generally accepted opinion that Dusée left the public demonstration of his forceps to a Scotch doctor. At any rate if he ever described his own invention the record of that description is apparently lost. I have failed to find the description of Dusée's forceps given by his pupil Paulus de Wind, but it must have been made public after Butter's report.

Before dismissing Mulder I will reproduce his observations on Palfyn and Dusée more fully than in the above paragraphs and in the original Latin.

MULDER ON PALFYN.

"JOHANNES PALFYN, Chirurgus et Anatomes Praelector Gandavensis in Operibus suis, quantum scio, descriptionem sui methodi, suorumve ad Caput incuneatum solvendum Instrumentorum, non reliquit sed constat aliunde (Levret, *footnote*) Virum Cl. cum 1720. Parisiis moraretur, ut Libri, quem de Anatome Corporis Humani conscripsit impressionis haberet curam, cum Academia regia scientarum Instrumentorum comunicavisse atque aliis dono dedisse, cujus ope Caput incuneatum solvi posset. Verum brevi

* Kilian, as will be shown, ascribes it to Palfyn.

tempore post Gilles le Doux, Chirurgus Yprensis, hoc Instrumentum, ut suum inventum sibi vindicavit; idem quoque fecerunt alii (M. Sue le jeune [in a work on obstetrics published in 1779 writes] *C'est* Palfyn *qui l' a fait connoitre en France; cependant son invention a été disputée par trois Chirurgiens*, quorum nomina non addidit. *Footnote*): quidquid fit, inventionis gloria licet dubia, certum tamen illum Instrumentum, cujuscunque demum Auctoris, nihilominus postea Forcipis Palfyni nomen retinuisse." According to Charpentier, "dès 1713, Palfyn de Gand présentait à l'Académie de médicine de Paris une variété de forceps, qui se composait de deux branches, non croisées, non fenêtrées, et à courbure cephalique exagerée (*loc. cit.*, p. 677). I cannot discover on what authority Charpentier gives the date as 1713, seven years earlier than in Mulder's note. It may be a misprint, very probably Palfyn used his forceps long before 1720, but dates appended to reports of meetings of learned societies of the old French Academy are not likely to be inaccurate, and their archives are usually to be found handy for verification in medical and scientific libraries.

Mulder on Dusée.

After dwelling on the difficulties in the introduction of the two blades when Palfyn's forceps (modified more than once) was employed, Mulder continues (p. 17): Tandem, nescio quis, utraque brachia jungebat per contabulationem, ita ut separatim introducta firmarentur, antequam Foetus educeretur, ope clavi cochlea instructi, quod quidem testatus est, atque adumbratione illustravit Exp. Petit (Vid. Opus illius posthumum, quod sub titulo *Traité des maladies Chirurgicales et des operations, qui leur conviennent*, edidit M. Lesne, Paris, 1774) (Mulder reproduces Petit's drawing of the "forceps ignoti"), qui et ipse sua contulit ad emendandam Forcipem, ut suo loco videbimus infra. *Istius modi* Forcipem*, qualem ex Petito descripsimus, in usum vocavit Expert. Obstetricator Parisiensis Dusé, sed experiebatur in eductione Capitis, altius in Pelvi haerentis, Juncturam saepe partibus Matris nocivam esse, atque Cochlearibus Arteriam Foetus temporalem non raro comprimi; hisce itaque vitiis mederi conatus est, emendationesque cum Alexander Butter, Chirurgo Edenburgensi, communicavit, qui postea descriptionem delineationemque Forcipis Dusei promulgavit anno 1733 (Reference to *Medical Essays and Observations*, copied out in full in the present communication). Ut pro re nata Juncturam a Pudendis removeret, alteram addidit magis ab extremo Cochlearium distantem, et ne temporalis Arteria comprimeretur,

* The italics are my own. Dusée's was a forceps "of the same kind" as that designed by the unknown obstetrician.

excavata fecit Cochlearium extrema; tandemque in genere longiorem adhucdum descriptis Forcipem, Manubriaque in uncos extrorsum flexus, terminata praetulit.

Mulder adds in a footnote: "Conf. nostra Tab. I, Fig. 8 and Tab. 1-ma dimensionum forcipum. Ipsum instrumentum cernere mihi non licuit, atque adeo dimensiones ex adumbratione, quam curavit Exp. Butter, designare coactus fui; verum cum lateralis delineatio non detur, in determinanda latitudine Cochlearium sequutus sum descriptionem, quam dedit Discipulus Dusei dignissimus, Doctiss. Paulus de Wind." Lastly, Mulder concludes his observations on Dusée's forceps by quoting Butter's objections, given above.

Kilian.

Kilian brought out two pictorial works on obstetrics, both very complete and elaborate. The first is his *Geburtshülflicher Atlas*, published at Düsseldorf in 1835. The second is his *Armamentarium Lucinae Novum*, issued in 1856 at Bonn. For some unexplained reason Kilian figures Dusée's forceps in his *Atlas* (Pl. XXXIV), but omits it in his *Armamentarium*; whilst, on the other hand, Chamberlen's instrument is not represented in the *Atlas*, yet five good drawings of it, showing its varieties, are included in the *Armamentarium* (Pl. XIII, Figs. 1 to 5).

Both Kilian's illustrated works are to be found in the Library of the Royal Society of Medicine. I have compared them and find the order of the series of obstetric forceps somewhat different, as follows:

Atlas, 1 Albucasis, 2 Rueff, 3 Palfyn, 4 Palfyn-Heister, 5 Palfyn "*mit der Kreuzung.*" This is Mulder's *forceps ignoti, loc. cit.*, Pl. I, Fig. 7. 6 Dusée. The name is spelt correctly; most German and English works, British and American, spell it wrong. The drawing is poor as the lower screw holes are made too small as though the screw represented in the upper joint could not fit into them. 7 Giffard, 8 Chapman,* 9 Freke, 10 Mesnard, 11 Grégoire, 12 Rathlauw, 13 Bing, 14 Schlichtling, 15 Burton (the "Dr. Slop" of Sterne's *Tristram Shandy*), 16 De Wind, 17 Pugh, 18 Levret, 19 Smellie, 20 Johnson, and so on. Over 75 forceps, exclusive of cephalotribes, double crotchets, etc., are depicted.

Armamentarium Lucinae Novum. 1 Chamberlen, 2 Giffard, 3, 4, 5 Palfyn, with no distinctions such as are made in 3, 4, 5 in the *Atlas*; 5, as before, is Mulder's *forceps ignoti* with crossed blades (Dusée, omitted, should come next), 6 Chapman,† 7 Freke, 8 Mesnard, 9 Grégoire, 10 Rathlauw, 11 Bing,

* Three drawings, the third showing "the so-called English lock."

† One drawing only, the variety with the English lock is not represented.

12 Schlichtling, 13 Burton, 14 De Wind, 15 Pugh, 16 Levret, 17 Smellie, 18 Johnson (with the perineal curve), 19 Fried, 20 Leake, and so on, almost *ad infinitum* for the *Armamentarium* includes no less than 88 forceps, though published before the days of Simpson, Barnes, Graily Hewitt, before Aveling introduced his curved handles, and before Tarnier in 1870 added a contrivance which suited its well-known purpose and solved an important mechanical problem.

Unlike Mulder's work, neither the *Atlas* nor the *Armamentarium* give more than bare names. There is an "*Erklärung*" to the *Atlas*, but it is little more than a numerical list, and gives no information about Dusée beyond the name applied to the instrument.

In his *Atlas* (Pl. XV, Fig. 1) Kilian represents Bing's forceps which resembles Dusée's in that its blades are broad, strongly curved and not fenestrated. It has a complicated lock, and Mulder (*loc. cit.*, Pl. III, Figs. 1—5) figures Bing's instrument with a long description in Latin in the text (pp. 35–7); there is no double lock. This forceps was made public in 1750, long after Dusée's death.

Thureaud (Kilian's *Armamentarium*, Pl. XXXI, Figs. 1 and 2) appears to be the only other obstetrician who, like Dusée, designed a forceps with two hinges each to be used according to circumstances. In general appearance Thureaud's instrument is a very solid old-fashioned French forceps, after Levret. Rizzoli (*loc. cit.*, p. 457) includes Thureaud's forceps among those with reversible blades, which can be changed when in use, the lower taking the place of the upper and *vice versa*. Dusée's was not so constructed.

The broad, curved and non-fenestrated blades, so conspicuous in Dusée's forceps are also seen in forceps designed by Bing, Osiander, Weissbrod, Schöller, and possibly other obstetricians. Those here named are all figured in Kilian's *Armamentarium*. But the mechanism of these instruments is otherwise very varied. Assalini at one time used a non-fenestrated forceps (Kilian, *Armamentarium*, Pl. XXV, Fig. 7), but with the lock mechanism always associated with his name. A sample is on view in the Museum of University College Hospital.

Von Siebold.

Von Siebold,* like most other writers on the subject, couples the names "Dusée-Alexander Butter." He devotes a paragraph† to this forceps. It was, he says, an improvement on Palfyn's. The blades were made longer so that the lock lay further from the external parts. Dusé's (*sic*) forceps are crossed and the blades are

* *Versuch einer Geschichte der Geburtshülfe*, Berlin, 1839.

† Vol. II, "§ 110," p. 289. In his *Abbildungen aus dem Gesammtgebiete der theoretischpraktischen Geburtshülfe* (1836), mostly compiled from Maygrier, there is no mention of Dusée.

hollowed out at the end so as not to squeeze the head of the child. Von Siebold does not omit to state that the blades are drilled for the screw pivot at two places and that the handles are turned up at the end. He considers that this forceps, unlike Palfyn's, approached the English type, "and it is most remarkable that Dusé's (*sic*) instrument was also described and figured in England (*sic*), as Alexander Butter in Edinburgh published the first communication about it, in the city where he dwelt, in *Medical Essays*." Siebold conjectures that Butter in exhibiting the forceps "meant to stir up his countrymen, not wishing that they should keep their instruments secret. At any rate Chapman's public announcement of the English midwifery forceps followed soon after [Butter's exhibition of Dusée's forceps in Edinburgh]." Siebold adds references to Butter, Levret and Paul de Wind concerning Dusée's biography, and, in conclusion, shows that Dusée, about whose birth, parentage and education nothing has been recorded, must have been a recognized orthodox doctor as the Académie Royal des Sciènces accepted his memoir on the checking of uterine hæmorrhage by friction; besides he had at least one pupil, de Wind, who remembered his forceps and recorded the fact that his teacher died at the end of 1734. De Wind's works are hard to find, but it seems clear that he recorded nothing about Dusée's antecedents.

Charpentier.

Charpentier in his standard work *Traité Pratique des Accouchements* (1890), still a reliable work of reference, mentions this forceps (p. 678) as follows:—

"Forceps de Dusée En 1733, Dusée modifie le forceps de Palfyn, en faisant faire au corps de chaque branche à la racine de la courbure des cuillers, une entablure à mi-fer, pour joindre les deux pièces à volonté, au moyen d'une vis à large prise; en même temps il augmente encore la courbure des branches, et termine les branches par deux crochets tournés en dehors."

Thus a distinguished French obstetrician considers that Dusée deliberately designed his forceps as a modification of Palfyn's *mains de fer*. Von Siebold and others seem to have been of the same opinion.

Ingerslev.

One of the most exhaustive works on obstetric forceps is Ingerslev's *Die Geburtszange, eine Geburtshülfliche Studie*, published in 1891. The author lays great stress on the fact that Palfyn was the first to make public the midwifery forceps and explain its use, whilst, as Aveling had shown, the instrument in question had already been employed more or less secretly for nearly

a century. Dusée, Ingerslev points out, played a leading part in the history of obstetrical forceps, being the first man in Continental Europe to devise an instrument with crossed handles. Butter's observations are quoted, and Ingerslev adds that Dusée was ignored in his own country in his lifetime. At least Ingerslev has failed to find any mention of him in any French work prior to the date of Butter's demonstration.

Ingerslev illustrates his observations on the forceps with a drawing (*loc. cit.*, Fig. 16, p. 29), which is here reproduced (Fig. 5) as it is not the same instrument as the forceps in the College Museum (Figs. 1, 2). The latter, as has been pointed out, seems almost identical with that represented in the drawing from Butter's work (Fig. 3). Ingerslev represents a forceps undoubtedly Dusée's as the two locks and the non-fenestrated blades are shown, but the blades are made broader and the handles shorter than in the instruments represented in Figs. 1 and 2. Perhaps, however, the artist may have been at fault. If not, where is the forceps from which Ingerslev's drawing was taken?

OTHER AUTHORITIES.

Drawings of Dusée's forceps are also to be found in Busch's *Atlas* (Berlin, 1838), p. 308, and Churchill's *Operative Midwifery* (Dublin, 1849), Pl. IV, Fig. 7. The latter drawing is copied from Butter or Mulder. But Busch's, for a tracing of which I am indebted to Professor Bar and M. Collin, seems to have been taken from another sample of Dusée's forceps. The handles turn up at their ends *precisely* as in the College forceps (Figs. 1 and 2). The locks seem slightly different. But Busch's artist may have been more accurate than Butter's, for certainly Busch's drawing is the more finished of the two.

Sir A. R. Simpson.

Sir Alexander R. Simpson considers that whilst Butter, a Scotchman, was the first man to make public a forceps devised by a Frenchman, he was also the first man who ever spoke in public and wrote about the English forceps in Scotland. "Who first introduced forceps into Scotland? I ask it without being able to answer it. Very likely Hugh Chamberlen had a pair of forceps in his valise that time he came to Scotland to push his land bank scheme; but if he tried to make money of his secret here, as he did elsewhere, he found the Scots too canny to traffic with him."* Simpson then quotes Butter's report, published above in full. But in another

* *Address at the opening of the Forty-second Session of the Edinburgh Obstetrical Society. Edinburgh Med. Journ.*, January, 1883.

communication,* Sir A. R. Simpson reminds us that Smellie procured *a pair of the forceps described by Butter*, which he found unsatisfactory. Smellie set out to London and Paris in 1739.

Sir Alexander Simpson aptly defines Dusée's forceps: "It is clearly a French instrument, peculiar in that the blades are not fenestrated, and that there are two points at which the instrument could be locked, one close to the handles, the other far up the shanks towards the blades." As above explained, Sir A. Simpson gives a drawing of one of the forceps in Edinburgh.

In conclusion, I must express my thanks to Professor A. Keith, Conservator of the Museum of the Royal College of Surgeons, for directing that the photographs and copies of drawings of the forceps should be prepared, and to Sir A. R. Simpson, Sir Halliday Croom, Professor Paul Bar, Professor Calderini of Bologna, Professor Kouwer of Utrecht, Dr. Cordès of Geneva, Dr. Hellier, Dr. R. W. Johnstone and other authorities for valuable information about Dusée, his Forceps and his Contemporaries.

Illustrations.

Fig. 1. Dusée's forceps in the Museum of the Royal College of Surgeons of England. With the screw in the upper lock, as represented in all other drawings previously published.

Fig. 2. The same forceps. With the screw in the lower lock.

Fig. 3. Drawing of Dusée's forceps published with Butter's report in 1733. (For explanation see text.)

In Figs. 1, 2 and 3 the instrument is represented one-third of the natural size.

Fig. 4. Forceps invented and used by De Wind, Dusée's pupil. From Kilian's *Armamentarium Lucinae Novum* (1856), Pl. XV, Fig. 6. One-half the natural size.

Fig. 5. Dusée's forceps. From Ingerslev: *Die Geburtszange* (1891), Fig. 16, p. 29. Slightly different in pattern from Figs. 1–2 and Fig. 3.

* "The Invention and Evolution of the Midwifery Forceps." *Scottish Med. and Surg. Journ.*, December, 1900.

Fig. 4.

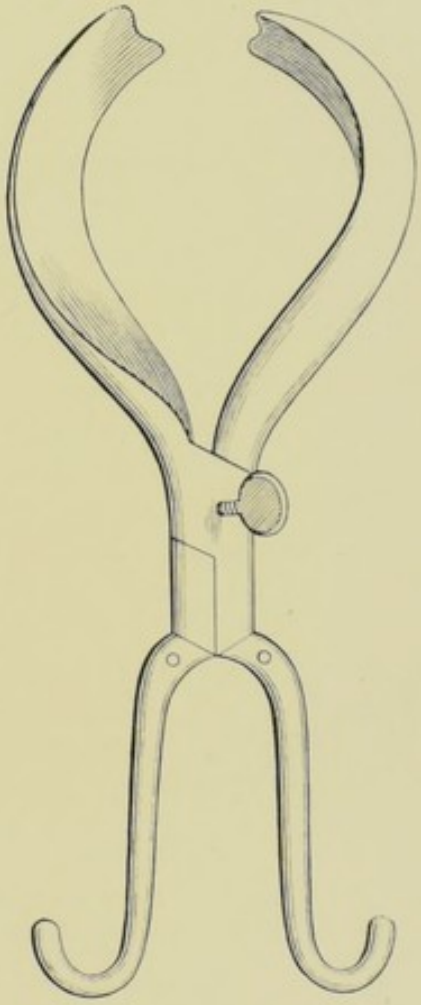

Fig. 5.