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Original Articles.

SOME SEVENTEENTH CENTURY OBSTETRICIANS AND THEIR BOOKS.*

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Jane Sharp; *The Compleat Midwife's Companion; or the Art of Midwifry improv'd.* 4th Ed. 8°. London, 1725.

Justine Siegemundin (geb. Dittrichin); *Die Chur-Brandenburgische Hoff-Wehe-Mutter, das ist: ein höchst-nöthigen Unterricht von schweren und unrechtstehenden Geburten.* U. Liebperten. Cöln-an-der-Spree, 1690.

Francois Mauriceau; *Traité des maladies des femmes grosses, et de celles qui sont accouchées.* 7th edition, Paris, 1740. 4°.

Francois Mauriceau; *The diagnosis of Women with child and in childbed,* etc. Translated by Hugh Chamberlen. London, A. Bell, 1710. 8vo.

Francesco Mauriceau; *Von den Zufällen und Krankheiten der schwangern Weiber und Kindbetherinnen.* 1680.

Elizabeth Nihell; *A treatise on the art of Midwifery. Setting forth various abuses, etc.* 8°. London, 1760. Also in French. Paris, 1771.

P. Hecquet; *De l'indécence aux hommes d'accoucher les femmes,* etc. Paris, 12°, 1708.

Hebammen Unterricht; *Nothwendig und nützlicher Unterricht, wornach sich die in das durchlauchtigsten Fürsten und Herrn, Herrn Bernhards, Herzogen zu Sachsen-Landen bestellten Hebammen . . . richten and halten sollen.* 4°. Meiningen, 1682.

Cornelius Solingen; *Handgriffe der Wund-Artzney, nebst dem Ampt und Pflicht der Weh-Mutter.* Andere Auflage. 4°. Wittenberg, 1712.

Sommern (J. G.); *Nothwendiger Hebammen-Unterricht.* 18°. Jena, 1676.

Paul Portal; *La Pratique des accouchments.* Paris, G. Martin, 1685. 12mo.

Gottfried Welsch; *Kindermutter oder Hebammenbuch.* 8vo. Leipzig, 1651.

I.

A modern imagination pictures to itself but with difficulty the status of the obstetrical art of the seventeenth century. Fancy a world into which Leeuwenhoeck (1632-1723), had not yet brought the

*By courtesy of the *American Journal of Obstetrics.*

revelations of the microscope; where Harvey had but just made the discovery (1628) of the circulation; in which the obstetrician had never heard of Laennec and his stethoscope (1819), or of those foetal heart sounds which that instrument alone has drawn within the compass of his ear; into which the Chamberlens and the secret of their forceps have still fifty years to come, with Simpson (1847), and Semmelweiss and Lister still more than two centuries away. Imagine a lying-in chamber which the physician enters either not at all, or heavily veiled and often at the peril of his life; in which the Caesarian operation is only undertaken on the dying or dead mother, and where parturient women perish undelivered after labors lasting from three to ten days.

The picture of such a period can be compared but to that of a physical universe just emerging from a glacial epoch, with only a few peaks yet uncovered and all the rich scientific landscape and pasturage, so familiar to modern eyes, still buried amidst the mass of conjectural ignorance and superstition which then passed for knowledge.

If those old fathers and mothers of obstetrics, to whose writings this essay is an insufficient tribute, are to be judged by modern standards of science or language or thought, they are by turns funny and pathetic, archaic, priest-ridden, futile and dogmatic; yet if we think of them as real men and women fighting their way to real knowledge with insufficient weapons and through an uncertain light we find them often measuring well up to our best present day standards either professional or humanistic. We have but to remember that the correct thinker survives his age by virtue of a mind instinctively accepting fundamental truth and discarding error; this correctness of vision is, at bottom, a matter of personal and habitual independence of mental process and of correct development of the logical faculty; individuals thus fortunately equipped engage in original thought despite all handicaps, and furnish to each age its fund of imperishable ideas. In the ancient world Hippocrates and Aristotle were such original thinkers. Galen and Pliny were ephemerals whose mental processes followed conventional lines—a pair of gullible old women whose ingenious romanticism is only equalled by the quality of the fables which they themselves believed. Of those writers whom we shall presently consider, Mauriceau, the Chamberlens, Justine Siegemundin and Cornelius Solingen were original thinkers and thought with Aristotle; Scipio Mercurio, Jane Sharp and Elizabeth Nihell—yes, and perhaps Louise Bourgeois—were, like Galen and Pliny, mere gleaners in the scientific

field, picking up grain and chaff alike, without much thought of the actual value of their gatherings.

It is no new idea that with the discovery of the art of printing the night of the dark ages melted away almost within a generation. Yet it is interesting to notice anew in these old books the avidity with which the human mind reaches out for knowledge when effort is all that is necessary to bring knowledge within reach. To learn, to compare, to judge of error, are normal functions, and normally in operation when the individual is unhampered by fear or tradition, or by prejudice under the cloak of religion. With knowledge once available to the ordinary man through type, restrictions of geography and language become inadequate to hold back his effort to acquire it, and he uses it, later on, as material with which to enrich his own thought and that of his friend and pupil. He travels, brings back foreign books, translates and prints them, and science becomes for the first time since the tower of Babel a universal brotherhood which knows no race or strange tongue. Not only is this true, but each generation, instead of starting *ab initio* to think out its own science with what little assistance tradition and manuscript can give it, is now enabled to stand on the shoulders of its ancestors whilst reaching a little farther into the firmament of knowledge.

Most of the old books on which this essay is founded were immediately translated into other languages. They furnish still lively examples of the eagerness with which the hungry and just awakened mediaeval world took advantage of the discovery of the art of printing to burst asunder the barriers which religion and language and geography and the span of human life, and the hitherto imperfect media of thought transmission had raised to curb the appetite for knowledge.

Gottfried Welsch, Doctor of Medicine and Philosophy, and Professor and Assessor of the Medical Faculty of the University of Leipsic, translated into "Hochdeutsch" the Italian *Commare del Scipione Mercurio on Obstetrics*, the French tractate* of Severinus Pinaeus on Embryology, the French treatises and memoirs of Louise Bourgeois, and published them with his own commentaries in 1652, in one enormous "Hebammenbuch" of nearly 2,000 octavo pages.

The German Chur-Brandenburgische Hoff-Wehe-Mutter of Justine Siegemundin, dated Berlin 1690, was immediately translated—as it deserved to be—into Dutch by Cornelius Solingen, as well as into several other languages.

*The old word; the word *essay* originated with Francis Bacon.

The Dutch *Hand-Griffe der Wundartznei, nebst Embryulcia, und dem Ampt und Pflicht des Wehemutter's* by Doctor Cornelius Solingen, of the Haag, was translated in 1712 into German by an anonymous "Wohlhaber der Wundartznei," and published by Gottfried Zimmerman of Wittenburg.



First Title Page; Gottfried Welsch; *Hebammenbuch*. No Date; See Plate 2.

The French "Disease of Women with Child, and in Childbed," by Francis Mauricean, was translated into English in 1672 by no less an obstetrician than Hugh Chamberlen. It was also translated into German.

Sommern in 1676 translated into German a Swedish treatise on scurvy.

The English Treatise on the Art of Midwifery by Elizabeth Nihell (1760) received not only its primary inspiration from a French book, but when rendered from English back into French was eagerly read by French midwives.



Gottfried Welsch. Second Title Page. 1652.

The writings of Louise Bourgeois were rendered into English quite as early as into German. Included in the only edition (third, 1663) of "The Compleat Midwife's Practice" to be found in the

library of the British Museum, "with Cutts in Brass," is an anonymous translation of the "Instructions to Her Daughter."

These are but a few instances of the early use which men made of the printing press to convert one branch of the art of medicine from a series of narrow systems of local traditions and experiences into a genuine science of universal application.

Although Ambroise Pare (1562), something over a century after the discovery of printing, published the volume which served as the germinal spot for all modern obstetrical books, it was only after another half century that modern obstetrics really found its voice. And what curious uncertain voices come to us from those early printed pages! Not at all like the guarded utterances of our modern frock-coated professors, whose sentences march in solemn impersonality across an annotated page. These old fellows have no formal style, no dignity, small respect for the truth, and their thoughts come tumbling out with as little regard for sequence as have the types on the same pages for alignment or uniformity. They never hesitate to smite each other vigorously and viciously, tell the intimate obstetrical history of their own families unblushingly, give us their patients' names and street addresses, and fill their pages with a heterogeneous mass of rubbish, superstition, tradition, speculation and error, that should have perished in the telling without being indiscreetly perpetuated in black letter by the *furor scribendus* of the seventeenth century. And such error dies hard, even when put into cold type. To be sure, in one sense the surest way to kill an error is to print it, for the act of printing presupposes publicity, and a multiplicity of intelligent critics will kill error sooner or later every time. But in another more literal sense the error and its record die only with the printed page, and once there the Index Expurgatorius but excites our curiosity, and the public *auto da fe* only makes us long for copies which may have escaped the flames which consumed the balance of the edition.

But, after all, the best record of progress is comparison, and today we have to thank these old books and their writers more for their record of error than of truth, for the truth we know; the error we might have forgotten but for the record. And how else, then, could we congratulate ourselves on the abysses of ignorance and superstition from which we have only just escaped? Yet future generations—sad after-thought—may presently be saying the same things of us, and thanking some of us, who shall be nameless, for thinking in good loud type not wisely but too well.

II.

Although these fragmentary memoranda have introduced themselves to the world as an obstetrical essay it would hardly be human, in the presence of this group of very curious and distinguished old books, to refrain from some sort of commentary on their physical attributes, irrespective of the thought carried by their pages. What of their paper, binding, print, of the language in which their thought is set forth? One might write a volume in itself in answer to each of these questions, and each chapter would be a "tractate" on the status of book binding, printing, and language in the seventeenth and eighteenth centuries.

Paper: The age of parchment and vellum—except for bindings—has passed on; the printed page is a paper one, but the paper is uncalendered, of rough fiber, yellow or brown, poorly bleached, of varying thickness, and not yet either water-marked or lined with the mesh of the cloth or wire between layers of which the modern paper-maker squeezes out his pulp. In one of these old books (1693) I found a transitional word which tells the story of the paper, *papeyr*, the ancestral word for *papier* and *paper*; and in that word and the coarse mixed *papeyr* upon which it was printed my mind's eye saw, not so very far away, the Nile and its waving bulrushes and an old Egyptian writing on a leaf of papyrus.*

Binding and Bookmaking: The earlier books of this group, in German, are bound in thick parchment or pigskin; the later ones, in French and English, in leather. The volumes are not of standard sizes like the modern quartos or octavos, for the bookmaker cut his pages to suit his own fancy and sometimes even changed his gauge in the middle of a book. The books are often nearly as thick as they are deep. The binder's art had not gone far enough in the early half of the seventeenth century to print or stamp or tool the bindings. For example, the volume collected and annotated by Gottfried Welsch is a clumsy, thick, irregular octavo bound in heavy pigskin, back gone, and sides cut into by a vandal's knife, the cover still showing some traces of colored *hand* illumination and text. Under the warped and incised pigskin can be seen the pasted sheets of waste printed paper out of which the old bookbinder made his *pasteboard*. The book was issued in parts, each with a different date and imprint, and each with an elaborately engraved and symbolic title-page.

Cornelius Solingen—translated into German by an anonymous

*The ancestry of modern paper, by the way, does not follow the etymology; our paper goes back to the *pulp* process of India and China.

Liebhaver der Wund-Artzney; second edition, Wittenberg, bey Gottfried Zimmermann, 1712; 7 inches x 9 inches x 2.5 inches—is bound in thick parchment, folded in at the corners, that rattles when the book is opened; the title is written on the back in script. A wonderfully engraved frontispiece gives us a bird's-eye view of God, Adam and Eve, a serpent swallowing his tail, a landscape with fuzzy trees like wigs, and a set of surgical instruments spread out on a lawn. At the back of the book are numerous plates showing surgical instru-



Justine Siegemundin; from Delacoux' *Sage-femmes Célèbres*.

ments massive and indestructible enough to have lasted till the present day.

Justine Siegemundin's must have been a beautiful book in its prime, Berlin, 1690, if the present binding was the one in which it was originally published. Probably it was, for Justine was proud of her book, and at her own expense had the "Kupffers," which illustrate it so elegantly, cut or etched in Holland, at the Haag, by Reg-

nerus de Graaff. The first page is a beautifully engraved plate showing a garland of four children and a medallion head encircling a motto:



Justine Siegemundin; Title Page; 1690.

"An Gottes Hilff und Segen
 Geschickten Hand bewegen
 Ist all mein Kühn gelegen."

The medical and theological soundness of the matter, is communicated in a lively dialogue by Justina to Christina, attested by certificates from the medical faculty of the University of Frankfort an der Oder, and from the official preachers of the court of Berlin.

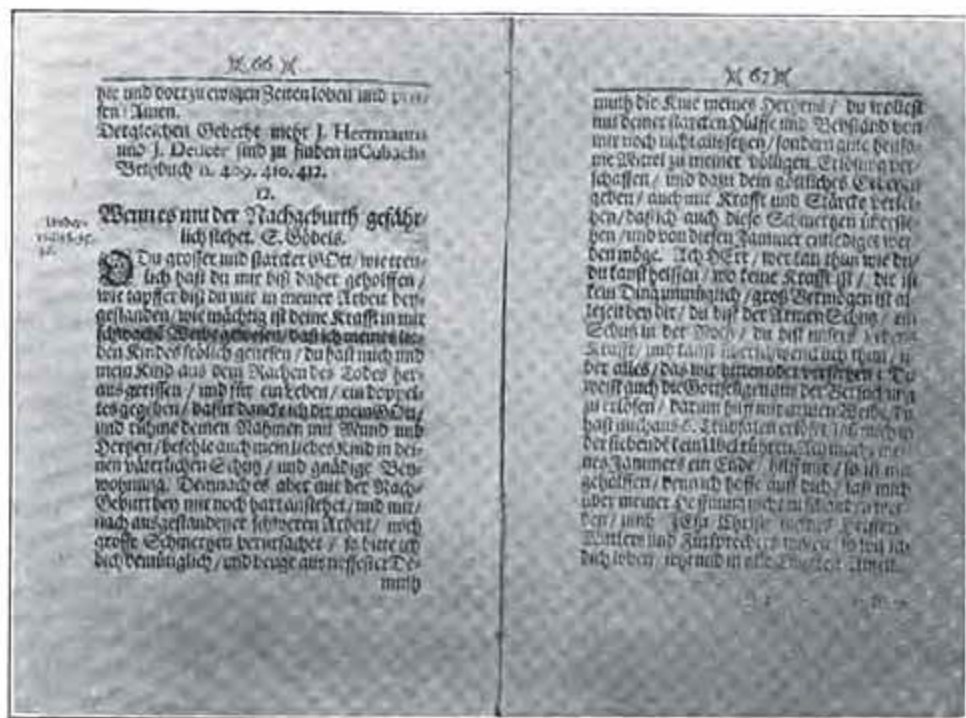
The book is about 7 inches x 10 inches x 1.5 inches, printed in exquisitely clear Gothic blackletter of varying size, on fine nearly white paper showing the wire mark but without water-mark, with faded gilt edges, and bound in soft grained brown calf leather with a tooled border terminating in each corner with the puffy gold and velvet crown of the Churfürsts of Brandenburg. The esteem in which Siegemundin was held by her generation is shown by the fact that her book was translated into Dutch by Cornelius Solingen.

A thin unbound large-octavo, brown-paper pamphlet published in two parts at Meiningen in 1682 contains in Part I, "Nothwendig und nutzlichen Hebammen Unterrichten des Herrn Bernhard's Landen." In Part II are certain, "Geistlichen Unterrichten"—prayers, psalms, meditations, proverbs, and forms of baptism to be used by midwives. A very beautiful example of clear, large, gothic black letter printing, with marginal headings and fancy initials. This old pamphlet is of great interest in its disclosure of the contemporary attitude of the community toward the midwife. She is admonished as to her conduct toward the state, toward patients, "medicos" and rivals, toward unmarried patients; to be found always at home; to keep her mouth shut; to take only what her patients can afford to pay; to abstain from "*Vollsaufen und Hurerei*"; to keep herself clean and her finger nails cut short; to engage in daily prayer of a prescribed form; and to have in readiness a goodly number of prayers for the various obstetric emergencies. These prayers, some in rhyme, are printed in full, together with many appropriate texts, psalms, etc. A separate prayer is offered for each emergency—such as delayed labor, twins, one twin dead, malformation, malpositions, cord prolapsed, arm prolapsed, retained placenta, etc., as well as a prayer of thanks for a happy delivery. The pamphlet reveals the deeply religious spirit with which the life of the German community was at that time saturated. The style of the anonymous writer is direct, simple and forceful, and the pamphlet must have exerted a strongly elevating influence over the midwives for whose instruction it was prepared.

Contrast this with the *Hebammenbuch* by Johann Georges Somern, of Arnstadt in Schwartzburg, published Jehna, 1676, bound in tough pigskin and, though hardly 3 inches x 5 inches, containing over five hundred pages of thick brown paper, bearing the imprint of a

rough irregular old German type in atrocious ink. This clumsy little book has probably kept its original shape and condition because very few dead "Hebammen" ever cared to risk their eyesight trying to read it. Quite as much may be said of the typography of several parts of Gottfried Welsch.

And this brings us to another point of interest. Many of these old books are made up of several parts printed at different times and by different printers. For example, the *Sommern* contains Hebam-



A Prayer for a Troublesome Placenta. From *Nothwendig und nützlicher Unterricht für Hebammen*. Meiningen, 1682.

men *Unterrichten*, 1676; *Christlichen Kinder Zucht*, 1676; *Weiber und Kinder Pfleg-Buchlein*, 1676; and *Bericht von Scharbock*,* from the Swedish, 1675. The type of these different tractates is so unlike that we must conclude they were printed at different offices from separate fonts and brought together only for binding.

The best examples of varying excellence of typography is to be

*Scurvy, see post.

found between the covers of the massive volume of Gottfried Welsch (title page dated 1651). Here we find German translations of the three parts of La Commare del Scipione Mercurio,** printed in execrable type by Tim. Kitzschen at Leipzick, in 1652. Following this are three parts of the works of Louisa Bourgeois, printed in hand-



Louise Bourgeois; First Part; Title Page. Bound with Gottfried Welsch.

some small black letter during different years (1629 to 1644), by Philip Fievet and Erasmus Kempffern for Matt. Merians in Hanau and Franckfort-am-Mayn. Then comes a tractate on Embryology by Severinus Pinaeus, body surgeon to the King of France, in clear

**Published in Italian in Verona in 1600 by Girolamo Mercurio.

heavy black letters, with well drawn "coppers" executed by J. T. de Bry. This translation was printed by Fievet for Merian at Frankfurt in 1648. Then two more translations from Louisa Bourgeois—the *Schützrede* (1629), and the *Secrets* (1644), very indifferently printed for and published by Merian, which end the volume. Several



Louise Bourgeois; Title Page to Part Second. Bound with Gottfried Welsch; 1628.

of the many title pages bound with this book are beautifully engraved, but many of the Italian illustrations, which Welsch tells us he has "Wohlbedächtigt geendert, um das was ärgerliche Augen ärgeren möchte verdecken lassen," have been unfortunately abstracted. The reader may not be unnecessarily reminded that the various writings reproduced in this book received their original publication during a

period covering almost exactly that of the Thirty Years' War (1618-1648), and that the book was finally completed and issued almost coincidentally with the treaty of Westphalia.

Girolamo Mercurio,* called Scipio, was born in Rome in 1550 and died—somewhere in Italy—in 1615; he was therefore almost a contemporary of Pare although he does not seem to have been familiar with his teachings.* His books were well illustrated, and the esteem in which he was held is shown by the fact that his *Commare*, which was published in Verona in 1600, was republished in Venice in 1601 and six times more in Italy before 1676, and was translated twice into German. His book is a curious mixture of current gossip, mysticism, superstition, and glimpses of real truth, for all but the last of which his ecclesiastical training and the *zeitgeist* are of course responsible. He says nothing original, rambles off into theology on small provocation and has a dogma or a quotation to meet every emergency. As a compiler he gives an invaluable picture of the obstetrical traditions of his own and preceding periods. He is the obstetrical Pliny of the middle ages, but to Pliny's insatiable appetite for legend he adds a capacity for theological obstetrics altogether his own. His explanation of the method by which impregnation may occur through the Evil One, even though that very active individual is conceded to lack corporeal attributes, is a triumph of constructive demonology.

Here are four curious old books from French and English presses.

Diseases of Women with Child, and in Childbed, as also the Best Means of helping them in Natural and Unnatural Labors; Written in French by Francis Mauriceau, and translated by Hugh Chamberlen.

*He studied in Bologna and Padua, and at Milan took the habit of the Dominicans. Theology shaded off imperceptibly into medicine in those days, and in order to practice medicine without interference he took a not unnecessary course in dogma at Padua. Like most Italian professional men and craftsmen of the period, he was a great wanderer and found his way to France and Germany in 1571, attaching himself under the name of Scipio to the company of mercenaries under Jerome de Lodrone. At that time he relinquished his order but, unlike his roving countryman of the same period, Benvenuto Cellini (1500-1571), his life was irreproachable. Returning to Italy in 1573, he became widely known as a physician and enjoyed the friendship of the Pope and the nobility, living much of the time in Peschiera. In 1600 he resumed the Dominican habit. His knowledge of the classics was remarkable and he must have had access to vast libraries of ancient manuscripts, for his works are an inlay of quotations from older writings. His apology for writing his *Commare* in the Italian mother tongue instead of in Latin was that the midwives and gentry, for whom it was intended, could not read the latter language. Portal (*History of Anatomy*, II, 258), does him the injustice to describe his works as those of a charlatan; but his knowledge was quite abreast of the times, for the times were theological, classical, legendary, and altogether destitute of any true scientific spirit.

First edition London 1672. This copy is a fourth English edition dated London 1710. The original work was published in France in 1668, by gracious permission of the king, and bore the certificate of the noble personage to whom was farmed out the privilege of issuing copyrights and of attesting to the correctness of all works coming from the French presses. It is significant of the French



Louise Bourgeois; Apologia; 1629. Bound with Gottfried Welsch.

attitude towards matters religious that although a page is given to a certificate showing "The Approbation of the four Sworn Provosts and Wardens of the Master-Chirurgeons of Paris," no paper is wasted over the sentiments of the theological faculty toward the volume. The English translation reproduces all of the French "privileges," and is a long octavo well printed from good type on white paper

and bound in dark nicely tooled leather. In physical appearance this book is quite modern, with the exception of the eighteenth century type and the ancient capitalization and spelling. The Table of Contents is at the end of the book. Comments by Chamberlen, explanatory, exclamatory, derogatory, or sharply contradictory, are inserted in italics in the lateral margins. Some scientific gentleman has abstracted most of the plates with which the copy examined by



the writer was once enriched. There remain several good "coppers" illustrating a murderous looking "extractor" which was to be screwed into the infant's head. This was the celebrated *tire-tête*, invented by Mauriceau, and Chamberlen must have laughed in his sleeve when he reproduced the illustration for his English public. The less said about this aspect of the Chamberlen family the better; for there must have been something morally wrong with obstetricians who

would deliberately countenance the use by others of an infanticidal instrument like the *tire-tête*, whilst themselves employing secretly an instrument which they knew was capable of saving a large proportion of infant lives. In his translator's preface Hugh Chamberlen apologizes for not publishing to the world the secret of his own instrument (the forceps), on the ground that the secret was not his own but his family's, of which several members were still living.

A more ancient book, both in appearance, language and subject matter, is that of Jane Sharp.

The *Compleat Midwife's Companion, or the Art of Midwifery improved. Directing Childbearing Women how to order themselves in their conception, breeding, bearing, and nursing of children.* In six books and several chapters, with physical prescriptions for each disease incidental to the female sex, whether virgins, wives, or widows. First edition London 1671, 8vo, with plates. Many editions, of which this copy is a fourth, printed in 1725 without plates, but with a curious old frontispiece. The old binding has evidently been replaced by cloth boards during the last hundred years. The book is a small twelve-mo; the paper is poor; the alignment is bad; the type and ink are worse; the pages are irregular and poorly cut. The volume was evidently not meant for scholars or those accustomed to fine and expensive editions, in fact it must have been what its title announces—a book written by a midwife and intended to supply her uncultured sisterhood with a fund of useful knowledge, expressed in every-day vernacular, not available at that time in any other form. The writer states that she "has been at large expense translating books from French, Dutch, and Italian." Most of the names are capitalized, although this custom is but irregularly adhered to. The book contains neither Latin nor references, but is a wonderfully interesting mine not only of archaic nomenclature and phraseology but of the obstetrical customs and traditions of the common English people of the seventeenth century. To these features we will return later on.

And who, by the way, was this Jane Sharp—"Mrs. Jane Sharp, for forty years practitioner of midwifery," as the title page of her book tells us? And who wrote her book, if she didn't write it? To these questions we are constrained to answer after a faithful but fruitless search through libraries and encyclopedias—*dass weiss Gott allein!* Justine Siegemundin we know and love; Elizabeth Nihill we have encountered and cannot forget—and here are their faces to vouch for them. But as for Jane Sharp, the library of

the British Museum knows her not, except as the authoress of the above-mentioned treatise, which ran through several editions, all of which are scarce, badly worn, and more costly than diamonds. So far as biographical history or contemporary allusion has to say to the contrary she may be one of those literary moon-calves of which the English have been and are still so fond. J. Blunt was one, Junius



Jane Sharp; Frontispiece and Title Page; 4th Edition, 1725.

another, Veritas and Proprietas a third and fourth, and so on, each standing for an idea and each grinding anonymously his own pet axe. Maybe Jane was a medieval joke, and in some places she certainly "reads funny," but the English took themselves too seriously to joke about matters connected with the nation's future electors. Perhaps a final cryptogramic analysis may show that Bacon when he waxed tired of writing Shakespeare took up obstetrics *pour passer le*

temps; in fact, we might adduce, but for the timely pressure of other material, internal evidences of language, thought and important parallelisms in both works which give great weight to the contention that Bacon—in the absence of direct evidence to the contrary—must also accept the responsibility for the writings of Jane Sharp. Should such prove actually to have been the case, it is not difficult to believe that the great Elizabethan preferred to have this work published posthumously. The skeptical reader may be disposed to quote in connection with these speculations a certain comment of Cornelius Solingen—"das solches aber gewiss sey lass ich meine Gänse glauben."

Here is a French book containing two treatises.

"De l'indécence aux hommes d'accoucher les femmes. De l'obligation aux femmes de nourrir leur enfans." Paris 1708. Published anonymously, but probably by P. Hecquet.

This is a delightful little work, 3 inches x 7 inches, corresponding to our modern duodecimos, bound in brown calf, on fine paper, with clear open French type well set and elegantly aligned. The book is filled with classical and contemporary quotations; the references, of which there are many, are carried to the bottom of the page. The French is vigorous and modern and well up to the standard of elegance of the book-making, and the work is put out with the certified approval not only of the usual royal inspector, but of Bosquillon of the law faculty, and Geoffroy of the medical faculty of the University of Paris. In many ways the book reflects the elegant but degenerating France of those times quite as much as does that of Mauriceau, for not only did the language attain its complete crystallization during the reign of Louis XIV, but man midwifery—against which the book is a protest—was obtaining through the example of the French sovereign and his court a vigorous but hotly contested hold on the upper classes of society. If I mistake not, most of the facts, quotations, and arguments with which Elizabeth Nihill, who was trained at the Hotel Dieu, arraigned the accoucheurs of her own country were cribbed without acknowledgment from this little volume.

Half a century later, 1760, Elizabeth Nihell, Professed Midwife, published through A. Morley at the Gay's Head, London, "A Treatise on the Art of Midwifery." This is a modern-looking octavo, present copy probably rebound, unillustrated, printed on good paper in large clear type, and dedicated "To All Fathers, Mothers, and likely soon to be either." Within is "set forth the Various Abuses of the Art of the Midwife, especially as to the Practice with the Instruments, and serving to put all rational Inquirers in a fair way of very safely

forming their own judgment upon the Question: which is the best to employ, in cases of Pregnancy and Lying-in, a Man-midwife; or, a Midwife?" The book is divided into two parts. In part 1 she gives, through the medium of fourteen objections and answers, her somewhat heated views on the subject of Men-midwives. In Part 2, she gives us a series of "Observations on labor and delivery, including a description of the pretended necessity for the employment of in-



Elizabeth Nihell; from Delacoux' *Sage-femmes Célèbres*.

struments," and continued observations—by this time superheated—on the objectionable individuals discussed in Part 1. In fact, Delacoux calls her book "a treatise on obstetricians rather than obstetrics." Our remote and respected obstetrical forefathers—Hippocrates, Galen, Guillemeau, Dyonis, Bienassis are none too gently handled; but on her contemporaries—Mauriceau, Deventer, De La Motte, Palfin, Levret, Velsen, Roonhuysen, Vanderswam, the Chamberlens, Lowder, and all the others of the tribe of Pudentists and clandestine users of "that

infernal instrument" and its ancestors she lets herself loose. They are no better than itinerant corn cutters, bone setters, couchers of cataracts, and stone cutters. And on poor Smellie, her countryman and rival, "whose hand was large enough to clean out the crater of Vesuvius," and who taught obstetrics in six weeks to a gaping class of yokels for six and six apiece through the medium of a hollow manniken tenanted by a bladder distended with small beer, she descends like an avenging fury. She jeers at the anatomists for believing the story of the Rabbit-woman of Godalmin, and solemnly accuses Ambroise Pare of having palmed his trump card—the rediscovery of podalic version—from the midwives of the Hotel Dieu. Mrs. Nihell's book is the best known and most characteristic representation of the innumerable English polemics written in the eighteenth and nineteenth centuries to stay the advancing tide of man-midwifery. Had she lived two centuries earlier her propensity for scolding might have made her a candidate for the ducking stool.

III.

And now before going into real obstetrics the writer must confess humbly that his obsession by these volumes and their contents has taken yet another form—still in its essence non-obstetrical. Man may have *practiced* obstetrics long before he had a language, even though Elizabeth Nihell tells us* he was nothing but an interloper from the first; but before he ever *studied* obstetrics he must have had a language in which to clothe his thoughts. Then why not browse just a little, in true Shandyan style, by the wayside amongst the rich herbage of teymology and syntax springing up or withering amongst these pages? One may write history from words, and why not obstetrical history just as well as any other? And although these brief observations are of necessity fragmentary and discursive, the writer trusts that in thus following at a respectful distance in the footsteps of Max Müller he may stimulate a renewed interest in the study of our medical language.

Even the most casual student of philology will find his attention

*And proves her thesis with the usual texts. She admits that Eve's emergency must have made Adam the first midwife, but disproves the modern contention that hence his title must have descended in the male line, by producing documentary evidence to show that this title was immediately extinguished by the refusal of his immediate descendants to recognize any binding force in his example. "The Israelites did not use men to lay their women," Genesis 35:17; 38:27; also Exodus 1:16-22. Her argument is cogent and suggestive, and should convince anyone open to conviction. A certain J. Blunt who wrote about the same time also takes occasion to remind her brethren of the humiliating fact that in all the animal kingdom the male of the "obstetrical frog" (Reaumur) is the only one to officiate at the delivery of its young.

arrested on every page of these books by two especially noteworthy variations of the language from its present form :

1st. The survival into eighteenth century medicine of many ancient and respectable words which have since totally disappeared from polite dictionaries. Many of these words appear to modern readers as strange and altogether meaningless vulgarisms.

2nd. The relation in which the so-called "dead languages," and especially Latin, were standing to the mother tongue in the rapid development which scientific nomenclature was undergoing during the seventeenth and eighteenth centuries.

This was a language period in which the processes of word evolution were actually visible on the surface. In our day the equilibrium of all language, as to both etymology and syntax, is quite stable; the elegant Latin has not only permanently crowded out the humble Northern and Anglo-Saxon mother tongues, but like an arrogant upstart has finally brought them into contempt. In that day the medium was turbid with old roots and undifferentiated synonyms which had not yet settled to the bottom, and with new words and forms which had not yet entered into solution. The language boiled with the warfare of incompatibles. The examples which have been selected almost at random from these books are illustrative of this philological conflict waging in the medium of scientific expression.

In the new development which language had taken on, in response to the stimulus of the printing press on the one hand and the free growth of thought achieved by the Reformation on the other, there was little notion of either philological exactitude or consequences. The tendencies of language were—as they probably remain today—unconscious and unguided ones; there was no science of philology and no encyclopaedists to enforce rigid rules of form, and printed letters and words were but the media of vocal speech on the one hand and of ideas on the other, to be added to or taken from as the occasion of the moment required. The language was rich, impure, mutable. Hence arose either easy changes of spelling to interpret various changes or ideas of sound, or substitution and addition of words to meet changed or added meaning.

And yet in all these changes of words and inflections it is surprising to note how few changes have occurred in the syntactical skeleton and thought sequences of either the German or English languages. In like manner, old prepositions, conjunctions, and other

linkwords have survived in all Gothic languages with scant change in pronunciation and but little in spelling, so that the root remains but slightly obscured: e. g., *and, unnd, und, undt, un; bey, by, bei, beym; uf, auf, up; vor, wor, for, für; worbey, etc.* On the other hand, although many changes in the old very liberal and often irrational spelling of inflected words were but slight to keep up with slight changes in sound, the change was sometimes sufficient to obscure the root: e. g., the *poached* egg* easily became the meaningless *potched or porched egg*.

In many German words the root spelling has been changed and confused, though the sound is little altered; e. g., *echtwas* to *etwas*; *ohngefahr* to *ungefär*; *sweer* to *schwer*. In others the root has become almost unrecognizable through changed spelling to meet degenerated pronunciation; as, *itzo, sintemahl, veruittibten, geblibenen*. These changes are especially noticeable in the numerals and their derivatives; e. g., *vierdte, eilff, zwo, viertzehen, viertheil*.

In other cases the word became simplified both in pronunciation and spelling without change in root or meaning; e. g., *wündsche* to *wünsche*; *Brandewein* to *Brantwein*; *nimbt* to *nimmt*; *Tummheit* and *Teutsch* to *Dummheit* and *Deutsch*; *Guttsche* to *Kuttsche*; *spraak* to *sprach*; *privy* became *private*, and *privities, privates*.

The old English *assoon* and *chafindish* and the old German *Kanstu, wirstu, fühlstu*, were survivals of the Gothic tendency to couple words together in written language when the spoken language did the same. And yet the old German said *zu rücke* instead of *zurück*.

Along with these minor changes in the common linkwords and vernacular skeleton,—changes, which may be described as gradual and natural, the language of science was undergoing a radical and somewhat catastrophic evolution, not only because of the addition of new material requiring new words, usually nouns and verbs taken bodily from the Latin to meet the novel conditions, but through the substitution of scientific Latin for old vernacular nouns and verbs. It is easy to trace this change in old German, for before the Latin words became effectually and permanently welded into the printed language it was the custom to spell the Latin root in the Latin characters, and any local addition to the word was printed in Gothic. Here is a short list of these broken words taken at random from a German seventeenth century book: *Penetrir/en, accelemir/ung, tractir/en, citir/en, ad-*

*From the Old French *pocher*—to break out.

hibir/ung, author/s, probir/et, chirurgi/sche, operatio/nen, pasien/ten, effectui/ren, praesupponi/re, auctori/tät, phantasi/ren, medico/s.* Most of these words have now permanently replaced those of Northern origin, and it must be admitted that the substitution has sometimes strengthened the language by making it more exact and formal. On account of the early adoption of the Latin characters in the written language the English door has always been open for Latin words, which were thus easily assimilated without the probationary period required in the German.

Sometimes the Latin or Greek underwent queer changes simply in passing through unfamiliar lips or pens; e. g., *sphincter* became *sphyster*; *chyrurgeons* became *chirurgesons*, and later *surgeons*; *dyst* became *diet*; the *urachus* came into English from Greek through the French as *ouraque*;** in somewhat the same way *afterbirth* was corrupted to *after-burthen* through contact with the German *Affter-Bürde*. The Latin word *carbunculus* (little live coal), found a ready lodgment in both German and English tongues, but the German added an extra twinge of pain to the thing by corrupting it into *Karfunkel* (*funkel*, to sparkle or twinkle).

The German language has resisted the encroachment of the Latin much more effectually than the English. Several factors have united to maintain the German and to break down the English: 1. The English was almost from the first a composite language which found it easy to take on modifications. 2. The English use of the Latin characters in the written language. 3. The national solidarity of the Germans in custom, orthography, race and folk spirit, and resisting power. Even today a strong feeling against philological intruders exists in Germany, from the Kaiser down, with the result that whilst the folk tongue has almost entirely dropped out of medical English, the medical German is still rich enough in old nouns and verbs to be able to replace itself almost completely were all Latin words to be withdrawn. For example, *gebär-mutter, eierstock, eier-leiter, hoden, scheid, affter, kinder-mutter, wochnerin, seitengeburih, geburtsstrasse,*

*Applied in this case to a delirious woman seven days in labor with a still undelivered dead child. There is a considerable philological gap between this German word taken bodily from the Greek *φαντασία* and the English word fancy, but the gap is spanned by phantasy, phantast, phantastic; and in an old volume written in the fluid English of the seventeenth century, we catch the word in the very act of transmutation—phant'sy.

**Thus spelled by Hugh Chamberlen.

monatskind or *mondkalbe*,* *mutter-gewächs*, etc. Few old words, if any, representing these ideas are still to be found in working order in the English language; their English ideas exist at present in no form other than Latin. The middle English had an equivalent for *mondkalbe* in *moon-calf*, which has come down to us in Shakespeare's half-human Caliban:

Ste. "How now, mooncalf! how does thine ague?" and
Trin. "I hid me under the dead mooncalf's gaberdine."

—Tempest II:11.

But the true meaning of the English word is lost without the intervening German word *monats-kind*, meaning month's child, moon-child—a conception thrown off at the monthly period. The Latin substitute *mole* is scientific, but sadly lacking in pictorial or traditional quality.

But although the English tongue has never added any new words of Anglo-Saxon origin since the Latin gained a foothold, the virility and beauty of the old language has enabled it to make a hard though losing fight for its own parts of speech.** Probably the last of these common medical English words will before many generations become obsolete, with the latinization of all scientific words in most modern languages. And yet it would be a pity, for example, to lose the very old Anglo-Saxon word *womb* out of the English. This word will probably go eventually, except as it will always remain with us as an indispensable root-word in *woman*, for though we find it in the Danish, Gothic, Swedish, Icelandic, etc., the root has no place either in German or in the Romance languages. Midway, however, between the Anglo-Saxon *womb*, meaning belly,*** and the more narrow Greek work *μωτέρα*, meaning the organ itself, a curious temporary interposition took place; the English and French languages took up with a latinization of the Old German *Mutter* which, as *Gebähr-mutter* still has a dignified place in the pages of German scientific text books; the *womb* became the middle English, French and German *matrix*, and remains so in French to this day—*matrice*.

This total extinction of almost all Anglo-Saxon words for the procreative organs is most interesting. In the old books the testicle and the ovary were alike *stones* or *seeds*, and later on became latinized both in German and English, and at first without sex discrimination,

*The Latin *falsum germen* was also sometimes used, and has been rendered into literal English as "false conception."

**Forty per cent of colloquial English is still Anglo-Saxon.

***Writers as late as Chamberlen called pregnancy "Great Belly."

into *testicle*.* The pelvis was *basin* or *becken*, and the pelvic bones were *share bone*, *haunch bone*, *holy bone* (*heiligenbein*, os sacer**). The scrotum was described by Jane Sharp as the Codd. This word is Anglo-Saxon, and in Middle English is Codde, in Icelandic Coddi, in Welsh Cwd, in Low German Koden, and means belly, sac or paunch. The writer has noted its occasional use in this country in modern vulgar dialect. Jane Sharp called the male organ the Yard, and the glans was the Nutt of the Yard. Yard is an Anglo-Saxon, Gothic, Icelandic, Scandinavian word, from gyrd, a rod or twig, or spear, and has an enormous number of derivatives. For example, the word came early to mean a unit of measure, hence an enclosed or measured space, g(y)arden and orch(y)ard; the word actually exists in the Russian language in the name of the city Nijni Novgorod, which was originally built around an enclosed space for holding a fair. See also Yard-arm.

Still quoting from Jane Sharp, we confess to being somewhat startled by the following choice specimen of Middle English. "If the child comes Arsewards or Buttocks first, lay her with her head lower than her Bodde."*** The phrase, "to lay a woman" from the Anglo-Saxon *leccen* and Middle English *liggen* was synonymous with "to confine,"**** and together with the companion phrase "to bring to bed," remained in common use until the beginning of the nineteenth century when both became obsolete, together with the old expressions "to take" or "to try a pain," meaning to assist or examine during a pain,

*Jane Sharp says, "I have seen one seed of one woman, and but one, and that is more by one than many men have seen." The word is used often in another sense, as by Mauriceau: "The Fallopian trumpets are ejaculatory vessels made rough so that the (male) seed may not run back." Note that Mauriceau reverses the action of the cilia and is altogether at sea over the functions of the "ragged piece." This was before the day of Leeuwenhoeck.

**The old Latin words for epilepsy (*morbis sacer*) carry the same significance, but this is again lost in the common German words for the disease—*schweren Noth*.

***She has the same fondness as Shakespeare for monosyllabic Anglo-Saxon; for example, her injunction to "annoint the parts with fresh butter to make them *glib*" (from old Dutch *glibben*) suggests the witches' cauldron in *Macbeth*:

"Make the gruel thick and *slab*."

****The two words *leccen* and *confine*, from the mediaeval Latin *consequere* or two, but 'tis soon over."

***The two words *leccen* and *confine*, from the mediaeval Latin *confinare*, have distributed themselves into modern language in several directions. Thus we find *leccen* in the English and French word *lecture* through the intervening Latin *lectus*, a couch. It occurs again in the French *lit*, a bed, and we may see it in process of transmutation in the writings of Louise Bourgeois as *lict*, where the Latin "c" is still in the written word, but silent. *Confinare* has become the German *entbinden*, the sense of the word being accepted literally but without any transfer of the root.

and to "touch," meaning to examine. The old Middle English "to lie in" is obsolescent though it will last a long time yet in "*Lying-in Hospital*." As for the fifth word in the quotation, it is a survival of one of the oldest words in written or spoken language, going back to a root not only common to all Northern tongues, but even also to be identified in a slightly modified form in the Greek *oppos* or *opros*. The word still survives in fairly decent German.



Paul Portal; Title Page; 1685.

An old Anglo-Saxon word which is probably too closely interwoven with history and literature ever to be driven out of the language, is the English word for cranium—*skull*, *scull*, *sculle*, *skulle*, *schulle*, back to *skaal* and the Icelandic *skal*—a pan, bowl or goblet, and the *skoal!* of the hard drinking Norsemen. Here are Jane Sharp's thoughts on embryology: "The *scull* and whirl bones are made first, but farther than that I have nothing to say, for I love not imperti-

ment disputes like those Grecians who contended largely whether the elephant's tusks were horns or teeth."*

Another Gothic or Anglo-Saxon word which survives to this day, both in English and German, in spite of the Latin *umbilicus*, is *Navel* or *Nabel*, from *Nafela* and *Nafu* in Anglo-Saxon, *Nabula* in Gothic, *Nafsi* in Icelandic, and *Nafle* in Swedish, meaning the central point. In the seventeenth century the Latin word for navel had not yet been introduced into either the English or German, and neither language would now suffer through its absence. An interesting philological query arises in connection with this Gothic word—does the nave or axis of the Gothic church take its name from our word for navel or does it go back to the Sanscrit *nau*** through the Latin *navis*—a ship?

A word which has carried its Northern ancestry with it all over Europe is the Scandinavian word *Schorbauch* or ruptured belly, which has become *Schorbuyck* in Dutch, *Scharbock**** in German, *scurvy* in English, and *scorbute* in the French. The disease came into Europe from the North with the armies of Gustavus Adolphus and Charles XII, and the Scandinavian name for it was rendered from Low German in the mediaeval Latin *scorbutus*, hence the French *scorbute*.

And now, to wind up this philologico-obstetrical digression, here is a quotation from Mauriceau (translated by Hugh Chamberlen), containing a word which gave the writer an exciting paper-chase: "Many Women could not keep themselves on their Legs, immediately after they are brought to Bed, were their Pelvic Bones disjoined or separated during Labour—I noted that very well in the *Hostel de Dieu* of Paris, in the many I have layed there. When women that were to be brought to bed, began to be in Labour, they went into a little Room called the *Stove*, where all were delivered upon a little low Bed made for that purpose, where they put them before the Fire; afterward, as soon as it was over, they were conducted to their Bed, which was sometimes a good way off from this little Chamber, whither they walked very well; which they could never have done, if their Os pubis, or those of the *Ilia*, were separated the one from the other." "The *Stove*!" The casual reader might suppose the ladies temporarily sojourning in the *Hotel Dieu* applied this somewhat suggestive epithet to the confinement room on account of recollections not altogether

*Not such an ancient sort of discussion after all—a theological writer of the early nineteenth century raises the cognate question "whether leopards and mules could properly be called creatures."

**Canon Trench thinks the word is from *nau*, *navis*, preserving as a symbolism the old word almost in its original form; but some philologists take the alternative viewpoint.

***Sommern, loc. cit.

unassociated with the idea of fiery torment. Not so—the word *stove* meant in Anglo-Saxon and Gothic simply a room, and later, a room heated for a bath or other purpose. The word was *stofa* and survives in the German as *stube*. In Middle English *stove* meant simply a room. The old German midwives used *stowen* to heat the *stuben*. In old Dutch hostelries the heated common room was The Stove. Truly the drifting sands of English philology have to be shoveled out of the smoky old Anglo-Saxon *Stofa* before we can recognize the ancestor by marriage of our modern base-burner.

This word occurs with the same meaning in the documentary record of a certain episode in the stormy life of the third Dr. Peter Chamberlen—the father of the translator of Mauriceau.* In 1649 the House of Lords granted him an ordinance for constructing “artificiall Bathes and Bathe stoves.” The *stoves* referred to were rooms or buildings to be erected for the purpose of accommodating public baths. This ordinance went to the House of Commons and, after reference to the “Colledge of Physitians,” was not concurred in because the “Colledge did not think the erecting of publike Bathes should be granted to Dr. Chamberlen because the Colledge thinks them hurtfull to the common-wealth.” Among the reasons given by the college for believing the baths hurtful is that “by their abuse they were the cause in the Greek and Roman cities of so much physicall prejudice in effeminating bodyes and procuring infirmityes, and morally in debauching the manners of the people, y^t in three of them upon the coming of the Christians into power they were demolished or converted to other uses.” Other reasons were put forth by the learned faculty for refusing to endorse the baths. For example: “This country is too cold.”—“The Bathes will be a monopoly.”—“They may be the cause of Sinne.”—“They are remedies for the French disease,” etc. These reasons were all well enough, but the real reason why the faculty did not want the ordinance passed was because of jealousy of the Chamberlens, who, for four generations, were physicians in ordinary to the Stuart dynasty, and later served William and Mary and good Queen Anne in the same capacity.

*See Aveling, “The Chamberlens,” Churchill, London, 1882; pp. 60-77. Dr. Aveling reproduces the document without comment on the difference between the medieval and modern meanings of this word.