

## THE WORKS OF JUSTINE SIEGEMUNDIN, THE MIDWIFE.

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It was proposed to me last year that I should take up the works of the French midwives, or I should rather say of one or two of the more important ones. It is but natural that after reading the works of Madame Lachapelle and of Louyse Bourgeois we should be interested in seeing what progress had been made by their sisters in the art in Germany; and so before taking up the study of the works of Madame Boivin, it

keynote of the whole work. Justine Siegemundin is nothing if not pious. In order to avoid all unnecessary repetition we may say once for all that, not content with beginning her work with a verse from Exodus referring to the blessings which came upon the faithful Hebrew midwives (a verse, by the way, which for fear of possible misinterpretation she kindly explains), she interlards it at almost every line with a

Die  
Königl. Preussische und Chur-Brandenb.  
Hof-Heb-Ämter,

Das ist:  
Ein höchstnöthiger Unterricht  
von schweren und unrecht-stehenden Geburten,

In einem Gespräch vorgestellt,  
Wie nemlich, durch Edtlichen Beystand, eine wohlunter-  
richtete Hebe-Mutter mit Verstand und geschickter Hand der-  
gleichen verhalten, oder wanns Noth ist, das Kind we-  
den könne;

Durch vieler Jahre Übung selbst erfahren und wahr befunden:

Nun aber  
Gott zu Ehren und dem Nächsten zu Nutz, auf gnädigst- und  
inständiges Verlangen Durchlauchtigst- und vieler hohen Standes  
Personen verbessert, mit einem Anhang heilsamer Arznei-Mittel und  
mit denen daffals erregten Controvers-Schriften vermehret,  
Nebst doppelter Vorrede, Kupffern und nöthigem Register zum  
Druck beförderet.

Justinen Siegemundin / geborner Diettrichin,  
von Königsberg aus Schlesien, im Jourschreyen Dürckentum gelesen.

Berlin,

Zu finden bey Johann Andreas Rüdiger, 1773.

FIG. 1.

seems advisable to consider in brief the life and writings of the most celebrated of the German midwives of the 18th century, namely Justine Siegemundin. The edition, which has been kindly lent to me by Dr. Kelly, was published in Berlin in 1756. The title of the book in brief is:—"The Midwife of the Royal Family of Prussia, and of the Family of the Kurfürst of Brandenburg." Let this suffice for our present purpose, although the title-page gives us much further information to which we will refer later (*vide* Fig. 1). As a frontispiece we have the portrait of the authoress, with the quaint legend beneath: "An Gottes hilf und Seegen Geschickten Hand bewegen Ist all mein Tuhn gelegen." "All my doing depends on God's help and blessing, and on the skilful motions of my hands." (*Vide* Fig. 2.) This sentiment is the



FIG. 2.

pious sentiment, giving God the glory for all the good she has ever been able to perform, and holding herself up as a special instrument in the hands of God for the performance of a very important work. So much, then, for her piety, and we deem ourselves not only worthy of pardon, but also of some gratitude on the part of our hearers if we refrain from the vain repetitions through which we ourselves have waded, not without some weariness of spirit.

The prefaces to the book are two in number. The subject of the first she states as follows: "The circumstances which led me to take up this calling and science." "My reason for undertaking to write this book of instructions, and my end and aim in doing so." From the kindly way in which, as she herself acknowledges, she was at first received by the midwives,



we might have been led to believe that she had no enemies, and yet the preface at the very beginning has the appearance of a polemic. Some had objected that women who had had no children were necessarily unfit to treat difficult cases of childbirth. "Can," she asks, "we expect a physician to first undergo in his own person all the various grievous maladies before we consider him competent to properly treat the same in the persons of others?" Again, "Might not a woman who had borne many children with normal labors stand aghast when some abnormal case came in her way as a midwife; or can a woman during a hard labor, distracted as she is by pain, appreciate what is going on in her own body better than a scientific midwife, even though the latter has never experienced the pain herself?"

Her account of how she became a midwife we will give only in brief. Her father died when she was a child, and she was brought up by her mother, of whose training she speaks in high terms. At the age of seventeen she was married to a man who held some petty government office in a small town in Silesia. In her twenty-first year she was held by the midwives to be pregnant. The diagnosis of a normal presentation was made, and as she naively says, "Because I did not know any better than what was told me, I was in labor until the third day without being delivered. One midwife after another was sent for until four were present, who all agreed that the presentation was good (although no child appeared). So I was compelled to suffer torture for fourteen days, and was kept as it were upon the martyr's bench, and should have given up the ghost sooner than have brought forth a child. The final decision of the midwives was that I must die with my child, but determined as they were in their wisdom that I should bring forth a child, yet I bore none. But God had mercy upon me and sent to the village where I lay a soldier's wife. This woman was summoned, and having more understanding than the midwives, she decided that there was no question of a child, but that I had a stoppage of the blood and a mighty sickness with a falling of the womb. Upon this a physician was sent for, and under God's blessing soon restored me." Her own danger seems to have excited her interest in the subject, and from that day she began to study midwifery, but without any intention of practising it. Strange as it may seem, however, the midwives soon began to call her in consultation, and for twelve years she practised her art among the poorest classes of peasant women without receiving any fee. Finally she was called to attend the wife of a clergyman, and later, without the expression of any wish on her part, she was appointed midwife of the city of Liegnitz. On the recommendation of several physicians, she was called in to see a lady of high rank who had a tumor of the womb, and had—shall we say?—the temerity to remove it by means of a fillet. The operation is explained in her book by copper-plate engravings. The prince then gave her a settled position with a fixed salary, and it became her duty to follow the court. In this capacity she was called sometimes to Saxony, at other times to Silesia and to various other places. In her travels she met with many distinguished physicians. Finally the Kurfürst Friedrich Wilhelm appointed her court midwife, in which position she was confirmed by his successor, Frederick III. She was in the

habit, when attending cases, of taking notes, partly to beguile the time and partly because she thought that the notes from one case might stand her in good stead should a similar difficult case arise. On studying her notes further questions would arise, which she discussed with other midwives and doctors. Finally she was asked to publish her observations, but it was not until the entreaties of the Queen of England had been added to those of the Kurfürst and of the Princess of Nassau, not to mention those of various eminent physicians and others, that she yielded. This work, then, as a childless woman, she would leave as her child to posterity. The book was published at her own cost, and in order to make it of more practical use she has taken pains to adorn it with copper-plates in order to illustrate the instructions contained therein. Dealing more especially with abnormal labors, she has yet thought it best to give a diagram which represents the fetus *in utero* in a normal case. The placenta also and the different membranes are diagrammatically shown.

She goes on to prove the necessity for such a book, and from what she says it would appear that when the midwives met together and related their experiences and detailed the different cases in which they had either been successful or unsuccessful, or again spoke of those which they had been induced to leave to God and nature, she questioned them somewhat after the Socratic method, and being equally successful with Socrates in gaining for herself unpopularity thereby, discovered that most of them had no idea of normal presentations, much less of the necessity of turning under certain circumstances. Nor did they understand the method of carrying on such an operation.

She defends the simplicity and unpretending style of her work by saying that she wishes to write a text-book which can be read with interest by those who understand the precepts which it teaches, and which at the same time will not be above the comprehension of those who are not so well instructed. She closes her preface with two certificates, the first from the court preachers, and the second from the dean and professors of the University of Frankfurt-on-the-Oder, both of which bear witness to the fact that the work was indeed her own, and that after a careful perusal of it these high authorities had deemed it worthy of publication.

The second preface, written by the assessor of the College of Medicine in Berlin, a certain J. D. Gohl, and edited in 1723, treats of the qualifications of a midwife. "The first thing necessary for a good midwife is that she possess the fear of God, from which will spring all other qualities. It is not enough that she escape all scandal, but she must herself know the path of penitence, in order that she may be able to associate not only with those who, like all mortals, bring forth children in sin, but with those also who conceive and bring forth children without the countenance of the ordinary laws. If she be not God-fearing she is liable to yield to the temptation to shield those who are unwilling that their godless deeds should come to light. Furthermore, she will be a slave to avarice and will sell herself for money. There is a dreadful story of a midwife in Paris, named Constantine, who made a criminal house out of her abode, and took in those who wished to have abortions performed upon them. Gido Patimus says



that this woman was finally convicted in 1660 of causing the death of a young woman by her illegal methods. Six hundred witnesses testified that they had also aborted in her house. From such evil deeds only the grace of God can protect the midwife. A suitable woman is hard to find, because so many, even when God-fearing, are stupid. Still, only if she has a conscience will she be honest and recognize her own shortcomings." The writer goes on to say that women who are given to drink, from which proceed carelessness and laziness, are not fit to be midwives, and adds: "But besides being God-fearing and honest, the next necessary for her is that she have instruction; and first of all, a woman intended for the profession of midwife must absolutely know how to read, in order that she may be able to learn from the experience of others and not trust to blind chance. She must understand of anatomy as much as deals with the female genitalia, conception, gestation and labor. On the last-mentioned point the older midwives have held such nonsensical ideas that they cannot now be mentioned. It is necessary that she obtain information as to these points either from demonstrations on the dead body or from lectures. Friedrich Wilhelm has arranged that such instruction should be given to midwives by women of the same profession, and where the efforts of these do not suffice they are to be supplemented by those of the surgeons. Even a slight knowledge of anatomy will do away with many false ideas held by former midwives, who believed that the uterus wandered around in the body; but a more thorough knowledge will enable them to foresee and prevent complications. This knowledge can only be obtained in two ways, either the midwife must be the daughter of a midwife and be instructed by her mother, or she must go to a skilled midwife for instruction. In the country, then, it is the duty of the magistrate either to provide a midwife who has been instructed in the larger cities, or to choose women who can read and who are the daughters of midwives themselves. No woman should be accepted for such an office before having undergone an examination, and the most fitting examiners are the surgeons. Such women are recommended to read this book of Justine Siegemundin. The most important point, perhaps, is that they should understand abnormal presentations, in order that they may be able to recognize them and to rectify them by *turning in time*. For if the fear of God and a knowledge of reading be lacking, it will go hard not only with the midwife, but with the mother and child; and the midwife who recklessly tears away a child must be held to have performed a godless work. Such incompetent midwives must be looked upon as privileged murderesses, and those who have shown me an arm that has been torn away to prove to me how hard the labor was, I have suspended from their office. It is one and the same thing whether one robs of life a being already born, or whether through ignorance or carelessness one prevents a child from coming into the world alive. If Justine has not spoken of the medicines which should be given, it is because in the large cities this should be left to the doctors; but midwives practising in the villages should make themselves acquainted with certain sound domestic remedies." With this end in view, the writer recommends to their reading a little book written by Johann Silticks, as containing comforting

instructions for pregnant or parturient women, of which he gives extracts, and closes the preface with words of praise for the present work.

Now we come to the book itself. It is divided into two parts. The first is a discourse on the subject of difficult labors and how they are to be met, and also on the right method of turning in abnormal presentations. Both are arranged in the form of a conversation between two midwives, and in the second Justine and Christina are represented conversing together in order to find out whether Christina has rightly understood and grasped the instructions of Justine. At the end of the book comes a treatise on medicines, and finally, papers referring to the dispute which had arisen between Justine and Dr. Andreas Petermann, who had characterized many of her teachings as vain speculations.

Justine recognizes three presentations. First, the presentation of the head (the normal presentation), a second of the feet, and a third of the breech. She says that if the presentation is not normal and the midwife does not understand turning, it is only under exceptional circumstances that both the child and the mother survive. She begins with a statement of first principles. "Every woman who conceives must have a uterus; besides this there is the vagina, which leads to it, and the cervix which is the entrance to the womb in which the child is conceived, carried and retained until, unless a mishap occurs, it comes forth into the world. If a woman has pains and the cervix be not opened, and if the pains cannot be quieted, medicine must be given so that the fœtus may be retained. When, however, the pains go on increasing and the cervix opens, this is a sign that the pains are true labor pains." "What shall we do then," says Christina, "if a woman is in labor a whole day and the cervix be not opened?" "This happens only," says Justine, "in primiparæ, and if the cervix dilates but slowly, two fingers should be inserted to hold the womb back, for it is in such slow cases that prolapsus of the uterus is wont to occur. Many unskilled women, not knowing the existence of the cervix, and not understanding how the child comes forth, fail to protect it from tearing during labor. That the cervix is so often not found is due to the fact that it frequently is situated pointing to the rectum."

She devotes a whole chapter to the discussion as to whether or not during labor the pubic bones are separated at the symphysis, and after deciding in the negative, continues by saying that tedious labors are produced among other causes, by the catching of the head on the pubic bones. She attributes tedious labors above all to the will of God, but states the natural causes to be (1) the want of yielding of the cervix; (2) the inclination of the cervix backwards, or because the fœtus does not descend, a common occurrence where the abdominal walls are flaccid; (3) because the child's head does not present in the middle. This last is seen in Plate B (*vide* Fig. 3). Plate C shows the head directed to one side and the child lying on its back (*vide* Fig. 4). She holds that sometimes, however, the child will be born in the occipito-posterior position, as shown in Plate E (*vide* Fig. 5), although this is a much more difficult labor than when we have an occipito-anterior presentation. These and a somewhat oblique presentation she has often remedied by the timely rupture of the





FIG. 3.



FIG. 5.



FIG. 4.



FIG. 6.



bag of waters, but she insists that if the presentation becomes transverse, nothing is left but turning. If the child presents well but the shoulders are too large, she recommends making traction with a finger in each axilla. Plate H shows a face presentation with the chin posteriorly; this she calls an abnormal and a dangerous presentation (Fig. 6). She says that it is often caused by violence, such as jolting in a wagon, and that she has proved this by making examinations before and after such an occurrence. In these cases she endeavors to bring down the occiput. She lays stress upon the importance of the signs to be gathered from the cervix in distinguishing between true and false labor pains, and she insists upon a careful preliminary examination by which at the same time we can determine the presentation. She deprecates a too hasty resort to stimulation of feeble pains, even in cases where the head is large. She has often been called to see such cases after the child was dead, and has had to extract it by means of a blunt hook, of which she gives a picture. On one occasion the skull broke as she was extracting it, but she was warned in time, because she had the fingers of the other hand on the child's head. She recommends the midwife when first called to stay with the woman during five or six pains and then to leave the room, but to enter it again as soon as the severe pains come on. "You can leave the woman in her bed until that time, for the head can be directed while the woman is in bed as well as when she is on the labor stool. Sometimes it will be well to allow the woman to walk about, but she ought not to be allowed to stand after the cervix is fully dilated."

Chapter IV gives an account of abnormal presentations, and refers to the treatment with especial reference to the operation of turning. She treats first of the presentation of the arm or hand, giving an illustration of the same. In her first case of this kind the position had been maintained for fourteen hours, and she found half the arm with the hand protruding from the body. The woman had been in labor three days. The midwives had consulted the books and diagrams, but had been unable to decide to which kind of presentation the present one belonged. "I was 23 years old at that time." (Justine takes advantage of this case to relate that of her own supposed pregnancy.) "On being summoned and making an examination, I pushed back the hand, having smeared it over with warm beer and butter." This procedure was followed by a normal birth, the child being alive. She confesses that she did not quite understand why her manipulations were successful, but conjectures that the head of the child was caught against the pubic bone, and it was not until the arm was replaced that it could descend. This successful operation not only gave her experience, but by reason of it she was always invited afterwards to difficult labors. The whole chapter in which she treats of such presentations, and of the indications for and the methods of employing external and internal version, is excellent.

After Justine has given these cases and referred to the 33 plates, Christina is not satisfied and asks in which of the positions represented is turning indicated, or in which it has already been performed. Justine regrets that her friend has not paid sufficient attention to her explanation, for she had thought that she had explained it so clearly that any midwife

by reading could understand it. She consents, however, to summarize the presentations shown in the diagrams in which turning must be employed. (1) Where the child is represented with the head and shoulders presenting and lying on its back, unless the necessity be obviated by the rupture of the bag of waters. (2) When the right arm of the child presents, and the feet are at first under the breast of the woman. Here in Figs. 4 and 5 the use of the fillet is shown. (3) When the back of the child presents, and the arm is behind the back and comes down, as in Fig. 9. (4) When the position is as in Fig. 11, the back presenting and the hand not down yet, then the feet must be brought down with the fillet. (5) When the belly presents and the cord is prolapsed. (6) When both



FIG. 7.

hands present and the head of the child lies on its back, as is seen in Fig. 16. The whole process of turning is shown in five figures, 17, 18, 19, 20 and 21 (*vide* Figs. 7, 8, 9, 10, 11). No. 21 shows how far the position of the child is influenced by turning. Justine insists that the extraction of the child ought to be understood by every midwife, although nature after the turning will herself generally end the process. "In all these cases turning must be performed in order to preserve the life of the mother, and all these, when once the bag of waters has been ruptured, must be turned on the feet. The sooner the turning is done the better for the mother and child. Sometimes version can be avoided if a skilled midwife is called in in time, for she can sometimes bring the head into place if the membranes have not been ruptured."





FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.



Next she takes up the positions in which turning is not indicated, although a skilled midwife can do much. "(1) Birth is possible when the child's face is turned towards the back or abdomen of the mother, although the presentation is harder when the face is turned towards the abdomen, because the chin is liable to catch against the pubes. (2) When the hands and feet present together, the feet will come down quicker because they slip better. (3) When the knees present and the feet come down. (4) When the buttocks present. (5) When a hand and the head come together and the head is not caught by the pubes, if the child is very small. (6) When the hand comes down with the buttocks it is not always dangerous. (7) When the hand comes down and is immediately followed by the feet. These births deceive the midwives and make them think that children can be born no matter in what position they may be. But they do not understand that by violent pains nature alters the position so that the child can be born. Thus midwives are wont to say that 'the child can be born when its hour comes.' Some of these births, however, where the child is born after labor of two or three days, could have been much shortened and the life of the child might have been preserved by timely assistance. Midwives are too apt to use the knowledge which they possess of stimulating the pains, and do so often without any regard to the nature of the case."

Her armamentarium seems to have consisted of the fillet and blunt hook. She tells us that at first she employed a sharp hook, but experience taught her that one with a blunt end was more suitable. Conservative in her practice, she deprecates any unnecessary interference with nature, but does not hesitate to act at the proper time. Though she says it is sometimes right to rupture the membranes, she lays great stress upon the proper direction of the head by manipulation, and only when this is impossible will she resort to turning. She recommends the employment of the hook in the extraction of the dead fœtus if the mother is exhausted; and although she modestly leaves the decision to "wise men," we cannot but see that she deems it right to sacrifice the life of the child in case of great danger to the life of the mother. Where it is possible she considers version preferable to embryotomy. She condemns the use of the speculum except in the case of tumors, and prefers to use the hand. She adds: "As long as danger does not threaten the mother there should be no question of the employment of the hook. If all midwives understood their business and made no mistakes at the beginning of the birth or in their methods of traction, the use of an instrument would never be required. I seldom have had to employ the hook if I have been summoned at the beginning of the labor, unless some complication, such as hemorrhage or great exhaustion of the woman, necessitated its use. As a rule I have found gentle manipulation to be sufficient, where I have been called early. For such, manipulations and even turning are better both for the mother and the child than using the hook."

"Why, then," says Christina, "since you say that by manipulation you can always assist, have I seen you when called to a labor wait a day or more without doing anything, and finally employ the hook?" "In each case," says Justine, "I was called too late. When called too late I have been obliged to use the hook, but this I am unwilling to do until I have

waited to see perchance whether nature would bring about the birth."

Christina: "Why then did you in one case send for a certain Frenchman? For you were accused of not having been able to do anything without using the hook, and yet he brought the labor about without the use of any instrument."

Justine: "Because I wished to prove to my enemies that I used no instrument unless compelled to do so. The woman was not young, a primipara in labor for two days and two nights, and the child was dead. I tried to bring down the head, but was unsuccessful, and I saw no means of saving the woman without using the hook. I sent for this man to see if he could do better, and he promised that the child should be born in one hour without the use of any instrument. This was at 11 a. m.; he worked unsuccessfully until the evening, and then privately asked me whether I had a hook or any instrument to make traction with. He attempted to use the hook, but again was unsuccessful; then he begged me to use it and make a hole with it in the child's head. On examination I found that in his efforts he had with his fingers made a hole in the head so that I was able easily to tear it in pieces and thus the child was delivered. Was I not right in saying that by the use of the hook, in some way, a hole must be made in the head of the child?"

But Christina is not yet silenced and asks: "But in other cases it is said that this Frenchman was successful where you could do nothing." "This," says Justine, "is mere calumny and a lie." Christina: "But you yourself confess that no hook was used and that the hole was made with the fingers." "This time this was merely luck, and the success was due greatly to the strength of the woman and because the efforts that Balbierer made were sufficiently violent to break in the skull, although he did not know that he had done so. Even then I perforated the meninges, the membrane over the brain, with a hairpin. All that the Frenchman can say is that he was stronger than I was."

We will again resort to a free translation of Justine's own words. "Obstinacy of the women as well as the ignorance of the midwives are often factors in tedious labors. In one case the woman would not allow the midwife to do anything until the membranes had been ruptured. The midwife was in error because after the bag of waters had ruptured she allowed three days and nights to pass before proceeding to assist the labor. Of course, if the labor comes on not too long a time after the rupture of the bag of waters, and if the presentation is favorable and the cervix dilated, it is not wrong to wait a while for the necessary pains. Midwives must never be afraid, however, to say what is necessary, for if the patient dies the blame will always fall upon the midwife. Suppose, however, the waters are ruptured and the presentation is found to be unfavorable, then turning is necessary. Turn, if possible, before the hard pains come on. After turning, you may leave the rest to nature, strengthening the mother and child, however, because they are exhausted by the turning. This is more especially the case in delicate women. If the membranes rupture and the cervix is dilating slowly so that it is impossible to turn, dilatation can be assisted by the insertion of two fingers into the cervix."



She defines labor pains as "the expression of the natural force which brings forth," and adds that if the child lies in a natural position, at the right moment he will be expelled. But if the presentation be transverse he cannot be born. She continues: "For if you are looking out of a window with your body in the long axis of the window, a person from behind can easily push you out, but if your body be across the window this cannot be done." She considers it the duty of the midwife to inform the patient where there is necessity for active interference, and where the woman is unwilling to submit, to use persuasion; otherwise if the midwife remains silent she cannot be held guiltless if untoward results occur.

After explaining the plates which show the various manipulations, she adds that the feeling of horror which they make upon the mind should impress upon us the necessity of taking timely precautions to prevent the necessity for such operations. For our comfort, however, she is prepared to bring up women as witnesses and to prove that the pain is not so terrible as one might think.

Christina asks: "Some weeks before labor you made a diagnosis of an unfavorable presentation. How can this be done?" To this Justine replies: "When the child is fully formed and lies still, the presentation will generally be favorable; but when they are moving and are small, they can take up various positions. As a rule, the natural position is taken up at least two months before labor. The unfavorable presentations then come about from the fact that the child moves right up to the time of labor. The appropriate opportunity must be seized when the child takes up a favorable position and the membranes must be ruptured. Unfavorable positions usually occur in the case of children who at no time in the second half of pregnancy have presented well."

She recognizes the danger of hemorrhage in cases of placenta prævia, and seems to have known how to treat them. She attended six hundred cases before meeting with a case of adherent placenta. In the first few cases she applied warm fomentations to the abdomen and pulled gently on the cord. In two cases she was quite unsuccessful, and, emboldened by experience, she afterwards did not hesitate to insert the hand into the uterus (using the cord for a guide) and to peel off the placenta. She adds: "Expression is useless because it is more liable to cause hemorrhage. I have seen death caused in this way. In any case the condition is dangerous."

Her remarks on the subject of twin births show careful observation. She attributes the success of ignorant midwives to the fact that so many labors are normal. "God, however, has ordained that some labors should be hard, and therefore has provided proper methods to meet them. These methods, then, I have tried to teach. One woman who had borne eight children normally used to say, 'What a fuss women make over childbed. I would be willing for a one-farthing or a two-farthing cake to bear a child,' but in her ninth labor she lay five days, and as the proper help was not forthcoming, she died with her child. Thus it is not written in vain, 'Be not deceived, God is not mocked,' and I think that those people who speak ill of me in their ignorance will have to answer for it. The mighty God will protect me against all calumniators who in their ignorancespeak in an unchristian way of me and hold

that my assistance is unnatural and therefore devilish. God, however, has given us intelligence which we have to use, and it is a pity that there are so few midwives who recognize this and who do not know, neither wish to know, anything beyond receiving and delivering a child when it falls into their hands. They argue that a midwife can do no more because these things are hidden from them. God can help without making use of natural means, but he has given us means and ways to meet difficulties in labors which we are bound to use, therefore it is written, 'Pray and work, and then God will bless you.'"

After deciding that it is better to cut the cord too long than too short, she says that when cut it should be tied for fear of hemorrhage which might prove fatal to the child. "Where the cord is thick it may be necessary to tie it twice. I have seen cases of secondary hemorrhage from the cord which were fatal. Too sharp and thin a string should not be used because it may cut through the cord. This happens where the cord is fat. I hold it better to cut the cord as soon as possible after the child is born. In this way the woman can be attended to better when the child is out of the way, and it is better for the child, especially when it is weak. The reason given by some for leaving the child till the placenta comes away is that the movement of the child assists in the delivery of the afterbirth. I never delay in the case of a weak child. In many cases the cord is so long that it would be necessary for the child to jump and dance on the breast of the mother before the cord would pull upon the placenta. The danger consists in the fact that when the placenta receives air it presses down and may cause closure of the cervix. This closure must be prevented, so I say that if the child is weak, let it be separated from the cord at once. But if it be strong and no difficulty is experienced in the delivery of the placenta, let it wait. But if there is delay, let it be separated at once."

Where her patient is nervous and her time for action has not arrived, she contents herself with comforting her, and like some Homeric hero addresses her "with winged words," but she assures us that she never allows words to take the place of deeds.

She seems to have understood the management of a case of prolapse of the cord, and if her practice was always according to her precepts we cannot but feel indignant at those calumniators who accused her of too great rashness in rupturing the membranes. She expressly states that no one who does not understand version should ever dare to rupture the membranes. Our righteous indignation against these calumniators has led us to abstract somewhat fully the following protocol testified to in Liegnitz on the 13th of March, 1682, which reads somewhat as follows:

The honorable and virtuous lady Justine, formerly Dittichin, the renowned and experienced midwife of this place, has been accused of things not lawful: (1) of hastening the births of children, (2) of employing (as she has done successfully) the rupture of the membranes. Therefore the court has summoned to witness before them women who have profited by her efforts, that they may testify without fear or favor how Justine has acted with them in such a crisis.

Frau Maria Thymin had borne eight dead children, and hearing that a wise woman had come, sent for her. Several



weeks before the birth the presentation was favorable, but just at the time of labor feeling that this had been changed, she sent for Justine. Justine found the hand projecting from the womb. She replaced it and brought the head down. But finding that the pains were disturbing the position again, she corrected it three times. The third time the bag of waters ruptured, whether naturally or whether from the operation is not known. Still the woman remained all night in labor. Frau Justine recommended that the feet should be sought for and brought down, but was unwilling to do this without consulting with a physician. Dr. Kerger was called early in the morning, as soon as the gates of the city were opened. He did not agree with her suggestion, but said that tonics should be given and then the birth would come about by itself, whether the woman died or not. After the first powder the woman became perfectly black and blue on the labor stool, and they thought that she was going to suffocate. Under these circumstances she begged Frau Justine to save her in any way she could, the patient holding herself responsible. Putting the woman with the head low that the head of the child might go upwards, Justine inserted her hand in search of the feet of the child, but because by this time the child was doubled up it could only be born dead. The next time she was pregnant Justine visited her several times, and before the time of labor found the presentation good. Four weeks before labor the woman was seized with a fever, so that it was feared that the child would remain small. The child presented with the feet, but being small was born alive and baptized, only dying after thirty-six weeks. She was called to a third labor of the same woman, and remembering that the two previous children had taken unfavorable positions, she thought that this could only be prevented by an opportune rupture of the membranes. This was accordingly done and a healthy daughter was born, who is now over eight years old. A few days before her next labor, Justine having on examination found everything to be favorable, recommended that the waters should be ruptured at once. Unfortunately the woman was not willing and Justine was not able to remain with her. Three days afterwards a dead child was born.

Among others, Justine obtained a testimonial from the city council of Ohlau which bears witness that "among other women she has succeeded our honorable and virtuous Barbara Stieffin, our now widowed paper-maker."

"Domestic remedies," says Justine, "are medicines, and therefore they come in the domain of the physician and not in that of the midwife. The great diversity of opinion that exists as to the efficiency of different remedies proves that they are not reliable. Again, supposing a remedy to be given by an unskilful person, he may give too much or too little, or give it at an unfavorable moment." To make matters clearer, she gives in full the protocol of the medical faculty of the University of Frankfurt with regard to domestic remedies to be used in the calling of midwives, together with the following instructions: "(1) In weakness of the newborn child, a midwife is justified in giving *corallen saft* (coral juice). (2) In the case of sudden hemorrhage of a woman in labor or in the act of aborting, *teschel kraut* can be bound upon the pulse, or instead of it *carfunckel wasser* may be given. (3) The

peeling off of the placenta before the right time of birth cannot be done without injury. (4) A child so prematurely delivered who does not die within three years of its birth cannot without further proof be considered to have died from the premature birth." Probably because she herself had been the object of somewhat malignant accusations, Justine refers at length to the case of a certain Titia, a midwife who had been accused of various malpractices. She quotes also the protocol of the medical faculty of Leipzig and Jena, which sets forth Titia's innocence, and which declares that the rupture of the membranes is sometimes indicated. This last declaration must have been especially pleasing to Justine.

Chapter IX treats of the proper time of putting the woman to bed, of severe labors, and of the preparation of a convenient labor stool or bed. Christina thinks that changing the position of the woman might sometimes be made to serve instead of turning the *fœtus in utero*. "Some bind the woman on a plank and put her with her head downwards. Some roll her over on her side. Some lay her on the table and roll her from the table on to straw, so that she falls suddenly." Justine denounces all these methods as dangerous and calculated to do harm to the woman. "Put a piece of meat in a sack, fasten it tightly, throw the sack about, roll it over, open it and you will find the meat in the same position. Even so with the womb and the child. The idea smacks of superstition, just as another which holds that a parturient woman cannot get well as long as there are any knots about her. This of course is a superstition arising from a true idea that none of the fastenings of the clothes should be too tight."

Then follows a detailed explanation of the labor stool, represented in Figures 184 and 186.

The second part of the book is an inquiry to find out if Christina has fully understood and grasped the teachings of Justine. It is in the main a repetition of the teachings of the first book, but contains a number of additional minor details which are not without interest, although we have at times a painful sense that Justine has anticipated by a century or more the day of "Quiz compends."

In answer to Christina's question: "Can we reckon accurately the date and hour when a labor should take place?" Justine replies, "No, God can confuse the wise so that no man can boast of his wisdom. (2) Some women have their catamenia once after they are pregnant. (3) Some do not have their catamenia and yet are not pregnant. (4) Some have no idea when they became pregnant. (5) Some have their catamenia up to the time of labor. And (6) even after the first quickening has been felt, no date for the labor can be assigned, because one woman feels this before another. There are, however, some signs of an approaching labor. There is some difference in the later months in the condition of the *os*. In those who are wont to have easy labors the *os* becomes soft shortly after the fifth month, and eight weeks before birth it begins to open a little. In those who have tedious labors it remains hard until the time of labor. There are women who believe themselves pregnant and are not so, and yet the abdomen is swollen. By internal examination in the last three months of gestation it is easier to make out the existence of the *fœtus* than by external examination."



Justine says that the distinction between false and true labor pains is easy. "False labor pains run transversely across the abdomen, and instead of opening the os cause it to close. True labor pains gradually dilate it." She speaks at some length of the care and treatment of women during pregnancy, and after telling Christina how the midwife should proceed in a case of labor, she concludes the book with the following words: "Since I am well pleased with thine answers to my questions, in conclusion I would wish that thou by the diligent use of those means at which my well-meaning instructions aim, may become more and more learned, and may enjoy in thy profession the help of Almighty God and His rich blessing. To God alone be the glory."

In an appendix giving instructions as to the medicines which should be employed and the treatment to be followed in cases in which the help of a physician cannot be obtained, and in the directions as to the care of the infant, she shows a great deal of sound common sense. Into her polemic with a certain A. Petermann (who was also noted for a monograph on gonorrhœa) on account of a work which he had written, and in which he had said that her book, although much praised,

contained "vain speculations which were absurd for practice," we cannot enter now. Let it suffice to say that we range ourselves on the side of Justine against the aforesaid Petermann, and although we have felt that the work was a little tedious at times, some blame must surely be laid upon our eyes, which after a while tire of the old German type. And if we have seemed to read the same ideas over several times, it is only charitable to suppose that the ordinary midwife could only be taught by such repetitions. Despite her pious phraseology Justine does not seem to us to be either hypocritical or superstitious. With all her quiet faith that all things are ultimately in the hands of God, she insists that He acts according to certain laws which we are in duty bound to strive to discover. Finally, if I were asked to prepare a new edition of Justine Siegemundin's book, in order to render it useful as a text-book of the present day, I should endeavor to confine myself to such alterations and additions as modern discoveries would necessitate, and should try not in any way to obscure the personality of the author, being convinced that careful observation, conservatism in practice and sound common sense are as necessary now as they were in the eighteenth century.