A brief sketch of the more important fluctuations in opinion which have prevailed among practitioners of midwifery with reference to the performance of turning, and the application of the forceps in cases requiring artificial delivery on account of deformity of the pelvis / Charles West.

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### FLUCTUATIONS IN OPINION

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# PERFORMANCE OF TURNING,

AND THE

### APPLICATION OF THE FORCEPS

IN

CASES REQUIRING ARTIFICIAL DELIVERY ON ACCOUNT OF DEFORMITY
OF THE PELVIS.

BY

## CHARLES WEST, M.D.

PHYSICIAN-ACCOUCHBUR TO ST. BARTHOLOMEW'S HOSPITAL, AND LECTURER ON MIDWIFERY IN THE MEDICAL COLLEGE.

[From the London Medical Gazette.]

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It is almost superfluous to remind the reader that, previous to the invention of the midwifery forceps, there were but two proceedings generally adopted in cases where either the protraction of labour, or the supervention of some symptom threatening the well-being of the mother or her child, indicated the propriety of artificial delivery. These two proceedings were embryotomy and turning; for even the Cæsarean section had been at that time so rarely performed that it scarcely took rank among the recognised operations of obstetric

surgery.

Since the re-discovery of the operation of turning by Ambrose Paré, it had been the constant endeavour of practitioners of midwifery to bring that operation to perfection. By degrees they extended the number of cases in which they resorted to it; and at length, practice having given many a great dexterity in its performance, they employed it in numerous instances of head presentation, where either feeble uterine action, or mechanical disproportion, retarded the labour, as well as when the occurrence of hæmorrhage or convulsions indicated the necessity for speedy delivery. Of all who distinguished themselves by thus extending the operation of turning, and reducing the performance of embryotomy to a minimum of frequency, La Motte is unquestionably the most remarkable; and he closes worthily the list of those who, before the forceps were invented, signalised themselves by their endeavours to bring the obstetric art to perfection.

At the time when this new instrument was introduced into midwifery practice, its exercise both in England and Germany was to a very great degree in the hands of women; and its principles and practice were, as might be expected, more barbarous than in France, where it had already, for fully half a century,

been customary in the better ranks of society to employ men not in difficult cases merely, but also in cases of natural labour.

In England, the first practitioner (after the Chamberlains, who made a secret of their discovery) who employed the forceps in practice, seems to have been a Mr. Drinkwater, of Brentford, who died in the year 1728. Giffard, who died only three years later (1731) also employed it; but the first public printed description of the instrument, and its mode of application, was given by Chapman, in the year 1733. English practitioners employed the forceps as one means of carrying on the war which at that time they were waging with the midwives. Proof of this is not only given us incidentally by Sterne, in his account of all the mishaps that attended upon Tristram's birth, but it is even apparent in Smellie's writings, who speaks of the practitioner as applying the instrument out of the nurse's or midwife's sight, beneath a sheet which was thrown over the bed, while its corners were sometimes pinned to the shoulders of the operator.\* It was the grand cheval de bataille of the docors -a means unknown for some time at least to the midwives, and the introduction of which had a great share in driving the latter from a very lucrative kind of practice. It is not to be wondered at that, under these circumstances, the forceps came into general use in England, and that there was comparatively little inquiry as to whether any class of cases would still be better treated by the old mode of turning than by the new one of applying the forceps.

Probably Smellies' teachings had much to do, among the more thoughtful and intelligent, with the discarding of the operation of turning, as may be

seen at p. 50-51 of the Introduction to his Treatise on Midwifery. The great caution which Smellie observed in advising the employment of the long forceps, and his general recommendation of his short forceps only, coupled with his discountenancing the operation of turning in cases of difficult or protracted labour, had no doubt a great share in bringing about that frequent employment of embryotomy which was, and is still, in a measure, a characteristic of British practice. The quarrel between Smellie and his assistant Mackenzie, which ended in their separation, probably contributed still further to bring craniotomy into practice, since Mackenzie, influenced to some degree perhaps by his quarrel, decried the forceps, which Smellie, on the contrary, recom-W. Hunter's teaching and mended. practice tended in the same direction; and the just opposition which he made to bringing down the feet in breech cases led him still further to oppose turning in cases of difficult labour, and prepared the way for the general spread of those doctrines of which Dr. Osborne may be taken as the great representative and advocate; for though he recommended the forceps in preference to the lever, yet the tendency of his teachings was to increase the frequency of embryotomy.\*

The influence of these teachings, however, was not so extensive but that many practitioners, long after the invention of the forceps, continued to turn in many cases of difficult or protracted labour. Thus, for instance, Dr. Brudenell Exton, who was physician accoucheur to the Middlesex Hospital, and the third edition of whose "Midwifery," published in 1753, is now before me, fancied that, when the head was low down, he could give safer and more efficient assistance with his hand than with forceps; and that, when the head was higher, it was preferable to deliver by turning. Mr. Pugh, of Chelmsford, whose book bears date 1754, though he invented a pair of curved long forceps, and gives very good directions for their application, yet recognised the existence of some cases of protracted labour in which turning was

to be resorted to: he mentions especially, at p. 78, that when the pelvis is too small or distorted, the head hydrocephalic or very much ossified, or its presentation wrong-"In all these cases, provided the head lies at the upper part of the brim, or though pressed into the pelvis, it can without violence be returned back into the uterus, the very best method is to turn the child and deliver by the feet, according to the directions already given." He then goes on to lay down the conditions which would induce him to prefer the curved forceps, and states (p. 77) that, as the result of these two modes of assisting the parturient woman-"I have never opened one head for upwards of fourteen years."

It will probably suffice to mention two more writers of this period, as showing that the introduction of the forceps into practice did not prevent many from duly weighing the advantages, or supposed advantages, of turning. Dr Fielding Ould, in his Treatise on Midwifery, published at Dublin in 1742, while he speaks at p. 153 of "the large forceps, which is in general use all over Europe," and gives very sound direc tions as to its employment, at the same time suggests (p. 86-87), though he confesses that he never practised, the turning the child early in labour, and extracting it by the feet, in any case where the contraction of the pelvis had in a previous labour "refused an exit to the child (though not of an extraordinary size) by means of the common efforts of nature; and that on this account it died, or was destroyed by instruments, for the preservation of the mother's life."

He notices the objections that may be urged to this proceeding; but alleges that, though it is an interruption to the usual course of nature, still it is a less objectionable interference than would otherwise become necessary. "Again, it may be objected that the same narrowness of the passage through the pelvis which bindered the natural ex pulsion with the head foremost, may hinder its extraction when brought forth by the feet: this is also allowed: but yet, if we consider the matter properly, it will appear that, by drawing from a small end, which is the feet, in order to bring forth the larger, with the additional assistance of holding the legs in one hand, and having the finger

<sup>\*</sup> Much interesting information as to the opinions and practice of the leading accoucheurs in London at the end of the last century will be found in Fischer, Bemerkungen über die Englische Geburtshülfe; Göttingen, 12mo. 1797.

of the other in the child's mouth, there is a far greater probability of bringing it forth than when the large end comes first, and that without any probability of assisting the mother's efforts but by the destruction of the child."

Burton, whose work on midwifery was published in the year 1751, advises, on the same grounds with Ould, the same proceeding, and speaks as if he had adopted it. To the directions, however, given by Ould, Burton adds at p. 163,—" and then turn the chin so as to pass the bones into the pelvis in the

most commodious manner."

Enough has already been said to show that practitioners in this country were not blind to the advantages which turning might be supposed to present in some cases of protracted labour. It fell, however, more speedily into disuse in this country than in many parts of the con tinent, owing, in measure, probably to the same influences that have already been referred to as stamping a peculiar character upon operative midwifery in Great Britain, but also still more, in all likelihood, to the fact mentioned by Dr. Denman, \* "That this practice was in general very unfortunate in the event, as I have been assured by some who have used it;" "yet," he adds, "cases may occur in which, by turning the child, the chance of saving its life is greater than can be gained by the use of any instrument." He then relates a case in which by adopting this proceeding he delivered a woman of her eighth child alive at the full period, all her other children having been still-born, and he himself having delivered her of her first two by means of instruments, which the deformity of her pelvis rendered necessary. This case is further interesting, from the circumstance of the left parietal bone having presented a depression, an inch deep, caused by the projection of the sacrum, which, however, by degrees disappeared. The woman recovered, without any untoward circumstance.

Dr. Denman concludes this section of his book, with the following estimate of turning under such circumstances:—

"But the success of such attempts to preserve the life of a child is very precarious; and the operation of turning a child under the circumstances before stated is rather to be considered among those things of which an experienced man may sometimes avail himself in critical situations, than as submitting to the ordinary rules of practice."

Dr. Dewees,\* the great obstetric authority in America, devotes a section of his work to "Turning in a deformed pelvis, as a means of saving the child's He decides that less than 31 inches in the antero-posterior diameter of the pelvic brim would give no chance to the child, and even that size but a very slender one; though it may be right to adopt it when the practitioner feels hesitation as to the propriety of perforating, since "it gives a chance, though a forlorn one, to the child." He notices the different conditions essential to the successful issue of turning as far as the child is concerned, and remarking on the little likelihood of their being fulfilled when the pelvis is contracted, concludes, in words not unlike those of Dr. Denman, "that it must ever be looked upon as a doubtful alternative, rather than a probably safe resource."

Notwithstanding the evidence which La Motte's writings afforded of the successful performance of turning in many cases of protracted and difficult labour, the introduction of the forceps into France seems to have brought it even more into disuse than in England. The circumstance of Levret's forceps being longer even than Smellie's long forceps, and that the former eminent man did n t, like his English cotemporary, either employ or recommend a shorter instrument, probably had a great influence in With Levret's bringing this about. forceps practitioners were able to interfere while the head was still high in the pelvis; and if such interference failed, they had recourse to the perforator. Levret's protracted career, his wealth, and his position as accoucheur at the Court, all tended to give to his doctrines and practice a very great weight; and he disapproved of turning in cases where the pelvis was contracted, though he advocated its performance early in labour in cases of head presentation in which the head presented in an unfavourable position. + Levret survived till the year 1780, at which time Baudelocque was thirty-four years old, and had already distinguished himself by

<sup>\*</sup> System of Midwifery, 8vo. Philadelphia,

<sup>1828;</sup> p '546-548. † L'Art des Accouchemens, p. 134-35, 3ième ed. 8vo., Paris, 1763; and Suite des Observations sur les Accouchemens Laborieux, Article èr.

his opposition to the practitioners of Sacombe's school, and to the advocates of the Sigaultian operation. The influence which Levret had exerted was exercised by Baudelocque, and in great measure continues even at the present day; and he not only held doctrines concerning obstetric operations similar to those of Levret, but, by adding two inches to the length of the forceps, sought to make that instrument even more universally applicable than it had been in the hands of his predecessor. Still, Baudelocque, so far from rejecting the operation of turning, expressly sanctions it in some cases of head presenta tion. "The bad conformation of the pelvis sometimes prescribes it; but almost all those who have advised and practised it on this account have not taken into consideration as much as was necessary the degree of disproportion between the dimensions of the head of the child and those of the pelvis of the mother: so that for one whose life has been saved by this means a great many others have been destroyed This method is at best suitable only for those cases in which the want of space that interferes with the patient's delivery is but slight; when it is more considerable it necessitates the employment of the forceps, of crotchets, or even the performance of the Cæsaræan section, &c., as will be shown in the fourth part of this work."

"It is not for the sake of adding to the expulsive efforts of the patient by dragging at the feet of the child, and afterwards at the other parts which precede the head, as many accoucheurs do, that the operation of turning should be undertaken, when the contraction of the pelvis, though but very slight, prevents the head from entering it. The peculiar structure of the fœtal head indicates plainly enough the principles in accordance with which this operation can be performed with hope of success. The structure of the head is such, that it col lapses more readily in proportion to its dimensions, and enters the pelvis with greater facility when the child comes footling (provided it is directed properly), than when the head is the presenting part, though a great number of accoucheurs think the contrary, and are of opinion that it then presents its widest diameter at the pelvic strait."\*

It is needless, for the further elucidation of his views, to carry these extracts further, though the next fourteen pages are occupied with directions as to the mode of performing the operation of turning in cases of head-presentation.

Madame Lachapelle, however, so far from acquiescing in this merely occasional and exceptional substitution of turning for the forceps, in cases of contraction of the pelvis, gives it decidedly the preference. After pointing out the direction in which it would be desirable that the forceps should grasp the fœtal head in cases of pelvic deformity, so as to accommodate its smallest diameter to the contracted antero-posterior diameter of the pelvis, she observes\*:-

"It is doubtless to the greater facility with which we can direct the head of the fœtus, and to the slighter compres sion of this part, that must be attributed the greater frequency with which, contrary to the opinion of many authors, I have succeeded in cases of this description by performing the operation of turning than by the application of the forceps. As may be seen by a reference to the tables already quoted, tof 15 children extracted by the forceps on account of a contracted state of the. pelvis, 8 were still-born, 7 were born alive; while of 25 delivered footling, 16 were born alive, and only 9 were extracted without any sign of life. The proportion of cases in which turning proved successful amounted, then, to two-thirds, while the forceps succeeded in less than half." Madame Lachapelle then specifies, as another advantage of the operation of turning, "that it affords the means of ascertaining whether the child is living or dead, and consequently supplies data that may decide us to prefer, in a case where its extraction is found impractable, either synchondrotomy or perforation of the head. With moderate care, the separation of the head from the body will not occur, and a crack, such as that which announces the giving way of the spine, sometimes takes place as the result merely of the sudden yielding of the bones of the cranium, and of the consequent descent of the head into the pelvic cavity; when, it need hardly be observed, it is a good sign, not a bad one."

<sup>\*</sup> L'Art des Accouchemens, p. 57 2-73, 7ième édition. Paris, 1833.

<sup>\*</sup> Pratique des Accouchemens, Paris, 1825, 8vo. tom. iii. p. 429-30. † The tables appended to vol. i. and ii. of this

Finally, she takes leave of the subject with a recommendation of the operation of turning in cases of contraction of the transverse diameter of the pelvic outlet, as being preferable under such circumstances to the application

of the forceps. I should now proceed, as briefly as possible, to relate the opinions which have at different times been entertained with reference to the performance of turning in cases of pelvic deformity in Germany, were it not that some mention of M. Velpeau's opinions and practice becomes necessary, owing to an oversight on the part of some gentlemen of very high and deserved reputation who have coupled his name with the first adoption of this operation under these circumstances. In speaking of those cases of pelvic deformity in which the contraction is confined to one oblique diameter, M. Velpeau notices\* how the same woman may in one pregnancy have a very easy, in another a very difficult labour, according as the head entered on the former occasion in the uncontracted, on the latter in the contracted diameter of the pelvic brim. In such cases the operation of turning affords a very easy way of overcoming the obstacle, since it allows the operator to direct the child's head into the most favourable position; of which a case that occurred in his own practice is cited as a very good illustration. In adopting this proceeding, however, M. Velpeau does not lay claim to any originality, while his own opinions, expressed in other parts of his work, show him to be on the whole opposed to the performance of turning in cases of head presentation. He remarks, that practitioners differ as to the course to be pursued in cases where the head is still moveable about the pelvic brim. "Some, as Levret, Smellie, Plenk, and especially Flamant, are of opinion that the forceps offers greater advantages than the opera tion of turning. Others conceive with Madame Lachapelle, Desormeaux, and almost all modern writers, that the opposite is the case. Both, I conceive, are to a certain extent in error." He then points out the nature of these errors; his own view of the matter being that the forceps are safer for the child, the operation of turning the less hazardous

The case of contraction of the oblique diameter of the pelvis being the only one in which M. Velpeau counsels the operation of turning as a means of overcoming the difficulties arising from pelvic deformity, it is perhaps not unfair to regard him, after the manner in which he expresses himself concerning this operation in the passage just quoted, as generally unfavourable to its employ-

ment in cases of disproportion.

Although at the present day more frequent use is made of the midwifery forceps in Germany than elsewhere, yet that instrument did not at first obtain by any means such ready acceptance there as either in England or France. Obstetric practice in Germany was, during the first half of the eighteenth century, almost entirely in the hands of midwives, who were accustomed to perform all except instrumental operations, and to treat the diseases of pregnancy, of the puerperal state, and of infancy, appealing but seldom to medical men. Ignorance on the part of the latter was the unavoidable result of the want of opportunities for observation, \* while the sound teaching of such men as Stein and Roederer exerted of necessity a much narrower influence, from their positions in the universities of small states as Hanover and Hesse, than that of Levret did in France.

The forceps at first introduced into Germany, though known as the "English forceps," were the straight forceps of Grégoire, and their use was limited,

+ Siebold, op. cit. Vol ii. p. 293.

† Tom. ii. p. 360.

proceeding for the mother. He sums up thus :-- "The wisest course lies between these two extremes; to prefer the forceps, if the practitioner is dexterous in employing them, if no great difficulties interfere with their application, and there be no risk of injuring the woman. On the other hand, under opposite circumstances, the operation of turning is to be preferred; that is to say, when the head is too high, or too moveable to be readily grasped by the forceps, and when no obstacle exists to the performance of turning."

<sup>\*</sup> See the account of the condition of midwifery in Germany at this time, in Osiander's history of his own medical education, contained in his Neue Denkwürdigkeiten. 2te Bogenzahl: 8vo. Göttingen, 1799: i. p. 1. And in v. Siebold's Versuch einer Geschichteder Geburtshülfe, awork which displays profound learning, acute criticism, elegant taste, and the most praiseworthy impartiality. The publication of a good translation of it would reflect honour on the Sydenham

<sup>\*</sup> L'Art des Acouchemens, 8vo. Paris, 1835, tom. i. p. 38-39.

as from Puzos' own expressions\* would seem to have been the case also in Paris before the time of Levret, in which the head was situated quite low down between the rami of the pubes. The publication of such writings as those of Deisch and Mittelhäuser, in which embryotomy was recommended and had confessedly been repeatedly performed by themselves on most inadequate grounds, while it proves to how great a degree the uses of the forceps were unknown, may account also, by the revulsion of feeling which this barbarous practice excited, for the disinclination to all kinds of instrumental interference which seems to have existed in Germany during many years after the forceps were in general use in France and England. No one could be better fitted than Roederer, the pupil of Levret and Smellie, for the task of laying down right principles in operative midwifery; of his merits in which respect his Opuscula Medica afford more abundant evidence than his short Elementa Artis Obstetricia The tendency of his teaching was to inspire confidence in the use of the forceps, to introduce them into practice in cases of irregular positions of the head, or sometimes to substitute for them the lever; at the same time to define the conditions in which embryotomy was justifiable, and while advocating turning in cases of transverse presentation, in which Mittelhäuser had very often most unwarrantably performed embryotomy, to restrict the frequency of its employment as a means of terminating protracted or difficult labours. He did not, however, institute that formal comparison between the merits of the forceps and turning with which his pupil Stein began his career as a public teacher. In the year 1763, he published as a sort of preface to the announcement of his lectures, an essay "De Versionis negotio pro genio Partus salubri et noxio vicissim;" in which he treats of the contra-indications to the operation, and points out the superiority of the forceps of his own instructor Levret, in the management of some of those dangerous complications of labour for which turning was generally practised. Among the conditions which, in his opinion, should forbid the performance of turning, he especially dwells upon the existence of disproportion between the head of the child and the pelvis of the mother.\* He concedes the value of Levret's suggestion in those cases for bringing the small diameter of the head into the small diameter of the pelvis, and directing the large diameter, contrary even to what might have been the natural course of the head, into the large diameter of the pelvis; but yet there are instances in which even this is unsuccessful, and then the use of the previously despised forceps becomes unavoidable, or perhaps even the perforator and crotchet are found to be necessary to the patient's delivery. He concludes, that where the want of space depends on the greater size than usual of the head, or the narrowness of the pelvis, provided this be not extreme, the forceps will usually suffice to effect delivery, even though the head had not entered the pelvic brim; while when the forceps cannot suffice, either craniotomy, or, in extreme cases, the Cesarean section must be resorted to. The experience of the ensuing eight years only deepened the conviction expressed in this essay, and in 1773 he published another, "De præstantia Forcipis ad Servandam Fœtus in Partu Difficili Vitam." In the second paragraph of this dissertation he proposes the question, to which he intends to reply, in these words:-"Whether, in a difficult labour, a greater number of children are or can be saved by means of Levret's forceps, or by the hand alone,"—i. e., by turning? This inquiry, he says, is one of great moment, and the off-hand decision of which in favour of turning, indicates both ignorance and presumption, for it is by no means every person who is competent to reply to it. Neither, indeed, is. it by any means a matter of indifference which of these two modes of effecting a patient's delivery is selected; but the good of mankind, and the interests of the obstetric art, alike require that a positive decision be arrived at. He himself endeavours to answer it, as he says, partly by à priori reasoning, partly by inference from facts observed. He sets

<sup>\*</sup> Traité des Accouchemens. Paris, 4to., 759, p. 121.

<sup>\*</sup> This and several other dissertations by Stein were translated into German, and, with some short essays originally published by him in that language, were collected by him into one volume, under the name of Kleine Werke zur praktischen Gebrutshülfe, 8vo. Marburg, 1798; in which see p. 366-70, §§ ix. x. for Stein's opinion concerning turning in the deformed pelvis.

out by showing, that while the most natural of all cases of labour are those in which the head presents, it yet is not desirable to interfere with the course which nature may in any case adopt, so as to convert a case of footling presentation (though confessedly unfavourable) into one of head presentation, albeit that is the most favourable. If, then, it be unwise to interfere for the purpose of converting the worse into the better, it must be still more injudicious to interfere with the view of converting the better into the worse. This somewhat strange theoretical reasoning he supports by the allegation, that from the very structure of the head, it must pass the pelvis more easily when it comes first than last; for while in the former case the pelvic brim is occupied by the yielding vertex, the different parts of which are united by sutures, it is in the other case filled by the unyielding basis cranii: so that it may be fairly concluded that the child which would be born with difficulty with its head presenting would be born with far greater difficulty if the head came last. Further, the dangers to the child are much greater in footling cases than in those where the head presents To prove this, he publishes a list of all cases in which, during the previous ten years, he had either applied the forceps or turned, excluding from his reckoning all instances in which the delivery was premature, or the child, before the performance of the operation, was certainly known to be dead. This list gives a total of 54 forceps cases, in which 41 children were born alive, and 13 born dead; while 66 cases of turning yielded 33 children living, and the same number still-born.

Of all the pupils of Stein, the elder Osiander is he who exercised the greatest influence upon the practice of midwifery in his own country. With great, probably too great, fondness for operative interference, he entertained to the full his teacher's preference for the use of the forceps in all cases where disproportion exists. That this opinion, too, was not adopted without full deliberation, is sufficiently attested by the very carefully written chapter in his work on midwifery "upon the Influence

of the Forceps, and of the Operation of Turning upon the Mother and Child." In a note to this chapter,\* and more fully in another work, he mentions that between the years 1782 and 1792 he applied the forceps 39 times, and had 78 cases, either footling from the outset, or in which he performed the operation of turning. In 33 out of the 39 forceps cases the children were born alive; while of the other 78 cases only 37 yielded living children,—a fatality indeed, which, he says, greater dexterity obtained by practice in subsequent years enabled him to diminish, though it does not appear to have modified his opinions. He did not, indeed, himself complete his large work on midwifery, but his principles are laid down most positively in a condensed form in his Neue Denkwürdigkeiten. In the last volume of this work, published in 1799, he sanctions, p. 105, the performance of turning, provided the head be still high up, and the pelvis well proportioned; but he adds, that the indications are very different if the pelvis be contracted. "If the pelvic brim be considerably contracted, turning ought not on any account to be performed, for it will certainly be attended with great difficulty, and lead to a bad result; and at the very best, the life of the child will almost certainly be lost." Under these circumstances, then, he advocates the use of the forceps; but if the brim of the pelvis be capacious, and its outlet only contracted, he counsels the operation of turning, coupled with the subsequent application of the forceps if necessary. "The reason," he says, " why the head can thus be more readily got through the pelvis is, that when it enters the pelvic apertures in this position, with the chin depressed upon the chest, it forms a wedge whose apex is directed towards the cavity of the pelvis; while at the same time, by holding the feet, and making traction by them, the head can be firmly fixed, and thus prevented from slipping out of the grasp of the forceps.

Osiander's contemporary, and the most formidable opponent of his somewhat too meddlesome practice, the late Professor Boer, of Vienna, expresses

† Neu Deenkwürdigkeiten, § 119, p. 108.

<sup>\*</sup> The meaning of the writer is here somewhat obscure, but I believe that I have stated it correctly. See § 10 of the German translation, which alone I possess.

<sup>\*</sup> Handbuch der Entbindungskunst, 2te Aufl. Tübingen, 1830; 2ter Band, S. 363; and Neue Denkwürdigkeiten, 1ster Band, 2ter Bogenzahl. p. 38, Göttingen, 1799.

himself at the close of his active life concerning turning in cases of pelvic deformity, in the following decided man-

"Ne itaque, quin necesse sit, infantem convertas; tum vero minime, ubi non sat justa pelvis spatia habet. Vesano certe consilio capite prævio, at prægrandi, vel quod ad idem redit, pelvi angusta atque ex hâc molesto nixu, versio. patratur Tale facinus infanti ac matre

numquam non exitio est."\*

As the medical literature of Germany is probably not so readily accessible to all members of the profession as that of our own country and of France, I will just add, that the doctrine at present taught there with reference to this point is,+ that turning may be employed with advantage in cases where there exists a moderate degree of pelvic deformity, coupled with not very active pains (which have proved inadequate to drive the head through the pelvic brim), and a dilated state of the os uteri. younger Osiander has most fully considered this practice, and the objections that have been raised to it, and recommendst it as more generally applicable than the majority of his countrymen are disposed to admit, since he is inclined to practice it in many cases as a substitute, not merely for the forceps, but, after they have been unsuccesfully tried, as a means of avoiding the use of the perforator. He denies the great danger or difficulty of pushing back the head, and turning the child, after the forceps have been ineffectually applied, and states that he has under such circumstances turned with facility. denies that the difficulty in extracting the head when it comes last is as great as when it presents, and appeals to general experience in proof of this state-"The reason why the child which could not be brought into the world while its vertex presented can be

delivered after it has been turned, appears to be, that when the head presents, its broader part has to be drawn through a narrow passage without its being held fast, except at its sides; while, on the other hand, after turning it offers the under part of the face and the neck like the narrow end of a wedge, and thus its smaller part, coming first, can be firmly held on either side by the forceps, and, if need be, can have additional force applied to move it, by drawing at the lower jaw, and by pressure on the back of the neck and shoulders."\*

"That by this proceeding the life of the child may be destroyed is fully admitted, but at least," says he, "it gives a chance which embryotomy at once destroys."

In addition to those cases in which turning may be resorted to after the application of the forceps, he recommends it as a proceeding to be adopted from the first under the same circumstances as those in which others of his countrymen adopt it, though he does not agree with them in admitting the fruitlessness of long-continued uterine efforts as contra-indicating its employment. He moreover advises it in cases where previous tedious labours have issued, after much suffering, in the birth of dead children, and considers that under any of these circumstances the existence of any irregular position of the head renders this proceeding the more imperative.

In the foregoing sketch my object has been, avoiding all occasion of controversy, to acquit myself faithfully of the duties of a historian. My reason for undertaking this office was, that not a little of the asperity which has, unfortunately, entered into recent debates in this country concerning the propriety of turning the child in cases of pelvic deformity, seemed to me to be due to the fact of the proceeding having been regarded, both by its advocates and its opponents, as or almost, altogether novel, instead of being one which has engaged the attention of some of the most competent observers and best practitioners ever since the invention of the forceps, and has employed their pens, either in setting forth its advantages, or in exposing its evils.

three inches as the minimum; Kilian three and a quarter to three and a half. ‡ Ursachen, u. Hülfsanzeigen bei schweren Geburten, 2te Aufl. §§ 119-121, S. 208-214, 8vo.

S. 414, 8vo. Berlin, 1841; Kilian, Operationslehre, 2te Aufl. Band. i. S. 326, Bonn, 1849; Wilde, Das weibliche Gebärunvermögen, S. 250, 258, 8vo. Berlin, 1831. The size which the pelvis ought to have to justify this operation is not estimated alike by all writers. Osiander and Siebold take

\* De Obstetricia Naturali, p. 223, 8vo. Vienna,

† Siebold, Lehrbuch der Geburtshülfe, § 518,

Tübingen, 1833.

1830.

<sup>\*</sup> Lib. cit. p. 212.





