ART. II.—Researches on Instrumental Delivery. By F. Churchill, M. D., Licentiate of the King and Queen's College of Physicians in Ireland, Physician to Wellesley Institution for Females, and Lecturer on Midwifery, &c., in the Medico-Chirurgical School, Digges-street.

(Read before the College of Physicians, January 19th, 1835.)

Mr. PRESIDENT,

Notative is more conspicuous in the advance which the science of midwifery has made in latter years, than the diminished frequency of instrumental operations; and this arising, not from any alteration in the *conditions* of parturition, but from our more correct estimate of the *powers* employed. Natural labour

consists in a equable adjustment of the power (uterine contraction, &c.) to the two conditions, and of a just adaptation of these conditions, (the passage and the body to be passed through it,) the one to the other. Inequality in either of these will cause more or less deviation from the natural course of labour, and upon its extent depends the natural or artificial completion of delivery; and as it is by an estimate of these circumstances that our conduct must be guided, it is evident that our practice will be judicious, in proportion to the extent of our knowledge. In the present state of the science, it is difficult to say how far improvement in this respect may be carried; but it is clear, that there must always remain certain cases in which aid will be required, and in which there may arise a question as to the instrument to be used. There is in addition a class of complex labours, for the termination of some of which, assistance has usually been deemed necessary.

The most useful and most important of the instruments in present use, are undoubtedly the forceps and crotchet. As they are directly opposed in their nature and in the results of their application, they have been the subject of repeated investigation; in all the comparisons drawn between them, the well-being of both the parties concerned (the mother and child) has been regarded, and the preference has been generally, and with justice, given to the forceps, as affording a chance of life to the infant, with equal safety to the mother. It would be tedious to give extracts from authorities to prove this, any person versed in obstetric literature will recognize it as the opinion of most of the best writers on this subject, and it will be further evidenced by the comparative frequency of the two operations, of which I shall submit a tabular view presently. I am not aware, however, that any one has made extensive investigations as to the comparative results to the mother of these two operations, and as such a comparison illustrates and enforces some important points in midwifery, I trust I shall not be trespassing too

largely on your patience, if I detail some researches I have made on this subject.

Labours requiring the interference of art, may, as regards our present object, be divided into three classes. In two of them, the species of assistance necessary is clearly indicated, but in the third, it is left in doubt; for instance, when the obstacle arises from the suspension or cessation of uterine action. or from mischievous excitement setting in, the passage being sufficiently ample to permit the transit of the child, the substitution of an extractive force for the expulsive effort is manifestly all that is required. Again, when the distortion of the pelvis is so great, as to prohibit the passage of the head of the child, the delivery must be accomplished by lessening it. in cases of the third class, which is by far the most extensive, considerable hesitation must often be felt, and the varying practice of different accoucheurs shows this very plainly. these cases, the mother is in extreme danger; her only chance is in a speedy delivery. In some cases, the consideration of the child weighs but little, in many not at all, from the almost certainty of its death. The accoucheur then feels himself justified in regarding chiefly the welfare of the mother, and, a priori, we might suppose that diminishing the bulk of the child would best insure it. Thus some have thought and practised; others have wished to afford a chance of life to the infant, and on this ground have used the forceps; not that the probability in favour of the woman appeared greater-hardly so great, but that their plan combined the two objects; whereas the other was limited to one. These cases are principally where some disproportion exists between the head of the child and the passage, so as to render the uterine efforts inefficient; where fever or inflammation sets in, or where there is great exhaustion; where similar effects result from the malpresentation or malposition of the head, or where the child is hydrocephalic;



in cases of fainting, hæmorrhage, or convulsions; where tumours obstruct the passage, or where its calibre is diminished by deformity of the pelvis, but not to any great degree; or where the child is supposed to be dead. Now, if we consider the safety of the child, as well as that of the mother, we shall assuredly hesitate before we use the perforator in most of these cases; but even if the child be put out of the question entirely, it may still be doubted which is the safest operation for the mother. Thus, in every case we are met by great difficulties, and it is in hope of contributing to the solution of some of them, that I have endeavoured to discover the proportionate fatality to the female, of each operation.

I may as well anticipate two objections, which will be made at the outset against such a comparison. In the first place, it will be said, 'that from the different circumstances demanding the one or the other operation, no fair comparison of their results can be made; and secondly, that the period of labour, at which an operation is performed, will greatly influence the result; and if this be different for those in question, a comparison will be unjust.' As to the first objection, I would observe, that from the prejudices of education, and other circumstances, there is scarcely any peculiarity requiring the crotchet, in the opinion of some accoucheurs, for which the forceps have not been deemed sufficient by others, and vice versa. An eminent German, whom I shall quote hereafter, used the crotchet once and the forceps 300 times, and yet his forceps cases were not more fatal than Dr. Joseph Clarke's crotchet cases, though they presented in many instances similar characteristics. In fact, if we take the whole number I have adduced, we shall find, that, with the exception of the cases of extreme pelvic distortion, there is no regularity in the employment of either instrument. some using the forceps, and in similar cases others employing Besides, the cause of death is generally some the crotchet. affection, local in its origin, and the local cause, viz., the transit of a large body through a passage somewhat too small, is com-

mon to both. Equal injury may be inflicted by the extraction of a head emptied of its brain, and of an entire head, if they bear the same relation to the calibre of the passages: this is proved by the mortality attending crotchet operations. As to the second objection, both operations have been performed at every period of labour, when once the necessity has been established. In the cases referred to, the instruments were sometimes used at an early period, at other times later. In this country, when not demanded by accidental complications, neither is adopted until the lapse of twenty or twenty-four hours has proved the inefficiency of the natural efforts. On the Continent, the term varies much, but equally in both cases as far as I have ascertained. As then neither the cases requiring either operation, nor the time when either instrument should be used, is definite, and as the uncertainty is pretty equal in both cases, I think the objections are greatly weakened in force, if not invalidated. In the following statements I have endeavoured to be as accurate as possible: I shall gladly correct any mistakes; and that they may be discovered, if there are any such. I will briefly indicate the sources of my information. have examined upwards of thirty systems of midwifery, English and French, and from them I have extracted their calculations, or else, from the cases there given, I have formed tables for myself. It is much to be regretted that our standard works on midwifery are so deficient in details of this kind; indeed, as some of them state, they all seem to consider both operations perfectly safe for the woman, and they caution us only against dangers arising from awkwardness. I have found the reports of lying-in hospitals very useful, when they were sufficiently minute; but, as will be seen, some of the British, and all the French, appear to have overlooked the necessity of noticing separately the results of operations. The German reports which I shall give are very accurate, and many particulars are subjoined, which my object did not require that I should ex-

tract. They are all to be found in the thirteen volumes of Siebold's Journal of Midwifery.

The first table I shall shew, exhibits the number of these operations, and their relative frequency in Great Britain and on the Continent.

DATE.	INSTITUTIONS, AUTHORITIES.	OF CASIS.	FORCEPS.	CROTCHET
1765	Smellie calculates that in .	1000	there will	be 6 ope-
1781	Westminster General Dispensary,			
1800	Dr. Bland,	1897	12	
1793	Dublin Lying-in Hospital, Dr. J.	10 00=	177	40
1806	Clarke, in seven years,	10.387	17	49
1000	Dublin Lying-in Hospital, Dr.	11 000	in all 44	
1825	Breen, for six years,	11.696	21	operations 9
1828	In private practice, Dr. Merriman,	2947	~ .	9
1832	Wellesley Dispensary, Drs.			
1833	Cusack and Maunsell,	1268	31	6
1000				
1809	Maison d'Accouchments, Paris,			
	Dr. Baudelocque,	17.308	49	13
	Maternitè. Mad. Lachappelle, .	22.243	76	12
1817	Hospice de la Maternitè, Paris,	in the second		
	Mad. Boivin,	20.517	96	16
1829	Velpeau,	once	in 200	cases.
1812	Lying-in Hospital, Vienna, Dr.			
	Boer,	18.642	35	13
1811	3			
to	Prague Lying-in Hospital,	10 000	120	
1827	Messrs. Moschner and Kursak,	12.303	120	4
1814	Donator Later to Harrist De			
to	Dresden Lying-in Hospital, Dr.	0540	184	0
1827	Carus,	2549	104	9
819	Lying-in Hospital at Geissen, Dr.		ı	
	Ritgen,	103	10	1
824	, ,			
825	La Charitè, Midwifery Hospital,		- 1	
826	Berlin, Dr. Kluge,	1111	68	6
827) ' "			
.		1		

TABLE—continued.

DATE	INSTITUTIONS, AUTHORITIES.	OF CASES.	FORCEDS.	CROTCHE
1825 1826 1825	Lying-in Hospital at Cologne, Drs. Minden and Merrem, Midwifery Institution at Breslau,	295	19	4
1826	Prof. Andrèe,	356	7	3
1825 nalfof 1826 1825	Midwifery Institution at Trier, Dr. Theys,	51	3	0
826 827 828	Lying-in Hospital at Dantsick, Dr. Brunatti,	380	23	0
	Heidelberg, Naegelè,	1711	55	5
826 alf of 827	Midwifery Hospital, Magdeburg, Dr. Voigtal,	29	3	2
827 828 829	Royal Lying-in Hospital, Bres- lau, Dr. Küstner,	368	8	2
831	Dr. Adelmann,	144	0	1
830 831 832 833	Lying-in Hospital, Marburg, Dr. Caspar Siebold,	340	35	1
817 to 828	Royal University Lying-in Hos- pital, Berlin, Dr. E. Siebold, .	2093	300	1
	He used the forceps	for	crotchet	cases.

Thus among British practitioners, the number of operations compared with the number of cases are 167 in 29,195, or about 1 in 174. In 16,499 cases there were 53 requiring the forceps, or about 1 in 311, and 64 requiring the crotchet, or about 1 in 257.

In the estimates given by French authors we have 59,908 cases, and 262 operations, or about, 1½ in 238. The forceps were used 221 times, or nearly in the proportion of 1 to 271.

There were 41 crotchet cases, or about 1 in 1461. The relative frequency of the two operations is about one crotchet case to five forceps cases.

In Germany the number of operations, compared with the total number of cases, were 922 in 40,475, or about 1½ to 43. Omitting Siebold's cases, the number of forceps cases are 570 in 38,382 cases, or about 1½ in 67; and the crotchet cases in the same number amount to 51, or about 1 in 752.

According to this calculation, we observe an increasing number of forceps operations, and a decrease in the number of perforations. Our further researches will tend to shew whether this change has been an advantage or not.

The first author from whom I have obtained any data for the present calculation is Dr. Smellie, who published (the edition of his works I possess is dated 1765) a collection of cases illustrative of his treatise on midwifery. He relates fifty-two cases in which the forceps were used; two women died, the rest recovered; forty-four of the children lived. One or two of the women who got well had inflammation of the vagina, and in one case the perinæum was lacerated. The grounds of interference were exhaustion, deficient uterine action, hæmorrhagies, convulsions, malpositions, malpresentations, narrowing of the passages, and unusual size of the child's head. seldom (except in hæmorrhage or convulsions) operated before twenty-four hours had elapsed. He describes also twenty-four cases delivered by the crotchet, generally on account of the disproportionate size of the child. Three of the patients died soon after the operation, and in addition, two recovered contrary to expectation, and had one the perinæum torn. Some of the children were putrid, and of course all were lost.

In 1782, Mr. Perfect, a surgeon, published two volumes of cases in midwifery, in which he mentions seventeen cases where the forceps were used. Of these fifteen women recovered, and two died from puerperal fever. Of those who recovered, two were likewise attacked with fever, two continued weakly after

hæmorrhage, and in two the perinæum was slightly injured. The operations were undertaken in consequence of exhaustion, malposition, convulsions, hæmorrhagies, narrowness of passage, rigidity, &c. &c. The operation appears in many cases to have been deferred too long; two children were born dead, and two died some days after delivery; thirteen lived. Three crotchet cases are related, from malposition, pelvic distortion, and hydrocephalus; one woman recovered well, two with difficulty, and all three suffered from incontinence of urine for some time.

In 1793, Dr. J. Clarke published his abstract of the Report of the Dublin Lying-in Hospital. He used the forceps fourteen times; two were cases of convulsions, and died, and one who recovered had laceration of the urethra. I conclude that the remainder recovered, as no mention is made of the contrary. For the same reason I shall mark down the children as all alive. He employed the crotchet forty-nine times, and sixteen women died.

Dr. Breen, in his report for six years, published in 1806, describes forty-four instrumental operations without specification; of these twenty-six recovered and eighteen died.

Dr. Merriman (1826) gives a tabular view of twenty-one forceps cases, and nothing being said to the contrary, I conclude the women all recovered. Fifteen children were saved and six died; three of which were putrid, and two occurred in women in convulsions. He also relates nine crotchet cases, and from his silence I shall equally conclude that all the women recovered.

Dr. Gooch (edit. of his Lectures, 1831) relates six cases in which the forceps was used, (the *long* forceps in two of them); one woman died and five recovered, one of whom had the perinæum lacerated.

In the report of the Coombe Lying-in Hospital (1828) Mr. Gregory mentions having used the crotchet three times. One woman died from sloughing of the cervix uteri and adjoining

parts, another with abscesses in the uterus and inflammation of the bronchial tubes, and the third, with whom the forceps had been first tried and had failed, recovered perfectly well.

In three annual reports of the Wellesley Lying-in Institution, (1828-32-33,) by Drs. Cusack and Maunsell, the forceps were employed twice; both women recovered and one child. There were seven crotchet cases; three women died, (two of peritonitis,) one was threatened with peritonitis but recovered, and three recovered well: with one of these the forceps had been tried and failed.

During the present year (1834) at the Wellesley Dispensary, another case occurred under my care where the forceps was used under unfavourable circumstances. The patient had a severe attack of matritis, but recovered: the child had been dead some hours. I have also used the crotchet once this year after the forceps had failed, and the woman recovered without a bad symptom.

In the Transactions of the Association of Members of this College for 1830, the late Dr. Beatty states, that he used the forceps or lever in 111 cases during forty-two years, five of which were spent in the Lying-in Hospital of this city. None of the mothers died—none had lacerated perinæum, and all the children supposed to be alive at the time of operating, were delivered safely. He used the crotchet but three times in twenty-six years, and as nothing is said, I suppose successfully.

Dr. Ramsbottom, in his excellent work, (1832,) describes five forceps cases arising from exhaustion, slight narrowing or malposition, and in all after the labour had lasted twenty-four hours. All the women recovered well, but one who had sloughing of the bladder; two of the children were still-born, the remainder were alive and well. He also relates nineteen crotchet cases: of these eleven recovered speedily, three died, (two with sloughing of the passages,) three recovered from a state of great danger, one after a febrile attack, and one had recto-vaginal fistula.

In private practice I have used the forceps twice: both patients recovered, one of them after an attack of matritis; both the children are alive now.

No details suited to my present purpose are to be found in Baudelocque, Boivin, Capuron, or Velpean: the latter remarks that the operation by the crotchet is extremely formidable and dangerous to the mother.

Madame La Chapelle relates seventy-nine forceps cases; sixty-five women recovered; fourteen died, generally of peritonitis. Some cases were delayed too long; in some the pelvis was deformed; in one the perineum was lacerated, and several times the obstacle was at the superior outlet; fifty-six children lived; twenty-three were lost, some of whom were putrid when born. Madame L. used the crotchet sixteen times; ten women recovered, and six died, generally of peritonitis; the labours had not been specially long. Several of these were footling cases, or cases in which version had been performed.

I pass now to some particulars obtained from different reports of midwifery hospitals in Germany, as given in Siebold's Journal. To prevent unnecessary repetitions, I may as well at once enumerate the circumstances, which, in the opinion of the accoucheurs, demanded instrumental assistance:—absence of pains for a considerable period, exhaustion, malposition, malpresentation, hydrocephalic head, convulsions, hæmorrhage, narrowing of the passage, and (if not very considerable) distortion of the pelvis: all were aided by the forceps. Extreme distortion, and in one or two cases, enormous hydrocephalic heads alone seemed, in their opinion, to justify the use of the crotchet. E. Siebold, of Berlin, carried this rule still further; he actually used the forceps in all cases of difficulty; he mentions but one crotchet operation.

In three years, 1789, 90, 91, at the Vienna Lying-in Hospital, Boer used the forceps nineteen times: seventeeen women recovered, two died; fourteen children were saved. The head was

perforated eight times; some of the women died, but the number is not specified.

At the Royal University Lying-in Hospital, Berlin, during ten years, Elias Von Siebold tells us the forceps were used 300 times: eleven women died, and three or four recovered from an attack of matritis; forty-seven children were lost, some of them had been dead some time. In one crotchet case, the woman recovered.

At the midwifery hospital at Geissen, (in 1819,) Dr. Ritgen employed the forceps ten times: only one woman died; one child was dead born, and one died a few days after birth; all the rest were saved. The crotchet was used once; the mother recovered.

In the report of the Dresden Lying-in Institution, in 1824, Dr. Carus relates thirteen forceps cases: twelve women recovered, and one died from puerperal fever; ten children were saved. There were no crotchet cases.

At La Charitè Lying-in Hospital, Berlin, during the years 1824-25-26-27, Dr. Klugè used the forceps sixty-eight times: all the women recovered well; fifty-four children were saved, and of the fourteen lost, several were putrid. The crotchet was used eight times, and three women died; two of those who recovered were attacked with inflammation.

Professor Andrèe operated seven times with the forceps in the Midwifery Institution at Breslau, in the years 1825-26: one of the women died; five children were lost, all the rest did well. He used the crotchet twice, and one woman died.

At the Midwifery Hospital at Dantzic, during the years 1825-26-27, Dr. Brunatti employed the forceps twenty-four times: twenty-three women recovered, and eighteen children were saved. No crotchet cases.

During 1825-26-27, in the small Lying-in Institution at Trier, Dr. Theys met with three forceps cases: all the women recovered; one child was dead. The crotchet was not used.

At the midwifery hospital in Prague, from July, 1811, to

August, 1827, according to Messrs. Moschner and Kursak, the forceps were used 120 times: no instances of failure as regards the mother are mentioned; the number of children saved is not given. Of four crotchet operations, one proved fatal.

During the winter session of 1826-27, at the Magdeburg Lying-in Hospital, Dr. Voigtel operated three times with the forceps, with success as to both women and children.

At the Royal Lying-in Hospital, Breslau, in the years 1827-28, Dr. Küstner employed the forceps eight times: three women died; one recovered slowly and four rapidly; three children were lost. There were two crotchet cases, and both the women recovered.

In 1829, Dr. Adelmann, at the midwifery institution in Fulda, having failed in delivering a patient with the forceps, employed the crotchet with success to the mother.

During the years 1829-30-31-32-33, at the Lying-in Hospital at Marburg, (Caspar Siebold,) there were thirty-five forceps cases: thirty-three women recovered, and two children only were lost. There was one crotchet case; the women recovered after severe illness.

20 Dr. Churchill's Researches on Instrumental Delivery.

	154	•	38	116	154	132	351	49	877	920	:	Total .	_		
French.	16		6	10	16	23	56	14	88	79	•	•	Lachapelle,	Paris,	
_	-			-	_	2	33	\$ 2	33	35	•	•	C. Siebold, .	Marburg,	1829 to 1833
	-			_	-						•	•	Adelmann, .	Fulda,	1829
	. 10			. 2	10	8	01	w	5	80	•	•	Kustner,	Breslau,	8
					_	47	53	Ξ	289	8			28 Berlin, El. Siebold,	Berlin,	
		Se*					ယ		ఱ	8	•		, Voigtel,	Magdeburg	1826-27
			_	۵.					120	120	Kursak,	nd Ku	Moschner and	Prague,	811 to 1827
7				,		6	18	_	23	24	:		Brunatti,	Dantzick,	1825-26-27
German						_	10		မ	ယ	:	•	Theys,	Trier,	1825-26-27
	22		_	-	N	5	12	_	6	7	•	٠	Andree,	Breslau,	1825-26
	. 60			5	80	14	54		8	8	:	•	Kluge .	Berlin,	824 to 1827
				i i		ယ	10	_	12	18	•	:	Carus, .	Dresden,	1824
_	-			_	_	-	9	_	9	10	•	•	Ritgen, .		1819
						5	14	10	17	19	:	•	Boer, .		1789-90-91
_	118		27	91	118	22	92	7	224	231					
_	-			-	-	-	20		3	<u>د</u>	•	:	Churchill, .	Dublin,	1834
	19		c	16	19		ω.		5	0	:	B, .	Ramsbotham, .	Do.	1832
			,					_	Ç,	6	:	•	Gooch, .	London,	1831
	ω			ယ	8				Ξ	111	:	•	Beatty,	Do.	1830
	7		ယ	4	7	_	_		22	10	sell,	Maur	Cusack and Maunsell,	Do.	1828 32-33
7 50	မ		2	_	မ							•	Gregory,	Dublin,	1828
;	9			9	9	6	15		21	21	:	•	Merriman, .	London,	1826
-	49		16	33	49		14	2	12	14	•	•	Jos. Clarke,	Dublin,	1793
-	ω.		;	w	ω	4	13	2	15	17	:	:	Perfect, .		1782
_	24		အ	21	24	8	44	2	ઇ	52	:	:	Smellie,	London,	1765
- ogle	g. Dead.	Living.	Dead.	Living.	CASES.	Dead.	Living. Dead.	Dead.	Living	CASES.					
	CHILDREN.	CHI	EN.	WOWEN.	NO. OF	REN.	CHILDREN.	EN.	MOWEN.	NO. OF			AUTHOR.	PLACE.	D478.

Thus we see, that out of 920 forceps cases, 43 died, or about 1½ in 21; of 154 crotchet cases, 38 died, or about 1 in 4. And it is now evident, that the more extensive employment of the forceps of late years, which was noticed before, is unquestionably an advantage, inasmuch as more recover from its use than after perforation has been employed.

I have already shown, that of the women who recovered, many suffered from fever, matritis, and inflammation of the passages; these attacks were about equally frequent after each operation. It will be noticed, that I take it for granted, that the women recovered after either operation, when no mention is ' made of the contrary. This, I conceive, I am justified in doing, from the opinion these same authors hold of their safety, and from their express mention of other cases which proved fatal. Of 386 children delivered by the forceps, scarcely three-fourths were saved; of those which were lost, several had been dead some days, and were putrid. Some allowance for this great mortality must also be made, on account of the frequency with which the forceps were used in Germany, in cases which are delivered by the crotchet in this country. I merely at present mention these facts respecting the children, without laying stress upon them, as the object of this paper is to relate the results of these operations, as far as the mother is concerned.

- 1. From the foregoing details, we are necessarily led to several important conclusions. In the first place, neither operation is so innocuous to the mother, even in skilful hands, as has been supposed, and on this point, the statements of many of our best authors on midwifery are deficient, as well as in merely guarding the student against awkwardness in the use of instruments.
- 2. From the much greater mortality following the use of the perforator as regards the female, we are not warranted in using it, except in cases of great distortion, when no hope of delivery would be afforded by the forceps.

3. Except in cases of great distortion, the crotchet should never be used, until we have ascertained by trial that the forceps are unequal to the delivery. This observation is confirmed by several cases I have mentioned, where the forceps were tried and failed, and the crotchet had to be employed; all these cases recovered. The previous attempt with the forceps, therefore, added nothing to the danger.

In this respect our calculation has confirmed the advice of many distinguished writers, as Foster, Osborn, Smellie, Mackenzie, J. Clarke, Denman, Burns, Dewees, Lachapelle, &c. &c. Denman says, "when there are signs of imminent danger, however averse we may be to the use of instruments, we may be induced to try the forceps, though the case might not be altogether such as we might choose for their application, merely to take a chance of saving the life of a child, which must otherwise be inevitably lost."

Burns observes, "slow, persevering, careful trials must be made, and I beg, that as the practitioner values the life of a human being, and his own peace of mind, he will not desist and have recourse to the crotchet in cases at all doubtful, until it has been well ascertained that neither the lever nor forceps could be used." Dewees remarks, "it is certainly within our recollection, when cases similar to those which are now almost universally relieved with the forceps, were as certainly treated by the crotchet; the child a certain victim, the mother a probable one."

Maygrier anticipates the entire disuse of the crotchet, and Siebold, as we have seen, nearly dispensed with it. These observations apply not only to cases where the head of the child is in the pelvis, but according to many authors, even when it is still above the brim. In such a case, they recommend the long forceps as supplying the place of the crotchet. See Smellie, Hamilton, Conquest, Blundell, Dewees, Baudelocque, &c. &c. &c.

4. From the mortality attendant on the safest operation, (the

23

forceps) may we not draw an argument for its early performance, as affording a greater probability of a favourable termination.

5. Some authors (Baudelocque and others) have made the death of the child a reason for the use of the crotchet, and recently the use of the stethoscope has been recommended for the purpose of ascertaining this, with the confessed object of deciding the period of this operation. It will, I think, now be pretty clear, that except in cases of extreme distortion, the death of the child ought to have no influence upon the kind of instrument to be employed; that a regard for the safety of the mother alone, requires, at least, that an attempt be first made with the forceps.