

An explanation of the process of the 'spontaneous evolution of the foetus' : with some remarks, intended to induce an inquiry, whether the usual mode of delivery be the more eligible, in arm-presentations / by John C. Douglas.

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AN EXPLANATION

OF THE PROCESS OF THE

“Spontaneous Evolution of the Fœtus;”

WITH SOME REMARKS, INTENDED TO INDUCE

AN INQUIRY,

WHETHER THE USUAL MODE OF DELIVERY

BE THE MORE ELIGIBLE, IN

ARM-PRESENTATIONS.

BY

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Nullius addictus jurare in verba magistri.

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EXAMINATION

WHETHER THE USUAL MODE OF DELIVERY

BE THE MOST FAVORABLE

ARRANGEMENT

LECTURE I commences the description of

a process in nature which has been de-

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ed, I have to request that the freedom

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But I have to say, I am under the

obligation of Dr. Keegan and Dr. Keegan

AN

EXPLANATION, &c.

BEFORE I commence the description of a process in parturition, which has been denominated by Dr. Denman, “ the spontaneous evolution of the foetus ” (and perhaps a more appropriate term could not be adopted) ; I have to request that the freedom, with which I may treat that part of his valuable writings, may not be considered as proceeding from an idle spirit of criticism ; but rather from the necessity I am under, of assuming the aid of comparison, for the fa-

cility of elucidation : and moreover, I have to entreat that I may be excused, for speaking of the manner in which this process is effected, with a degree of confidence, which might be thought unjustifiable, if I were writing merely from theory ; but I do not write from theory ; I write from bed-side experience, which is universally allowed to be the most unerring source of genuine medical knowledge.

Dr. Denman speaks thus :—“ As to the
 “ manner in which this evolution takes
 “ place, I presume, that after the long con-
 “ tinued action of the uterus, the body of
 “ the child is brought into such a compact-
 “ ed state, as to receive the full force of
 “ every returning action : the body in its
 “ doubled state, being too large to pass
 “ through the pelvis, and the uterus press-
 “ ing upon its inferior extremities, which
 “ are the only parts capable of being moved,

“ they are forced gradually lower, making
 “ room as they are pressed down for the re-
 “ ception of some other part into the cavity
 “ of the uterus which they have evacuated,
 “ till the body turning as it were upon its
 “ own axis, the breech of the child is ex-
 “ pelled, as in an original presentation of
 “ that part.”

From the foregoing quotation, I feel my-
 self authorized to conclude, that Dr. Den-
 man is of opinion, that the shoulder of the
 child, after having been impacted into the
 pelvis, by a series of uterine actions, each
 successive action forcing it lower and lower ;
 that after some indistinct period of time, re-
 petitions of the same propelling power, in-
 stead of producing a continuance of the
 same effect ; should, by some miraculous
 effort, cause another part of the child, name-
 ly the breech, to descend, and to occupy
 the place where the shoulder had been ; and

that the latter should, about the same time, recede again into the uterus, to take possession of the space from which the former had descended: or to speak briefly,—that the breech at the fundus of the uterus, and the shoulder impacted in the pelvis, had, by a peculiar action of the uterus, changed places.

Now it seems to me that it would be inconsistent with reason, and with the acknowledged effect of uterine contraction, to admit; that the uterus when acting so powerfully, as to force down that part of the child which was at its fundus (and Dr. Denman says “the evolution cannot be made “at all without a strong action of the uterus”); should, at the same moment, leave a vacuum in the neighbourhood of the contraction, to which a descended portion of the child should recede; contrary to all the established laws of mechanical philoso-

phy :—but I will forbear making any further remarks on this doctrine ; and I will proceed to describe, as it has uniformly occurred under my observation, this hitherto inexplicable phenomenon.

It is admitted by every person who has been concerned in the management of a labour, where this mode of parturition had been effected ; that shortly before its occurrence the shoulder of the child had been forced so low into the pelvis as to appear at the os externum—that the thorax had occupied a great portion of its cavity, and was so impacted in it, as to render it impracticable for the hand to be passed up, for the purpose of turning, as is usually done in such presentations. So far as this detail goes, I coincide with Dr. Denman, and others ; but I cannot comprehend how a continuance of the same propelling power, which forced the child into this situation,

should, *at any time*, produce a counter-effect, causing the shoulder to retreat into the uterus :—but the fact is, that the shoulder and thorax thus low and impacted, instead of receding into the uterus, are at each successive pain forced still lower ; until the ribs of that side, of which the arm is protruded, press on the perinæum, and cause it to present the same form, as it would, by the pressure of the forehead in a natural labour :—at this period, not only the entire of the arm, but the shoulder can be perceived externally, with the clavicle lying under the arch of the pubis ;—by further uterine contractions the ribs are forced more forward, appearing at the os externum, as the vertex would, in a natural labour ; the clavicle having been by degrees forced round on the anterior part of the pubis, whilst the acromion reaches the mons veneris, and is nearly opposed to the head, resting on the ossa pubis internally.

It may not be considered irrelevant here to remark, that in consequence of the great extension, which the neck must, at this stage, necessarily undergo; it would be little less than absurd, to expect a child to be born living after such a process: we may, however, admit the mere possibility of so desirable a termination, provided the pelvis be very large, the child rather small, and the pains so efficient as to complete the delivery in a short space of time.

To prevent any misconception of this grand operation of nature, I will now describe the precise situation, in which the fœtus is to be found, immediately prior to its expulsion:—the entire of it pretty nearly resembles the larger segment of a circle; the head rests on the pubis internally; the clavicle presses against the pubis externally, with the acromion so high up as to reach the

mons veneris ; the arm and shoulder are entirely protruded, with one side of the thorax not only appearing at the os externum, but partly without it : the lower part of the same side of the trunk presses on the perinæum, with the breech either in the hollow of the sacrum, or at the brim of the pelvis ready to descend into it : and by a few further efforts of the uterus, the remainder of the body, with the lower extremities, is expelled.

But to be still more minutely explanatory in this ultimate stage of the process, I have to state, that the breech is not expelled exactly sideways, as the upper part of the trunk had previously been ; for during the presence of that pain, by which the evolution is completed ; there is a twist made about the centre of the curve at the lumbar vertebræ ; when both buttocks, instead of the side of one of them, are thrown against

the perinæum, distending it very much; and immediately after, the breech issues forth; the upper and back part of it appearing first, as if the back of the child had originally formed the convex, and its belly the concave side of the curve.

If this description be correct, it must be evident, that the breech is not the first part of the body which appears; because, that side of the thorax, which formed part of the convex edge of the bow, is previously protruded: the breech, however, is expelled just before that side of the trunk, which was concerned in forming the concave edge of the bow.

We will now suppose the evolution to be completed, or the entire of the foetus to be without the os externum, except the head and one arm; but with respect to the arm, which originally presented, I am confident

that not one line either of it, or of any other part of the child, which had once descended, ever withdrew ; and it would not appear unreasonable to infer from Dr. Denman's treatise, that although he must have frequently been in the room when a spontaneous evolution occurred ; yet that he never happened to be paying attention at the moment of its occurrence ; and he having afterwards found the child in the situation just mentioned, he concluded that it had been expelled by the breech, as “ in an original presentation of that part : ”—or if it be admitted, that he might have been at the bedside, at this critical moment, I would suppose that his attention had been too much engaged, in supporting the excessively distended perinæum, to have observed what was going on a little farther forward ; and as he did not perceive what became of the shoulder, he concluded that it must have receded into the uterus, as he was original

ly impressed with the idea that a child could not be expelled "in a doubled state."

I have further to remark on this point, that if Dr. Denman and others, who have known this evolution to be effected, will allow, that they have always found so much of the child expelled as I have described; it would amount to a confirmation of my doctrine; because, it is well known, that in original presentations of the breech, the child will rarely be protruded so low by the mere action of the uterus. Neither can I agree with Dr. Denman where he says, "that a child of a common size, living, or but lately dead, in such a state as to possess some degree of resiliency, is the best calculated for expulsion in this manner," as I conceive, that the smaller the child, or the more putrid, the more easily it would be expelled.

The explanation, which I have offered of this natural process, may perhaps be esteemed of some consequence, even in a physiological point of view ; but the value of it in that light, will be thought inconsiderable, when compared with the practical utility, to which this knowledge may be applied.

I will assume it as granted, that every person in this enlightened age, who has had extensive experience in the practice of midwifery, admits the possibility of this evolution ; but they say, that the expectation of a process which so rarely occurs, should not be taken into consideration, when we are about to decide on the line of conduct, which ought to be pursued in any particular case. I am, however, firmly of opinion with Dr. Denman, that its occurrence would not be so rare, if the efforts and intentions of nature, were not so often interfered with.

and perverted. And I likewise think, that, if we only gave the powers of the constitution, equally fair play in arm-presentations, as we do in presentations of the breech; there would as seldom be occasion for our assistance in the former, as there is in the latter.

It is likewise said, that no practical utility can be derived from this discovery of Dr. Denman's, because there are no symptoms described, either by him, or by any other person, from which an opinion can be formed of the probability of its occurrence: I will therefore now proceed to detail those symptoms, the presence of which would lead us to expect such an event.

If the arm of the child have been almost entirely protruded, with the shoulder near the os externum; if a considerable portion of its thorax have been pushed into the hollow of the sacrum, with the axilla very

low in the pelvis ; and if, with this disposition, the action of the uterus be still strong, and if the child be forced sensibly lower, during the continuance of each successive pain, the evolution may, with great confidence, be expected : but even if a practitioner be disappointed in this event, or if he have never thought of it, and if matters have proceeded so far as just now mentioned, the usual mode of delivery in arm-presentations, is not that to which he should have recourse : an expedient under such circumstances, not only always terrifying and torturing to the suffering female, but occasionally bringing her life either into immediate or more remote danger.

If then in such cases, we cannot indulge hopes of a spontaneous evolution ; and if a practitioner be not justifiable in *forcing* his arm into the uterus, with the intention of turning the child in the usual manner, how

is he to proceed? By taking away the contents both of the thorax and of the abdomen, when the body will be so much lessened as to be easily brought down; and in some cases, it will be practicable for him, without opening the thorax; to pass his hand up between it and the perinæum of the mother, and to force * his fingers immediately under the last rib into the abdomen; and having emptied it, push in his hand; and then by hooking his fingers on some part of its (the child's) pelvis, encourage its descent by the application of moderate and well-timed extracting force:—by acting in this manner, he would be imitating a natural process; and whether, he would be thus more judiciously employed, or in en-

* If he find it too difficult to force his fingers through the parietes of the abdomen, he may take the aid of any convenient instrument.

deavouring to counteract it, I leave to the discrimination of the candid reader.

It is not my wish that any person should infer from what I have said, that I had *yet* ventured altogether to decry the custom of turning, in the usual manner; I have only intended to reprobate the practice in cases attended with the circumstances lately mentioned, or in those, which would rank under the third distinction of the second order of preternatural labours in Dr. Denman's arrangement; as I know that in many cases of arm-presentations, for instance, in those which might be comprised within the limits of his first distinction, the operation of turning may be performed by an intelligent practitioner; frequently, not only without injury to the child, but with comparatively little pain, and still less danger to the mother: but notwithstanding all this, I

am not afraid to advance an opinion, that the time will come, and perhaps it is not very distant, when, the term *turning* in arm-presentations, will be known only by name, and will be reckoned among the rude and uncouth modes, which have been invented and resorted to, for the delivery of pregnant women.

I am well aware that many practitioners, who have been long in the habit of turning children, will be disposed to ridicule this seemingly rash conjecture; but before they would indulge too much in their ridicule, I would beg leave to remind them, that there was a period in the history of midwifery, when, the accoucheur would have been laughed at, who would have proposed to trust, for two or three days, to the resources of nature, for the accomplishment of a delivery, without having recourse to

his steel extractors:—that there was a period, when, if a hand of an infant came down with the head, turning would have been deemed absolutely necessary:—that there was a period, when if the breech presented, it would have been judged indispensable, that the accoucheur should push his arm into the uterus, for the purpose of bringing down the feet:—that there was a period still less distant, when that man would have been thought to be insane, who would have ventured to allow a woman to be harrassed with puerperal convulsions, for twenty or thirty hours, rather than interfere *mechanically*, with the natural progress of her labour.

But as these false notions of the insufficiency of nature, and of the excellence of our art, have been gradually superseded by a more enlightened philosophy, it may be

hoped, that the usually rude and unnatural operation of turning in arm-presentations, will, in process of time, likewise give place, to a more easy—a more safe—and a more rational mode of delivery.

THE END.

That, which is to be inferred from the last paragraph, is;— That the we will arrive when, turning, in arm-presentations, will not be considered regular & necessary mode of delivery. To a judicious practitioner will, doubt, ever avail himself of any favourable opportunity to save a Child, by turning like manner, as he now occasionally victor from the more usual mode according, in several instances of

