robbed (an idea, however, which even sane people sometimes get in favourite seaside resorts); that she was continually in the habit of abusing and assaulting the poor girl who waited on her, over whom she had poured the vials of her wrath in the shape of a can of milk, the contents of the chamber, or anything else that came handy. I ascertained that of twelve policemen who suffice to keep the peace in that happy valley, eleven had been called in at one time or another to stop rows caused by this lady; that she had a little pet dog which she carried about wherever she went, and for which she had four sheep's kidneys cooked for breakfast, rabbit for his lunch, and lamb for his dinner; that the remains of his meals were kept in her bedroom until they stank; that she herself had become quite careless about her personal appearance, quite unconscious of the filthy state of the rooms in which she lived, and, in short, quite unfit to take care of herself or her money.

On my return to town I reported my opinion to her relatives, and steps were at once taken to place her in an asylum, where she still remains. The strange part of it is that neither the people with whom she lodged, the doctor who had been attending her for months, nor the solicitors who were in correspondence with her, and one of whom had recently visited her, seemed to have any idea that she was *non compos mentis*. They thought she would ruin herself by her extravagance, and that was all.

AN UNUSUAL CAUSE OF DIFFICULTY AND DANGER IN TURNING.¹

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VERSION, when performed upon a child presenting by its vertex or occiput, is rarely attended with difficulty, whether the fluid contents of the uterus are completely drained away or not; more rarely still is it attended with danger, unless the lower segment of the uterus has been greatly drawn out and thinned by delay; in such a condition the element of danger is on the part of the mother, that is, the pathological thinning of the uterine wall. If, however, instead of the normal vertex we have some abnormal presentation, for example, face, brow, or shoulder, a new source of difficulty and danger is introduced on the part of the child.

As the case now to be related was the first in which I had met with, or perhaps I should say recognised, this latter condition, I am tempted to communicate it. The patient was a primipara, aged 20, who had been in labour about six or eight hours when the membranes ruptured and the waters escaped. The nurse immediately sent for me, and on my arrival, about half an hour later, I found that I had to do with an arm presentation. The patient was a diminutive, ill-developed woman, with an ostium vaginae so small that in the necessary manipulation the perineum was ruptured for about half its extent.

On examination the following condition presented itself: The right hand and forearm of the child were in the vagina; the back of the child's neck was lying against the front wall of the uterus, the neck stretched out considerably, and the head to the left side; the body, which lay against the mother's right side, was twisted on its longitudinal axis so that the buttocks were to the back and right. The cervix was fully dilated, the uterus somewhat contracted on the child, the lower segment thin, and Bandl's ring plainly felt above the shoulders; in fact, the condition was one of an early stage of spontaneous evolution, and had the pelvis been large enough, or the child small enough, no doubt the back and breech would have been driven down past the head, which was lying up above the pubes.

I decided that turning was the treatment indicated, and with this object I endeavoured to seize a foot, but was greatly hampered by the prolapsed arm, which, after being returned into the uterus with some difficulty, persisted in falling out again. I gave up further attempts to replace it, and passing

my hand into the uterus seized a foot; but I could make no impression on the child's position, nor did external manipulation afford any help. After repeated attempts at this podalic version (cephalic was quite out of the question, as the head was worse to get hold of than the feet) my arms became so fatigued that I was about to give it up and resort to the objectionable practice of decapitation, when the reason of the difficulty occurred to me, namely, the fact that the shoulders were prevented from rotating by the contraction of Bandl's ring above them. When traction was made on the feet the breech was pulled over to the left, while the child's left

Fig. 1.—Vertex presentation. AB, upper active segment of uterus. BC, lower passive segment of uterus and cervix. B, Bandl's ring.

shoulder and arm were jammed against the firm Bandl's ring. The secret of the difficulty lay in this jamming of the shoulder against the ring of contraction. If the shoulder could be freed turning might be possible. In order to

Fig. 2.—Face presentation.

facilitate the attempt the uterus was relaxed as much as possible by deeply anaesthetising the patient; then, keeping one hand in the vagina, I pulled on the prolapsed right arm with my other hand, and so got the right shoulder at a lower level than the left shoulder; at the same time, with my hand in the vagina, I pushed the child's left shoulder towards the middle line of the canal, and slightly upwards, and then pushed the child *en masse* a little way further into the cavity of the now relaxed uterus, suprapubic support to the uterus being given by the nurse. Both feet were seized and drawn down, the child rolled round with perfect ease, and delivery was effected without further difficulty.

Here then was what I imagine to be a somewhat rare cause of difficulty, and a possible cause of danger. As we well know, the body of the uterus during labour differentiates itself into two distinct portions:—

1. An upper portion playing an active part, that is, where the wall contracts and grows thicker during a pain.
2. A lower segment playing a passive part, that is, where the wall is drawn out and becomes thinner during a pain.

These two portions are separated by what is known as "Bandl's ring," a term which may be conveniently retained

¹Read before the North of England Obstetrical and Gynaecological Society, at Leeds.

to denote merely the thick lower border of the upper active segment.

Rupture of the uterus always occurs or commences in the lower segment where it is abnormally thinned out, generally in unduly protracted labour.

Even under such unfavourable conditions, that is, when the lower uterine segment is considerably thinned, so long as the presentation is the ordinary vertex or occiput little danger need be anticipated during version, and this is so because of the shape of the body to be turned. In this condition the child, lying in normal attitude and position, vertex presenting (Diagram I will help to explain this), the back of the child and its occiput form almost a segment of a circle. Consequently, when we draw down a leg and the child revolves on its transverse axis, no resistance is offered by the prominent ring of Bandl to the upward movement of the head. In other presentations, however, the conditions are totally different; the outline of the dorsal surface of the child is no longer represented by the segment of a circle, and this fact constitutes a possible element of difficulty and danger; this is easily recognised by reference to Diagram II, which represents a face presentation, the head lying in the lower segment

Fig. 3.—Arm presentation.

of the uterus and cervix; the back and head no longer form one continuous curve, but instead we find two curves, one formed by the back and one by the head of the child, with a markedly acute angle between them corresponding to the neck. The longitudinal axis of the body and the axis of the head meet at an angle. What happens now on drawing down a leg? Instead of the one continuous curve gliding over the projecting Bandl's ring, this projecting ring catches in the angle of the neck, the head becomes hitched and turning difficult or impossible. If traction be persisted in there will be danger that the lower segment will be stretched until its thin wall gives, and rupture takes place. The same state of affairs may occur in a shoulder presentation, when the lower segment is thinned and Bandl's ring well marked. Diagram III represents this condition—the condition found in my case just narrated.

In this case the difficulty was not due simply to a firm contraction of the uterine body over that portion of the child contained within it; this condition I have met with on several occasions. When the whole uterus is in a state of tonic retraction there is great difficulty in introducing the hand and reaching the legs. In my first mentioned case no such obstacle was met with; the hand passed readily into the uterus when once the Bandl's ring was passed; above this there was room for easy manipulation.

I would point out that the cause of difficulty and danger to which I have here called attention is one of malpresentation of the child coupled with a pronounced differentiation of Bandl's ring; a condition not to be confused with a contraction, or as it ought to be called a rigidity, of the cervix, whether at the external opening or at the internal os. The treatment I found successful under such circumstances is first to deeply anaesthetise (chloroform) the patient, then to disengage the part hitched under the ring of contraction by drawing it downwards and towards the axis of the canal, and finally to push the child *en bloc* backwards into the cavity of the uterus; version is then easily performed.

CHLOROFORM OR ETHER?

By SURGEON-MAJOR EDWARD LAWRIE, M.B. EDIN.,
President of the Hyderabad Chloroform Commission.

THE BRITISH MEDICAL JOURNAL has performed a signal service to the Hyderabad Commission in placing before the profession Dr. Julliard's views on chloroform and ether. The leading article in the JOURNAL of April 25th, 1891, is incomplete, however, and ought to have included the London statistics so opportunely brought forward by Mr. Roger Williams in the *Lancet* of February 8th, 1890.

According to Dr. Julliard's statistics, deaths from chloroform amount to 1 in 3,258, and from ether to 1 in 14,987 administrations. According to Mr. Roger Williams, the statistics of the London hospitals show that deaths from chloroform amount to 1 in 1,236, and from ether to 1 in 2,754 administrations. On the other hand, the statistics of chloroform administered on Syme's principles form an unbroken record of inhalations from 1848 to 1891 without a death. The BRITISH MEDICAL JOURNAL regards Dr. Julliard's figures as "a most valuable statistical summary," but this summary would obviously be much more useful if it were accompanied by a description of the method of administration pursued in all the cases from which it is compiled. There are two distinct methods of chloroform administration in vogue. In one the pulse, as well as the respiration, is taken as a guide; in the other the pulse is never under any circumstances taken as a guide; and it is manifestly unreasonable to compare the risks of ether and chloroform without stating with regard to chloroform which of these methods is employed. The importance of this point lies in the fact that there is not one case of death from chloroform recorded, in which it is proved that the pulse was not taken as a guide; whereas, in Syme's practice and in my own, where the pulse has never been taken as a guide, no death from chloroform has ever occurred. It should be stated that in Syme's practice, as in my own, the anaesthetic was always administered by students and not by specialists. *If the pulse is affected under chloroform, it indicates chloroform poisoning either direct or through abnormal respiration. All the chloroformist has to produce is harmless anaesthesia, with regular breathing, and without poisoning, and of this the pulse can never be any test whatever; it is, therefore, positively dangerous and useless to take it as a guide.* The following table places the available figures in a most striking light:

Mortality Statistics of Chloroform and Ether.

Anæsthetic Employed.	Source of Statistics.	Period.	Number of Deaths to Administration.
Chloroform	Julliard	Not stated	1 to 3,258
Ether ...	Julliard	"	" 14,987
Chloroform	St. Bartholomew's Hospital (Roger Williams)	10 years, 1878 to 1887	" 1,236
Ether ...	" " "	"	" 2,754
Chloroform	Syme and Lawrie ...	43 years	No death.

If statistics are of any value, this table ought to carry conviction with it, because it shows clearly that chloroform administered on Syme's principles is even less dangerous than ether administered in accordance with the most approved methods. But the Hyderabad Commission has no desire to institute further comparisons between them. All we say is, let anybody use ether who chooses, but if chloroform is to be employed, let it be given in the right way. Surgery cannot yet do without chloroform, and the only way to give it with invariable safety is to be guided, as Syme was, not by the circulation, but entirely by the respiration. What Dr. Julliard says about ether I can say, *mutatis mutandis*, about chloroform. During fourteen out of the seventeen months¹ that have elapsed since the Hyderabad Commission demonstrated that the key to the safe administration of chloroform consists in regular breathing, I have given chloroform several

¹ For three months I was absent on leave.