We shall later investigate the influence which valvular disease of the right heart has upon the life of patients suffering from it, and shall then see in what measure the ultimate result is affected according as the secondary changes follow the order indicated in the one or the other of these two columns. In the meantime, as we have so far investigated the means employed by nature in coping with the problem of a difficult propulsion of the circulation arising from pathological causes, it will be instructive to examine the means she employs when an analogous difficulty is physiological. With this object, I purpose to institute a comparison between the circulatory apparatus and circulation of the sheep and that of man.

(*To be continued.*)

ARTICLE III.—*Case of Hystero-Epilepsy, aggravated by Pregnancy and necessitating Premature Labour.* By JOHN M'WATT, M.B., House-Surgeon, Royal Infirmary, Edinburgh.

HYSTERO-EPILEPSY in the non-pregnant woman has of late been attracting considerable attention. The occurrence in my practice of such a case, with the fits increased greatly in severity and frequency by pregnancy, and ceasing almost completely after parturition, has induced me to bring it under the notice of our Society.

The case is as follows :—Mrs B., aged 36, has had eight children at full term. Exactly ten years ago, when she was advanced in her fourth pregnancy, she took some kind of fits for the first time. During this labour she had none. Since then she has had very few attacks until about eighteen months ago, when she was seven months pregnant. As the pregnancy advanced the fits became so frequent and severe, weakening her so much, that she was expected to die. Ultimately she was delivered by forceps at full term of a dead child, and made a good recovery. From this time up till September last, when she ceased menstruating, she has been almost free from the fits; but after this, as her pregnancy advanced, they have become greatly intensified in every way. On 10th February of this year I was summoned at 11 P.M. to see her. On arriving I found the patient in a very low condition, with the pulse exceedingly weak and rapid; and, on speaking to her, could get no answer for some little time, owing to her semi-unconscious state. All the previous day she had passed from one fit into another, and was now getting much worse, as they were almost continuous. Her pupils did not seem to be contracted. Temperature could not be taken. Pulse 118. No appearance of labour. Fœtal heart audible.

After consideration I determined to induce labour, seeing that—1*stly*, When not pregnant she had very few fits; 2*dly*, Pregnancy increased the number and severity of the fits; 3*dly*, As pregnancy advanced she got worse; 4*thly*, Fits ceased during labour.

Character of the Fits.—Up till within late there has been no distinct aura. There are first convulsive movements of the limbs, trunk, and face. She buries her face in the blankets, and sometimes tears her hair at the beginning of the attack. The body is soon in a state of tonic spasm, with feet inverted, one crossing over the other. Face is not congested, and she never bites her tongue. She has incontinence of urine during the fits, and at other times. Pupils not altered. There is complete anæsthesia. There has never been any coma after an attack, except on the night I induced labour. The attack varies in duration from one to fifteen minutes. No albumen in urine. Vaginal examination, with pressure in the lateral fornices, induces these attacks, but suprapubic ovarian pressure has no effect in cutting them short.

Treatment.—Large doses of chloral were administered without effect. At 1 A.M., after having her anæsthetized, I made a careful vaginal examination, and found the os small and high up. No presenting part could be detected, and there was no appearance of labour. I now introduced with difficulty into the os a very small sponge-tent, leaving it in for 6½ hours (7.30 A.M.) On removing it I found the cervical canal a little dilated, but still no appearance of labour. I then introduced a larger tent, which was left in for nine hours (4.30 P.M.) When removed the os admitted forefinger easily. No uterine contractions. A third tent was now used, and left in for five hours (9.30 P.M.) This excited uterine contractions. On removal the os admitted easily two fingers. I had at first determined to excite labour pains, and leave the rest to nature; but as the pulse was now 120, and the patient extremely weak, I resolved to complete it artificially. Accordingly, after having her chloroformed, I introduced the second size of Barnes's bags, and gave 5 grains of ergotin hypodermically. The uterus now contracted firmly, and the os dilated well. In twenty minutes I took out this bag, and replaced it by a larger size, leaving it also in for the same time. I went on thus dilating till I had the os well expanded. On examination I found the left shoulder presenting, head to left, and back posteriorly, and turned by conjoined manipulation, bringing down the left leg, after rupturing the membranes. Other 5 grains of ergotin hypodermically were given, and abdominal pressure used. The child, which was alive, was easily extracted, but died soon after birth. Placenta followed shortly. No post-partum hæmorrhage, the uterus remaining firmly contracted. From introduction of first sponge-tent till completion of labour, twenty-three hours.

The points of interest in the case are:—1. The aggravation of the hystero-epileptic attacks by pregnancy, and their increase in severity, *pari passu*, with its advance; 2. The cessation of the fits during labour, and between the pregnancies; 3. Such aggravation of the fits necessitating premature labour.

The patient made a good recovery, and is now quite well. After convalescence I examined her, and found, as already stated, that pressure in the lateral fornices brought on severe hystero-epileptic attacks.