woman should die convulsed in the hands of nature, than that she should perish by the cruel and savage operation of rough and unskilful midwifery.

In those cases, again, where delivery is not to be accomplished without the risk of contusions and lacerations, you should still keep a close eye on the case, making frequent examinations, say every half hour or hour; for, as in floodings so in convulsions, sudden and extensive changes occur in the condition of the parts; and though in the morning you may not be able to deliver the patient, yet in the evening you may find the delivery easy; nay, in half an hour only, in some cases, a great change may occur, and, when circumstances conduce, the delivery should be with promptitude accomplished.

Here, then, are some general principles, which, combined with the observations I have made in preceding lectures, may keep you near the right line of practice in these distressing cases. Let it be your first principle not to deliver artificially, provided you find the convulsions may be subdued by other means, unless, indeed, in those anomalous cases in which the ovum may be abstracted without the least difficulty.—Again: in those cases in which bleedings and purgings and refrigerations fail, and where delivery is to be looked upon as the only remaining effectual remedy, let it still be your principle to have recourse to delivery in those cases only in which the abstraction of the foetus may be easily and safely accomplished, since death from convulsions is preferable to death by the hand of the accoucheur. Lastly, if delivery is desirable in consequence of the failure of other remedies, should the state of the parts forbid it, you will act wisely in making repeated, though cautious, examinations, (since sudden and favourable changes may occur,) completing the delivery by artificial means, if necessary, as soon as circumstances conduce. I conclude this topic by remarking, that I should be sorry to undervalue the efficacy of delivery in these cases; but moderation is profitable to all things, and I cannot bear to hear of delivery by force. *Arte non vi.* In a scientific midwifery, force has no place. Some practitioners seem to be too fond of the turf.

"THE FISH" THAT SWALLOWED JONAH.

At a meeting of the Wernerian Natural History Society, held on the 22d of March last, the REVEREND Dr. Scott of Costorphine, read a paper "on the great fish that swallowed up Jonah, and, after three days and nights, cast him out on dry land;" showing that it could not be a whale, as generally supposed, but was probably a "*SQUALUS CARCHARIAS*, OR WHITE SHARK."—*Jamison's Philosophical Journal.*

FOREIGN DEPARTMENT.

TERMINATION OF THE UMBILICAL VEIN IN THE RIGHT AURICLE, AND A SINGLE UMBILICAL ARTERY ARISING FROM THE ABDOMINAL AORTA IN A NEW-BORN INFANT.

BY PROFESSOR MENDE.

THE child, in whom these remarkable deviations from the natural state were observed, died shortly after birth, without any apparent cause. There was nothing unusual on the exterior of the body; but, on injecting the vessels, it was found that the umbilical vein did not divide into two branches to traverse the liver, but was continued as a single trunk along the convex surface of the right lobe of this organ, without being attached to it, as far as the right auricle of the heart, when it opened itself a little above, and in front of the termination of the inferior vena cava. The base of the heart was inclined a little more than natural to the right side, and towards the sternum. There was only one umbilical artery which arose from the abdominal aorta at its bifurcation; it passed on the left side of the bladder, and continued its course to the umbilicus.

Professor Mende draws from this case some physiological conclusions, relative to the uses which the liver serves in the foetus. He considers that this organ does not receive all the blood which comes from the placenta; the comparison which has been instituted between the human foetus and amphibious animals, especially the seal, being incorrect; and that the blood coming from the placenta is not modified by the liver, and does not serve for the secretion of bile, the gall-bladder being, in the case described above, full, and the foetus well-nourished.

DISEASE OF THE HEART, WITH A RARE ANOMALY OF THE VASCULAR SYSTEM.

By PROFESSOR FRANCKE, *Dresden.*

The disease of the heart, of which the subject of the following case died, was aneurism, with hypertrophy of the left ventricle. There was, at the same time, hydrops pericardii, as well as traces of chronic inflammation of the liver, induration of the spleen, and, among other changes, a remarkable one in the situation of the ascending vena, cava and its relation to the aorta, to which there is only one similar example recorded, and that in Morgagni. (*De Sedi-bus et causis Morb. Lib. iv. epist. 66. art. 32.*) The aorta was in its natural situation, but

the ascending vena cava was placed on the left side of this vessel, in the region of the fourth, third, and second lumbar vertebræ, and then crossed in front of it, opposite to the first lumbar vertebra, just below the superior mesenteric artery. From this spot it proceeded in the usual course towards the liver and diaphragm. Similar disposition of the vena cava is found in some fishes, especially in the embryo.

ABSENCE OF THE GALL-BLADDER.*

There is a case related in this journal of a man who died suddenly, and in whom the gall-bladder was wanting. In the situation of the fossa destined for its reception, there was a prominent surface, covered by peritoneum, without any mark whatever of the previous existence of the organ.

ON THE RELATIONS BETWEEN THE CIRCULATION AND RESPIRATION.

BY DR. FERMON.

(*Extracted from a Letter addressed to the Academy of Sciences, April 7th, 1828.*)

The intimate connexion between respiration and circulation, is universally admitted, but the precise nature of the influence between these functions, is far from being well understood. Dr. Fermon has recently been engaged in investigation on this subject, and his first point of inquiry was, the average number of respirations and pulsations in a given time. In a great number of adults, the respirations were from 14 to 25 in a minute, and the pulsations between 60 and 80 in the same time, being 1 to 4, 1 to 5, or 1 to 6, i.e. that during one respiration there were from 4 to 5 or 6 pulsations, and, consequently, that the quantity of blood propelled by 4, 5, or 6 contractions of the heart to the lungs, is oxygenised by the air, which enters into this organ during one inspiration. Dr. Fermon conceives, that during inspiration there is a greater number of pulsations than during expiration, it was always a sign of engorgement of the lungs; that in the healthy state there is always a greater number of pulsations during expiration than in inspiration. One fact, however, is certain, that whenever the relation between the natural number of respirations and pulsations is disturbed, for instance, when the number is increased, swelling of the spleen, afflux of blood into the portal system, or engorgement of the lung, and sometimes hæmorrhage, or effusion into its tissue, take place; for instance, observe

what occurs on the one hand when a person ascends a ladder or steep stairs, and, on the other, the spitting of blood in singers.

With respect to the return of the blood by the lungs, Dr. Fermon says, that he has ascertained by numerous experiments, that the venous blood, propelled by the right ventricle of the heart through the pulmonary artery, can traverse the lungs, to return by the pulmonary veins only when the air-cells are flattened during expiration. During inspiration, when the cells are distended, the passage of the blood is momentarily interrupted, the effect of which is to prolong the contact of the blood and air, and to render oxygenation more complete. This fact is of importance, since it shows the danger of continuing uninterrupted inflation of the lungs for a long time, in attempting to restore suspended animation; for, instead of facilitating the return to life, it would oppose a fresh obstacle to the passage of blood by the distension of the air cells.

Dr. Fermon quotes a paper of Sir Everard Home, in the Philosophical Transactions for 1827, in which Sir Everard Home alludes to the same circumstances which have formed the subject of the preceding inquiry; and Dr. Fermon accords to our countryman the merit of priority, taking to himself credit for proving the point by experiment.

PATHOLOGICAL AND PRACTICAL OBSERVATIONS ON DYSMENORRHOEA.

By JOHN MACKINTOSH, M.D., *Acting Surgeon to the Ordnance, Physician to the Brown Square Dispensary, and Lecturer on the Practice of Physic, &c., in Edinburgh.*

DYSMENORRHOEA is a very painful affection, of frequent occurrence, and it is one which has always been an opprobrium to medicine. When menstruation is painful, it is generally scanty, and along with the discharge we frequently find shreds of membrane, like the *decidua uteri*; and occasionally a substance, the size of a hazel nut, is passed; indeed, when floating in water, it resembles a miscarriage at about the fourth or fifth week. Women who pass the shreds of membrane, suffer very severe pain in the region of the uterus, attended with some bearing down; but those who pass the larger masses are generally married women, and although of a different character, their sufferings are fully more severe than with children at the full period. Some are affected with this disease from the first of their menstrual lives; some not till after marriage; and I have known it not to occur in others till after the birth of

* Mem. de Med. Militaire, tom. xx. p. 406.