firm, is located rather higher than usual, and far back. The os is not patulous. The body of the uterus, enlarged to the extent of an eight or nine weeks pregnancy, is detected readily by bimanual examination. On September 24th, labour-like pain was experienced, and a mass was expelled from the vagina. This mass, which was of the size of an orange, contained an embryo of about $1\frac{1}{2}$ inch in length and $1\frac{1}{2}$ ounce of dark biliary-looking fluid.

REMARKS.—In this case the death of the embryo was probably due to defective evolutionary power in the fecundated ovum, and no external hæmorrhage occurred for three months after its death.

CASE IV, *Retention of a 3 or a $3\frac{1}{2}$ Months' Fœtus for Five Months after its Death.*—R. S., aged 40, and married fourteen years, had had five children and two miscarriages. The miscarriages occurred between the births of the fourth and fifth children, and the last child was born in 1890. She ceased menstruating on August 26th, 1895, and thereafter there was complete amenorrhœa until February 12th, 1896, when a dark blood-coloured discharge from the vagina was observed. On March 18th, 1896, the patient came under my care, and she stated that daily since February 12th the blood-coloured discharge from the vagina had been noted. She had complained of no pain. On March 18th the following notes were made. "Abdominal examination is negative. Vaginal examination: The cervix, which is soft, is located towards the left wall of the pelvis, and the os is slightly open. By bimanual examination the body of the uterus is readily defined, and is equal in size to about a ten weeks pregnancy. The consistence of the uterus is doughy, and its right half is lobulated. No colostrum could be obtained from the breasts."

From March 18th until April 24th there was daily a blood-coloured discharge from the vagina. On April 24th with a slight labour-like pain, a mass was expelled from the vagina. This mass contained what appeared to be a 3 or a $3\frac{1}{2}$ months fœtus, and, although the membranes were perfectly intact, the sac contained no fluid.

REMARKS.—In this case the fœtus had probably died in the early part of December, but no external hæmorrhage was observed until February 12th.

NOTE ON A PECULIAR POST-MORTEM APPEARANCE OF THE CARDIAC WALLS.

By F. PARKES WEBER, M.D.,
Physician, German Hospital, Dalston.

THE heart in question was that of a man, aged 56, who had disease of the aortic valve and a malignant tumour of the liver. He died from chronic jaundice and progressive cachexia. The necropsy showed that the tumour was a primary columnar cell carcinoma, completely enclosing the gall bladder, which was crammed full of gall stones. There were a few secondary nodules in the liver, but no metastatic growths were observed in other parts of the body.

The heart was hypertrophied, and there were thickening and retraction of the aortic valves, but the cardiac walls presented an unexpected appearance, namely, multiple spots of a paler colour than the rest of the cardiac tissue. These patches were observed under the exocardium, and on cutting into the heart muscle they were found to be scattered about throughout the cardiac substance. They were somewhat globular in shape, and on the average about the size of a small pea. The tissue of which they were composed seemed to the naked eye to be of the same consistence as, and continuous with, that of the rest of the heart muscle. The only difference which distinguished these spots from the tissue around them was that they were less red, and this, associated with the universal icteric staining, gave them a dirty yellowish appearance. In the centre of some of these spots a minute speck could be distinguished with the naked eye, as if from the prick of a pin.

Under the microscope collections of bacilli, which had taken on the ordinary logwood stain deeply, were seen occupying spaces (sometimes blood vessels) amongst the muscle fibres. These spaces had apparently formed the centres of the pale areas observed by the naked eye, the

main part of the areas having stained just the same as the ordinary cardiac tissue.

Though the necropsy was performed on the day following the patient's death (the commencement of January), I believe that the pale areas in the heart muscle were due to *post-mortem* changes, that is, to some chemical action exerted by the products of metabolism of *post-mortem* growths of bacilli on the tissue around them.

The position of the bacillary colonies, sprinkled as they were through the cardiac substance, necessitates the conclusion that the parent microbes of the colonies must have been disseminated during life, though the absence of an inflammatory reaction shows probably that they only commenced to grow after the blood stream had ceased.

It must be mentioned that besides the definite foci already alluded to there were likewise scattered bacilli seen in other parts of the sections, especially at the edges, as if their growth had continued after the *post-mortem* examination; the pieces removed for microscopic examination were unfortunately not immediately placed in an antiseptic hardening reagent. However, the main conclusion which I have stated remains, I believe, unaffected, for there is no other way of accounting for the unusual appearance of the cardiac substance, an appearance which attracted the attention of, and was novel to, all those present at the *post-mortem* examination. In short, my explanation is that micro-organisms (more or less saprophytic in character) from the intestine or gall passages, gained an entrance during the last moments of life into the blood stream, and by the blood were scattered through the different tissues of the body, so that instead of the *post-mortem* changes having to spread from the intestines, air passages, etc., they commenced at many different spots at the same time, there being already single microbes scattered through the tissues, each one ready to form a colony the moment that the tissue life around it became extinct. The reason why similar appearances were not observed in other tissues is probably, first, that they were not carefully looked for; and secondly, that the comparatively homogeneous texture and tint of the heart substance renders it particularly easy to recognise circumscribed changes, even though slight, in this organ.

NOTES ON AN EPIDEMIC OF RUBELLA.

By W. J. J. ARNOLD, B.A., M.B.R.U.I.,
Aberdare.

THE case mentioned in the BRITISH MEDICAL JOURNAL of April 23rd by Dr. Waters accords more with the clinical features of rubella than those of scarlet fever. Subsequent desquamation is not conclusive evidence that a given rash was that of scarlet fever, nor is the fact that rheumatism complicated the course of the illness.

Desquamation to a greater or less extent is quite common after rubella, though it is often overlooked, owing to its usually limited distribution and the minute size of the epithelial scales.

A word or two on an epidemic which recently occurred in this neighbourhood may be of interest, as illustrating the points of distinction between the two affections. The note is based on the observation of considerably over 200 cases. In its mode of onset the disease closely resembled scarlet fever, —headache, sore throat, vomiting, rise of temperature, and quickened pulse. One of the most striking differences between these two diseases is to be found in the pulse-rate. In all the cases in this epidemic its frequency bore a distinct relation to the temperature, being increased as the temperature rose, but where the temperature was but slightly elevated the pulse, as compared with the rapid and excited pulse of scarlet fever, was distinctly slow and quiet. In one case only did it rise beyond 120 per minute, in very few did it reach this figure, and in the vast majority it was but little over 100 per minute.

The rash appeared almost invariably on the first day, though in one or two instances it was delayed till the second. The rash was of a fainter red shade than that of scarlet fever, and more papular, giving rise very commonly to the "goose skin" condition.