retain food by the mouth, otherwise no change. Exhaustion set in on the 6th, and she died on the 7th. The temperature ranged from 99° F. on admission to 100° F. on the 5th of May, and rose on the night of the 6th to 103° F., falling to 100° F. next morning, and rising to 101° F. just before death.

Treatment.—*T. strophanthus*, digitalin $\frac{1}{100}$ gr., with strychnin $\frac{1}{80}$ gr. hypodermically. *T. digitalis*, anti-thyroidin, hypodermically, 3 ii in 10 m doses every 3 hours. None of these had any effect on the pulse. Bismuth mixture and nutrient enemata. Ice bag over the præcordia served to give ease on a couple of occasions by calming the forcible cardiac action.

Post-mortem Examination.—Body much emaciated. Thyroid much enlarged; weight, 215 grammes. Both lobes were equal in size. The isthmus was large, and closely embraced the trachea. Thymus gland persistent, not very large. Heart small, normal; aorta, very small. Lungs: right, normal; left, small cavity in apex. Spleen, normal, adherent to diaphragm. Kidneys: right, normal; left, elongated, otherwise normal. Liver, somewhat fatty. Uterus and ovaries, infantile.

Brain not examined, nor the spinal cord.

Dr. F. C. Purser made sections of the thyroid gland, and reports there was an increase of fluid and dilatation of the spaces, and the fluid was much thinner than normal.

ART. III—*On the Relation of Foetal Heart-beat to Sex.* A Short Monograph. By J. SPENCER SHEILL, L.R.C.P. & S.I., L.M. &c.; late Assistant Master, Coombe Maternity Hospital.

SINCE it is not my intention in this article to discuss the theories of the evolution of sex, it matters not whether the sex of the offspring is determined by any peculiarity of the ovum or sperm, or by the state of nutrition, "genital superiority," or "comparative vigour" of either parent, or again, as Darwin suggests, "an inherited peculiarity;" but my endeavour will be to demonstrate—nature having turned the balance in favour of one or other sex in the foetus in utero—whether or not any reliable relationship exists between the sex and the frequency of the heart-beat in the unborn child.

The question, it is true, is not of any great practical importance, and no wise practitioner would imperil his reputation by predicting the birth of, say, a male child to a woman at present the mother of none but girls; but the subject is of scientific interest, and as most works on Obstetrics state that the normal foetal heart beats at the rate of from 120 to 150 per minute, the slower beat being probably that of a male child, it struck me that, with opportunities to observe hundreds of women in the Coombe Hospital, statistics of cases examined altogether under similar conditions would afford fair evidence as to whether any reliance is to be placed upon the statement that sex of itself influences the frequency of the foetal pulse.

In my list of cases, multiparas and primiparas, those in labour and those not in labour, those at term and not full term, were each considered separately, but with the exception of this differentiation all counts were made under exactly similar conditions, viz.:—By the same observer, when the patient was, and had been for some time previously, resting quietly in bed, and was not nervous or excited; care being taken to avoid making a count when uterine contractions were present or only just past, or after any very vigorous foetal movements had been felt. None of the patients were suffering from any condition which might cause deficient oxygenation of the blood, or had had any recent hæmorrhage.

Before commencing to make the observations, as the outcome of past experience, I laid down for myself the following rule:—In all cases where the foetal heart beats at the rate of 141 or less per minute, under the stated conditions, I shall predict the sex as *boy*, all of 147 and over as *girl*, and those falling between these two figures as *doubtful*.

The following figures—omitting fractions—show the results of the writer's investigations:—

Of some three hundred cases noted under the aforementioned conditions, including patients of all the various detailed classes—*i.e.*, those in labour and those not, &c.—the percentage of correct predictions was fifty-six; of these, counting only the women who were not in labour, the percentage of correct results rose to seventy-three, and, counting the primiparas

only, but ten per cent. of the children proved to be of the opposite sex to that expected. Of all the cases in which the fœtal heart-count fell between 141 and 147 there were exactly as many males as females.

The deductions I have made as a result of these researches are as follows :—

The statement so frequently made in books on midwifery as regards the fœtal heart and sex is quite unreliable and misleading. Practically, I have found that one is *almost*, if not *quite*, as likely to be wrong as right if guided solely by what is published.

But the marked increase in the percentage of correct results, when observing only women who were not in labour, shows that no matter how much care is taken to eliminate any factors, such as “pains,” &c., which might influence the heart-beat, the fact of the woman being *in labour* makes the count less trustworthy.

In the case of primiparas not in labour, the percentage of correct prophesies, rising to ninety, shows that under these particular conditions a fair amount of reliance may be placed on the theory relating to fœtal heart and sex, and that the books would be approximately correct if they qualified their statements by saying that the count refers only to patients who are not yet in labour, and better still, if primiparas only were meant.

But in spite of the encouraging results obtained when dealing with the last-mentioned class of cases, and although the figures may be interesting, the disappointment, perhaps, of the parents if the prediction proved to be fallacious would far outweigh any little credit the attendant might gain if he were right, and my advice to the enthusiastic young practitioner would be summed up in the words, “a still tongue makes a wise head.”