which they were obstructed, so that there would be a reflux of the overflow water from these drains and rat-burrows back into the tank. It is a significant proof that this did happen, that at least two families shortly afterwards complained that the milk "had a bad taste," and that the milk when kept became "not merely sour, but stinking." It is certain that the milk-cans were washed out with water from this tank and a shrewd suspicion may exist that some of it was mixed with the milk; but, if so, it must have been done by the men without the master's knowledge; because if ever water was used for this purpose it was taken from another cistern, which also supplied the house, and the tank water was intended only for washing and stable use. Given, then, milk poisoned with a small dose of sewage, we find that the milkman, his family, and servants, and customers were very shortly afterwards affected with a peculiarly fatal typhoid fever; and the connection between the milk as cause, and the fever as effect, is shown by the fact that the fever was confined virtually to those who drank this milk. The medical practitioners of the neighborhood soon became aware of the existence of an extensive and fatal epidemic in a limited district in the healthiest part of Islington. Of course, all the obvious and usual causes were first suggested, inquired into, and dismissed as untenable. The exposure of new ground in widening the railway, the nuisance of a huge dung-shoot, and the existence of foul drains in houses, were all accused in turn; but it was the milk distribution alone which was proved to be coextensive with the fever. Dr. Ballard ascertained that 142 families, including the milkman's own, formed the "milk walk" or *clientèle* of this dairy. Of these 142, it is known that 70 families were invaded by typhoid in the ten weeks during which the outbreak lasted. In these 70 families were 175 patients, of whom 30 died—a mortality of more than 17 per cent. It was remarkable to see how the typhoid picked out the families supplied from this one dairy, and avoided all the rest. Wherever the fever appeared, it did not attack one, but several members of the household. In certain families, where particular members took no milk, they escaped, whilst others suffered. The women and children, who take most milk, suffered in greatest proportion. A young lady who had a tumbler of this milk daily, whilst the house was supplied from another source, was the only victim in the house. The dairyman himself, and his workmen, who, of course, took the milk freely, were amongst the earliest victims—for this, like other outbreaks, became milder as time went on, and ceased when the business was given up and the cows sold, some time after the death of the proprietor. Meanwhile, the disease was mainly confined to a circle within a quarter of a mile radius from the dairy, whilst the rest of the extensive parish of Islington was virtually free. We have just given the gist of the facts set forth in Dr. Ballard's very able and closely-argued paper, to which we must refer for a fuller narrative. Meanwhile, the notion of *death in the milk-pail* is as disagreeable as it is unexpected.—*Med. Times and Gazette*, Nov. 26, 1870.

43. *Propagation of Scarlet Fever by Milk.*—Dr. BELL, Professor of Medicine in University of St. Andrew's, details the circumstances attending an outbreak of scarlet fever which was clearly traceable to the use of milk poisoned by the desquamating cuticle given off from the hands of infected persons who were employed to milk the cows of a particular dairy. The facts are shortly these. Between the 9th of May and the end of July, several cases of scarlet fever occurred among the servants and students of a certain educational institution, healthily situated, well built, airy, and isolated in position. At the end of July the students dispersed. No fresh case occurred in the place (St. Andrew's) till the 8th of August, when the servant in a family visiting the place, and who had only been there a week, was seized with the disease. On the 9th, a nurse in another family of visitors sickened, and she and five others in the same house were attacked. Having accidentally heard that the boy who brought milk to the college where the disease first appeared had "peeled off the skin," according to his own statement, at the time of the outbreak, Dr. Bell ascertained the following facts. On May the 1st, the wife of the farmer who supplied the milk returned from a visit to a place where two deaths from scarlet fever had occurred, and fell ill within a few days. She milked the cows. After a while, the boy, whose

occupation it was, also, to milk the cows and to take the milk to town, had the disease lightly, and in due time "peeled." He continued all the time at his work. But now comes the interest of the case. On making out a list of the houses in which scarlet fever had shown itself in St. Andrew's, and asking the dairymaid for a list of the houses which she supplied with milk, with one exception there was a perfect agreement in the lists. In every house to which milk had been sent, scarlet fever had occurred. The cases were twenty-six in all. The attack of the members of the two families of visitors is accounted for by the fact that, when the college broke up at the end of July, the milk thus made available for the use of other customers was sent to the very houses in which the visitors resided. We call the attention of our readers to this important and highly valuable piece of investigation by Dr. Bell.—*British Medical Journal*, Nov. 5, 1870.

44. *Epidemic of Chorea Minor*.—By Dr. ROGER, one of the most strenuous advocates of the relationship between rheumatism and chorea (see *Gaz. des Hôp.*, 1870, Nos. 65, 66), relates a case of chorea combined with slight articular rheumatism and defect of mitral valve, in which the choreic movements were confined in great measure to the muscles of the right side, while it was on the left side that the rheumatic symptoms were chiefly observed. Dr. STEINER (*Jahrb. f. Kinderheilk.* N. F., III., 1870) witnessed during the first two months of the year 1870, he tells us, a slight epidemic, nineteen cases, of chorea, the production of which could in no case be referred to imitation, inasmuch as no intercourse between the patients had taken place. As the common cause of the disease, in all the cases, Dr. S. adduces the abnormal condition of the weather at the time the epidemic occurred; its general unusual severity, and the unusually sudden and frequently recurring changes in its temperature; in consequence of which any disorder under which children happened to labour passed over into inflammation, the result, as Dr. S. supposes, of an irritation set up in the spine. In only five out of the nineteen cases was it possible to detect with certainty rheumatic symptoms—partly articular and partly endocardiac. The remaining fourteen cases, therefore, must be received as those of a rheumatic affection of the spinal meninges, unassociated with any rheumatic inflammation of the muscles of the joints, or of the heart.

In the treatment of the nineteen cases referred to, Dr. S. found the bromide of potassium to be without effect. Fowler's solution in combination with opium proved, as heretofore, particularly beneficial in its effects, whether in cases attended with great restlessness or with a state of entire quietude.—*Centralblatt f. d. Med. Wissenschaftn.*, July 9, 1870.

D. F. C.

45. *Clonic Spasm of the Muscles of the Eustachian Tube*.—D. POLITZER, in the *Wien. Med. Presse*, 1870–XX, relates the case of a girl of 12 years, who had experienced for five months, an almost rhythmical ticking sound in the left ear, that never declined in intensity, and which, during the short periods it ceased, could be voluntarily reproduced. During sleep it was entirely unperceived. A hermetically closed manometer tube, containing a drop of coloured fluid, when introduced into the external meatus of the ear, gave no evidence of any movement of the inclosed drop; it was evident, therefore, that the morbid sound in the ear did not result from any abnormal contraction of the tensor tympani muscle. Neither was the ticking sound dependent upon increased arterial pulsation, as it did not correspond in time with the pulsations at the wrist. The cause of the ticking must hence be sought for within the Eustachian tube. On examination a convulsive movement of the left half of the arch of the palate was observed to occur isochronously with the abnormal sound in the left ear. The convulsive movement of the palate ceasing with the cessation of the latter, while the latter was stopped when the velum palati was drawn up and rendered tense during the intonation of the vowels *a*, *e*, *i*, as well as by a voluntary effort of the muscles of the tube. The same has also occurred when by the finger the palate was pressed upwards. The case was evidently, therefore, one of clonic spasm of the muscles of the Eustachian tube. It was cured in a short time by Faradaic electricity.—*Centralblatt f. d. Medicinisch. Wissenschaftn.*, Sept. 17, 1870.

D. F. C.