

ascites was present, but there was intense congestion of the intestines over precisely the same area—that is to say, all the small intestine below the duodenum was affected, together with the ascending colon. The duodenum, the transverse colon, and the large intestine below it were quite free from congestion. Hæmorrhage had taken place into the small intestine, but the fæces in the large intestine were not mixed with blood. The veins of the mesentery were not distended as in the former case. The superior mesenteric vein and artery were free from all trace of ante-mortem thrombosis. The other abdominal organs were quite healthy, but the lymphatic glands in the mesentery were much enlarged. The heart and lungs were healthy. The case was that of a boy, aged four years, who was twice admitted under the care of Dr. Shaw during the space of three weeks. On the first occasion there was considerable abdominal distension with constipation. At the end of about a week, however, he left the infirmary apparently quite well, but was re-admitted three days before death complaining of pain in the back and in the abdomen. The facial expression was that of great collapse. He vomited occasionally, and the bowels were obstinately constipated, but the abdominal distension had not returned. The bowels had not been moved at the time of death.

As already mentioned, the area of congestion of the intestines was precisely the same in both instances. Although in both the congestion in great measure corresponded to the distribution of the mesenteric artery and vein, it did not do so absolutely, since in neither case the transverse colon showed congestion. The absence of thrombosis in the second case is interesting and suggests that the thrombosis in the small vessels of the liver in the first case was of secondary importance. Dr. H. D. Rolleston¹ refers to cases of intestinal hæmorrhage which suggest vascular occlusion, yet no such blockage can be found. He considers that these cases are possibly allied to the peritoneal sanguineous cysts, records of several cases of which I have collected and published in the Guy's Hospital Reports.

I am, Sirs, yours faithfully,

THEODORE FISHER.

"SOME POINTS IN LIFE ASSURANCE EXAMINATIONS."

To the Editors of THE LANCET.

SIRS,—I am glad to see from the letter by Dr. H. Crosby in THE LANCET of Dec. 30th, 1899, that he can name some few life assurance companies which have a question directly bearing upon suppurative ear disease. I was not unaware that a certain proportion paid attention to this detail. Those, however, who read my communication in THE LANCET of Dec. 16th will have seen that my chief point was the absence of any question regarding the temperature, whereas all offices require definite information regarding the pulse-rate. In the cases I quoted it was the slight rise in temperature which led me to postpone them, when in the one case suppurative ear trouble (fatal 10 days later) was discovered and in the other incipient phthisis. I am unaware of any company having a question printed regarding temperature, an omission which, in my humble opinion, is of vital importance. I am, Sirs, yours faithfully,

FRANCIS TAYLOR SIMSON.

Northumberland-avenue, W.C., Jan. 8th.

DIPHTHERIA AND MILK-SUPPLY: A FILTHY HABIT.

To the Editors of THE LANCET.

SIRS,—We all from time to time meet with cases of diphtheria where there seems complete proof that the infection has been conveyed by means of milk. In many cases where no association of the milk with a case of diphtheria can be proved this is attributed to infection from a disease in the cow caused by the same organism as human diphtheria. It seems to me possible that a habit I have noticed among milkers in country places may in many cases offer a simpler solution of the problem. Recent research has brought to light the fact that a micro-organism not to be distinguished from the Klebs-Löffler bacillus is to be found inhabiting the throats of many persons apparently in their usual health and pursuing their

usual avocations. Old-fashioned milkers, specially old yardmen in country places, often moisten their hands with saliva before seizing the teats instead of moistening them with the first drawn drops of milk. It seems to me more than probable that by this means the bacillus of diphtheria may be conveyed from the throat of the milker to the milk. My attention was first drawn to this habit about two years ago on a farm in the East of England where an old yardman when giving me a lesson in milking directed me to begin operations thus. I have since found that this is quite a common custom, though it may be omitted when a visitor is present at the milking. I have never seen this point touched on, though it seems to me worthy of some attention. We are at this present time apt always to look to disease in the cow as the source of infection, though the connexion between disease in the cow and these cases of milk-borne diphtheria is often far from clear.

I am, Sirs, yours faithfully,

ETHEL M. N. WILLIAMS, M.D. Lond., D.P.H. Cantab.
Newcastle-upon-Tyne, Dec. 27th, 1899.

"DEATHS UNDER CHLOROFORM."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 4th, 1899, p. 1227, appears an article by Dr. J. M. Atkinson and Mr. J. Bell giving details of two cases of death under chloroform which seems to call for remark. It will scarcely be disputed that these deaths were not merely accidental concomitants of chloroform administration, but were actually due to the drug, in the sense that they would not have occurred had not chloroform been given. The points of interest appear to fall into two groups—first, those connected with the method of administration, and secondly, those connected with the cause of death. The instrument of administration was in one case a Krohne and Sesemann's inhaler and in the other a Skinner's mask. It is to the use of the former that I wish to draw attention particularly. Two deaths have recently been reported in THE LANCET as occurring when chloroform was given through this inhaler, and Dr. James Edmunds has in recent numbers written on the subject pointing out that it is perfectly easy to kill a man with chloroform out of a Krohne's inhaler. It cannot be too strongly insisted on that by no merely mechanical means can chloroform be given with safety.

A Krohne's inhaler seems to have this advantage—that the wastage of chloroform is minimal, so that most of the chloroform evaporated is absorbed into the circulation, and as a result of this the amount circulating in the blood is fairly accurately known. But to give chloroform or any other drug with safety one wants to know not the amount circulating in the blood but the effect which it is having on the tissues. Accurate dosage does not obviate the necessity of looking carefully for symptoms of danger resultant on the administration of the drug, symptoms which will arise with whatever accuracy of dosage the drug is given. In one of the cases under consideration the very use of the inhaler seems to have introduced a new element of danger. We are told that the patient gasped, the inhaler was removed, and she was discovered to be cyanosed. It cannot be doubted that the cyanosis had not been produced that instant, but the inhaler seems to have covered the face so that the cyanosis escaped notice till it was too late to combat it. If the use of the inhaler means any relaxation of vigilance in the search for symptoms of danger, it can do nothing but incalculable harm, and at its best it is little more than an economiser of chloroform.

As regards the cause of death in these two cases, as is usual the immediate impulse is to fix on the heart as the organ primarily implicated. In one case the opinion is definitely formulated that "the cause of death appears to have been due to the action of chloroform on the cardiac ganglia paralysing them, they being in an abnormal state of susceptibility from some undefined cause"—an opinion for which there is not the slightest shred of evidence adduced. In the other case the report shows that the mind turned to the possibility of fatty degeneration of the heart, but this was found to be absent. Yet in both of these cases the description brings out strongly a common symptom pointing to the respiration as the means by which death was produced—I refer to cyanosis. Can cyanosis ever be compatible with primary heart failure? What does cyanosis mean but that capillaries and venules are distended with deoxygenated blood? If the heart fails primarily how can it drive the

¹ System of Medicine, Allbutt, vol. iii., p. 715.