as to formulate this into a so-called "law," "a positive reaction denotes active syphilis." As a general statement, however, this cannot be correct. Tabes and general paralysis can scarcely be described as active syphilis, yet, as we have seen, the serum in these diseases gives a positive reaction in 70 to 90 per cent. of cases. In the spinal fluid it may be held even to be injurious rather than beneficial, since it has a definite affinity for so important a constituent of normal nervous tissue as lecithin. Further, its occurrence in the serum and spinal fluid of general paralysis and tabes, while it adds another argument to the clinical evidence connecting these diseases with syphilis, in no sense proves that connexion incontestably.

We have pleasure in thanking Dr. Mott for the interest he has taken in our work, and the assistance he has rendered us throughout. We also acknowledge with pleasure the kind assistance given us in obtaining material by Dr. Robert Jones, the Medical Superintendent, and Dr. Hughes, Medical Officer of the London County Asylum at Claybury; Dr. Bond, Medical Superintendent of Long Grove Asylum; Dr. Ingram and other medical officers of the London infirmaries; Mr. Gibbs, Surgeon at the London Lock Hospital; and Dr. Nepean Longridge, of Queen Charlotte's Lying-in Hospital for Women.

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PNEUMONIA MIGRANS INVOLVING THE WHOLE OF BOTH LUNGS, FOLLOWED BY EMPYEMA: RECOVERY.

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THE rarity of acute pneumonia lasting for over five weeks and involving the whole lung area justifies a record of the following case, in which the disease had affected *seriatim* the three lobes on the right side, commencing at the top, and the two lobes on the left side, commencing with the lower, the last involvement, that of the left upper lobe, being preceded by a localized pleuritic effusion. Such a protracted and extensive pneumonia must be a rare occurrence, and it was a matter of surprise to me that even the last phase of the disease ran quite an ordinary course.

On January 4th, 1909, I was asked to see a girl, M. D. F., aged 3½ years, and found her to have quite indefinite symptoms, without any rise of temperature. I was suspicious of pneumonia, as her father was suffering from it in the same house. The next day she had a high temperature (103° F.), but still I could not be sure of pneumonia. On January 6th I detected pneumonia, with all its typical signs, in the right upper lobe. The case progressed in an ordinary way till January 11th, when I observed an extension of the inflammation to the right middle lobe. Two days later much anxiety was caused by signs of heart failure, but happily the heart reacted well to strychnine. The following day (January 14th) there was well-marked pneumonic involvement of the lower lobe on the right side. I noted on January 15th a clearing up of the upper lobe; by January 18th it appeared to be normal. The temperature had kept up till now, varying from 101° to 105° F., but on the evening of January 19th it dropped to normal. The following day it rose to 104.6° F., with clear evidence of pneumonia in the left lower lobe. This fresh attack ran an ordinary course, the temperature only falling on January 29th.

On January 27th I had noted that the right base appeared practically normal. The next spread of the disease was on January 30th, when there were indefinite signs of trouble over the left upper lobe with an increase of temperature. The breath sounds were tubular and distant and percussion was dull; there was no increase of vocal fremitus or resonance. Over the left lower lobe there was undoubtedly no fluid, the breath sounds being tubular and loud with vocal fremitus and

resonance both increased. But I could not satisfy myself as to whether the condition in the left upper lobe was pleuritic effusion, or pneumonia, or both. This was cleared up on February 3rd by exploration through the third interspace in the anterior axillary region when I drew off some perfectly clear yellowish-green fluid. Exploration over the left lower lobe by sterilized needles at different places gave negative results. The child's breathing being very embarrassed, I aspirated the localized effusion over the left upper lobe, withdrawing 12 oz. of clear fluid. This gave much relief and the left upper lobe after the aspiration was quite resonant on percussion. But the temperature never came below 100.4° F., and on the morning of February 4th there was conclusive evidence of pneumonia in the left upper lobe, the resonance being impaired and the breath sounds assuming a high-pitched tubular type. This last attack of pneumonia also ran an ordinary course till February 10th, when the temperature fell to 98° F. after having been up almost uninterruptedly for thirty-six days.

With the child shockingly reduced by the long illness, I vainly hoped that some degree of acquired immunity would succeed in cutting short the latter attacks. The only comfort was that there was no other lobe to become involved. For a week the temperature remained down, but the child was in a pitiful state of weakness. Sickness supervened on February 17th, with a rise of temperature, and the child began to go downhill rapidly. The left base had never regained its resonance, but now it became absolutely dull, with distant bronchial breath sounds. On February 22nd the child's condition was extremely grave, but as the temperature kept down I waited and watched for a day or two longer. An increase of dyspnoea on February 25th induced me to explore the left base, when I found pus. The following day, with the kind assistance of my neighbour, Dr. Menzies of Wolsingham, I resected 1½ in. of the eighth rib in the posterior axillary line under local anaesthesia. I avoided a general anaesthetic on account of the weak and septic condition of the child, and I was more than satisfied with the efficacy of the local anaesthetic. The child lay still without making a cry when I excised the rib. A large quantity of pus was evacuated and two parallel rubber drainage tubes inserted. The case progressed favourably until a week after operation, when defective drainage caused some rise of temperature. I then irrigated the cavity daily for a few days with weak perchloride solution, followed by saline solution, and this brought away considerable masses of stinking pus clot. The after-progress was uninterrupted. Six weeks after operation she was healed up, strong, and running about with an expanded left lung.

I regret that nothing was attempted in the way of vaccine treatment, but in a scattered country practice such a refinement is hardly practicable.

THE CAUSES OF OBSTRUCTION PRODUCING CYANOSIS DURING THE NASAL ADMINISTRATION OF NITROUS OXIDE.

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AFTER careful observation and examination of some thousands of gas administrations I have come to the conclusion that cyanosis in ordinary cases is merely mechanical, being mainly due to the size and shape of the palate and tongue.

The tongue varies from the large flabby to the compact muscular variety. While at rest, when the tip of the tongue is on the posterior surface of the lower incisors, the base of the tongue in the former variety may be ½ in. above the level of the grinding surface of the second molars, in the latter it may be well below the junction of the tooth and gum margin. The importance of the soft palate is its variable length; it may overlap the base of the tongue by an inch, or it may be separated by an aperture of an inch.

I. When these structures give rise to the greatest obstruction to free breathing, the patient has a large flabby tongue and a long, overlapping soft palate; the distance between the two is slight, or they may be in contact. Even to start with, the patient may find some difficulty during expiration, as the oro-pharyngeal aperture (by this I mean the aperture bounded above by the soft palate, at the sides by the pillars of the fauces, below by the base of the tongue) is small. Immediately the soft palate loses its tone, being placed at a sloping angle with the base of the tongue, it acts as an inspiratory valve, and is pressed down on the base of the tongue during expiration. This state of affairs may easily be brought about much earlier if gas is given under much pressure through the nose-piece, as the gas passing back into the