to each other, and the ocular and palpebral conjunctivæ, except over the corneæ, were also agglutinated; the crystalline lens was amorphous, and like calves'-foot jelly in colour and consistence; pigment was deposited upon the posterior aspect of the iris in abundance; the lungs lay at the back of the chest, but slightly overlapped the pericardium, they were of a purplish-red hue when first exposed, but became in an hour or two more florid, they sank in water both entirely, and, when divided into small pieces, were nowhere crepitant, and broke down under the finger and thumb when firmly compressed; the foramen ovale was completely open; the ductus arteriosus presented no traces of the conical form it is asserted by Bernt to assume even after a few seconds of respiration, its calibre was about the same as that of the arteria innominate in the same subject; the pulmonary veins contained blood; the ductus venosus and hypogastric arteries were as pervious as in a still-born infant; the kidneys were botryoidal on the surface, having been but little transformed from the lobulated form of early intra-uterine life; the intestines contained meconium, which appeared at the anus; the nails on the hand were tolerably well-formed, but, on the toes, except the great toe, were hardly to be distinguished.

On examining a section of the lung under the microscope, no vesicular appearance could be detected, nor even any air-passages, except bronchiæ of considerable size; blood was extravasated into the parenchyma in considerable quantities. I attempted in vain to insufflate the lungs; gentle efforts had no effect in expanding the vesicles—if indeed, at such an early stage of development, vesicles exist—while more energetic efforts ruptured the parenchyma, and forcing passages through it, produced bullæ under the pulmonary pleura.

The mother menstruated for the last time during the second week of July, as freely and for as long a time as usual, so that, giving the date of conception at as early a period as possible, the fœtus could only have been at the sixth month (plus four or five days) of intra-uterine life, unless indeed we suppose conception to have taken place before the catamenia appeared, which is so contrary at any rate to the general rule, that unless good evidence appears to the contrary, we are justified in assuming the ordinary course of events to have obtained. The length of the fœtus was somewhat over the usual measurement at the sixth month; but the mother was a large and well-nourished woman, and hence I am inclined to consider the fœtus a well-grown one of the age before stated.

The points of interest in this case are obviously:

1. The consideration that life might have been destroyed without, as far as medical evidence is concerned, there being any proof of the crime.
2. That live birth is not, in every case, accompanied either by expansion, in any degree, of the vesicular structure of the lungs, or by narrowing of the ductus arteriosus.
3. The mode in which respiration was carried on for five hours.
4. The mode of death.

I shall only consider the last two points. With regard to the mode of respiration, there would appear to be but two ways in which it could be accomplished—viz., through the delicate mucous membrane of the trachea, bronchi, and secondary divisions of the air-tubes, and by the skin. At such an early stage of development as had been attained in the case in question, I apprehend that the extreme tenuity of the mucous membranes, epithelium, and capillary walls, would present very similar physical conditions to those which obtain in the air-cells and intercellular passages of the full-grown fœtus, or probably the tissues intervening between blood and air in the former case might be found even more permeable by air than the fully developed vesicle wall. The comparatively free movements of the thoracic parietes is abundant evidence that whatever air found its way into the air-tubes was changed *pro rata* as well as in any other fœtus; and that the quantity (owing, perhaps, to the extensile properties of the young air-tubes) was by no means inconsiderable, is evidenced by the loud cry of the infant. Physiologists have for some time been acquainted with the fact, that animals enclosed in a caoutchouc bag, the head only being exposed, speedily die asphyxiated; and from a comparison of experiments made upon animals whose integuments differ in thickness and moisture, it appears to result that the *thinner* and *moister* an animal's skin is, the greater is the proportion of carbonic acid exhaled from it. Keeping these two circumstances in view, it is evident that if skin in the adult exhale carbonic acid, skin in the fœtus, especially if immature, being better adapted to the performance of the function by its physical properties, must exhale an increased proportion of the gas. From the experiments made

on this subject, it is quite evident, to speak in general terms, that in so far as the function of gaseous interchange is concerned, the skin is the complement of the lungs; and the nearer the physical conditions of the former approximate to the latter, the greater will be the share taken by it in the performance of the function.

The mode of death was evidently asthenia, but *not*, I believe, asthenia affecting the heart. It is a general law, that involuntary muscles, acting under *normal* conditions, are insusceptible of fatigue. In the case before us, however, it is evident that the amount of nervous force consumed in the attempt, under great difficulties, to effect distension of the lungs, must have been wholly disproportionate to the power of generating such force possessed by the respiratory centres; and, in addition to this, the expiratory movements must have been effected by muscular contractions, almost unaided, for the elastic recoil of the thoracic parietes, which ordinarily produces expiration, would, in this case, be wanting, the ribs never having been lifted, as it were, into the position which, owing to their curves, they would rest in when uninfluenced by muscular action. A position corresponding to that which the ribs would assume in a dead child, which had completely respired. The mode of death might, I think, be stated thus: "Inspiration and expiration having each been effected by muscular action *alone*, in an imperfectly developed child, and under physical disadvantages, death ensued from exhaustion of the respiratory centres, and consequent gradual cessation of the respiratory movements."

St. Mary's Hospital, January 22nd, 1855.

A Mirror

OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.* lib. 14. Procrimium.

ST. BARTHOLOMEW'S HOSPITAL.

CHRONIC LUMBAR ABSCESS.

(Under the care of Mr. STANLEY.)

A VERY instructive case, in a practical point of view, is in one of Mr. Stanley's beds—an instance of abscess in or round the head of the psoas muscle, pointing, when it has been opened with a lancet, just at the margin of the ribs on the left side. The obscurity and slowness of all cases of lumbar and psoas abscess is almost proverbial, and for a time grave doubts existed as to the real nature of the disease in this patient. Amongst the curiosities of St. Bartholomew's Hospital, Mr. Stanley stated last week that he once opened such a swelling in a man, an *externe* patient, who walked apparently quite well to the hospital, and was working every day up to that time as a shoemaker; yet he had opened into an empyema, the pus continuing to flow for hours from the pleural cavity. In the present case Mr. Stanley was obliged also to plunge the lancet much deeper than it was at all agreeable to go. The nature of the case, however, was then at once cleared up. The boy has since, in fact, quite recovered his health and ordinary appearance.

J. B—, aged thirteen, was admitted into St. Bartholomew's Hospital on the 29th of November, with various anomalous symptoms, of which he could give very little history. His chief complaint seemed a pain and heaviness in the side. He stated that about August (three months from the present date) while jumping over a wall, he strained his back very severely, and he has never been right since. Mr. Paget, on examining him, seemed to think there was some injury to the muscles, or perhaps to the upper part of the psoas, where this muscle arises from the intervertebral substances, bodies, and transverse processes of the last dorsal and upper lumbar ver-

tebrae. The boy has been blistered, and also had leeches on before coming in, but all seems of no avail. It is proposed at present to keep him quiet, and watch the case. A little simple, cooling mixture was ordered, and milk diet.

Dec. 22nd.—About a month after there seemed no very manifest change. He has been ordered syrup of iodide of iron, and porter, expecting it is scrofulous, and may yield.

Jan. 12th.—Suppuration is advancing. Still to get nourishing diet. Hot poultices applied.

25th.—To-day Mr. Stanley, not without some trepidation, opened the swelling, when six ounces of pus were obtained, evidently coming from the region bordering on the peritoneum. The most curious point in the case, perhaps, is the immense time from the original injury, now five months, and the maturation of the abscess.

We should not confound this case with ordinary psoas abscess, so often met in practice, in which there is a large collection of matter found in scrofulous patients in the cellular substance of the loins, descending in the course of the psoas muscle, opening at Poupart's ligament, or even descending lower along the fascia of the thigh, with all the bad results which so usually follow such a state of things: there we usually have diseased vertebrae and scrofulous affections of other parts to guide us, but in the present case the chief interest seemed to centre in the absence of all such indications, and a want of reliable data, as Mr. Stanley observed, which in private practice in such a case—for instance, a gentleman, out shooting, jumping over a wall—might be very perplexing and puzzling. Cases of this kind, or even of common lumbar abscess, we may say, in conclusion, will require more than ordinary care. Mr. Abernethy usually looked on such abscesses, indeed, as only next door to pus effused into the serous cavities themselves, and accordingly treated them with the greatest care. Before his time such abscesses were allowed to burst themselves, or large openings were made; the pus encouraged to flow *pleno rivo*; a large gaping wound like an issue left, of which the patients died from the putrefaction of the contents of the abscess, and the consequent fever and constitutional irritation. In place of all this, the more correct practice of the present day is to make a small valvular incision, which should be healed by the first intention on the evacuation of the pus. Even if it fill again, the same process is to be gone through; all probing of the parts also to be carefully avoided. The cyst thus becomes more indolent, appears smaller and smaller, and finally, in place of the patient dying exhausted of fever, the cyst becomes obliterated, and he speedily recovers.

GUY'S HOSPITAL.

PNEUMONIA TREATED BY BLEEDING.

(Under the care of Dr. ADDISON.)

We have noted with some care, this and last week, two cases of pneumonia, treated on precisely opposite principles, yet both doing well. To the superficial observer, it might appear there was no guiding principle in medicine, and that, if in one case bleeding was had recourse to, while in the other it was strictly prohibited, our views were antagonistic; yet nothing could have been farther from the truth—nothing, in fact, more scientific than the treatment in both cases. In no other disease, perhaps, but pneumonia, could the usefulness of the discrimination observed be so beautifully shown. One case, recovering fast, is under the care of Dr. Addison, at Guy's Hospital; the other, under the care of Dr. Parkes, at University College Hospital. We place them together, in order to show the contrast, and the lesson the contrast teaches. In Dr. Addison's case, in the early part of the week, we could hear quite clearly what Dr. Addison thought level to the meanest capacity, though some of his clinical class had previously doubted its existence—namely, what for a better term he called *râle crepitant redux*, indeed, in a very limited form, the lung having been previously blocked up from pneumonia, and dull.

W. B—, aged twenty-five, was brought into Guy's Hospital, on the 24th of January, suffering very severely from what proved to be bad pneumonia, with some pleuritic inflammation. He had been very much exposed to cold and wet, about Christmas, as a carman; he lives at Norwood; has hitherto been very healthy; his breathing is very much oppressed; his pulse quick, and quite of a pneumonic character; he is thirsty and feverish; his expectoration tawny or rust-coloured, viscid, and presenting that intimate mixture of mucus and blood so pathognomonic of pneumonia; he has pain in the chest, and lies on his right side. Dr. Addison ordered

him to be bled to twelve ounces; the blood, as we saw it, was peculiarly cupped and buffed. It is curious, as observed at the time, that Louis believed venesection had little influence over pneumonia, other observers trusting to it almost alone; in the present case, the effect was most beneficial. Dr. Addison also ordered him calomel and tartar-emetic every six hours, with arrowroot as diet. In fact, we had here the ordinary treatment of early pneumonia.

Jan. 26th.—He appears much relieved to-day; takes his medicine; bronchial respiration.

27th.—Marked amendment; *râle crepitant* again audible in the posterior part of the right lung, where all had been blocked up previously, the percussion-note previously dull, with bronchial respiration, and signs of advancing hepatization.

29th.—Quite improved; the *râle crepitant redux* quite remarkable; the bronchial breathing disappearing; the returning crepitation is, in fact, quite large and loud, possibly depending on an œdematous state of the lung. The bleeding and tartar emetic have in all probability saved his life.

It is somewhat singular, that, as a general rule, pneumonia is not a disease often met in hospital wards. Mr. Erichsen, it is true, once pointed out a sort of passive pneumonia as the cause of death after surgical operations, in twenty-eight cases out of sixty-two post-mortems after surgical operation, as also in typhus fever, this form of pneumonia, with crepitation, having been found to exist, the general torpor of such patients too often masking the disease till too late. Bleeding, to be of use in pneumonia, perhaps it cannot be too often said, must be tried early, in that first stage of engorgement or splenization of the lung, where, however, we unfortunately are so seldom consulted.

In the second of the three stages of pneumonia, we have hepatization, as we shall speak of immediately. The lung now contains no air; the percussion-note is dull; the cut surface of the lung exhibits exudation into the lung-tissue of the albuminous constituents of the blood, in, perhaps, the interstitial spaces, not, as Rokitansky rather startlingly lays down, like croup, into the air-cells themselves, this exuded fluid, we need scarcely say, as in all such inflammatory products, displaying a granular blastema, and exudation-cells. Nature, as Mr. Simon well explains it, though suffering partial death of parts, brings also, as it were, elements of repair, if inflammation itself be not only a disturbance of ordinary nutrition, or running parallel to it, the third stage of pneumonia, with its pus-corpuscles, granular matter, exudation-cells, and epithelium, being only a still further advanced condition of the second stage. We do not now speak of the crepitation of pneumonia, mingling or not with ordinary vesicular murmur, as the sign of the first stage, nor of bronchial respiration that of the second; these are doubtless familiar to the practitioner and clinical student.

UNIVERSITY COLLEGE HOSPITAL.

PNEUMONIA TREATED BY WINE AND AMMONIA.

(Under the care of Dr. PARKES.)

We now give a case of pneumonia in a young woman, treated by wine and ammonia, with equal success:—

H. M—, aged twenty-four years, was admitted into University College Hospital in the early part of January. She states, that on New Year's-day she was attacked with sudden and severe pain in both sides of the chest, with severe dyspnoea and cough, which continued for three days, with expectoration of thick reddish matter. In the previous October she says she had a feverish attack, attended also with cough; and five years ago suffered from acute rheumatism. Her father also died of consumption.

January 10th.—Seen to-day by Dr. Parkes, and carefully examined. She is found to have double pneumonia, of a very bad kind, at the base of the lungs: both lungs, in fact, hepatized. Her respirations are 78 in a minute! four times the natural amount. Her breath is foetid; lips discoloured and cold; pulse intermittent and so quick it is impossible to count it. The woman was apparently dying. This was a case, as was well remarked by Dr. Parkes, where bleeding would have made matters worse; and yet where some practitioners would order it. On the contrary, he ordered her brandy, carbonate of ammonia, and wine. In the first twenty-four hours she took ten ounces of wine, thirty-six grains of carbonate of ammonia, and two drachms of compound spirits of sulphuric ether. No calomel, or tartar emetic. Eighteen hours after admission it was found the pulse could not be counted, it was so quick. The respiration had fallen, however, to 64. She had become drowsy.