

The dyspnœa had not increased; his colour appeared somewhat more natural; pulse 84, and of good volume; he moaned much in his sleep, and was frequently bathed in cold perspirations; very trifling cough, and no expectoration. The stethoscope indications much the same.

He passed a bad night; his countenance looked more distressed, pulse 130, moans a good deal, yet says he feels easier. *Has been mostly lying on his left side since yesterday.*

He died during the following night.

The autopsy was performed in presence of Dr. Campbell, by Dr. Long, with great care. The figure of the chest was natural; there was no bulging out of the ribs, or intercostal spaces. When the right cavity was opened, the lung was found collapsed or compressed into the smallest possible size, lying along the spine: it appeared about the size of the closed hand, and did not contain any air. There was no fluid nor any other visible contents in the cavity, nor did any air issue from it perceptible to the senses. The left lung did not collapse, as usual, it appeared mottled, and of a bright red colour. It adhered, by a considerable extent of surface, to the pleura costalis, in consequence of a recent effusion of lymph, which was easily broken down. Its substance appeared somewhat engorged with bright blood; two ounces of serum were found in this cavity. The lungs and bronchi were removed with great care, and inflated by means of a blowpipe; they both filled well, and, although they were rendered emphysematous, not the slightest trace of rent could be discovered, or means by which air could have escaped into the pleural cavity. The right lung was in a perfect state of health, with the exception of a few granular bodies on its substance. The heart was healthy, and in situ. The liver healthy, was pressed down into the abdominal cavity several inches below its normal situation. The veins of the injured arm were examined minutely, and found healthy. The wound caused by the chisel was found to have communicated with the joint, and the cartilages were becoming absorbed in two or three places.

REMARKS.

It would appear that death was caused in this instance by the unfortunate coincidence of both lungs being simultaneously involved—the right being rendered wholly useless by the pressure of the air in that pleural cavity, while the function of the left was seriously inter-

rupted in consequence of its congested state, and the adhesions it had formed with the costal pleura. Pneumothorax as an idiopathic affection, independent of any lesion of the pleura, or of the decomposition of effused fluids into the chest, or of transudation, *post mortem*, is an extremely rare affection, and by some deemed very problematical, if not denied. On the present occasion, its existence for several days before death, and its independence of any of the before-mentioned causes, is unquestionable. Collections of air have occasionally been met with in the cavity of the peritonæum (tyimpanitis abdominalis), which, in the majority of instances, were traceable to perforation of the intestine. On some rare occasions, however, no manifest cause could be assigned, and a few authors have ventured the opinion, that serous membranes are capable of secreting gas, like the bladder of the fish; and this view we readily adopted, on the present occasion, as the only probable explanation of this rare affection. In like manner, we must explain the gaseous formation which takes place in the uterus and bladder. We know that enormous quantities of gas are occasionally rapidly generated in the intestines in cases of hysteria, fever, peritonitis, and some other affections, which we cannot attribute to fermentation, and we even see these to be as rapidly absorbed or removed without passing by the more obvious outlets; but these subjects are still in obscurity. A question here suggests itself—Did the two very dissimilar exhalations from the pleura originate in one and the same cause? and are they not both referrible to a low inflammatory condition of this membrane? If so, we can understand the more frequent complication of pneumothorax and empyema to depend both on a vital action, and not, as is generally supposed, the former to be the consequence of decomposition of the effused fluid.

It is somewhat remarkable, that towards the termination of the case, the patient lay on the *left* side, thereby increasing the impediment to respiration, by pressing on the side by which the function was principally performed. Nor can we explain the circumstance by supposing that, by confining the action of the side, he thereby avoided pain, as he never appeared to suffer any. The case was, throughout, obscure, as it is also of extremely rare occurrence.