"exhalation" from the vsssels of the pleura involved. Then also its occurrence was explained by the process of gangrene of the pleura or by a process of decomposition in the pleuritic exudate found so often in such cases. A third explanation had reference to the most common condition—that of *perjoration*—which is now the only recognized immediate cause.

Lænnec, who first taught directly concerning the presence of air in the pleura, described the cases under three classes: (a) Simple or essential pneumothorax; (b) the presence of air or gas together with fluid effusion; (c) air or gas with fluid effusion and a fistulous opening communicating with the bronchi.

Thus two forms may be included under the division of non-perforative pneumothorax, while the other, form (c) is classified as the perforative variety.

Concerning the first form, essential pneumothorax, authors did but little more than hint at the possibility of the secretion of air or gas by the pleural sac. Walshe, in speaking of the development of tympanitic sound over a pneumonic area asks, whether the phenomenon can depend on temporary secretion of air by the pleural sac. In referring again to this point in another section of his work on Diseases of the Lungs, he says : "It seems admissible as a bare possibility . . . tympanitic resonance may be caused by air secreted by the pleura." This teaching, never positive however, has long since been regarded as fallacious, and thus one form of Lænnec's classification has passed away. Such an origin for the gas is physiologically impossible.

It was contended by Jaccoud in 1864 that there was no evidence for either form of non-perforative pneumothorax, but such cases were most likely due to minute pleural perforations which soon closed and the air was absorbed. In this opinion many high authorities concurred, among whom may be mentioned the names of Fagge and Powell.

Quoting from the former author we find as follows: "Most writers have admitted that in exceptional cases gases may be found in the pleural cavity as the result of chemical decomposition of liquid effusion, and perhaps by direct secretion (or rather exhalation) from the lining membrane. Such notions, however, accord ill with the general doctrines that are now held by almost everyone—and as neither of these supposed causes of pneumothorax has in its favour, the slightest clinical evidence, we may now, guided by the experience of more than half a century, reject them altogether, and assume that air is never found in the interior of the pleural space except as the result of a