facts can be considered worthy of our attention, *i.e.*, certain experiments on the pleura and Von Fleische's theory of the heart-beat aiding the oxidation of the blood. A certain London physician (*New York Med. Record*) in experimenting on a large number of living dogs by opening the pleural cavity found that collapse of the corresponding lung occurred in a very small percentage of cases. But if the dog were dead for any length of time before the operation, the corresponding lung invariably collapsed. He offers the following explanation that the pleural secretion has the power of keeping the pleural surfaces in apposition during life. Our former teaching in Physiology has done much to retard the surgical treatment of disease of the pleuræ by warning the student and surgeon that opening this cavity would be followed by collapse of the lung.

With regard to the heart-beat aiding the oxidation of the blood, Prof. Von Fleische, of Vienna, has lately advanced the theory that the jar given by the heart to the blood is an important factor in freeing the latter of carbon dioxide. He bases this theory on the law of Physics, that a fluid holding a gas and solution or weak chemical combination having suction applied to its surface will very readily give off its gas if it be subjected to a smart blow. This would lead one to believe that blows to the chest in a feeble heart would aid in the elimination of carbonic dioxide.

2. *Cardiac Physiology.*—Much work has been done in America by Mills of Montreal and Martin of Baltimore in this department. Mills' paper read before the Canada Medical Association, on a plea for a better cardiac pathology, did not receive the credit it deserved. Da Costa's recent discovery in pathological anatomy of a nervous origin to the heart complications in Bright's disease was well foretold by Mills in this paper. Prof. H. Newall Martin, of Baltimore, has demonstrated by carefully conducted experiments on the coronary arteries of the heart that they fill by blood pressure alone and their pulsation is simultaneous with that of the carotid. It must follow, therefore, that in disease of the aortic valves, whilst good blood pressure is being maintained there can be no degenerative changes in the heart muscle unless the coronary arteries are themselves affected.'

Gaskell (Jour. Physio. Vol. VII., p. 451) makes some interesting investigations into the electrical changes of a quiescent cardiac muscle. He maintains all tissues are supplied by two sort of nerves which he named anabolic and catabolic. The function of the first is inhibition, of the second contraction. These ideas he attempts to confirm by vagus stimulation. Stimulation of the vagus in the neck of an animal provokes a positive variation in the muscle of the auricle; while contraction of the same muscle is accompanied by negative (electrical) variation. By using a small dose of atropine in a partly detached portion of auricle (heart of a tortoise) paralyzing the inhibitory action and operating during repose, the positive variation was prevented when the nerve was stimulated. By the anabolic process, Gaskell means that the muscle fibre is undergoing nutrition, and that while so doing it is incapable of work. Inhibition means, therefore, storage of nutrition in the muscle fibre, while contraction or catabolism breaks down the products of nutrition. Inhibition of the heart being a nutritive process would not frequent stimulation of the vagus be proper treatment for degenerative changes in the heart muscle?

3. *Digestion.*—Bacteria in relation to digestion have been receiving a goodly share of attention. Pasteur published in August last his researches (*L'Union Medicale*, August, 1887), on seventeen kinds of bacteria (found in the mouth) on articles of diet. Seven dissolved albumin, ten fibrin, six casein and seven partly converted sugar into alcohol. Pasteur's conclusions were that many micro-organisms were useful in digestion. But these conclusions stop short of the truth. True enough, bacteria convert proteids into soluble material, but this material will not only fail to nourish but in many cases act as an irritant poison to the tissues. These toxic products of mycology are now known by the name of ptomaines. Since Pasteur found and cultivated six of these bacteria from the fæcal matter there can be little doubt that ptomaines are generated in a healthy intestinal canal, through more freely in a catarrhal condition. How, then, is a toxic condition prevented in a normal body? Roger, of Paris, (*Gazette de Hôpitaux*, 1887), has proved that ptomaines and medical alkaloids are destroyed to a great extent in the liver, so much so that the latter are twice as potent given subcutaneously as by the portal vein. Rogers brought forward facts to prove it was the glycogen which exercises this protective function. The liver