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may seem to have occurred in the last twenty or twenty-five years. It has, however, been in good fortune. The general advance of chemistry, especially since 1850, and in particular the improved methods of gas analysis due to Bunsen the improvement in apparatus, spectrum analysis, etc.—have all contributed to the advance of physiological chemistry.

The publication in the second half of the fifth decade of this century of Virchow's "Cellular Pathology," together with the researches of Max Schultze on the structure of animal cells, which soon followed, though of no direct bearing on physiological chemistry, yet afforded new points of view. The researches of Pasteur and his pupils and opponents, from the beginning of the sixth decade onward, have had a notable influence on physiological chemistry.

These researches, though as yet abounding in obscurities and uncertainties, have still given results of the highest value for the technique and for medicine.

The treatment of wounds to the exclusion of infection, the relation of sepsis to operative surgery, and the discovery of micro-organisms of definite character in the blood in certain diseases, are of a value well recognized. There is no limited region of natural science which at the present time attracts zealous investigators in so great numbers as the microscopic determination of the conditions of life and propagation of these micro-organisms. Botanists, chemists, physiologists, normal and pathological anatomists, surgeons, pathologists, and hygienists contend in the race in this realm of investigation.

Difficult is it to separate the chaff from the wheat. Owing to the extreme minuteness of these organisms, their anatomical investigation and certain separation are very difficult. But the difficulty is greatly increased, owing to the power many of them possess, according to the conditions under which they are found, of developing into entirely