

The microscope was in the hands of experts, but few students were trained in its use. Then, and for many years to come, the methods of diagnosis, of differentiation between the hitherto apparently similar states of ill-health, as well as the means of successfully treating and preventing many formidable and most fatal diseases, which have of late years flowed in so full a flood of the still very young bacteriology were, as a matter of course, unknown and undreamt of. The only guides for the physician and surgeon in charge of acute and dangerous illness were the pulse rate, the state of the tongue, and the general aspect and behavior of the patient, for even the clinical thermometer and the temperature chart were not yet devised. That pedantic word *gynaecology* was still uninvented, and the diseases of women were dealt with almost entirely by the physician with the aid of the drugs of the pharmacopoeia. Typhoid was only beginning to be generally differentiated from typhus fever; both were abundant in all large centres of population, and the latter claimed among its victims large numbers of medical practitioners and students, for the subject of public health was in its infancy and was neither known, practised nor taught, as we now understand it. Every wound, whether accidental or made by the surgeon, with extremely few exceptions, discharged pus freely; and putrefactive changes occurring in all of them, produced in the atmosphere of every surgical ward, no matter how spacious and well-ventilated, a fetid sickening odor which tried the student on his first introduction to surgical work more even than the unaccustomed sights of the operating theatre. In every surgical clinique death held perpetual court, for wound-begotten diseases—hospital gangrene, pyaemia, tetanus, and the rest of that fatal brood, which, thank God, are now to all intents and purposes banished from surgical practice—were never entirely absent, at any time, from the hospitals of that day. No matter how carefully and skilfully an operation was performed, the issue was looked forward to with anxiety and dread. Few of those who did recover did so without serious episodes in their illnesses and disquieting complications of some sort. All suffered from pain and fever, more or less severe, and convalescence was only reached after weeks or months of distressing experiences of many kinds. I have myself, when a student, seen no fewer than five patients suffering from pyaemia which followed amputation for injury, die in the course of one week in a single ward of twenty beds, while other instances of the same disease and of hospital gangrene lay around them. Probably few of you may see more than five amputations of injured limbs during all your studentship—so great has been the progress of conservative surgery—and those which you do see, if only the patients survive the shock of their original injuries, will probably all recover.