

partments of natural science. But with such leading doctors as Cullen, Black, and Hope, as professors of chemistry, and physicians in the Scotch colleges as early as 1750, "it could not be but that a great impulse should be given to the idea that a physician was bound to learn something which could be dignified by the name of science." The lecturer continuing, said he wished especially to point out "what is still wanting in the training of the physician." While it may be that the tendency of modern scientific methods is to be hard and ungenial, and to make of suffering man a mere "case" to be watched and observed; yet surely such were much better than to slavishly follow scholastic traditions or mediæval superstitions." A primary difficulty in even the best of medical teaching has arisen from a neglect of previous training in the scientific basis of all technical studies, viz., the laws of matter and the correlation of forces. He says, "I think, that some kind of systematized instruction in physics, and not a merely elementary examination in mechanics, should be an essential part of an education with a view to the medical profession. And when we consider further that most of the great advantages in medical diagnosis in the present day, through the stethoscope, microscope, laryngoscope, . . . electricity, as applied to nerve and muscle, etc., involve applications of pure physics which are neither remote from practice nor yet very easily mastered by the beginner; and that, in the case of electricity and other physical reagents, even heat and cold, etc., we are every day extending the domain of these sciences in therapeutics, *and still more, perhaps, in preventive medicine and sanitary science*, their claim for an extended recognition in teaching seems enormously enhanced. I am persuaded that in a very few years the physical laboratory will become an absolutely essential preliminary step in the education of the physician of the future, and that those who have not undergone this training will be hopelessly distanced in the race." But a difficulty far greater than this last of systematic training of students is "the largely unprepared state in which the minds of most boys and young men are found at the time of their leaving school, as regards the most elementary truths and methods of physical science and of the observations of Nature." So late as 1884, The Technical Commission reported only three schools in Great Bri-

tain in which science is fitly and adequately taught. A return to the House states "that while twelve to sixteen hours a week are devoted to classics, two or three hours are considered ample for science, in a large proportion of the schools." Apropos of this the writer quoted the opinion of an old Scotch-woman of one of her boys at the parish school, "Sin' ever he gaed to the schule, his edication's been stopit a' thegither."

A concluding section is devoted to the relations of the searchers into Nature to religion, and after humorously referring to Chaucer's description of the "Doctour of Physike," and quoting the final lines of the description,

"Wel knew he the old Esculapius,
And Dioscorides and eke Rufus,

"His studie was but little on the Bible."

he says we have, yet even, to deal with this the stigma of materialism as physicians or students of Nature. Referring to such articles as one in a recent number of the *Contemporary Review*, Dr. Gairdner says, "That the active ministry of the *healer*, if fitly and diligently pursued in a serious, and not in a sordid spirit, cannot possibly tend to irreverence, or what I would call essential atheism or godlessness, is, I think, so obvious that it is only wonderful that any doubt should ever have arisen on the subject." To him, seekers after Nature, such as Charles Darwin, approach the divine in spirit, and are men of the very stuff and moral fibre of which the most eminent saints are made. Thereafter in lofty and eloquent language follows loving expressions of regard and reverence for this great seeker after truth. Referring to the mediate position of the physician, the writer says in words with which to conclude the abstract of this splendid address: "Although he can never again become what he was in the early ages, the sole, or the chief representation of physical science; he must always be, and must have become more and more, a man trained in its discipline and familiar with its resources: while on the other hand, his close relations with suffering humanity, and with the awful and solemnizing ministrations of life and death, will serve to keep him in a region apart from that of pure science, and one in which from day to day, the voices of the unseen world (if he will only listen) will be ever sounding close to his ears."