Address.

THE HEALTH AND LONGEVITY OF MEDICAL MEN.¹

BY FRANCIS MINOT, M.D.

MR. PRESIDENT AND GENTLEMEN: In thanking you for the honor you have conferred upon me by inviting me to address you on the occasion of your annual meeting, I need hardly allude to the advantages, both to the profession and to the community, of an association like this, including so many of the most eminent medical men of the State. In no way is the science and practice of medicine better promoted than by the frequent intercourse of physicians, who are thus enabled to contribute to the common stock of professional knowledge the results of their personal observation on the nature and the course of the various diseases to which we are liable, as well as their experience in the modes of treating them. Such meetings are also valuable as a means of maintaining the dignity of the profession, of making it worthy of the respect of the public, by showing that the great object of medical science is the prevention and cure of disease and the relief of human suffering. I need not dwell upon the pleasure of personal intercourse and social enjoyment which an occasion like this affords.

In offering for your consideration some remarks upon the subject of the health and longevity of medical men, I shall endeavor to point out the advantages we possess over other professional men, as well as the dangers to which we are especially exposed, and the best means of their prevention.

It would be reasonable to believe that the health of professional men, that is of ministers, lawyers and doctors, ought to be as good as, if not better, than that of the rest of the community. They have good food, good clothing and good shelter. They are generally fully occupied, but only exceptionally overworked. They are usually free from the trials and anxieties of political life. Money-making is not often a passion with them. Comparatively speaking, they are but little subjected to temptations of excess and immorality, which are the sources of a considerable part of the diseases of mankind.

Both observation and investigation confirm this impression; and in respect to longevity, we find that lawyers, ministers and doctors rank among the highest in the different classes of society. Some interesting figures relating to this subject are contained in the Massachusetts Registration Report for 1885, prepared by Dr. Frank Wells (the latest which I have at hand), and, at the risk of wearying you with such dry details, I will venture to quote them. The average age at the time of death of nearly 230,000 persons whose occupations were specified (including only those individuals who were over twenty years old at the time of death), during a period of forty-two years and eight months, in the State of Massachusetts, was 51.82 years. Now we find that, of these 230,000 persons, the clergymen, professors, lawyers and physicians have a decided advantage over all the others. Dr. Wells's tables include a total of 4,495 such persons, and their average age at the time of death was over fifty-nine and one-half years, distributed as follows: judges and justices averaged 66.17 years; clergymen, 60.31 years; pro-

fessors (classified as distinct from teachers), 58.44 years; physicians, 56.51 years; lawyers, 56.41 years. Thus we see that, in respect to longevity, professional men, in a community in which the physical comforts of life are probably as evenly distributed as in any other part of the world, have but little to complain of.

Comparing the duration of life in the three professions of divinity, law and medicine (in Massachusetts), we find, according to Dr. Wells's report, that clergymen (averaging 60.31 years) have the advantage of about four years over the others. (I leave out the question of the average for judges and justices, which being based upon an aggregate of only forty-six persons is hardly trustworthy.) Professors (classified as distinct from teachers), with an average of 58.44 years, come very near ministers; while physicians and lawyers, who are almost exactly alike in their expectancy of life (56.51 years and 56.41 years respectively), are lowest in the scale.

These ratios differ somewhat from those which obtain in England. The clerical profession stands there, as with us, highest in longevity, but the medical men are much the lowest. Dr. William Ogle, in a valuable paper read before the Royal Medical and Chirurgical Society, a few years ago, states that in the years 1880, 1881 and 1882, the ratio of the *mortality* of the medical profession was 25.53 per thousand living persons; of the legal profession, 20.23 per thousand; of the clerical profession, only 15.93 per thousand living. Such a difference between the mortality of medical men in England and in this country is very remarkable, and cannot easily be accounted for. Possibly it may not be correct, the error being due to the smaller aggregate of individuals reported with us, compared with the very large numbers upon which the English statistics are based. At any rate, the duration of life of medical men in Germany corresponds very nearly with that in the State of Massachusetts. According to Dr. Birnbaum,² the average age at the time of death of 2,000 physicians was 57.8 years.

The question is often asked, How do physicians escape contagious diseases, to which they are so much exposed? According to Dr. Ogle they do not escape them (in England), since in most contagious maladies, such as scarlet fever, diphtheria and typhus (ship) fever, their mortality is in excess of that of other men; though in small-pox much less, owing to their careful protection by vaccination. In all lung diseases, especially consumption, their mortality in England is also much less than that of other men, probably owing to their open-air mode of life. The excess of their general mortality is, according to Dr. Ogle, probably to be accounted for in great part by their laborious lives, by loss of sleep, by great responsibility and anxiety, by irregularity of meals; and, I may add, by want of sufficient intervals of relaxation and of long vacations. These unfavorable conditions of the professional life do not, however, apply especially to English physicians; they are the same with practitioners in all parts of the world, and the deaths from contagious and infectious diseases, such as diphtheria, ship fever, typhoid fever, etc., are very considerable among physicians in this country, especially among the younger members of the profession, who spend much time in the insanitary dwellings of the poor.

¹ Address delivered at the Annual Meeting of the Rhode Island Medical Society, June 11, 1891.

² Die Lebensdauer der Aerzte, Deutsche Med. Zeitung, No. 26, 1890.

On the whole, I am inclined to share the belief of Dr. Charles K. Mills, as stated in an interesting (Toner) lecture delivered at the Smithsonian Institute, that physicians, in this country at least, are less liable to disease than members of other professions, in spite of broken rest, irregular meals, bodily fatigue and much responsibility, owing to their active life, much of which is spent out of doors, and to their knowledge of health and disease, which they are able to apply to their own behoof.

The majority of our profession depend for their subsistence upon work, and most of us derive from our labor a great amount of happiness. The problem, therefore, is how to accomplish the greatest amount with the least injury to health. This is best attained by intervals of relaxation. Moreover, the *quality* of the work accomplished often depends upon the amount of rest allowed, and upon a habit of occasionally withdrawing the mind as completely as possible from business cares during the intervals of rest. It is wise to have some supplementary occupation, wholly different from professional labor, to which we can turn, from time to time, for refreshment. The cultivation of flowers, the study of some branch of natural history or other science, the pursuit of some subject in history, literature or art, etc., furnish an agreeable change from our regular employment, to which we can afterwards return with increased power of application. Many great workers avail themselves of this alternation of employment, often seeking the very opposite to their professional duties for refreshment. I knew an eminent justice of the Supreme Court of Massachusetts, who, during the summer circuit, after a hard day's work in court, would retire to his bedchamber with a candle, and spend the evening in reading a sensational novel; and we all know how Macaulay delighted in reading works of fiction during his moments of leisure. Sir John Lubbock, well known for his researches in anthropological, botanical and entomological subjects, is, by profession, a banker in London, busily occupied in financial affairs, and also a member of Parliament.

Besides occasional short alternations of work and relaxation, few things are of more benefit to the health of professional men than a complete vacation from business once a year. This should, if possible, embrace some weeks spent away from home, for the sake of a complete change of surroundings. The late Benjamin R. Curtis, one of Massachusetts's greatest lawyers, used to say that he could easily accomplish his year's work in nine months, but not in twelve.

Insufficient exercise, especially walking, may be mentioned as one of the causes of ill-health among physicians. Many of us spend almost the whole day, and sometimes many hours of the night in driving, which affords but a poor substitute for leg-exercise. I hope the use of the bicycle will soon supercede, to some extent, driving; and that gymnastic exercise, which is also a valuable means of promoting the health, will become popular with doctors.

Another serious interference with health in our profession is insufficiency of sleep. Every physician should if possible, secure at least seven hours of rest at night; and when this is interrupted, he should make up for it, at least in part, in the daytime. Happy the doctor who acquires the habit of sleeping at odd moments, when his nights are disturbed by his duties towards his patients.

In conclusion, permit me to illustrate the suggestions which I have ventured to offer by citing three examples of laborious lives. In the first one, owing to neglect of precautions for the preservation of health, the result was disastrous, both to health and life. In the two others, in consequence of judicious alternations of labor and recreation, an immense amount of work was accomplished without injurious consequences.

The first case I shall quote illustrates so clearly the folly of incessant work without any relaxation that it needs no comment. It is that of an eminent London physician, the late Dr. Golding Bird, by whose death the profession lost one of its most brilliant members. It is related by his friend, Dr. Routh, in the following words: "I well remember a conversation I had with the late Dr. Golding Bird, a few months before his death. He was then in the zenith of his popularity, and recognized by all as one of the ablest of our London physicians. I called upon him one morning with a relative to consult him. Several other medical men had preceded me; his rooms were full; and I had to wait three hours ere I could gain admission to his study, and consult him about the case. I congratulated him on his success in practice. 'Yes,' he said to me, 'you are right; but I wish, nevertheless, to make your remark a text for a little parting advice. You see me, at a little over forty, in full practice; my rooms are full, and I am making my several thousands [pounds] per annum (I think he said seven), and if I die to-morrow, I do not leave as many hundreds to my family. All this I have done by sheer perseverance, unceasing hard work, and no holiday. But I am to-day a wreck. I have fatal disease of the heart, the result of anxiety and hard work. I know I cannot live many months; and my parting advice to you is this, Never mind at what loss, take your six-weeks' holidays. It may *delay* your success, but it will *insure* its development. Otherwise, you will find yourself at my age a prosperous practitioner, but a dying old man.' Six months after this conversation he had put off this earthly tabernacle."

Few men ever accomplished more by dint of hard work than Charles Darwin, yet Darwin was a sufferer from ill health during the greater part of his life, so that he could only employ a few hours a day in writing, and those had to be systematically divided, with intervals of rest and exercise between. But he never wasted time during his hours of work. "He would often say that saving the minutes was the way to get the work done." He breakfasted at a quarter before eight, and went to work at once from eight to half-past nine, when he read his letters, or had them read to him, together with a part of a novel, till half-past ten. Then he worked till noon, or a little later. Riding or walking followed, then came lunch, after which he read the newspaper and wrote letters till three. Then resting on a sofa he listened to a novel, or some book not scientific. In the afternoon he worked from half-past four to half-past five. His actual literary work, therefore — (writing and reading), occupied only five hours, or sometimes five hours and a quarter, daily, besides his correspondence, which he usually dictated. But this did not include the whole of his scientific work, a considerable part of which consisted in experimental investigation of the habits of plants and animals, and which was much less fatiguing to him. "He was fond of listening to music, and

liked novels. Walter Scott, Miss Austen and Mrs. Gaskell were his favorite authors, who were read and re-read, till they could be read no more. It was a sure sign that he was not well when he was idle at any other times than his resting hours, for as long as he remained moderately well there was no break in the regularity of his life." Darwin died at the age of seventy-three years. His complaint seems to have been a functional derangement of the stomach, or possibly, gastric ulcer. He had frequent nausea and vomiting, and, at times, severe pain, by which he was greatly prostrated, and not rarely laid up for weeks, unable to do any work. Yet, by great regularity of life, and frequent intervals of complete rest, he accomplished an enormous amount of work.

Another prodigious worker was Dr. Littré, a French physician, best known as the author of the great French dictionary in four quarto volumes, and who was also eminent in several other departments of literature. The following description of his labors during the printing, only, of the dictionary (which required thirteen years) is given in his own words: "My rule of life included the twenty-four hours of the day and night, so as to bestow the least possible amount of time to the current calls of existence. . . . I rose at eight; very late, you will say for so busy a man! Wait an instant. Whilst they put my bedroom in order, which was also my study, I went down stairs with some work in hand. It was thus, for example, that I composed the preface of the dictionary. I had learned from Chancellor d'Aguesseau the value of unoccupied minutes. At nine, I set to work to correct proofs until the hour of our midday meal. At one, I resumed work, and wrote my papers for the *Journal des Savants*, to which I was, from 1855, a regular contributor. From three to six I worked on the dictionary. At six, punctually, we dined, which took about an hour. They say it is unwholesome to work directly after dinner, but I have never found it so; it is so much time won from the exigences of the body. Starting again at seven in the evening, I stuck to the dictionary. My first stage took me to midnight, when my wife and daughter (who were my assistants), retired. I then worked on till three in the morning, by which time my daily task was usually completed. If it was not, I worked on later, and more than once, in the long days of summer, I have put out my lamp, and continued to work by the light of the coming dawn. However, at three in the morning I generally laid down my pen, and put my papers in order for the following day, that day which had already begun. Habit and regularity had extinguished all excitement in my work. I fell asleep as easily as a man of leisure does, and woke at eight, as a man of leisure does." He was past forty when he began this work; he was fifty-nine when he began to print the dictionary; he was seventy-two when he completed it, and he lived to be near eighty. He abstained from every kind of luxury and indulgence, *except one month in the year*, spent on the coast of Brittany. It was doubtless this vacation which chiefly helped to preserve his health during this gigantic work; but I think the diversion afforded by writing articles for the journals was also of some assistance.

Few of us will be called upon to undertake such labors as were achieved by each of these three men; yet, as a rule there is no profession which exacts so much work as ours. If I shall have called attention

to the importance of preserving our own health, while engaged in the task of restoring that of our patients, I shall not have spoken in vain.

Original Articles.

TYPHOID FEVER.¹

BY WILLARD H. PIERCE, M.D., OF BERNARDSTON.

TYPHOID or Enteric Fever, from the variety and severity of its symptoms and from the fatality which attends many of its epidemics, is one of the most interesting and important diseases with which we have to deal. The disease is of interest from two standpoints: first, as regards the theoretical problems of its bacterial origin, etc.; second, and that with which I shall most particularly deal in this paper, from its clinical aspect.

Typhoid fever was not treated of as a separate disease until the present century, and its personality was not generally accepted until about the middle of the century. Since that time much has been written on this subject by able and scientific observers, and, considering my limited means for accurate, scientific work, it may seem presuming in me to attempt to deal with the subject. Nevertheless, as my clinical acquaintance with the disease has been considerable, and in carefully observing its course and termination certain beliefs have forced themselves upon me which are not in exact accord with the writings of many standard authors, I may be pardoned for presenting them for consideration.

The correct answer to the question "What is the exact etiological factor which produces the disease known as typhoid fever?" would be of more value than volumes written upon pathology and treatment. But, as a matter of fact, we do not know the exact nature of the poison which produces this disease. One thing seems to be established, namely, that the germ finds its best abiding place in decomposing animal matter. But I believe that it does not originate from the contents of cesspools and sewers, but in them finds the proper soil to develop its specific properties of producing typhoid fever.

The disease under discussion is eminently a disease of civilization. When a country or section of a country is first settled, malaria is the disease which predominates. But, as time goes on, and the accumulation of decomposing organic matter increases, the proper soil is made for the development of the typhoid germ, and malaria is displaced and enteric fever gradually becomes more prevalent.

In the recent epidemic which occurred in my vicinity the cause could be, in most instances, traced to the contamination of the drinking-water by water-closet sewerage. But there were hardly two cases which could be said to have received their poison from the same source. It seemed in some way the germs were disseminated through the air, but produced no disease except where they were first combined with decomposing animal matter, and then found their way into the drinking water of the unsuspecting victim. The increased prevalence of the disease in the autumn is undoubtedly due to the fact that the germ, wherever it may exist, becomes dried by the heat of summer, and,

¹ Read before the Massachusetts Medical Society, June 9, 1891, and recommended for publication by the Society.