ARTICLE VI.

HINTS IN ETHICS AND HYGIENE.

BY FRANCIS MINOT, M.D.

OF BOSTON.

READ AT THE ANNUAL MEETING, JUNE 12. 1878.*

MR. PRESIDENT AND FELLOWS
OF THE MASSACHUSETTS MEDICAL SOCIETY:

IN addressing an audience whose lives are mainly spent in efforts to relieve human suffering, to save and prolong life, and to prevent disease, it seems hardly necessary to allude to the importance of the Medical Profession to the public. With some pride we can claim that the Massachusetts Medical Society has ever been as active in promoting the welfare of the community as in furthering the interests of its own Fellows. From its foundation it has maintained the importance of a sound medical education; of disseminating a knowledge of the laws of Hygiene and of pointing out their practical application; and of denouncing everything which tends to degrade public as

* At an Adjourned Meeting of the Mass. Medical Society, held Oct. 3, 1860, it was

Resolved, "That the Massachusetts Medical Society hereby declares that it does not consider itself as having endorsed or censured the opinions in former published Annual Discourses, nor will it hold itself responsible for any opinions or sentiments advanced in any future similar discourses."

Resolved, "That the Committee on Publications be directed to print a statement to that effect at the commencement of each Annual Discourse which may hereafter be published."

well as private morality. Every great undertaking in this State for the prevention of disease and for the preservation of health, either originated with Fellows of this Society, or was mainly indebted to them for its accomplishment. The discovery of Vaccination was hardly made by Jenner, in 1796, before the practice was introduced into this country by two Fellows of this Society, Benjamin Waterhouse, of Cambridge, and James Jackson, of Boston. The successful demonstration of the anæsthetic properties of Sulphuric Ether, but little inferior (if at all so) to vaccination in its beneficent effects on our race, was also made under the auspices of Fellows of this Society. The valuable series of Reports of the Massachusetts State Board of Health, which have done so much to awaken public interest in sanitary matters, to expose the sources of disease in our Commonwealth and to point out the means of remedying or preventing them, have been likewise, in great part, composed by our members.

It is a matter of congratulation that, as it approaches its centennial anniversary, the Society was never more active in promoting the great objects of our profession than at the present moment; and as the advancement of medical science with a view to the welfare of mankind has always been one of its chief aims, so both at the annual meetings of the parent Society and at the more frequent gatherings of its district branches, the papers which are read and the discussions which follow them mostly relate to recent advances in

Medicine, and to the best methods of the treatment of disease. At no time have we been animated by a more harmonious spirit. Financially, we never were more flourishing.

It is useful from time to time to take a general survey of our position, in order to see in what way our efforts may be profitably directed for the advancement of medical science and for the promotion of human welfare. We shall thus be enabled to detect such deficiencies as may exist, and to discuss the paths which lead to further progress. The brief time at my disposal will only allow me to glance at a few important topics, and I will first call your attention to the subject of Medical Education.

Fifty years ago there was, properly speaking, in this State at least, no such thing as Medical Education, in the sense in which we now understand it. Medicine as an art consisted mainly in the treatment of disease by what were considered Specifics. A knowledge of this art was obtained by observing the practice of those who possessed some experience in the management of the sick, by reading the few medical books that were at that time attainable (mostly theoretical), and in fortunate instances, by attending a short course of lectures on Anatomy and Surgery, Midwifery and Theory and Practice, the Theory often occupying as much or more time than the Practice. The idea of studying the natural history of disease had not occurred to any one. Disease was not looked upon as a perversion of health, but as a separate entity,

a parasite, living at the expense of the body, and requiring to be expelled from it, if need be, *vi et armis*. Neither Physiology nor Pathology was known. Chemistry was in a rudimentary condition, Hygiene had not been born, Therapeutics consisted in the administration of drugs, sometimes inert, but often violent in their action, and preceded in the majority of cases by venesection. After receiving his license to practice, the physician had to depend in great part upon his own experience for improvement in the knowledge of his art, and not having enjoyed the advantages of clinical instruction, not having been taught what to observe and how to observe, his progress must often have been slow. Medical Societies and Medical Journals, by which new views and new discoveries are constantly presented to the profession for examination and discussion, and to which the advancement of medical science is so much indebted, were available to few practitioners at that time. Hence his experience demanded almost a lifetime, before he could acquire the confidence of the public and earn his own living.

Although medical education has made great progress since that time, especially within the last few years, their remains still much to be done. Yet in one respect the Medical School of Harvard University, so far as I know, stands alone. It is the only institution in this country in which the science and art of Medicine are taught methodically, beginning with first principles and ascending gradually to higher branches, the student being

required to pass a written examination at regular intervals before he can advance any farther in the course. The advantages of this method of instruction are as obvious in the teaching of Medicine as in that of any other study, and it is surprising that it should not have been sooner adopted in this country. The experiment has been fully successful, as shown in the increasing number of students, and the superior attainments of the graduates. The Faculty have also decided to adopt a plan for raising the standard of qualifications in the students by means of an examination in languages and natural philosophy, which is required for the admission of those who are not graduates of a college. This is hardly a less important step in the right direction than the other, and cannot fail to have a favorable influence in elevating the character of the profession in our State. The first examination was held at the beginning of the academical year which is just finished, and we are not yet in a position to judge of its effects, but the indications are encouraging, and there can hardly be a question of its advantages, I may say, of its necessity. The rapid progress of medical science makes it imperative for students to be well prepared in general acquirements before entering on their professional course. The result will be an improvement in the class of applicants, and the graduation of men of a superior quality. Hitherto, a considerable number of applicants have not been graduates of any college, were unacquainted with any language save their own (and some imperfectly

with that), and had no knowledge of natural philosophy, natural history or chemistry. It is true there have been eminent physicians who received but little preliminary education before commencing the study of their profession, but these are men of unusual abilities, who are able to supply the deficiencies of their early training by superior powers of acquisition. They are exceptions to the rule that a sound medical education must be founded upon habits of study and observation, with a certain amount of elementary knowledge, such as is taught in our higher colleges. Moreover, students who are deficient in these respects act as a hindrance to others who by previous training are capable of profiting by a higher grade of teaching. Although a knowledge of ancient languages is not considered absolutely necessary to the student of medicine, few will deny its great utility as a means of mental discipline. Familiarity with French and German are now indispensable to an accomplished physician, and it is of the utmost importance that a thorough acquaintance should be made with these languages before beginning medical studies, which leave but little time for such extra work. It is to be hoped that ere long both will be required at the preliminary examination.

The period of three years has become too short for the pursuit of all the various branches which are now requisite to a medical education. The day is so completely occupied with lectures, recitations, clinical conferences and other exercises, that sufficient time is not left for study and for dissecting.

Yet some important branches are too much neglected in our course. A very large amount of the practice of the average physician is concerned with the diseases which are peculiar to women and children. The time cannot be far distant when it will become necessary to make these subjects prominent features in our curriculum. There is no clinical instruction in mental diseases, a class of maladies which seems to be rapidly increasing in our community, as well as in other countries. It is strange, considering the large amount of material in the public institutions of this city and its neighborhood, that there is, as yet, no disposition to make it available for this purpose. Another great want in our school is clinical teaching in Obstetrics. We are obliged to depend on the opportunities afforded by dispensary practice, aided by the limited resources of the Boston Lying-in-Hospital. A liberal endowment to this institution, with the liberty of using it for the purposes of teaching this branch of medicine, would be a great advantage to the Medical School and a blessing to suffering humanity. It is but justice to say, that owing to the untiring zeal and industry of the Instructors and Assistant Teachers of the School these deficiencies are less felt than would seem possible. It is obvious that such a development of the instruction as I have indicated will require a longer term for its accomplishment than is now at our disposal, and that an extension of the course to a period of four years is only a matter of time.

In consequence of the development of nearly all

the departments of study and of the introduction of new ones, the School has outgrown the Medical College in North Grove Street, and it has become necessary to transfer some of its laboratories to a neighboring building. Even with this relief, however, a pressing want of accommodation is still felt, and, moreover, the plan and construction of the edifice are extremely faulty and ill-adapted to the purpose for which it was designed. This inconvenience finally became so great that in 1874 an effort was initiated to raise a sum of money for erecting a building which should enable the School to carry out its projected improvements, and to insure the safety of its precious Museum and other collections which are now exposed to imminent risk from fire. A liberal response was made to this appeal to the friends of Medical Education, a sufficient amount having been subscribed to warrant at least the beginning of an edifice suitable to our wants, as soon as a proper site should be found, a matter of greater difficulty than was anticipated.

The subject of the admission of Women as students in the Medical Department of Harvard University has more than once been brought to the attention of the Corporation, who have hitherto declined to grant this privilege, chiefly on the ground of the increased expense which the innovation would entail, and which there was no means of defraying. Recently, a considerable sum of money has been offered to the University for the use of the Department, on the condition that female students be admitted on an equal footing with those of the

other sex. The amount thus tendered is not considered sufficient for the necessary outlay which must be made in order to carry this proposal into effect; but there can be no reasonable doubt that enough money would be forthcoming from the friends of female medical education, if it should be considered advisable to try the experiment. The matter is now in the hands of the Overseers of the University, and probably some months will elapse before the question will be definitely settled.

It may be asked what advantage there would be in admitting female students to the Harvard Medical School? The answer is, that a considerable number of women are graduated every year at inferior schools, to the disadvantage of the Profession as well as of the Community. If we are to have female physicians, they should be at least well educated.

The question of the admission of women to Fellowship in the Massachusetts Medical Society, has already come before the Councillors in previous years, who have decided against them. Should Harvard admit them to the school, and give them the degree of Doctor of Medicine on examination, a fresh appeal will undoubtedly be made, and if I read aright the signs of the times, with ultimate success. The prestige of M. D. from Harvard, together with the pressure of public opinion, now beginning to permeate the medical profession, would probably enable them to overcome the barriers which have hitherto opposed them, though the number who would be able to pass the exami-

nation required for admission is at present probably limited. Even Fellowship is not necessary to make female practitioners eligible to consultation. The By-Laws do not forbid us to consult with respectable practitioners who are not Fellows; and, in point of fact, Fellows of the Society do freely consult with well educated and respectable female physicians in Boston and elsewhere in the State.

One of the principal objections to granting to women the privilege of admission to the Society would seem to be the danger that incompetent candidates would be able to pass the examination in certain Districts in which the requirements might not be rigidly exacted; but the number of applicants in such Districts would be small, females being less able to compete with males in country practice, and generally seeking large towns as a more suitable field for their labors. On the whole, the main reason for granting Fellowship to women would seem to be simple justice. Those who are able to fulfil all the required conditions ought not to be refused on the plea that others not qualified might occasionally obtain admission; the same argument might be adduced against the admission of the other sex, and we all know what would be the result if it were enforced.

How far women are likely to succeed as practitioners is a question which can only be answered hereafter. In most large cities there are a few who have deservedly achieved eminence. Perhaps the limited proportion of these may be accounted for by the difficulty of getting a good education,

but I am of the opinion that the number of competent female physicians will always be small. An eminent writer of the present day has said, "Intellectually, a certain inferiority of the female sex can hardly be denied, when we remember how almost exclusively the foremost places in every department of science, literature and art have been occupied by men, how infinitesimally small is the number of women who have shown in any form the highest order of genius, how many of the greatest men have achieved their greatness in defiance of the most adverse circumstances, and how completely women have failed in obtaining the first position, even in music or painting, for the cultivation of which their circumstances would appear most propitious. It is as impossible to find a female Raphael, or a female Handel, as a female Shakspeare or Newton. Women are intellectually more desultory and volatile than men, they are more occupied with particular instances than with general principles; they judge rather by intuitive perceptions than by deliberate reasoning or past experience."* As exceptions, a few gifted women will be able to maintain a high position in medicine, in competition with the intellectual and physical vigor of the male sex. The majority, in my belief, will devote themselves chiefly to the obstetric art, and the diseases of children, among the poorer and middling classes. They will be inadequately remunerated for their toil, and in dangerous emergencies

* W. E. H. Lecky, History of European Morals from Augustus to Charlemagne, Chap. V.

and discouraging situations will be compelled to seek the assistance of male practitioners. Yet there are multitudes of women with scanty means of subsistence who would gladly accept this lot, and we ought to be ready to aid them in obtaining such a professional training and such professional sympathy as shall make them competent to their duties, and enable them to supplant the ignorant charlatans who, under the guise of female physicians, lend themselves to the vilest criminal practices, and are a curse to the people.

The subject of Public Health offers many topics which are especially appropriate for an occasion like this. A large amount of sanitary work has been accomplished by the State and Municipal Boards of Health, whose labors in investigating the conditions which favor the spread of disease and shorten the duration of life deserve our warmest thanks. These endeavors are sometimes thwarted by the efforts of interested parties to prevent a desired reform, and in many cases the apathy of the public offers a discouraging obstacle to sanitary improvement. I can only mention a few points, of much importance to the welfare of the community, which ought to attract the attention of every Fellow of this Society.

The law concerning Death Certificates is defective, and requires amendment in order to prevent fraud and crime. The object for which these certificates are required is two-fold:—First, for the purpose of preventing secret burials in cases of death from violent causes or under suspicious

circumstances. Secondly, to secure trustworthy statistics in relation to the prevalence, the causes and the mortality of diseases. With these ends in view, the General Statutes of Massachusetts require that before a body can be buried in any city or town, or be carried beyond its limits, a certificate of death must be handed to the proper authorities, signed by the physician who attended the deceased during his last illness. By a decision of the Superior Court, the word "physician" has been determined to mean any one who pretends to treat disease as a doctor; hence it is obvious that the authorities are obliged to receive any certificate that may be offered, unless they have good reason for believing that it was issued for the purpose of concealing violence or crime, in which case they can call upon the medical examiner to investigate the case. In Boston, for example, certificates signed by men, and also women, whose names are not to be found in the City Directory, some of them obliged to make their mark, because they cannot write, are received equally with those from the most eminent practitioners; and these same certificates form part of the *reliable* statistics annually published, and quoted by writers on sanitary science and others. A few specimens of these certificates will best show their value.*

* Thus, among the causes of disease, we have, "Old age; duration, 6 hours." "Cholera Infantum; age of deceased, 73." "Canker humer." "Lang diess" (supposed to mean Lung-disease). "Canther of the bowels." "Chituses" (whatever that may be). "Lack of vetallity." "Lack of Villality." "Daeth barne." "Canker & spasms." "Spells." "Scharletena." "This certifies that A beby boy died on the bornday of Febberiy, 1876," cause of death, "Born." signed, Mary her × mark Riley. A

It is thus easy to see that until the word "physician" receives some other interpretation, the present statute in no way acts as a safe-guard against the immediate burial of bodies which may have died from the effects of criminal abortion, for instance, or have in other ways been foully dealt with. The difficulties in the way of amendment are obvious. It is hard to define the word Physician legally, since the law does not recognize as such, exclusively, what we consider to be a "regular" physician, while a certain proportion of the community look upon a class of practitioners whom we call "irregular" as of the highest authority. Since accuracy in certifying to the cause of death has no concern with the treatment of disease, would it not, in view of the great importance of correctness in the returns, be feasible for a committee composed of "regular" physicians, homœopaths and eclectics, to agree upon a legal definition which should be submitted to the Legislature for approval and adoption?

The law regarding Intra-mural Interments re-

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boy is returned as "Still-Born of three minutes duration," A boy is certified to have died of "Convultions—Baptised in the Church." A girl is said to have died of "fright, ½ hour duration." A woman, 26 years of age, died of "Com sum som." A woman, 67 years old, died of "Paralysis (which was hereditary) was caused by reflex nervous action, from indigestion, induced by overloading the stomach." "Gastritis caused by severe pressure from the contracted pelvis of the mother on the Hypochondriac and abdominal regions of a very large child." "Convulsions caused by wrong circulation. The flow of blood to the brain too strong, causing congestion and spasms, which ending in strong convulsions, caused death." "Inward convulsions caused by a colic, severe pain threw her into convulsions before relief could be obtained." "Congestion of lung, caused by intense capillary congestion through the system, which finally produced pulmonary apoplexy." "Paralysis caused by reflex nervous action from indigestion, induced by overloading the stomach." "Convulsion caused by not being cared for in season." "**Primary cause, Tubercles; secondary cause, Phthisis Pulmon.**"

quires modification. Burials now usually take place in cemeteries situated in outlying districts near large cities. The result is that the churchyards in the crowded parts of cities are neglected; the tombs become sadly out of repair, many of them are broken open, the walls around and over them are dangerous, and the ownership of many is unknown. To keep them in repair requires a constant outlay, at public expense, the amount of which is annually increasing as the ownership of more and more tombs becomes unknown, and special police officers are required to guard them from invaders. The amount of money expended in this way in Boston during the last year was between one and two thousand dollars on those cemeteries which are in the crowded portions of the city. Of the seventeen cemeteries and burial places under the charge of the Board of Health, five (Copps Hill, Chapel, Granary, Central and South) are situated in the densely populated sections of the city. Notwithstanding the unsuitableness of the localities, and the general condition of a majority of the tombs, burials are still taking place.*

The same trouble is encountered by the local Boards of Health in all the large and growing

	1876.	1877.	Total.
* In Central	24	29	53
Granary	4	4	8
Copps Hill	14	5	19
South	9	3	12
	51	41	92

During the same time, 43 bodies have been placed under St. Paul's Church.

cities of the Commonwealth. Recognizing the necessity for some action looking towards a remedy for the evil, the Legislature of 1877 passed an act by which the City Council of any city could, if deemed necessary, forbid farther interments in tombs within its limits. The law is, however, absolutely inoperative, since it directs a method of procedure which is impossible for the attainment of the desired relief. It provides that the Board of Health shall first notify the City Council that in its opinion such tomb or tombs are a nuisance. After three months the City Council, having first notified all the proprietors (more than half of them, in Boston, are unknown), must give a public hearing. If the nuisance be proved, the Council can pass an order forbidding farther interments; but the owners can then, within six months, go before a jury for damages. As the owners cannot be notified, no action under the present law can ever be taken except in regard to a few tombs, and these the very ones against which there are the least grounds of complaint.

The law should be so altered that, as in the case of nuisances coming within the jurisdiction of the State Board of Health, when the Board deems such action as the closure of a cemetery necessary, it should have the power to do it, after a public hearing of which due notice shall have been given in the local newspapers.*

* Petitions have been received from some of the leading members of St. Paul's Church, in Boston, against further interments there; the foul odors from the vaults have frequently made people sick in that church. But there is no law by which the tombs can be closed.

Within the last few years "Private Lying-in Hospitals," so called, have been established in the larger cities of the Commonwealth, in which women are confined at various periods of pregnancy; and the number of still-births and of deaths from peritonitis, metritis, etc., has been large. In view of the probable character of these places, the Legislature in 1876 passed a law allowing the Mayor and Aldermen of cities and the Selectmen of towns to license such persons as should be approved by the local Boards of Health to keep Lying-in-Hospitals; such places to be visited as often as should be thought best by the Health Officers; and no other establishments were allowed to take in women to be confined. On the passage of this law, numerous applications were made for licenses in Boston, and the character of the persons applying, and the appearances of the places at which they resided, very plainly showed the nature of the business they had previously carried on. Thus far, only two licenses have been granted in this city. The statute, however, is virtually a dead letter. Only one conviction has been secured in court, although many persons are openly violating the law, for the reason that the officers of the Board of Health cannot enter a suspected house without being liable to an action of trespass, although their suspicions may rest on an advertisement in a daily newspaper.

Until recently the business of "baby farming," or taking infants to board, has been carried on to a considerable extent in Boston, and doubtless in

all the large cities of the Commonwealth. The numerous deaths annually returned from certain houses in this city attracted the attention of those interested in hygiene, and through their efforts the Legislature, in 1876, passed a law requiring all persons who took to board more than two infants under three years of age to register their names and addresses, together with the names and ages of all babies thus received, with the local Board of Health. The officers of such Board have full power to inspect, and to enforce such sanitary measures as they may deem advisable. This law has, however, the same defect as that in relation to Lying-in-Hospitals. No matter how strong the suspicion, these places cannot be visited without the examiner being liable to a prosecution for trespass. Only two persons pursuing this business are at present registered at the office of the Boston Board of Health, a fact which shows to what extent the law is enforced.

Notwithstanding the valuable reports on subjects of public hygiene which are annually issued by the State Board of Health, I will venture to make a few suggestions on certain topics which I think are not sufficiently considered, even by medical men. One of these is the defective sanitary condition of dwelling-houses, which does so much to hinder the physical development of our people. I do not now allude to the injurious consequences resulting from the entrance of foul gas from sewers, though most of us have had experience enough of the dangers of this evil; but I

would call your attention to the condition of the air in our houses as affected by the modes of warming now generally in use. On account of the economy of hot air or steam furnaces they are universally employed, often supplanting open fires. In many cases the fire-places are even bricked-up. The objections to furnaces are, first, that the warmth being applied by conduction, and not by radiation, the temperature of the air, which is a poor conductor, must be raised much higher than when direct radiation from an open fire is employed. The temperature of a furnace-heated room is rarely much below seventy degrees F., at the height of six feet from the floor; hence the air supplied for respiration must be considerably rarefied, and the proportion of its oxygen diminished. Secondly, the tendency of hot air to ascend renders the temperature of the upper strata higher than that of the lower, so that our heads are made hotter than our feet, the effect of which is seen in the drowsiness which often overpowers us in a room warmed by a furnace. Thirdly, the ventilation is defective, there being no free exit for the contaminated air. Fourthly, as was pointed out by the late Dr. George Derby, poisonous gases from the ignited anthracite coal used as fuel are apt to find their way into the rooms. The steam furnace, with radiators in the rooms, is the worst possible contrivance for warming dwellings. Unless used in combination with open fires there is absolutely no ventilation. Even the long-suffering American citizen can hardly endure the asphyxiation caused by this machine,

which has become deservedly unpopular. I regret to see it announced that in a building recently fitted for the occupation of students in one of our oldest and best academies, the rooms are heated by steam. The effects of furnace heat are chiefly seen in the sensitiveness to cold which those who are subjected to it exhibit, especially if confined much to the house, and who often complain of chilliness while the thermometer indicates a temperature of over seventy degrees. Exposure to weather only moderately cold is apt to cause inflammatory and other diseases in these persons. Children who are reared in such an atmosphere become tender, and are specially subject to catarrh, bronchitis and pneumonia from contact with the outer air. We often see evidence of this in families who have returned home after spending the summer months at the sea shore, or in the country. After a few days' exposure to the rarefied and heated air of the town house the children are made sick, and it is common for the doctor to be sent for soon after they are established in winter quarters. In a moral point of view the absence of the open fire is a great misfortune. There is no longer a family hearth. In cold weather the household must huddle round a "register" to seek comfort from the heated and rarefied air issuing from it, but there are none of the delightful associations and of the attractiveness of the blaze of an open fire, which contributes so much to sociability, cheerfulness and good feeling.

It is only of late that the important subject of

School Hygiene has received among us the attention it deserves. Although we have advanced beyond the wretched sanitary arrangements of former generations, the admirable papers of Dr. Winsor and Dr. Lincoln, in the Reports of the State Board of Health for 1874 and 1878, show that there is yet much to be done. In some respects our school-rooms are actually inferior to those of fifty years ago, when open fires were common, owing to the cheapness of fire-wood; and the "Franklin" with its powerful radiation and its wide chimney served not only for warming but also for ventilation,—now poorly compensated by the furnace pouring forth heated and rarefied air, not unfrequently mixed with noxious gases, for our children to breathe. Owing to its low conducting power this air must be raised to the temperature of a hot summer's day, and consequently is much attenuated, besides containing an inadequate proportion of oxygen. If the lowest stratum be warm enough to make the feet comfortable, the higher level must be still hotter from the rapidity with which heated air ascends. Hence the flushing of the face, headache and drowsiness often complained of by the pupils. This effect is especially seen in our private schools for girls, most of which are in dwellings constructed without any design for such use, where from twenty to forty children occupy, for several hours, one or two rooms, originally intended for a small number of persons, sometimes without any efficient means of ventilation. An open fire, if possible of wood,

or in lieu of that of cannel coal, should always be kept burning in such rooms during school hours. Is it wonderful that our school-girls complain of giddiness, headache, palpitation and other symptoms of chlorosis under these conditions? I am glad to say that there are some exceptions to this state of things in Boston, at least, the rooms being ventilated by open fires.

I am of the opinion that the hours of attendance, both in private and public schools, are larger than can be safely endured by most children. In cities and large towns it is becoming common to have a single session, lasting from 9 o'clock till 2. Dr. Reynolds has pointed out the evils of this system. Both mind and body are wearied by the confinement and close application for so many hours, and the short intermission is altogether insufficient for relaxation. Children cannot safely go so long a time without proper food, the lunches which they take with them being often unwholesome, and eaten with haste. A practical example of the pernicious effects of luncheon as a substitute for a regular meal was furnished at the Massachusetts Institute for Technology. Complaint having been made that the health of the students was suffering, as was supposed, from the close application exacted of them, the subject was investigated by the President of the Institute, Mr. Runkle. Many of the students live in the vicinity of Boston, coming to town in the morning by rail, and returning in the evening. They brought lunch with them, which they were accustomed to

eat at odd moments. Mr. Runkle suspected that the physical and mental exhaustion of which they complained was owing to the want of a substantial meal taken at a regular hour. The plan was adopted of providing for their use a table at which they could procure a regular meal together. This was completely successful, and no complaints have been made since then of the injurious effects of study upon the health of the students

The old plan of morning and afternoon school, with time enough between them for the children to go home and dine, as well as play, was a salutary arrangement. It is a matter of regret that the distance which children have to travel, now-a-days, in order to reach school, in many cases, prevents a return to this system ; but its advantages should, as far as possible, be imitated by increasing the length of the intermission. The long summer vacation which the pupils of most schools in cities and large towns enjoy, is an evil of considerable magnitude. Nearly one-fourth of the year is thus disposed of, and but few other holidays can be afforded. I do not complain so much of the *amount* of vacation as that it should be unequally distributed. More frequent recesses of from one to two weeks each, made at the expense of the summer vacation, would prevent the injurious effects of too incessant labor; but the modern customs of society, exacting an exodus from home early in summer, would seem to render this impossible.

Among the special effects of the excessive mental stimulation to which children are subjected in

our schools, without due regard to the importance of a healthy physical development and of frequent relaxation from work, may be mentioned what is sometimes called "nervous asthenia," a condition most frequently seen in adolescents and young adults, especially females, which threatens to undermine seriously the health of future generations. It is hardly necessary to allude to the formidable danger to the eye-sight incurred by our school children. The subject has been brought before the profession and the public with much earnestness by Professor Williams, Dr. Derby, Dr. Jeffries and others, who have called attention to the alarming increase of nearsightedness among school children and students in academies and colleges.* As the disease is progressive, and in some cases leads to structural disorder and total loss of sight, it becomes important that physicians should warn teachers and parents of the danger in season to prevent the evil which cannot be cured when it has once become established. Studies out of school should be brief, if allowed at all, and no evening work should be permitted which causes fatigue to the eyes. The school desks, and the direction of the light, should be arranged with special reference to preventing congestion of the eyes and fatigue of the muscles of accommodation.

* "Nearsightedness and School houses," by B. Joy Jeffries, M D., Boston Medical and Surgical Journal, May 14, 1874. "Serious Pathological Changes in Myopic Eyes," by H. W. Williams, M.D., ibid., Oct. 29, 1874. "The Origin and Causes of Nearsightedness," etc., by the same, ibid., Dec. 21, 1876. "A Report on the percentage of Near Sight found to exist in the Class of 1880 at Harvard College, with some Account of similar Investigations," by Hasket Derby, M.D., ibid., March 22, 1877.

I may venture to hint that even in this enlightened day some improvement is still needed in our methods of dealing with disease. We are too much given to routine practice ; too prone to treat the disease rather than the patient ; too forgetful of the great doctrine of the self-limitation of disease, promulgated by the venerable Dr. Bigelow. New remedies are from time to time discovered, some of them of undoubted utility, such as salicylic acid, carbolic acid, chloral, jaborandi and others ; but the number of these is not large, and in proportion as our acquaintance with the natural course of a disease increases, our belief in the specific effects of drugs should diminish. Yet we are still apt to regard the sudden amendment in pneumonia, which in uncomplicated cases is the natural course of that malady, as the result of some specific remedy or mode of treatment. To test the value of a drug requires much patience, close observation, and a mind able to discriminate between effect and mere sequence. Inaccuracy of observation and hasty generalization have done much to retard the progress of therapeutics. There is an instinctive desire to try the effect of something new, and we are apt to be misled by the enthusiasm of experimenters. Samples of drugs which interested speculators hope to push into market are distributed broadcast to physicians. Instead of a dispenser of medicines, the pharmacist, as he is now styled, has become a dealer in fancy preparations, in many of which the only article of value is in too small proportion to be efficient.

Some scores of preparations of a drug are offered to us, while all its virtues can be obtained from two or three. What advantage does an "elixir of wine, beef and iron" possess over any simple form of iron, with alcoholic stimulants and beef tea at discretion? A physician of large experience and sound judgment generally employs but few remedies, and those in simple combinations. While he is ready to adopt new ones which are recommended by good authority, he does so with due caution and with a conscientious regard to the welfare of his patient.

Medical periodical literature is an important topic of consideration in any general survey of the profession. So rapid is the growth of medical science that the old-fashioned quarterlies are unable to supply us fast enough with the discoveries and improvements which are constantly made, and have given place to monthlies, bi-monthlies and weeklies. A noted feature in most journals is a department devoted to the most "recent advances" in the different branches of medicine. No physician can do justice to his patients who is not a reader of medical journals; he must otherwise soon fall short of the average knowledge of practitioners. In order that a journal should succeed, it should receive the hearty support of the profession. Few are aware of the great expense and labor necessary to maintain a good medical periodical, or the small amount of profit derived from it. For the editors and collaborators it is really so much out of pocket in return

for the valuable amount of time they devote to it. This Society is under great obligations to an association of Fellows who undertook the risk of purchasing the Boston Medical and Surgical Journal, in order to raise it to a higher grade of usefulness by supplying the profession with a record of scientific progress, and with original and practical articles on medical subjects, and it is not an unreasonable demand that every Fellow of the Society should, by subscribing to it, contribute to its support.

Before closing these desultory remarks, I desire to call the attention of the profession to the subject of provision for those of our brethren who by reason of sickness, age, or other inability, are deprived of the means of support, as well as for the widows and children of medical men who are more or less destitute. It is notorious that physicians seldom make more than a living from their calling. A few specialists have large incomes, but this is not the case with the rank and file. As a rule, we cannot begin to lay up anything before we have passed the meridian of life, when the increasing amount of labor, with diminished strength, renders the tenure of the remaining portion precarious. There is no profession in which so much gratuitous work is done as in ours. Besides the services rendered in dispensary and hospital practice, which are, to some extent, recompensed by the opportunities they afford for study and experience, a large amount of professional advice and labor is freely bestowed upon

patients of a better class who can pay little or nothing for it. Hence medical men and their families, who through misfortune are deprived of the means of support, should especially become the objects of benevolence. The Massachusetts Medical Benevolent Society was established more than twenty years ago for the purpose of aiding those of our profession and their families who are in need of pecuniary assistance. I regret to say that it has not, as yet, attracted as much notice from the benevolent as it deserves. Its funds are barely sufficient to pay to a few beneficiaries the sum of sixty dollars each, yearly, with an occasional extra amount in urgent cases. Small as this relief is, it is thankfully accepted by those who are able to obtain it. Any addition to the permanent fund of the Society will extend its usefulness by relieving a most worthy class of sufferers.

Before separating for another year, let us remember with affection and respect those of our brethren who, since we last met, have passed from the scenes of their earthly labors,—some, widely known and honored, others remembered by few beyond the circle of friends and neighbors to whom they are endeared by the ready help they afforded in times of suffering, and their sympathy in the hours of affliction. When to each of us shall come the inevitable hour, may we be cheered and sustained by the remembrance of benefits it has been given us to confer on suffering humanity.