

## Addresses.

THE ANNUAL DISCOURSE BEFORE THE  
MASSACHUSETTS MEDICAL SOCIETY,  
JUNE 10, 1914.

THE EDUCATION OF THE PUBLIC IN  
MEDICAL MATTERS.

BY HORACE D. ARNOLD, M.D., BOSTON.

PERMIT me first to express my sincere appreciation of the honor conferred upon me by being chosen as orator for this occasion. The list of my predecessors includes the names of many men, eminent in our profession, whose success in this position I cannot hope to equal. If you go away without regrets at your present choice, and with a feeling that the time has not been wasted, I shall be satisfied.

In searching for a suitable subject, one naturally thinks of the wonderful achievements of modern medicine. During the past few decades progress in the advance of medical science and in the art of healing has been so great and so rapid that one is tempted to picture some of these achievements and to make a congratulatory address on what has been accomplished. This would not be inappropriate before a society whose members have taken an active part in this advance. However, the spirit of progress demands that we constantly press forward, and that we seek new problems and try to solve them. Instead of resting on our laurels, we must ask ourselves whether we have really done our best in all respects, and whether there are not still other ways in which we can render even greater service to humanity.

If I turn from the attractive field of the accomplishments of the profession and of our society, I hope it will not be interpreted as indicating any lack of appreciation of the great work of the past. Neither should a discussion of what may be done in addition, now and in the future, be understood as a criticism, because it has not been accomplished before. This is especially true of the problem of our duty in the education of the public in medical matters, for it is a relatively new one.

Why do people in general show so little appreciation of the advances made in medicine? Why has the medical profession so little influence in directing affairs which affect the public welfare? Few will maintain that conditions are

satisfactory in either of these respects. We frequently hear medical men criticizing the public or the legislature for their attitude in matters of public health, and condemning their action as short-sighted and foolish. Yet practically none of these people are influenced by a desire to do injury, and relatively few would seek their own personal gain at the expense of recognized injury to others. The basic difficulty is ignorance about these matters, or at least the lack of appreciation of the significance of the problems presented.

It is not creditable to the medical profession that it merely criticizes and complains of the results. It should do its best to secure a remedy. We are dealing with an unhealthy condition of the community, yet we are too often satisfied to note the symptom of foolish health laws and customs, without studying out the cause of the trouble. Without knowing the cause, we are satisfied to treat the symptom with various remedies, —some of them borrowed from political quacks. This is empiricism,—a method of treatment more suitable a hundred years ago than in this age of scientific investigation. Why should we be satisfied to treat a disease of the community by an antiquated method, when we would be ashamed to treat an individual today in the same way?

If we look deeper, I think we shall agree that the underlying causes are ignorance on the part of the public and indifference on the part of the medical profession. The proper remedy is, then, for the profession to awaken to its responsibilities, and for it to give the public rational instruction in medical matters, to such an extent that they and their representatives may take intelligent action on problems of a medical nature that come before them for decision.

I do not expect every one to agree off-hand to this solution of the problem. There are those who will contend that this is not properly the province of the medical profession. There are others who will assert that such matters should be decided by experts of the medical profession and not by the public. There is much to be said in favor of both of these contentions. However, we must recognize the fundamental principle of the individual rights of the people. The right of the individual to have a voice in the government of the community of which he forms a part is perhaps the most cherished right of the citizens of this country. It is jealously guarded and the individual is very keen to appreciate when this principle is at stake. Before the public are willing to surrender to experts full control of matters of public health, they must be educated to believe that these are really matters that should be decided by experts, and they must have confidence in the experts who are to exercise such control. Only when they are satisfied on these points will the people be willing to delegate to experts the decisions that properly belong to them. The people have shown that in many instances they are not yet ready to surrender these rights; hence further education is needed

NOTE.—At an adjourned meeting of The Massachusetts Medical Society held Oct. 3, 1890, 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."

before this plan can be accepted as a solution of the difficulty.

Those who contend that the education of the public in medical matters is not properly a function of the medical profession are unmindful, it seems to me, of the progress that is going on all about us. They will hardly maintain that we should limit ourselves to the administration of remedies and should not concern ourselves with the prevention of disease. The education of the public in health matters is but one form of preventive medicine, and the profession should be willing to do its share in this work.

To the sensitiveness about individual rights, alluded to above, we find added, as an obstacle to progress in public health matters, the selfishness of individuals or of single communities. People are slow to learn that many public health measures can be successful only as community affairs which cover wide areas. The wishes of the individual must yield to the needs of the community in which he lives, and these in turn to the demands of larger communities. If people were better educated about matters of public health, they would more readily yield their personal privileges or advantages for the general good, and we should often have willing co-operation, where now we meet opposition.

Not only is an intelligent public opinion desirable for the purpose of securing wise health laws, but it is essential for their enforcement. We now have many laws of this kind which are not fully enforced, because public opinion is not prepared to accept such enforcement. The authorities are wise to rest satisfied with partial results, rather than by complete enforcement to arouse such opposition that the laws will be repealed. "Half a loaf is better than no bread." Nevertheless it is true that if the people fully understand the benefits to be derived from such measures, they not only consent to their enactment, but insist on their enforcement. The education of the public in health matters is, therefore, essential if health legislation is to be successfully carried out.

The history of our own state board of health is interesting, as showing the dependence of health measures on public support. In 1849 a commission of prominent citizens was appointed to consider public health questions in Massachusetts and to report to the Legislature the following year. A comprehensive report was made with most admirable recommendations including the establishment of a general board of health for the state. But these men were ahead of their time; the public was not intelligent enough in such matters to appreciate the value of the recommendations; and it was twenty years later, in 1869, that the legislature provided for a state board of health.

Massachusetts was a pioneer in public health work, and the excellence of this work has kept the Commonwealth always in the forefront of progress. This honorable record has been due to the ability and devotion of all members of

the board, but more especially to the two eminent members of our profession who have held the position of chairman for long periods. Dr. Henry I. Bowditch, the first chairman, served for ten years. Then from 1879 to 1886 the three departments of health, lunacy and charity were merged in one board. When in 1886 the state board of health was again established on an independent footing, Dr. Henry P. Walcott became chairman and has served until very recently, when he declined reappointment.

We cannot speak in too high terms of the faithful and distinguished service which these men have rendered the state in directing this important work. The testimonial from the medical profession to Dr. Walcott, when he retired, was evidence of our appreciation of the value of the great work he has accomplished. Almost as great a tribute to him is the proposition made by the Governor, that the board of health be reorganized and the chairman replaced by a highly-salaried expert as commissioner of health. The reason for this plan lies in the acknowledged difficulty of finding any one who is both able and willing to do for the state, as a member of an unpaid board, what Dr. Walcott has done for so many years in the past.

It is not my intention to discuss fully the merits and details of this new plan. I favor it personally because, as I conceive the situation, it aims at a more complete organization of the work. By such an organization the department of health will be better able to cope with the increasing demands which will necessarily be made upon it. I wish, however, to point out that the decision of this question rests with the representatives of the people, and that they would be much more likely to accept the advice of experts, embodied in this bill, if they had themselves a better knowledge about health matters. Furthermore, no matter how excellent the plan may be, success must depend on the co-operation of an enlightened public.

The lack of knowledge about health matters in the past has been an important reason for the lack of support given to the board of health by the people and the legislature in some of the measures it wished to carry out. Had the legislature been willing to grant a sufficient appropriation, the board would have done much more on this very problem of educating the public. One of its duties as defined in the act of the legislature, was to "gather such information in respect to those (health) matters as it may deem proper for diffusion among the people." The board has had ample power, but not enough money. Even with limited means it has done some very good work in this direction.

Thus we see that in health matters, as in other affairs, it is not enough to have good laws on paper, but that we must have the support of public opinion if they are to be made effective by enforcement. Information as to the benefits to be derived from the health laws should be distributed systematically to citizens of the state,

and this duty should be performed by the state board of health. If the need of an appropriation for this purpose were presented with sufficient publicity, the legislature would not dare to withhold the funds.

Another matter in which it ought not to be difficult to secure protective legislation is the problem of clean milk. If the milk consumers,—practically the whole population of the state,—knew the real facts about our milk supply, they would not be satisfied with the present state of affairs. People are indifferent to this problem merely because they do not know the facts about it. If they fully realized the dangers from infected milk, there would be little trouble in securing reasonable legislation. No one can instruct them so well in this matter as the medical profession, yet the profession as a body has taken no effective steps in this direction. The surest way to secure proper legislation is to enlighten the public and not merely appear as a committee or association before the legislature.

It is not my intention to discuss in detail how the public should be instructed in this matter. It is clear, however, that they must be taught that milk is not merely a farm product nor an article of commerce, but a peculiarly unstable article of food which acts as an excellent culture medium for bacteria. They must understand something of the fundamental ideas about the growth of bacteria under favorable conditions, and the dangers of transmitting diseases by means of infected food. They must be made to realize how easily milk may become infected through carelessness in its preparation, transportation, and distribution, and that the time that elapses before it is consumed is often sufficient for an abundant growth of micro-organisms. They will then understand how readily it may become a dangerous article of food,—especially if consumed raw, as is frequently the case. Greater publicity should be given to epidemics which are proved to be transmitted by milk. These concrete instances should be used as object lessons for the public. They are too valuable for this purpose to be used merely for scientific reports before medical societies, or as news items in the hands of lay reporters or editors. The proper, judicious use of such information in the daily press, as a means of instructing the public, should be in the hands of wise medical men. When they know enough about this matter, the people will insist on having clean milk,—and will be willing to pay a reasonable price for it.

Our recent experience with the vaccination laws is another illustration of the danger of public indifference. Because of such indifference a good law may be weakened or even repealed, as the result of an active campaign by a noisy minority, even if it exists for the benefit of a vast majority of our citizens.

Our vaccination laws have resulted in such a widespread employment of vaccination that the

community has been free from any serious epidemic of smallpox for several decades. The present generation knows practically nothing about this loathsome disease, which was formerly a veritable scourge; and a great many physicians have never seen a case. People have come to accept this freedom from smallpox as a matter of course, and they are apt to forget that constant vigilance on the part of health authorities and the continued protection of vaccination alone stand between them and the possibility of a serious outbreak of the disease. They need to be frequently reminded of these facts, or else they become so indifferent as not to care if the legal protection is relaxed.

During the present session of the legislature, people who were interested for various reasons introduced a bill which would have materially weakened the protection of the community, if adopted. It would undoubtedly have resulted in a large increase in the number of unvaccinated persons, and the danger of an epidemic would have been correspondingly increased. The bill passed the senate. For a time there was danger that it would also pass the house of representatives. The advocates of the bill were extremely active, the general public appeared to be indifferent, and the medical profession did not seem to realize the danger.

Were it not for the seriousness of the matter, the situation would be amusing from its absurdity. Here was an important health measure to be decided by the majority vote of a body consisting almost entirely of laymen, few of whom had any knowledge on the subject. Without such knowledge they were responsible for defining the health policy of the state in regard to a serious and dangerous infectious disease. The legislators were flooded with literature from interested partisans in favor of the bill. At the public hearings and in personal interviews these persons plied their arguments vigorously. The legislators could not weigh this evidence from their own knowledge; they did not know that many of the so-called facts and statistics presented were unreliable; and many, at least, did not know that the precautions adopted by our state board of health, in the preparation and distribution of vaccine virus, remove all the legitimate objections of the anti-vaccinationists.

It is greatly to the credit of the representatives that they were not carried off their feet by the fierce onslaught of the advocates of this bill. It is to their credit that they turned to the state board of health for reliable information, and that they were guided by the advice thus obtained, and rejected the bill by a handsome majority.

The danger is passed for the time being, but it is not eliminated. Safety can come only when the community is convinced and has a realizing sense that general vaccination gives a much needed protection to the public in general. This information should be impressed on the public, partly by the state and local health bodies, but

partly also through efforts of the organized medical profession.

In this connection I believe the medical profession has another duty to perform toward itself. It should see that its members are above criticism in the way vaccination is performed. Let us be frank about the matter. There is danger in vaccination,—not in the vaccine itself, but in the careless methods of using it, which are altogether too prevalent. In Massachusetts a clean, safe virus is furnished by the state to all citizens free of charge. The necessary disturbance from its proper use is so slight that no one would question the desirability of its use in return for the safety conferred. But there is the same danger of infection connected with this proceeding that is inherent in any wound of the skin. If proper aseptic precautions are taken, this danger is averted.

Too many practitioners are careless in this matter. In such cases,—but in such cases only,—infection of a more or less serious character may ensue; sore arms, extensive inflammation, illness and suffering may result. The public have a right to remonstrate against such results, because they are unnecessary; but their opposition should be directed where it belongs,—against carelessness by physicians and not against the process itself.

It is not a proper answer by the profession to show that none or few of these cases are fatal. It is not a proper answer to show that in a vast majority of cases of vaccination no serious harm results. It is a fact that a certain small number of cases of infection do result, either because the physician is careless in the operation, or because he does not sufficiently instruct the patient about the after-care. It should be considered as much a disgrace to a physician to have an infected wound follow vaccination as it is to have it follow a surgical operation, for it is equally avoidable. This is the standard that the medical profession should set for itself, and it should free itself through its own efforts from the reproach of carelessness.

I do not wish to exaggerate the importance of this matter of carelessness in vaccination, but it is in reality an active issue between the profession and the public. A certain number of persons have just reason to complain of the results of vaccination, when it has been improperly performed. In their ignorance they attach the blame to the procedure itself, instead of to the carelessness of physicians, where it belongs. We know they are wrong in this, but we do not come out squarely and correct their error. Why? Because we fear for the reputation of the profession.

As a matter of fact the reputation of the whole profession suffers because we thus tacitly shoulder the errors of incompetent practitioners. Most of them have not been properly trained and do not come up to the standards of the profession set by educated physicians. We do not regard such

men as properly belonging to the profession. Is it not time to make this fact clear to the people? Shall we go on indefinitely accepting without protest the low standard set by the public, and recognize all practitioners licensed on the present basis as members of the profession?

The reputation of the medical profession is a matter that we all have at heart, and properly so. We would all like to feel that our profession is held in high esteem by the community, but we know that it does not command the respect which it deserves. Is this not our own fault to a considerable extent, and not entirely the fault of the community?

I know I am treading on dangerous ground. I know the argument that it is for the public good that people should have confidence in the ability and wisdom of their physicians, and that anything which tends to shake that confidence is fraught with danger. But the public knows there are poor doctors, as well as good ones. Nothing we can say or do can cover up this very obvious fact, and to ignore it is not creditable to our intelligence. If the public is going to attempt to discriminate between good and bad doctors,—and we must confess they are justified in trying to do this,—are we not foolish if we do not instruct them as to the basis on which such discrimination should be made?

This is indeed a delicate and difficult problem. We may be pardoned if we have been reluctant to undertake its solution, or if we have hesitated because we realized that by injudicious action a bad matter could easily be made worse. But the problem of standards in medical practice,—the proper preparation of physicians before they are allowed to practice on the public,—is of vital importance to the community. It is actually before the public in our laws on medical registration and the recurring propositions to make these laws more strict or more lenient.

It is chiefly through the efforts of the medical profession that such laws have been enacted, and that the remarkable improvement in the standards of medical schools has been brought about in the past ten years. This movement is undertaken for the public good. We are in it, and we cannot keep out. It involves fundamentally the recognition of the fact that there have been, and are, poor practitioners. The medical profession, it seems to me, has no option in this matter,—it must take up with the public the problem of the proper qualifications of practitioners of medicine, or else it must accept the stigma of shirking its duty to the public. This duty may not be easy of performance, it may be disagreeable, it may involve admissions that hurt our self-esteem as members of the medical profession,—nevertheless, we should undertake it if we are to remain true to the high ideals of our profession. It must be undertaken on the high plane of public good, and must be kept free from considerations of personal gain.

Previous to 1894 there was no legal restriction in this state as to who should practice medicine. Any one could legally hold himself out as a practitioner, and the public was left to discriminate through its own experience. Such experience was often bitter, and knowledge of a "doctor's" incompetency was often obtained at the expense of health and even of life. Nevertheless people in general did not recognize the need of reform, and the law which was enacted in June, 1894, was due to the efforts of the medical profession. This law was not ideal, it did not contain all that the profession knew was desirable, but it was the best that the public would consent to at that time. This is another illustration of the fact that satisfactory legislative action can be obtained only when backed by enlightened public opinion.

Massachusetts was the seventh state to enact a law for the examination and registration of physicians. Such laws now exist in all states, and Massachusetts had the credit then of being one of the leaders in the movement. But the earlier laws were more or less crude and imperfect. All the states that passed medical registration laws earlier than Massachusetts have since amended them in accordance with more advanced ideas on this subject.

Our law has not been amended in any essential feature since it was passed twenty years ago. It is now the oldest law on the subject in the country. In many respects it is a good law, but in other respects it is very unsatisfactory. The lack of change is not so much a tribute to the excellence of the law as it is to the ignorance and prejudice of the people and to the indifference of the medical profession. Thanks to the personal efficiency of the members of our board of registration in medicine, the results nevertheless have been fairly satisfactory,—as good as the average for the country, and in fact better than in some states which have more stringent regulations. It would be safer, however, to have the protection incorporated in the law itself and not so much dependent on the personnel of the board, which may change.

And so it is twenty years ago that the profession embarked on a campaign of establishing standards for medical practice and tacitly acknowledged that there are physicians who ought not to be allowed to practice on the public. The Massachusetts Medical Society has supported this movement from the start. Through its representatives it has from time to time advocated new measures to strengthen the law, and it has opposed measures which would weaken it. While it has succeeded in preventing any weakening of the law, it has met such violent opposition from interested parties, whenever greater stringency was urged, that nothing new has been accomplished.

Why have we not accomplished more? Is it not because we have gone to the legislative halls without a sufficient backing of public opinion?

We have been beaten time and again because an active opposition has been shown by a small minority of the people, who are actuated either by selfish personal considerations or by a mistaken idea of what is for the public good. It ought not to be difficult to create a public sentiment in favor of better protection, if we would take the trouble to inform the public as to the actual state of affairs. Ask any individual if he wishes to entrust the health and life of the members of his family to incompetent physicians, and the answer will be an emphatic "No." Any one would readily approve of the general principle that only competent physicians should be allowed to practice medicine. The only difficulty lies in the question as to who shall be adjudged competent.

At present each individual citizen is apt to feel that he is competent to pass judgment on this question, although he knows nothing of standards of medical education. Few have any idea of the advances which medical science has made in the past few decades. They do not realize how much can now be done by the application of modern methods, to recognize conditions of disease more accurately, and to treat these conditions more successfully. They do not realize that a thorough preliminary mental training, a knowledge of the fundamental sciences, and then four years of hard study in a good medical school, are necessary if the student is to master even the fundamentals which would make him a skilful physician. It ought not to be difficult to make people understand these plain facts, if they are presented properly; and they must understand them before they can form an intelligent opinion about medical education. If they once grasp the significance of these facts, they will not be satisfied with a law which obliges the registration board to examine candidates without any restriction whatever as to previous medical training.

People have naturally assumed that the state was giving them adequate protection in this matter. Even the members of the medical profession do not generally realize how far Massachusetts has dropped behind, in comparison with the progress made in other states throughout the Union. It is hard to believe that Massachusetts, with her reputation for intelligence, for leadership in educational matters, and for progressiveness in the protection of her citizens, should be one of the states that gives the least protection to the public in the laws on medical registration,—but it is a fact.

Massachusetts merely requires that an applicant for registration shall furnish satisfactory proof that he has attained the age of twenty-one years and that he is of good moral character. There are no educational requirements whatever. If he fulfils these requirements and pays a fee of twenty dollars, the board must give him an examination, and must give him authority to practice medicine if he passes it. If he fails, he is entitled to re-examination without

charge within one year. By paying fees, he is entitled to further examinations. The examination is the only protection we have against untrained doctors.

There is only one other state, Tennessee, which is on this same low basis of requirements. Besides these two states, there is only one other, Oregon, which does not require that a candidate shall be a graduate of a legally chartered medical school. There are only six states in which the licensing board does not have authority to exclude graduates from schools of which it does not approve. These include Wyoming, Utah, and the District of Columbia. Fine company for the proud commonwealth of Massachusetts!

In thirty-two states the licensing boards are utilizing their authority to refuse recognition to low-grade medical colleges. As a result graduates of these colleges must flock into the other eighteen states, which thus become the dumping-ground for these poorly-trained medical students. (The District of Columbia and Porto Rico make a total of fifty "states" in these statistics).

Do we want to admit practitioners of this type from all over the country? Massachusetts is already overstocked with practitioners of medicine. There is not the slightest reason, as far as the benefit of the public is concerned, why a single poorly prepared physician should now be admitted to practice. It is the height of folly to have laws which invite these men to apply in this state. If it were not known that the examinations, as administered by our registration board, are difficult, they would flock here in very large numbers. Even as it is, 126 who were not graduates were examined in the past five years, and the number coming to this state is increasing. This number was 9% of all applicants examined in this period. Forty-eight, or 38%, of these non-graduates passed the examination and were licensed to practice medicine.

The statistics of medical registration for 1913 are still more convincing. In speaking of medical schools, the classification of the American Medical Association will be adopted. Those in Class A plus and Class A will be considered desirable, and those in Classes B and C will be considered poor, or low-grade schools. In 1913, of all applicants examined in Massachusetts,

- 45% were graduates of desirable schools in Massachusetts
- 25% were graduates of desirable schools outside of the state.
- 13.3% were graduates of poor medical schools
- 16.7% were non-graduates
- 100.0%

Thirty per cent. of the applicants, therefore, had had an inadequate training. Moreover, while 3.9% of all graduates examined in the country came to Massachusetts, 19.1% of all non-graduates were examined in this state. The relative proportion of non-graduates coming is, therefore, five times as great as of graduates.

Our only protection against poorly-trained practitioners lies in the state board examinations. It is a tribute to the members of our board of registration that, with so poor a law, the percentage of rejections is practically the same as for the country at large. But is the protection of this examination sufficient? It is generally recognized that a student can be coached for such examinations, and that there are physicians and cramming schools that make a business of such preparation. Candidates of this type do pass the examinations in Massachusetts, and in considerable numbers. Figures will be given later.

The examination is a weapon of defense, but alone it is an inadequate one. It is as if our board were equipped with muzzle-loading rifles, while the boards in most states use modern breech-loaders. Granted that the members of our board are sharp shooters and can do fairly effective work with muzzle-loading rifles, would they not do better work with modern weapons? Would our citizens rest satisfied if they knew that soldiers who would defend them from a foreign foe had only old-fashioned muskets? Would they be satisfied if they actually realized that the board of registration does not have modern, approved weapons of defense against the invasion of poorly-prepared candidates from all over the country.

The attitude of the licensing boards of the country toward medical schools is shown by the following figures. Out of the 107 medical colleges in the country, only

- 31 receive full recognition in all states.
- 33 are refused in from 2 to 9 states,
- 43 are refused in from 10 to 32 states.

The 20 schools in Class B are refused in from 10 to 15 states, with an average of 12.7 states. The 22 schools in Class C are refused in from 17 to 32 states, with an average of 30.2 states. None of these can be refused in Massachusetts under the present law.

The extent of the menace of poorly-trained candidates, and the fact that large numbers of these succeed in passing state boards is shown by the following figures. During 1913, the number of such applicants examined throughout the country was 2784,—43% of all those examined. Of these 1974, or 71%, passed the state board examinations and were licensed to practice medicine. They constituted 38% of all who passed. The reason why so large a percentage were successful is that these untrained men select the states in which the protection is least effective.

The figures in detail are as follows:—

	Examined.	Passed.
Graduates from schools in Class B (19 schools) .....	884	700
Graduates from schools in Class C (21 schools) .....	821	580
<b>Total from schools in Classes B and C ..</b>	<b>1705</b>	<b>1280</b>

Graduates from miscellaneous schools (Not A plus, or A) .....	698	406
Graduates from Canadian schools (Grades B and C) .....	41	25
Graduates from foreign schools (47.2% failures) .....	89	47
Non-graduates .....	251	156
Total .....	2784	1974

The statistics for Massachusetts show not only that we have a relatively large number of such applicants, but that our examinations do not make an effective barrier against them. Eighty-six, or 30%, of all applicants belonged to the group of poorly-trained candidates. Of these, 35, or 41%, passed the examinations. These constituted almost exactly one-sixth (16.3%) of all who passed the examinations. Let me repeat the statement that Massachusetts is overstocked with practitioners and we do not need a single one of these poorly-trained men.

For the proper protection of our citizens, we need to have our registration laws strengthened. Candidates for examination should have a degree in medicine from an approved medical school. The board of registration should be given power to establish standards of medical education, and to recognize only the degrees of schools which it approves. Accepted candidates should be required to pass a thorough written and practical examination.

Few of our citizens would be satisfied with less, if they understood the facts. Let us hope that an aroused public sentiment will demand such protection in the near future. Let us hope that Massachusetts will soon follow the example of Pennsylvania and demand in addition a year of training in an approved hospital. It is only common sense to require this amount of practical experience with sickness. It is better for the community that this training should be gained at the hospital, under the supervision and guidance of the hospital staff, than that it should be obtained, without that supervision, by experimenting alone on the public after one is licensed to practice.

I have cited four important health problems which have recently been under consideration, the decision of which rests with the representatives of the people. They are the policy of the state as to its board of health, the problem of clean milk, vaccination, and the standards for the practice of medicine. This does not exhaust the list of important measures of this character, but these illustrative examples show the importance of the health problems which come before the legislature for decision. They should, of course, be decided on the basis of the greatest benefit for the community as a whole, but unfortunately they are often decided in accordance with the clamor from a very small minority of interested persons, or in accordance with political expediency.

The remedy for this condition of affairs is for

the people to demand their rights in health legislation. The legislature would not dare to oppose a general demand of this character, but no such demand will come as long as the people are so ignorant that they do not understand these problems and therefore do not realize that their welfare is at stake. They must be educated so that they will understand the situation, and no body of men is as well qualified to instruct them as the medical profession is.

I have already pointed out that the medical profession has done a great deal for the public in this direction. It is one of the honors of the profession that it has always given fully of its wisdom for the prevention of disease, and for the preservation of health, notwithstanding the fact that its members get their livelihood by treating the very conditions they are trying to prevent. Social service of this type has been assuming new forms, to meet new conditions that have arisen in recent years; and the systematic, direct instruction of the public in health matters seems to be a form which our service to the community must necessarily take in the immediate future.

One reason why this movement has not gained more headway is the magnitude of the task. We must recognize also that such work by the medical profession is performed without financial return, and that there is a practical limit to the amount of such a work a physician can perform. We cannot speak too highly of the generous service given by those representatives of our society who have been active in this work, as members of our committees. No criticism attaches to them, but the same cannot be said of the members of the society in general. With few exceptions they have been indifferent, or have been unwilling to make personal sacrifices. Unless our committees have the active support of a large number of the members of our society they cannot do any better than they have in the past, and they cannot undertake this new problem of education with any assurance of success.

That it is feasible for our society to carry out educational work of this character was demonstrated a few years ago by the excellent work in a campaign of education on the subject of tuberculosis, under the leadership of the late Dr. Arthur T. Cabot. This work was in charge of a central committee, and was carried on through individuals, or committees of our members, in all parts of the state. The success of this work led to the creation three years ago of a standing committee on public health, which could deal with such problems on a broader basis. The by-laws define the duties of this committee as follows: "The committee shall consider measures for the improvement of the public health, and shall perfect plans for educating the profession and the lay members of the community in the special subdivisions of this department of medicine." Our society is therefore on record in favor of the education of the public in health matters, we have the necessary machinery, and

all we need is the general coöperation of our members.

Such an educational campaign, however, does not belong to our society alone. All agencies which can help should coöperate in the movement, but there must be some central organization which shall direct and coördinate the work of these various agencies, if the best results are to be obtained. The problems are essentially medical in character and should have medical supervision. One reason why our standing committee on public health can advantageously undertake this general supervision is that it would better coördinate such work in our state with the educational work of the American Medical Association, which is nation-wide in its scope. This work on the part of the American Medical Association is under the charge of its council on health and public instruction. The council would naturally turn to a committee of The Massachusetts Medical Society, a constituent member of the association, for help in any work which it wished to carry on in this state. On the other hand, our society has the right to call upon the council for aid in any work which we may wish to undertake. Thus the united resources of the national and the state medical organizations can be brought to bear on this problem.

The council on health and public instruction has already performed valuable service in the instruction of the public. It has prepared pamphlets on a number of medical and health topics, which are especially designed for the public and can be distributed free or at a nominal cost. It has organized a lecture bureau, through which it can furnish to lay organizations various kinds of lecturers who stand in the front ranks of our profession. It has placed itself in touch with the lay press and furnishes interesting and reliable medical items for publication. Through this arrangement a weekly bulletin of such matter is sent to 5000 newspapers throughout the country.

These are but a few of the useful measures of this sort that the council has inaugurated in the past few years. In all of this work it asks the coöperation of the state societies, and our committee on public health will give such coöperation. In its last annual report the committee stated further that it was coöperating with other committees of our society and also with other organizations interested in public health.

The help of these various organizations will make it more practicable to carry out any systematic scheme of public education that may be inaugurated. Without such help the medical profession could hardly hope for success, because of the magnitude of the undertaking. On the other hand medical guidance should be of great value to the lay organizations, both in making their work more effective and in avoiding mistakes which a knowledge of medicine might prevent.

Much of this work of instructing the public in

health matters would properly belong to the state board of health. That body will undoubtedly develop this side of their work. In the meantime, until the public better appreciates the value of such a plan and the legislature is willing to furnish the necessary funds, the initiative and the preliminary work must fall on the medical profession and on other public spirited individuals and organizations.

In any campaign of public education that we may undertake, the lecture platform and the public press must be utilized. It was not many years ago that the general sentiment of reputable physicians was against the use of either of these means of reaching the public. They were freely used by quacks and the patent-medicine makers. Reputable physicians did not wish to appear in such company, and they shrank from the possibility that efforts to reach the public through these channels might be interpreted as self-advertising. Times have changed. A physician today does not hesitate to lecture to lay audiences on subjects of general public interest. It is no longer considered bad form to have one's name appear in the newspaper in connection with medical and health problems. Nevertheless, many physicians shrink from publicity of this sort.

The hearty coöperation of the medical profession and the press in matters pertaining to the public health is very much to be desired. No single factor is more powerful than the newspaper in moulding public opinion, and in no other practicable way can we reach so large an audience as through the press. Such coöperation is easier today than it would have been a few years ago, because the better papers are now essentially free from the advertisements of quacks and patent medicines, and the press has recognized that the public is interested in legitimate medical information. Many papers have medical departments; and special articles on health topics, by laymen and physicians, are not uncommon. But such information is rarely contributed by the leading authorities in medicine, and the papers are still seeking what is novel, startling, or sensational, rather than information that is beneficial for the people.

Many physicians have been deterred from giving legitimate information to the press because, through mistakes due to ignorance, or through misrepresentation and exaggeration, a garbled statement has appeared in print which the author was ashamed to acknowledge. The editors and reporters who handle medical matters should be sufficiently well informed to give an accurate and intelligent account of such information as is furnished. Some papers appreciate sufficiently the importance of having such information reliable to have a physician on the editorial staff, who will censor all material of this sort. It would undoubtedly be a satisfaction to the press in general to know that the organized profession is ready to coöperate and that the papers could turn to our representatives

for reliable information. In turn, the papers should be willing to print such information as our committees wish to place before the public in a campaign of education. Such coöperation between the profession and the press must be handled judiciously, or else the profession will lose and not gain in public estimation. It is not desirable that every medical man who seeks notoriety should be allowed to rush into print as a representative of the profession. Self-advertising must be guarded against as much as ever. The press should recognize in this work an opportunity to perform a most important public service.

I wish finally to say a few words about health education in our schools. This subject has in the past received scant attention in the schools, and this is an important reason why people who are well-informed on other subjects are often ignorant about medical matters. Not only has the instruction in the schools been very deficient, but it has been difficult for those who were interested to get information from reliable sources elsewhere. Here is another new field for medical men of the highest type,—the preparation of popular books and treatises on medical subjects that have a general interest.

A reasonable knowledge about the body and its functions, and about hygiene and the proper mode of life to maintain health, should be an important aim in everybody's education. This study of hygiene and health should have its proper place in the school curriculum, yet no subject of anything like the same importance has been so much neglected. The result has been that people have grown up essentially ignorant of the fundamental medical truths. They have gathered information where they could, and have been ready to accept any statements that have appeared in books, magazines, or the daily papers. Unable to weigh the evidence, through lack of knowledge, they have accepted all kinds of statements with a strange credulity. They have believed the statements of the quack and the extravagant claims of the advertiser of patent medicines fully as readily as the statements of an educated and disinterested physician. Thus much misinformation has resulted from this lack of education.

Since 1885 the laws of Massachusetts have required that physiology and hygiene should be included in the list of subjects taught in the public schools. The law especially mentioned that instruction should be given as to the effects of alcoholic drinks, stimulants and narcotics on the human system. The law owed its origin to the temperance enthusiasts in a campaign against alcohol and tobacco.

This was reflected in the early text-books, whose excellence seems to have been measured chiefly by the degree to which they exaggerated the ill effects of these substances. The general problems of health received scant attention. Although the present system of health instruction,—excellent in many places,—has resulted from

this movement, it is a question whether the large problem of general instruction in health was not retarded a number of years because of the narrow, prejudiced way in which it started. This has its lesson in considering our problem today. Better results would follow if the medical profession originated or directed movements of this sort, instead of leaving them to lay enthusiasts. There are problems of health education today, advocated by men and women with the best intentions, which will be adopted in an extreme and one-sided form unless the medical profession wakes up and contributes the knowledge, judgment, and breadth of view which it alone can give. Among the most important of these is sex-education and social hygiene. This subject is definitely before the community; it has attracted much attention, the interest of the public is deeper than mere morbid curiosity, and some solution of the problem must be found.

The medical profession as a whole has been strangely indifferent in this matter of sex education. Recognizing the many objections to the public agitation of this subject, we were perhaps justified in keeping out of the discussion when the subject first came up, in the hope that the excitement might quickly subside. But it has not subsided and is not likely to. We do not adequately meet the situation by deploring the fact that the agitation will not down, nor by criticizing the movements and its advocates as "hysterical." We should turn our superior knowledge and judgment toward a sane, constructive solution of this problem, and we should not be satisfied merely with destructive criticism. It may be a disagreeable job and we may not relish undertaking it, but it is none the less our duty to contribute our advice and influence toward a right solution.

Returning to the subject of instruction in physiology and hygiene in the public schools, as a means of educating the public,—from the limited scope of the early teaching the instruction has broadened out so that now more or less satisfactory instruction is given. Conditions vary in different places in the state. While in some places such instruction is but a poor fulfilment of the lowest requirement of the law, I am glad to say that the system of instruction in the Boston schools is unusually good, and is probably unsurpassed in the country.

Few of us realize how excellent this system is. It embraces not only instruction in physiology and hygiene, but physical training, and the supervision of the health of the pupils. In 1885 the school committee appointed a special instructor in physiology and hygiene to carry out the mandate of the law recently enacted for instruction in those subjects. In 1894 the Boston board of health inaugurated the system of medical inspectors of schools. But the most important step of all was the creation of the department of school hygiene in 1907. Dr. Thomas F. Harrington, a member of our so-

ciety, was appointed director of this department at its beginning and has held this position ever since. To his ability and energy the success of this work is chiefly due. A most important feature has been the appointment of school nurses. The supervision of the health of the pupils would be still more effective if the school physicians were transferred from the charge of the board of health to the department of hygiene under the school committee. This would make a compact organization, with the work more effective because controlled and directed by one head.

The aim of the department of school hygiene is to care for the health of the pupils, to develop healthy bodies, and to teach preventive medicine in its simpler forms in a practical way. The department has charge of the teachers and instruction in these subjects throughout the schools of all grades. Athletic training and sports are also included. Healthy morals are taught in an unobtrusive way. The pupils learn that a pure mind should go with a healthy body. There are no set lectures on sex hygiene, but the subject is taken up incidentally with small groups or with individuals in connection with physical training. This method is free from many of the objections to formal instruction and seems to be fully as effective. The department supervises the training of those in the normal school who intend to teach physical training, and is thus developing a more and more effective corps of special teachers. The practical application of the teaching in hygiene is insisted on in the schools, both as a practical demonstration of the teaching and for the health of the pupils.

This brief description of this system does it scant justice, but it shows that in Boston at least the problem of instructing the coming generation of citizens in health matters is receiving satisfactory attention.

A most excellent system has also been developed for extending the instruction in health matters beyond the limits of the schools. In each district a home and school association is formed, composed of the teachers and such parents as are willing to join. Monthly meetings are held, and through lectures and discussion the effort is made to teach the parents what their children are learning at school in these subjects. From the school point of view this is very useful because it secures the coöperation of the home in teaching the pupils right methods of living. For the community it offers a most desirable means of educating the public.

There are about seventy school districts in Boston. If it were possible to make an association in each district an active centre for disseminating health instruction, an immense benefit would result. This work is already developed to such an extent and has been so successful as to warrant great hopes for its future usefulness. One of the practical ways in which the organized profession can be of great help in the education

of the public would be by coöperation with the department of school hygiene of the city of Boston in this work. A sufficient number of lecturers, who can be depended upon, could be furnished easily, and would add much to the effectiveness of this work.

In this brief discussion of a very large subject I have tried to show the importance of health measures to the community, and, by considering a few of the important measures, to show that progress depends upon intelligent public support. Efficiency and conservation are the watchwords of the present day, and the public is just beginning to realize the significance of the enormous waste of human life from preventable diseases. Medical science,—especially the branch of modern sanitary science,—can do a great deal to remedy this condition of affairs; and the public is sane enough to profit by this knowledge, if it only understands the problems. The people must be taught, and it seems incumbent on the medical profession to take the lead in such an educational movement. The Massachusetts Medical Society will not be true to its traditions, if it does not recognize the necessity for greater activity in this direction and does not take the leadership which rightfully belongs to it.

We have considered this problem entirely from the point of view of benefit to the general public. There is, of course, another side to the question,—the economic side for the profession. We often hear comments on our altruistic attitude, as if by endeavoring to eliminate preventable disease we were throwing away our bread and butter. Let us consider this problem for the moment from a purely selfish standpoint. To the extent that this movement is successful, there will of course be fewer cases of infectious diseases for us to take care of. But sanitation cannot go on properly without our help, and a relatively new field of public service opens before us. Many will be employed in preventing diseases instead of trying to cure them.

Nor is the future gloomy for those of us who do not take up sanitation. While there will be less acute disease, there will be plenty of chronic ailments and degenerative changes to occupy our attention, for the human body must deteriorate sooner or later. Furthermore, people will not learn the lesson that prevention is better than cure, as applied to the community, without demanding the same benefit for themselves as individuals. We may in the future direct the health of our patients more than we treat their diseases, but there will be more rather than less for us to do. We do not deserve any pity, for we shall not suffer unless we are so lazy or so unprogressive that we will not adjust ourselves to these changes. Such adjustments should be easy, for the changes can come only gradually, and if we have not sufficient knowledge or cannot learn the things that will enable us to be successful in these new fields of practice, the profession and the community will be better off

without us. An incompetent physician has no moral right to consideration at the expense of the public.

These changes only determine the direction in which we must develop. Progress is the life of the medical profession, and it should not be considered a hardship if we are obliged to be progressive. One thing is certain,—the physician of the future must be better educated and more capable than in the past. He must have a more thorough knowledge of the bodily functions, he must make a more careful analysis of the conditions of disease, and he must adapt his treatment more accurately to meet these conditions in individual cases. The mere treatment of symptoms, or the routine administration of drugs according to the name of a disease, does not meet the requirements of medical science today.

Medicine is progressing along the lines of a deeper study and a better understanding of physiology, and a better knowledge of the complex chemical and physical processes in the body. Therapeutics is placing less reliance on drug treatment and is laying greater emphasis on the regulation of bodily functions by physical measures. The prevention of disease by right living will be as important a feature of medicine in the future as the cure of disease has been in the past.

If, then, we keep pace with the demands of modern medicine, we shall profit rather than lose, by the education of the public to an appreciation of the benefits that medical science can offer. Such knowledge will lead to a higher respect for the profession at large and a better appreciation of our efforts as individuals. Therefore, from a selfish point of view as well as from our duty to the community, we should rouse ourselves—both as a society and as individuals—to make this educational movement a success.

—♦—

PRESIDENTIAL ADDRESS OF FR. WALTER P. BOWERS, OF CLINTON, AT THE ANNUAL DINNER OF THE MASSACHUSETTS MEDICAL SOCIETY, JUNE 10, 1914.

It is customary for your president to make a few remarks before calling on the speakers who are to entertain you, and to review some of the important activities of the year, and to make suggestions.

In our Society there are two great divisions of labor; first, the work of the scientific sections, devoted to a study and elucidation of the important questions pertaining to the prevention of disease and the practice of healing; the other, necessary in order to coordinate effort, with a view to maintain efficiency and influence, which deals with the ways and means and the organiza-

tion and management of the Society as a working machine.

The social functions of our Society are only incidental and subordinate.

Many of you, finding so much that is interesting in the study and practice of medicine, leave the consideration of the executive affairs of the Society almost entirely to those who have been elected to the several offices, and while the work of the sections has shown that those with scientific minds and training are doing most creditable work, it is fair to urge upon you, the responsibility of each one also to familiarize himself with the work of your officers to the end that we may weld the component parts into the most effective organization possible.

There are many plans under way which call for careful consideration in order that only those methods may be adopted which have been perfected and made to be instrumentalities for better conditions. These have been devised by thoughtful members with the hope of making this society more potent as an agent in promoting your usefulness and consequently the welfare of the state.

During the past year you have slightly changed your financial system so that now the expenditure of your funds is supervised and endorsed first by the committee on membership and finance, and then appropriations made by the council; not as heretofore, when it was the custom for officers and committees to spend money without any understanding of the proportionate demands of different departments.

The fiscal year has been changed so as to bring our affairs into harmony with those of the American Medical Association. Your by-laws have been revised and published for the twentieth time since they were first printed in 1804, so that you see the society is trying to adapt itself to changing conditions from time to time. We began this year with a membership of three thousand four hundred and thirty-two, and have lost by death thirty-nine, and in various other ways, sixty-five, but the admissions bring the enrollment up to three thousand five hundred and four. This is more than sixty-one per cent. of the legal practitioners of medicine in this state. But there are still a considerable number of men up to our own ethical standards who are not affiliated with us, and every district society should seek out these men and urge upon them the desirability of uniting with us to our mutual advantage.

Your committees have been actively at work along the lines of their several functions, and have reported progress. These reports have been accepted in most instances without much discussion or modification,—a testimonial to the high quality of the work done.

While some of your committees are able to manage and complete work entrusted to them, without requiring your cooperation or assistance, and thereby have relieved you of responsibility, one of the hardest working committees,