

**Address.****THE RELATIONS OF THE MASSACHUSETTS MEDICAL SOCIETY TO MEDICAL EDUCATION.<sup>1</sup>****A PLEA FOR PROFESSIONAL INDEPENDENCE.**

BY JAMES C. WHITE, M.D.

MAY I be permitted to ask your attention to some of the new questions which are pressing themselves upon those most intimately concerned with medical education? Whatever affects the training of the future members of this Society should interest you as much as those whose duty it is to superintend it. They may often need your support in settling such problems, and you may well exercise an inquiring function with regard to their plans, or their failure in carrying into execution such reforms as seem to you important.

The following appeal was recently addressed by the Johns Hopkins and other Maryland schools to all the medical schools of the country:

*To the Medical Colleges of the United States:*

The Baltimore Medical Colleges and the Johns Hopkins Hospital, having met for the consideration of reforms urgently needed in the system of medical education hitherto in operation in this country, after a full discussion of this most important subject, have come to the conclusion that it is not expedient, nor indeed practical, for the medical schools of any State to assume alone the responsibility of adopting advanced methods; yet fully convinced of the pressing need of a change, and earnestly desirous to see it consummated, they are unwilling to let matters rest longer as they are, without at least an effort on their part to improve them. They have determined, therefore, to issue this appeal to the medical schools of the United States for their coöperation in inaugurating a national advance.

At the conference, which is asked for, the following subjects are proposed for discussion:

- (1) Three years' course of six months' sessions.
- (2) Graded curriculum.
- (3) Written and oral examinations.
- (4) Preliminary examinations in English.
- (5) Laboratory instruction in chemistry, histology, and pathology.

It may not be without interest to consider how far behind the present position of Harvard in these particulars, long ago accomplished independently, such an "advance" would range itself.

(1) Instead of the proposed three years' course of six months' sessions, we already have a minimum one of three years of nine months continuous study, or a ratio of 27 to 18, with another nine months optional.

(2) A carefully graded curriculum has long existed with us.

(3) Our examinations are either wholly written, or partly oral also in those departments where the latter method is better adapted to test the practical knowledge of the student. In other branches, laboratory and manual examinations are also required.

(4) In addition to a preliminary examination in English, a knowledge of Latin, physics, and of one of the following subjects: French, German, algebra or geometry, and botany, is required for admission to the Harvard Medical School.

(5) In addition to laboratory instruction in chemis-

try, histology and pathology, similar courses in physiology and bacteriology are open to our classes.

It will be seen, therefore, that a medical school may independently advance its instruction far beyond the limits which the movers of this appeal believe to be impractical for the schools of the country to adopt without concerted action. Such independent action is indeed a serious test of the sincerity of such professions in favor of reform in medical education, but must eventually ensure the true success of every school that boldly carries it into execution. This action of the Baltimore schools is commendable, however, even if its recommendations fall short of a very high standard of advance. It is to be hoped especially, that some minimum standard, at least, of thoroughness and comprehensiveness in examinations may be adopted, and that all schools shall be obliged to publish every year the examination papers of each department, with the ratio of students who fail to pass in them, as Harvard has long done. In such way only, so long as the power of conferring degrees in medicine remains with the bodies which give the instruction, can the worth of such diplomas be properly estimated.

You may be interested to receive information concerning the workings of the four years' course in the medical school, as now conducted.

There stands now upon the official announcement of the school the statement that the degree of Doctor of Medicine is given at the end of a three or a four years' course of study, as the student may elect; and such a provision has had a place in the curriculum for ten years. The number of students who have availed themselves of this opportunity of prolonged study during the last five years has been: in 1885-86, 18; 1886-87, 21; 1887-88, 10; 1888-89, 13; 1889-90, 23.

The number of students in the third class in the same years has been respectively: 65, 71, 62, 68, 77. A comparison of these figures would seem to warrant the conclusion that a considerable proportion of the students of the third year pass naturally into the fourth, inasmuch as last year there were sixty-eight in the third class, and this year there are twenty-three in the fourth. This would be in fact a very good result, if nearly one-third of a class voluntarily took the four years' course, and it might seem, therefore, as if before long the problem of making the fourth year compulsory would be easily adjusted, but an inside analysis of these figures does not afford so satisfactory a deduction.

In the first place a student may become a member of the fourth class, and be so registered in the catalogue, without having passed in all the studies of his third year; in other words, fearing that he may fail to pass the examinations requisite for the three years' degree, he may present himself in a majority only of the third years' studies, and take the additional year to perfect himself in the remainder. Again, any student failing to obtain his degree in three years may, if successful in passing a majority only of the required third year's courses, enter the fourth class. It is evident, therefore, that the fourth class may contain the names of students who are not seeking advanced instruction, but who have failed in the ordinary three years' course, and require four years' study to graduate in the three years' course. Again, an ever increasing number of students is yearly taken into the hospitals of this city on terms of service varying

<sup>1</sup> The Annual Discourse before the Massachusetts Medical Society, June 11, 1890.

from three to eighteen months. In some of these institutions they are not received until they have completed their three years of study. Thus it happens that a considerable number of such men enter their names as members of the fourth class, to which they are admitted at a greatly reduced fee, and are virtual and active members of it but a short time before their term of hospital service begins. They may have no intention of pursuing the courses of the fourth year, or of offering themselves for its degree, and, if they choose to do so, may obtain it by passing in one-half the branches required of the regular fourth-year student. In this way it happens that the names of some of the best men in the school may appear in the list of the fourth class, and represent no genuine membership in the same. Again students may be attracted by some of the courses of the fourth year, and remain to pursue an optional line of studies without regard to any prescribed direction, taking no active part in any of the exercises, and having no intention of offering themselves for the advanced degree. It will be seen, therefore, that the fourth class has a motley composition. It contains, in fact, some of the poorest and a few of the best students, some temporary and trifling members, a few earnest workers in advanced study.

The justice of this analysis is clearly shown by the degrees taken. In the past five years there have been enrolled in the fourth class the names of seventy-eight students, of this number only thirty-one have taken the fourth-year degree. During the same period three hundred and thirty-five degrees of M.D. have been given, in which are included the thirty-one advanced degrees above noted. In other words only thirty per cent. of those classified as fourth-year students take the fourth-year degree, or the advanced degree forms but nine per cent. of all degrees issued.

It is evident, too, what must be the effect of such a mixture upon the nature of the instruction given in the fourth year. This is largely individual in character, although given to small classes. The tone of every exercise must, of necessity, be kept down to the level of the comprehension of the poorest student of the set, to the detriment of the better men and teachers alike. Advanced instruction under such conditions is an impossibility.

Let us consider what is the character of the instruction which makes up the curriculum of the fourth year. Fourteen courses are offered, chiefly clinical, all or which the student may attend, and among which he may make choice of certain branches in which he may present himself for the advanced degree, based on ten hours examination, two hours being the longest time required in any one course. It appears, therefore, that the advanced degree may be based upon a certain amount of knowledge in only five of these special branches. Six other courses are offered in which no examination is required. It is evident then that the fourth-year degree carries with it no definite idea of the requirements on which it is based. It may mean a certain amount of knowledge of a few special branches, or half this amount of twice this number, or in the case of hospital internes only one-half this quantity, the other half being supposed to be supplied by hospital work.

It will be seen, therefore, that the advanced degree in medicine offered by Harvard University represents a variable amount of requirements, and a greater diversity in its character. Now it is the character of the instruc-

tion, on which the whole principle of the fourth year is at present based, which demands the closest criticism. The regular three years' course, on which the degree of doctor of medicine is still almost exclusively given, is as crowded, and therefore as insufficient, as before this was instituted; three years in America, whereas four, five, and six years are required in other countries. It goes without saying that three-fourths, three-fifths, or three-sixths represents the amount of knowledge possessed by the American physician, compared with his European colleague at graduation. This is no question of national aptitude, but of time. What the American student needs is more time for systematic training. He needs every minute of four years at least to devote to the studies of the present three years' course, and his instructors need it just as absolutely. Some of the essential branches of medicine are now rushed and slighted by the latter, that the whole ground (as the expression is) may be covered in the scant time allotted to it, and students must pursue the same rapid pace to keep up in their courses. He who runs, reads superficially. What we should have, must have, is a systematic distribution of medical studies, comprising all branches in due proportion, in a progressive course of four continuous years, and required examinations in every branch taught. We then shall have taken one step forward towards placing ourselves upon the plane of medical education of all other civilized countries.

The fourth year now is essentially a graduate course, mostly a duplication of the instruction given in the latter department of the school, and is wholly elective in character. It would be a much simpler and better plan for students who desire the sort of extra training in special branches, which now constitutes the instruction of the fourth year, or to study a specialty, to take the third-year degree at the ordinary time, and then pass an additional year in the graduates' course. This, moreover, would relieve the instructors of an oppressive amount of duplicate teaching, and allow them to use their clinical opportunities to double advantage for all. As it is, the graduate course, which has attained so enormous dimensions in other large schools, has been well-nigh sacrificed with us to such a false system of under-graduate education. Graduate instruction should be restricted to graduates, and instead of attempting to educate a few men a little way in special branches, as they may individually elect, by means of the present fourth year, we should use it to raise every student at graduation to the uniform and higher standard which the profession demands.

The whole question of electives in medical education is, to my mind, one which requires serious consideration. Not only are all the courses of the present fourth year, as above stated, elective, but a beginning has just been made to introduce the principle into the regular three years' course, as well. Candidates for a degree are now required to take examinations amounting to two hours, chosen by the student from a list of seven special branches, in addition to those required of all.

Whatever may be claimed for the superiority of the elective system in the under-graduate department in Harvard over the older methods of the college days of some of us, and this must be considered at least an open question until we know what sort of men it makes compared with the product of the earlier system, a test not yet consummated, the practice has hitherto

been maintained of taking from the graduate in arts, on entering the medical department, all such power of choosing his own course of study, and of restricting him without the slightest deviation to a progressive system carefully elaborated by his instructors. It has been believed that a body of mature physicians, practitioners and teachers, was the only competent authority to regulate the studies of the medical student in such way as to best fit him for professional life. His own opinion upon such matters has not been considered as worth the asking. It has been regarded as absolutely imperative that the degree of M.D. should have a fixed and definite meaning, and represent at least, a minimum of knowledge in the most important, general branches of medicine. Any more advanced training in special directions has been properly deferred until after such a ground-work of medical knowledge has been secured in the far too brief three years time required. The education of specialists has been regarded as entirely out of place in our regular course of study.

The recent introduction of elective courses into the crowded three years' curriculum, is, therefore, in my opinion, a dangerous innovation, for, if the student have the leisure to pursue such courses, it had better be given to the attainment of a higher standard of fitness in general medicine; or if this be regarded merely as a beginning of a required examination in all the branches taught in the school, the selection of such courses should still not be left to the student, who is too often guided by the popularity or manner of the individual teacher, irrespective of the value of the subject itself to his future professional life. It will be time enough for the introduction of electives into medical education when every student has been under systematized training for four full years, and subjected to a proper examination in every branch of medicine thought worthy of a place in a medical curriculum.

But if the present fourth-year be of this unsatisfactory or make-shift character, in reality only a form of graduate instruction under the guise of a legitimate four years' course, and if such an opinion of it be held by members of the Faculty (and upon this and all other subjects I may discuss I profess to express my individual opinion alone), why not give it up, it may be asked, and establish a genuine and compulsory four years' course? It is hardly necessary to state that this question has received the serious consideration of the Faculty, and that the answer is: lack of funds. The support of the extensive laboratory departments, or the preliminary branches of medical education, hitherto so far in advance of those of other medical schools in the country, and the salaries of the extraordinary number of teachers (some seventy, or one to every four and a half students in the school, a proportion which no other school in the world, to my knowledge, approaches, although the amount paid to the individual is ridiculously inadequate), absorbs every cent of the present income derived from endowments and students' fees.

The tuition is now higher than that of most of the other medical schools in this country, namely \$200 per year, and the terms being also longer, nine months, the outside expenses of room and board materially increase this sum. If, in order to obtain the Harvard degree of M.D., the resould be added to this amount in every case the expenses of another year, the number of students able to pay the cost of a medical education in our school would be greatly reduced. Now it is not only desirable for the future character of the

profession that the number of students in attendance upon such a school should not be diminished, but it would be impossible, in fact, to carry it on, even at its present standard of efficiency, under the slightest reduction of income.

A careful estimate has been made within a short time of the magnitude of an endowment fund, by the aid of which it might be safe for the school to so lower the price of tuition that the number of students might not be seriously reduced, if the course were prolonged. It was concluded that it would be imprudent to make the fourth year compulsory, unless a permanent fund of at least \$200,000 could be raised, or a guarantee income for a term of years in the beginning sufficiently large to meet the certain deficiency in the amount of students' fees. Some effort has even been made to raise such a fund, or guarantee, among those who have hitherto been very generous in their gifts to the school, but it was found that the time was unpropitious to such an undertaking, and so the matter rests. When, therefore, it is asked why Harvard does not increase its course of medical study to the much talked-of four years, you may reply, because she cannot. If this Society desires to see such a necessary reform carried out, if her alumni all over New England, who are in earnest in urging this measure, will assist in making it possible you will not find her hard-worked and poorly-paid body of instructors behind you in efforts to accomplish it. Without your aid it cannot be done.

One generation ago the number of teachers of all grades in the medical department of Harvard University was only ten, to-day they are seventy, the number of students being about the same now as then. At that time there were only 142 hospital beds available for clinical teaching, now the hospitals of the city contain 1,316 beds, nearly all of which are utilized for this purpose. At that time there was no regularly organized out-patient service to which students had access, now the number of out-patients treated in our various institutions is 100,000, most of which are made of benefit in medical teaching. The regular course of instruction then given in the school occupied but four months, and the student was required to listen to a repetition of the same the second year of his attendance. Now a progressive curriculum, covering twenty-seven or thirty-six months, is provided, with optional summer courses in addition. A degree was then given after forty-five minutes oral examination to every student who could obtain a low average in five out of the nine branches required. Now forty hours of written examinations are required, besides extensive practical tests in many of the departments. It seems scarcely credible that such a contrast between now and then can be presented. But with all that has been accomplished within the last twenty years for the improvement of medical education in Harvard, and great as this advance has been, she still lacks much of being a great and complete school of medicine.

The scientific departments have been brought up to a high and satisfactory standard of excellence, and an extensive building has been erected largely devoted to their accommodation at a cost of nearly a quarter million of dollars, by the generous contributions of our friends. A large addition to the same is in process of construction for the better accommodation of the pathological laboratory, the munificent gift of Dr. H. F. Sears. But the departments of chemistry, anatomy,

and physiology form only the ground-work of medical education, and the largest and most perfect laboratories do not alone make a great medical school. It is in the amplitude of its clinical advantages, on the renown of its clinical teachers, that the reputation of the great schools of medicine has been based. We have fully provided for the teaching of the preliminary branches. What have we done for providing similar means of educating the student in the more important departments of clinical medicine, for the study of disease in all its forms as it affects living man? Absolutely nothing. The school does not possess one bed upon which a sick man may lie, nor furnish any accommodation for the reception and care of out-patients. In its own right it has not the means of illustrating the clinical features of a single disease, or the action of remedies for its control, or the methods of operative surgery. Not one of its large corps of clinical instructors has inherent to his appointment the opportunity of conducting his teaching in any proper manner. Every one of them owes the clinical material, which enables him to perform his duties, to his appointment to some hospital, conferred by a body in no way connected with Harvard University. If for any reason, wholly in their own control, such institutions should make other appointments than from the body of our teachers, or withdraw the existing permission to use patients for teaching, our whole system of education would collapse, and we should become simply a preparatory school, from which students would migrate after a year, to pursue in better equipped schools their advanced branches and to obtain their degree. So completely are we in the power of foreign corporations, so wholly are we indebted to them for these precious privileges.

But admitting that our clinical teachers virtually hold their hospital appointments securely enough, and that the school at present has the use of a large amount of clinical material in this way without any expense, it remains to be considered how far such opportunities of clinical teaching fall short of those which a great and successful medical school must possess. At present but very few of our clinical teachers have terms of service extending beyond four or six months of each year in any of our hospitals or dispensaries. As the length of the school term is nine months, it is evident that such teachers, even the heads of the most important departments, must have a very uncertain control over clinical material for a large part of the academic year; in fact they are dependent upon the courtesy of their colleagues in the wards and out-patient services for the means of continuing their instruction. Nor do they have any choice in their terms of service, so that these may occur at times least advantageous to the needs of the school. They have no power of selection of the cases admitted to their wards, so that it is impossible to provide illustrations of disease in any course in a systematic way, and many of the rarer affections may entirely fail of illustration. They have no individual control over the appointment of interne assistants, a matter of great importance in the successful administration of a clinic. Should a hospital board fail to reappoint a clinical teacher upon its staff, and this is an annual tenure, the school would have an instructor, perhaps the most important upon its list, without any means of teaching. Should the school find it desirable to dismiss a clinical teacher, or should the latter resign his place in the school, or

should the professorship become vacant by death, the college would be obliged to appoint a successor from among the members of existing hospital staffs, or in other words, from among those only who have been selected for other purposes by a body of unprofessional persons in no way connected with the school. It will be readily seen how seriously this hampers the latter in its selection of teachers, and limits its power of call. Had the medical department a hospital under its own control, it might invite to its chairs the most distinguished teachers from any part of the world. Such lost opportunities have occurred more than once in the history of the school to its serious disadvantage.

In other ways also does the present system fail to satisfy the requirements of clinical teaching. Although in some of the larger hospitals students are liberally admitted, in others the number which can be present at a time is very limited, and from some they have been wholly excluded. None of the so-called general hospitals even make provision for the ward treatment of some classes of disease, so that the student must be satisfied with such knowledge of these affections only as can be acquired by the brief and irregular attendance at an out-patient department, a most unsatisfactory method for both teacher and pupil. Until equal facilities are permitted for the study and care of all kinds of disease by those best qualified, so long as hospital boards exercise such meaningless selection in the admission of patients, it cannot be claimed that the school can give a complete practical education to its students. What one disease, for example, is more important for the physician to recognize, in consideration of its prevalence, its infectious and transmissible nature, and its grave results, than syphilis, and yet no better opportunity is afforded the student of becoming acquainted with an affection characterized by the most protean lesions of every tissue in the body, and capable of simulating so closely many other diseases that it is constantly confounded with them, than the out-patient room affords. With what degree of knowledge of this disease can Harvard University send its graduates in medicine into the world of practice?

Since this was written, there has been started in the Clinical Section of the Suffolk Branch of this Society a movement which, it may be hoped, will lead to the recognition on the part of the managers of the hospitals of this city of the pressing necessity of provision in the wards under their charge for patients with syphilis, and to State legislation with regard to the control of the inmates of charitable and penal institutions, who have this disease. I trust that you will give the report of the proceedings of that meeting your earnest consideration, and your influence also in securing the consummation of the measures there advocated.

Permit me to refer to the department in which I have the largest experience for farther illustration of such deficiencies. We have several large out-patient clinics for skin diseases in Boston, affording, it may be said, sufficient means for teaching a special pathology, the manifestations of which are largely external. But admitting that of the one hundred individual dermatoses many of the most prevalent may come to be readily recognized by the observant student under present conditions, yet even in such affections it is impossible to study the action of remedies in any

systematic and satisfactory way, so imperfectly are directions for treatment carried out, and so uncertain is the oversight, when the patient is not under the immediate control of the teacher. On the other hand there is a considerable class of skin diseases, which presents the most accessible and easily studied illustrations of some of the most serious pathological processes which affect the human tissues in general. Some of them are diseases which for ages have been sweeping mankind from the earth, and some have afforded the specialist and pathologist the means of solving the most momentous questions in the etiology of disease. We are in the very beginning of our study of cutaneous tuberculosis, for instance; should our students be debarred from becoming thoroughly familiarized with its appearances? I had not long since to decline to receive a leper from the Wisconsin colony, as there was no accommodation for his reception in a hospital here, and where it would have been as safe to treat him as a case of syphilis, and was obliged to send him to a more fortunate colleague in New York. Is it not as important that our students should have had the opportunity of studying a disease, which may before long become a subject of grave national and international importance, and one which is now the everyday theme of popular misconception?

A year ago I had the opportunity of detecting a disease hitherto unrecognized. It chanced that an identical case had entered the Saint Louis Hospital in Paris a year previously, where its strange nature was also recognized. Mark the difference in the opportunities afforded in the two schools of medicine for the study of a new disease! Our patient could be kept under observation, for lack of special hospital accommodation, for two or three days only. This sufficed for a mere description of the *status præsens*, and for the removal of a few lesions for microscopical examination. In the other case the patient was kept in this famous hospital for skin diseases more than a whole year under the constant observation of the teachers in dermatology, during which time all the developmental changes in the affection were fully noted, experiments as to its inoculability were made, and the action of remedies upon its course was tested. A wonderful model of its cutaneous appearances was made by the celebrated Baretta, a lasting *fac-simile* of the affection. A prolonged research into the character of the anatomical changes in the disease was made, on which was based the claim that the nature of the dermatosis was as strange as its occurrence was novel. The accounts of the two cases were published simultaneously and independently of one another, the one after every possible facility for its elucidation, the other with no such advantages. In which of two such schools is progress in the knowledge of dermatology to be looked for?

Let us briefly consider also the contrast between the equipment of this department at home, consisting merely of an out-patient service in no way connected with the school, and that of a foreign university; not that of the most celebrated and largest schools, such as those of Vienna and Paris, but of Bonn, for instance. This is a town of only 36,000 inhabitants. There are 343 students in the medical department of the university, and the number of graduates in medicine last year was 80. Its clinic for skin and venereal diseases is conducted in a building especially constructed for it. This contains a large

and well lighted amphitheatre exclusively devoted to the lectures and polyclinic of the professor of dermatology, to which is attached a spacious waiting-room and a large laboratory, under the charge of the *chef de service*, for bacteriological investigations. In the wings connected with this pavilion are the wards for the in-door service containing fifty-six beds for cutaneous diseases, including naturally syphilis. Attached to the wards are ample baths especially constructed for the treatment of the patients, a chamber for the disinfection of clothing, and a kitchen department. There is also in the basement a large accommodation for animals used for inoculation experiments. Such is the complete and admirable provision for teaching dermatology in a second-rate German university.

Now such deplorable deficiencies in the facilities for studying and teaching the special departments of a medical school, as exist with us, affect the progress of medicine not only in these particular branches, for, as I have just said, some of the most important recent discoveries in general pathology have been made by the workers in them. The more limited the field of study the more thorough must be the knowledge of the processes of disease it represents. It may be fairly claimed that the vast advance in the science of medicine of the past quarter-century is due to such division of study. It is for the equal advantage of medicine, as a whole, therefore, that its specialties should have the same privileges of hospital illustration as the larger departments of general medicine and surgery in a school. It is the lack of such opportunities of properly studying these branches in great measure which drives our students abroad to complete their education, and to foreign schools all will continue to go who can, until our own are as thoroughly equipped as theirs are with hospitals for every class of disease under our own control. Great clinical teachers cannot be created outside of hospitals, nor can hospitals become great without such clinical teachers. Both are alike essential to the medical school, which seeks a like reputation.

In 1810 Drs. James Jackson and John C. Warren issued their circular letter which led to the foundation of the Massachusetts General Hospital, in which occurs the following apposite sentence: "A hospital is an institution absolutely essential to a medical school." This letter Bowditch, in his history of the hospital, says "may be regarded as the corner-stone of our institution," and in the proceedings of the trustees, relative to the death of Dr. Jackson, it is recorded that "it was in great measure owing to the active efforts of Dr. Jackson that this great charity was founded among us." How great the loss to medical education that these two men, renowned professors in the college, celebrated leaders on the medical and surgical staff of the hospital, had not then bound in more intimate union the two institutions under one inseparable bond of government.

The schools in some of our large cities are awaking to the importance of possessing clinical material for the illustration of their courses under their immediate control, and large sums of money obtained through the liberality of generous benefactors, have been lately expended in New York and Philadelphia for these purposes. The Johns Hopkins University properly establishes its hospital before its medical school. In London the hospital has long since been the primary foundation, or starting-point, of the most successful medical schools,

and upon the Continent the government, which supports and controls both, has always regarded the hospital as an essential and integral part of the medical school. Can Harvard afford longer to delay the securing of similar advantages, the means of ranging herself in all respects as a first-class school, of successfully competing with the schools of other American cities for pupils from all parts of the country, of sending her graduates into the world perfectly educated without a subsequent foreign stamp, of drawing to her post-graduate department a creditable share of the vast number of physicians now seeking such advanced instruction? Who can doubt the commanding position of a great university hospital under the absolute control and professional charge of the teachers of the school? To create such should be not only our ambition, but our immediate endeavor.

This exposition of the internal affairs of the school is made in no spirit of hostile criticism, but for the information of the public, to which we must look for means to accomplish the changes I have shown to be essential to its continued advance, for upon outside aid the possibility of such improvements must be based. The income of the school barely suffices at present to pay its running expenses, and no appeal for such large assistance can be successful without the fullest publicity as to its present status, its shortcomings as well as its great accomplishments. We need at least \$500,000 now to place the school on the proper financial basis to enable it to lengthen its curriculum, and to place its clinical departments upon a satisfactory and independent basis.

(To be continued.)

## Original Articles.

### ACUTE PANCREATITIS.

#### REPORT OF A CASE, AND REFERENCE TO RECENT CONTRIBUTIONS.<sup>1</sup>

BY REGINALD H. FITZ, M.D.,

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Of the several varieties of acute pancreatitis that which is least easy of diagnosis is the suppurative form. This fact is largely due to the tendency of the latter to become subacute or chronic. Even if the early symptoms are sudden and violent, as may sometimes be the case, a quiescent period not infrequently follows, during which no especially characteristic symptoms are to be noted. Although in the course of time an extension of the inflammation to the peritoneum is likely to ensue, the progress of the peritonitis is slow, and shown rather by disturbances of nutrition than by septic symptoms. Furthermore, at the time when the patient comes under observation it may be impossible to attain an accurate description of the initial symptoms, and an unusually pronounced secondary manifestation may make unduly conspicuous a result and not a cause of the disturbances.

The following case is reported for the purpose of illustrating this difficulty of diagnosis, and, at the same time, of calling attention to the minuter changes which are to be seen. The latter will be found to contrast very definitely with those observed in the

hæmorrhagic and gangrenous varieties of inflammation of the pancreas.

The case occurred at the Massachusetts General Hospital, in the wards of my colleague, Dr. G. G. Tarbell, and I am indebted to him for the opportunity of seeing the patient during life. He has also kindly consented to my use of his notes, from which the following statement of the clinical condition has been compiled.

The patient was a whitewasher, sixty-seven years of age, whose personal and family history threw no light upon the disease for which he was admitted to the hospital, January 2, 1889. His habits were good and there was no history of specific disease.

Five weeks before his entrance he was suddenly seized with a severe pain while at work. He ate a piece of cheese with the hope of relief, but the pain became rather worse than better. He then took two pills, and was eased on the following day. Since then there has been no pain. A week later he ate freely of split peas, and, soon after, the abdomen and legs began to swell, a gradual increase in size taking place. About this time he gave up work on account of weakness. He then became jaundiced. There had been neither nausea nor vomiting. There was a lack of appetite for food, but a strong craving for acid drinks. There was neither headache nor disturbance of vision, neither cough nor dyspnoea. Micturition was frequent at night, and the urine was dark colored. He felt well, but desired treatment on account of the jaundice.

When he came under Dr. Tarbell's care he was fairly well-nourished. There was intense jaundice of the skin and conjunctivæ while the lips were rather pale. The tongue had a moist, thick, white coat. The examination of the heart and lungs was negative. The abdomen was distended and tense, tympanitic in the elevated, flat in the dependent portions. There was no fluctuation. The upper level of the hepatic dulness was at the right nipple, and the lower edge of the liver was to be felt in the epigastrium. A freely movable mass was indistinctly felt below the liver, but no connection between the two could be definitely determined. The mass descended on inspiration, and transmitted a pulsation synchronous with the heart-beat. The pulse was 72, respiration 20, temperature 96.2° F. The urine had a specific gravity of 1,020, was free from albumen and contained much bile pigment.

During the subsequent twenty-nine days of his life the pulse ranged between 60 and 80; the respiration remained in the vicinity of 20; and the temperature, practically normal during the first weeks, became subnormal afterwards. He suffered from itching, fulness, and a constant desire for some other article of diet than that he was receiving. He slept much of the time. His weakness steadily increased; and on the day of his death he complained, in thick speech, of a dryness of the tongue and throat. In the afternoon the tongue became pushed upwards and backwards by a swelling on each side of the floor of the mouth, the breathing became difficult, the pulse feeble, and there was considerable distress. Surgical advice was opposed to any operative measures for relief. The inspiration gradually became more shallow and labored till death took place.

At the post-mortem examination, made twenty-one hours later, the body was rigid, the skin was of a dark greenish-yellow color. The penis, scrotum and lower

<sup>1</sup> Read at the Fifth Annual Meeting of the Association of American Physicians, in Washington, D. C., May 14, 1890.

## Address.

### THE RELATIONS OF THE MASSACHUSETTS MEDICAL SOCIETY TO MEDICAL EDUCATION.<sup>1</sup>

#### A PLEA FOR PROFESSIONAL INDEPENDENCE.

BY JAMES C. WHITE, M.D.

BUT, it may be asked, why is it that, if the faculty control the affairs of the Medical School, it does not bring about these or other changes which it desires? If it have done so much to advance the character of education, why not continue in the same course of reform? Fortunately, or otherwise, and I admit grounds for a diversity of opinion upon this point, in Massachusetts, at least, medical education is almost wholly in the hands of one body, Harvard University, and to some of you familiar with the long list of teachers in the public announcements and catalogue of the school it may appear that it is also very much under the control of a large proportion of the medical profession. It may be believed that the medical department of the university enjoys complete autonomy, and that in its hands rests the authority to put into execution every scheme for the advance of medical education, which commends itself to its skilled judgment. Let us consider how far such an impression is warranted by the facts.

In the first place every officer of instruction — professor, associate professor, clinical professor, assistant professor, instructor, lecturer, demonstrator, and assistant, is appointed by the corporation, or by this body, with the approval of the overseers. The faculty, or the committee of professors, have merely the power of nomination. All expenditures of moneys in regular course, or for extraordinary purposes, all endowments and legacies, trusts and gifts for the benefit of the school, and the determination of salaries, are under the entire control of the corporation. The creation of all new offices, the erection of its buildings, the conferring of degrees, are in the same hands. All measures of importance affecting the mutual relations of the medical to the other departments of the university receive final decision from the governing bodies, and any proposition affecting, however seriously, the interests of the Medical School addressed to these bodies may or may not be referred to the medical faculty for its consideration, as the former may decide. In the disposition of all such matters of vital interest to the cause of medical education and to the medical profession, the medical faculty has only an advisory power. There have been occasions when the unanimous opinion of the latter in the gravest matters has come very near being disregarded by those in authority over it. It is self-evident that such a disregard for its judgment would result in disaster to the school and the medical profession.

Nothing can be clearer than the necessity of so constituting the membership of the governing boards that all matters which concern in any way the interests of the medical department and the medical profession, for these are identical, shall be properly comprehended and wisely administered. How satisfactorily does the present construction of these bodies meet this demand?

The government of the university is vested, under

its charter, in a corporation, or president and fellows, consisting of seven members, who have the power to fill vacancies, and is, therefore, "close" or self-elective, and perpetual. It is responsible in any measure only to the board of overseers. This is a body consisting of thirty members, who are elected by the alumni of the academic department, and only such persons are eligible to this office as have received the degrees of A.B., or A.M., or any honorary degree from the university. Five new members are elected each year on commencement day, the five longest in service retiring at that time. Forty years ago, when I first became connected with the university as an undergraduate, the overseers were elected by the legislature of Massachusetts, and one-half of them, fourteen, were, under the law, clergymen; among the other half eight were L.L.D.'s., and one only an M.D. Upon the corporation there was no doctor of medicine. There were then but eight instructors in the Medical School.

At the present time there are three lawyers upon the corporation, but no physician. The overseers are composed of fifteen lawyers, or persons who have studied law, four bankers, three men of letters, three physicians, one clergyman, one architect, and two of uncertain or no active calling. It is apparent, therefore, that the lawyers have supplanted the clergymen, and that the latter have taken not only a back seat, but a very small one indeed. A comparison of the two professional schools most interested in the question of representation upon the board of government is instructive. The Law School has seven teachers and 254 students. The Medical School has sixty-nine instructors, and 290 students. In the former, instruction is cloister-like and simple in method, and its affairs are easily managed. The latter must have a great and expensive plant in active relations to the life of a large city. In its extensive and varied laboratories must be maintained, the very delicate question of the supply of anatomical material must be skilfully managed, the closest connection with various hospitals under foreign control must be secured, a great corps of teachers carefully selected, and the proper relations between itself and the schools of other States and countries cultivated. The Law School is represented upon the corporation and overseers by eighteen members, whereas but three physicians have a place in these bodies.

It is thus shown that the ultimate control of the medical department in all important matters is virtually not in the hands of the medical profession, but in those of men who cannot best understand or administer them. There is neither reason nor justice in such disproportionate representation. The Medical School is the largest and most important professional department, and should have an adequate share in the councils and administration of the university. The present status is a serious reflection upon the capability of our profession to regulate medical education, or to take an equal share with other learned men in the government of the whole university. It is as unfair as if the final control of the interests of the Law School was vested in a Board mainly composed of physicians. Now the legal profession knows nothing of the needs of medical education, or of the management of a medical school, nor does it know more of what concerns the best interests of the academic or theological departments than do members of the medical profession, nor as much of those of the scientific,

<sup>1</sup> The Annual Discourse before the Massachusetts Medical Society, June 11, 1890. Concluded from page 572.

dental, agricultural, or veterinary schools as the latter. It is plain, therefore, that its great and disproportionate representation upon the governing boards should be reduced, and that vacancies in them should hereafter be filled with a juster regard to the relative importance of every department. At present the degree of doctor of medicine conferred by Harvard University, does not carry with it the privilege of expressing the opinion of its holder upon the management of his medical school, nor does it make him eligible to the position of overseer. The lower degree of A.B., based on three or four years of subordinate, and comparatively elementary courses, and easily obtained by young men or boys with little serious purpose in their work in many cases, confers all these privileges; whereas the three or four years of earnest devotion to much higher studies leading to the doctor's title entitles the graduate in medicine to no voice in the management of his *alma mater*. The medical alumnus is disfranchised. Such unreasonable and unjust discrimination should no longer be permitted.

Petitions from the alumni of the Medical and Law Schools for the power of voting in the election of overseers were recently presented to the government of the university, and were referred to a committee of the overseers. At a late meeting of that body the majority report of the committee; namely, "that there is not at present any sufficient reason for making an appeal to the legislature for an extension of the suffrage," was adopted. It is evident that there is no hope of correcting this serious injustice whilst the Board is constituted as at present, and that it deeply concerns all members of our profession, who hold the enabling degree of A.B., to secure the election of medical men to fill the annual vacancies in the board of overseers. Physicians should be selected for this position who are active and proper representatives of medicine, and whose opinions would carry influence into the councils of the university, and who would see to it that the best interests of medical education were properly advanced. Two such appointments at least, should be made each year until the medical department has secured a proper representation.

In the report of the committee of the alumni, appointed to suggest candidates for the approaching election of overseers, the names of seventeen persons are proposed as eligible to fill the five vacancies. Of this number two are physicians, eleven are lawyers. The nominating committee consists of nine persons, of whom seven, at least, are lawyers. Within a few days the official list of candidates has been published. It presents ten names, of which six represent the legal, one the medical profession. I appeal to the electors at large and in this Society to take an active part in the coming election, on June 25th, as the large body of alumni, constituting the instructors in the medical department, have no power to vote in a matter so seriously affecting the interests of the school.

If we would make our university truly national and great, we must take it out of all narrow and belittling influences, and emancipate it from every local, sectional, professional and political prejudice. Every student in every department should bear out into the world with him, when he leaves it, the feeling that he is still vitally attached to it by the alumnus tie, and will have through life some active share in its management.

Much might be accomplished in this direction, too,

by the organization of an association of medical alumni, as has been done by the graduates of other medical colleges in this country and of the Harvard Law School. Such a body might be of material assistance to their school and to progress in medical education in many ways: by supporting the efforts of the faculty in raising their standard for graduation; in lengthening the period of prescribed study; in the requisition for examinations covering the whole field of medicine, instead of their present incomplete scope; in awakening public interest in the necessity of a great hospital under the control of the school; and in raising the funds so essential for putting in operation these and other needed reforms.

As an illustration of the pressing need of such outside influence, I may be permitted to sketch the history of a recent attempt, on the part of the Medical Faculty, to bring about a measure of reform of great importance to medical education. Four years ago, a committee of the medical faculty presented, for the consideration of that body, the following proposition, which was adopted: "The Medical Faculty respectfully recommend to the consideration of the Academic Council the expediency of granting the degree of A.B. to all undergraduates who shall subsequently take the longest course of study offered at the professional schools after three years attendance in the academic department. The professional degree, and that of A.B. to be given simultaneously at the end of the professional course." The Academic Council consists of the president and professors of all grades of every department of the university. Its function is to recommend candidates for some of the advanced degrees, and to consider any questions referred to it bearing upon the general educational interests of the university. At a special meeting of this body, held in December, 1886, this communication from the medical faculty was discussed and referred to a committee, consisting of nine professors, representing the various faculties. This committee made a report in May or June, 1887, in which an unanimous opinion was expressed, that it is desirable that Harvard students should begin their professional studies one year earlier than is possible under existing arrangements. It is unnecessary to refer to the various plans proposed to effect this object, but as they were all based upon a reduction of the time spent in the academic department, the question was referred to the undergraduate faculty for its special consideration, and there it remained unacted upon until the past winter. This important attempt of the medical faculty to shorten for its students the time required for the preliminary studies of the undergraduate department, to increase the term of the medical curriculum to a corresponding degree, to enable all its graduates to enter upon the practical duties of their profession at the earlier age which prevails in all other countries, was thus long held in check by the inaction of the academic department. The teachers of the undergraduates, who pass their lives in Cambridge, have not yet come to appreciate that the academic department, as now conducted, is largely a preparatory school for the higher departments, and that the professional schools are the true flower of the university. As the secondary and high schools and academies have everywhere been obliged to conform themselves to the demands of the college, so the latter must conform itself to the needs of advanced education in all its departments. The univer-



sity must not allow its highest interests to be held in check by those in charge of its lowest grades of instruction, if it would grow into an institution really deserving this title.

Since the above was written, the subject has been again thoroughly discussed by faculties, academic council, corporation and overseers, and at last, fortunately, by the public press. The proposition to shorten the college course by reducing the number of required courses from eighteen to sixteen, which has received the approval of the academic council and corporation, would enable especially bright students to complete their undergraduate course in three years, but would not be likely to introduce many graduates to their medical studies at an earlier age than they now enter upon them. It is but a small step towards the end so essential to the Medical School, that the first year's studies in the latter shall be regarded as the equivalent of a year in the academic department towards the degree of A.B. Already the Medical School accepts the course in general chemistry, at Cambridge, as the equivalent of that required in its list of first year's studies, and now if the undergraduate department will accept the other branches of the first year, anatomy, histology and physiology, as substitutes for its own required courses, the desired reduction in time will be accomplished. You may scarcely believe me to be in earnest when I state that positive opposition is made to this plan, on the ground that such studies of the Medical School are not of that broad and liberalizing character to serve as the basis for the degree of A.B. An undergraduate at Cambridge may take many courses in chemistry, physics, botany, zoology, vegetable and animal biology, and microscopical anatomy, all of which are accepted in the requirements of the bachelor's degree, but the more advanced studies in kindred branches, as taught by the accomplished professors in the medical department, are regarded by some members of the undergraduate faculty as of a "technical," "bread and butter" character, and, therefore, not to be accepted for this purpose. A boy may dissect a frog in his sophomore year, and that is liberal and philosophical study; if, later, he were allowed to take the first year's studies of the Medical School in place of his senior studies at Cambridge, and should dissect the latest and highest mammal God created, such a study, it is objected, is unworthy to be regarded as leading up to the academic degree.

It should be the duty of medical alumni and of every member of this Society to use their full influence with members of the governing bodies of the university that this important question should be settled in accordance with the best interests of medical education; and that a proper and fair representation of the medical profession shall hereafter be found in the higher councils of the university when such momentous matters finally reach them for settlement. Under present relations the alumni have no means of knowing what important questions may be under consideration by their delegates in the board of overseers, so that they may present to the latter their views upon them at the appropriate time, nor are the opinions of individual members of this body with regard to any question made public. Would it not conduce to the better interests of the university, if full publicity were given to the proceedings of this representative board of the alumni? How otherwise can electors cast a

vote for the reappointment of its members understandingly?

Let us consider how fully the physician is now occupying another of the positions to which he is entitled. Next in importance to his relations to his private patients, wholly personal in nature, are his interests in the more public professional duties of the hospital. It concerns no one in the community as nearly as himself how this institution shall be governed, for whilst he has, in common with every humane man and woman, an equal desire that sickness and suffering shall be relieved, no one has in any measure the same personal responsibility involved in the practical operation of such charity as himself. For granting that all others concerned in its administration and support have an equal interest with himself to serve the cause of humanity, this can be their sole motive. Whereas, besides this, it devolves upon him individually to apply its resources to the restoration of the sick to health, and for the advance of medical knowledge. These two principles are, or should be, the very foundation stones of every such institution. They are inseparable. Practical medical science could not progress without the means of research, which constant observation and control of the patient affords the hospital physician, and equally true is it that disease comes thus more and more completely under his control.

Hospitals should be conducted, therefore, not on such narrow interpretation of their highest objects as to how many sick persons have been relieved in the year alone, but how far through them has medical knowledge been so advanced that there shall be fewer sick and larger percentages of recovery hereafter. Both the immediate practical success and the grander development of the hospital in the future rest accordingly with the physician alone. To him belongs the credit, to him should be given the untrammelled guidance of the hospital towards such humane ends.

But, it may be interjected, physicians have now virtually complete control over wards and patients, and may use such opportunity for study to its full extent. This is largely true, but this is a part only of hospital management which should be under their direction. They only are fully acquainted with the needs of the community for additional hospital accommodation, with the necessity of providing for particular classes of disease, for which often no provision is made, for so selecting the character of cases to be admitted, that equable opportunity be given for the treatment of all affections, so that thus physician and student may be enabled to familiarize themselves with every form of disease, which is not now possible with us. They only, can appreciate fully the all important relations of the hospital to medical education, and the necessity of thus educating their successors, and they should have the power of regulating this function. They can be the only possibly competent judges of fitness in the selection of their colleagues upon the staff, and of professional subordinates, and with them alone should such selection rest. They only can appreciate the importance of making known the results of their observations and the statistics of disease, and it is due to the staff and the medical world that reports of professional value should be given forth. Hospitals can become and remain great, only through the character and reputation of the staff, and the results of

their labors should not be kept from the medical public.

In all such broader lines of hospital control the physician now has but little share. All such general questions of policy and action are vested amongst us in boards of trustees, either appointed by those in political authority, or in private institutions by close and self election, in which those who have all these vast professional interests, above mentioned, most at stake, have no voice. Upon some of these questions the physician may, at times, perhaps, be consulted, or they may voluntarily present to those in authority over them, their views concerning them, but beyond this they are powerless.

That this system seems right to the community at large there can be no doubt, because it is supported substantially by gifts and contributions from many of our wisest and most philanthropic men and women, and those who fill these boards of government are our most esteemed citizens. It is through our own indifference and supineness that we have allowed it to come about. We have failed to make known the proper relations of the profession to the hospital, failed to duely assert our rights in the matter. If the public believe that we are satisfied, why should it trouble itself to do this for us? The generous and charitable recognize the probity of hospital trustees, and properly do not hesitate to confide their legacies and offerings to their care. There can be no doubt, however, that as liberal support would come to a governing board composed mostly or wholly of our best physicians. In fact among the most generous and ready responses made to appeals for the support of similar professional objects have been those obtained by the direct personal agency of physicians amongst us.

It might be urged that, at least, it is not the province of physicians to manage the finances of any institution with large trust funds, but this is a question unnecessary to discuss in this connection, because there is no good reason why unprofessional business managers should not be associated for such a purpose with the professional board in private hospitals; and in public hospitals, both State and municipal, it need not be raised at all. The objection may also be made that, if the general management of hospitals were in the hands of physicians they would be conducted too much in the interests of medical cliques or schools, or even for their private benefit. That is, of course, a possibility, because physicians are men, and may, therefore, be swayed by selfish or baser motives, but I doubt if my hearers would, for a moment, admit the possibility of the reproach that the members of this Society, who hold any position upon the many medical institutions within this State, would, were they in their absolute control, attempt to manage them for unworthy purposes. Objections of the same character may, of course, apply quite as well to any set of men outside the medical profession who may occupy such positions, even more so, perhaps. For such governing laymen, even if not of one calling, have been known to be influenced by church or political spirit, by narrow views of philanthropy, by prejudices against the proper relationship between the hospital and medical education, etc., in the administration of their trust. They are far more likely, moreover, to be unduly moved by the predominant influence of some one member of the professional staff than a governing body of physicians could be, so that a one-man power, whether used for just

or unjust ends, becomes thus an easier possibility. It is my firm conviction, from an experience as practitioner, hospital physician, and teacher of thirty years, that the interests of medicine would be better served, if the management of hospitals were much more directly under the control of the medical profession; and that physicians are far more competent to fill such responsible positions than men taken from any other sphere of life. They should have associated with them in all institutions supported by contributions and the income from private trusts, a body of skilled financiers.

Before concluding this portion of my address I desire to say that my remarks upon the present method of governing both hospitals and university are intended to be entirely impersonal, and to reflect, not in the slightest degree, upon the gentlemen who now hold the positions of trustees, overseers and fellows. Their entire and generous devotion to the laborious duties of these places are so conspicuous, that this disclaimer should be wholly unnecessary. I have been speaking for those who are not holding such positions, and to which they have the better title.

Our profession should impress itself more directly upon public opinion in other ways, and should take a leading part in the administration of all affairs in which its immediate or remote interests are concerned. We have been far too content with seeing the most important matters of public medicine in its manifold relations controlled by men of other callings, with no such special training as we possess to comprehend, and no more natural ability to manage them, than we have. We use our scientific training for the relief of the individual in sickness, for the instruction of the student, and for mutual improvement, but are satisfied to allow its broader applications to great public charities, to important questions in professional education, public hygiene and State medicine, to be managed by others, as if we had ceased to be men when we became physicians. It is not easy to understand just how such a renunciation of our rights to administer our own affairs in all their relations has come about. No one can doubt that they concern us individually alike with the general public, and as a profession more than any other class. Certainly not one of us believes that the training of the physician unfits him for the management of any matters which concern his profession in their widest relations. He who doubts this, or thinks that some other profession or calling is better adapted to train a man to comprehend and administer the highest public functions, knows nothing of the nature of modern medical education. As a boy, he receives the same fitting for college as other boys, his curriculum in the academic department is identical with that of his classmates, except in so far as it may be specialized in certain branches which tend to quicken the powers of observation, and develop independent judgment. He passes into the medical department of the university to spend from three to six years in it, and the greater schools of Europe, in work, harder by far, and far more varied, than is that in any other professional school, and which cannot fail to deepen and broaden the mental qualities to their utmost. After such prolonged and severe training he enters the school of life, the dependent of no one, to associate with men of every age, of every social position, to put himself in intimate relation with their bodies and minds under every possible condition of human existence, still to make original investigations and to keep himself in

active communion with every advance in medical and physical science.

Who can say that such a training and such a life is not the peer of any other in fitting a man for the performance of the highest duties which in any way concern his own profession at least. The old village doctor was the wisest councillor in the affairs of his community, the modern physician represents the broadest culture of his time. I cannot better close this plea for the independence of our profession than by quoting the words of one of the most independent statesmen of the day in a recent address to the medical profession, Mr. Gladstone, himself Senior Governor of Guy's Hospital. "The medical profession," he said, "has been steadily rising in power and influence and general respect, and it is my belief that it will continue to rise. . . . Another point upon which I congratulate the profession is its independence, which will enable it to pursue its stately march in the times that are coming, to form its own convictions, to act on its own principles without fear or favor for the general benefit of mankind."

Let us not be turned aside from striving to accomplish the measures I have asked you to consider by the comments so easily uttered: Oh, these are sentimental, impractical views, we are doing well enough as we are. I have lived long enough to see other important schemes of reform, regarded as just as visionary and impossible, terminate in complete fruition. I firmly believe that it rests only with ourselves to make these as successful.

But I must not close this imperfect presentation of our immediate duties towards some of the most important matters of public medicine, and of our relations to the future elevation of our profession, without asking you to give a few moments of reverent thought to those who will never be with us again on this day of reunion. Not a few of us have ceased to labor in the year which closed yesterday. Some when their work had just begun, some at full tide of life, but most in the evening of their days, when the long rest had been well-earned and could not have been unwelcome. Their lives were not eventful, but they were spent in hourly efforts to help their fellowmen retain or regain their health and happiness. Think of the vast aggregate of bodily suffering and of mental distress these departed ones have relieved during their lives; how constantly and conscientiously they walked the narrow path of duty and self-sacrifice; how often the mask of cheerfulness hid a heart weighted with anxiety and sympathy; how many the long hours of watching by the sick bed, how few for the bright joys of home. And what reward have they received, while living, for the fraction of these good deeds known of men? Their deepest knowledge drawn from science and experience, their best judgment, their most cunning hand-skill, such qualities of head, like those exercised by other professions and callings, are properly paid for in gold: but the sympathy, the vicarious suffering, the sustaining spirit of hopefulness and cheer, the renunciation of personal ease and pleasure, which are interwoven with the former, these are not recompensed except by values in kind. Some faint appreciation on the part of the public they may have received, some true gratitude from the few, a modest support, let us hope, for those left behind, surely the consciousness of a life of hard duty well

performed to the end. And what else have they received and borne, so silently and patiently, too. Often the grossest ingratitude from those to whom they have done their best unceasingly; neglect and desertion on the part of those who have received the faithful devotion of years; detraction and cruel abuse for no reason, or for possible limitations of judgment common to all humanity, from those who should be the last to utter it. Such are some of the shadows which may have clouded the lives of those who have gone to their rest. Now they sleep peacefully alike, those who spent their days in the exciting whirl of the large city and who lie still not far from its never-ceasing noise, their brothers on the quiet hillsides overlooking the rural scenes of their labors, and they who repose within sound of ever-changing ocean. Their work and troubles are ended, they await the longings of their faith.

Let us who survive, and those who join our ranks to-day, not fail to do our whole duty, both public and private, with all their devotion, bear all our undeserved ills with conscious equanimity, an exercised in all things that true independence, out of which shall grow the respect and position our noble profession merits.

## Original Articles.

### CASES OF MENINGITIS FROM INFLAMMATION OF THE TYMPANUM.<sup>1</sup>

BY J. ORNE GREEN, M.D.,

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CASE I. E., aged thirty-nine, of good health but nervous temperament. Had inflammation of the right tympanum from a cold in the head in November, attended by much pain in the back of the head and over the eyes. The tympanum was treated by paracentesis, cleansing and in every way rationally; but the otorrhœa and pain continued and, from what I learned after his death, must have been attended with more head-symptoms than I at first supposed. For several days before I saw him there was swelling over the mastoid with greatly increased pain.

About seven weeks from the beginning of the illness I found very great œdema over the whole mastoid region, œdema of the upper posterior wall of the meatus and enormous swelling of the membrana tympani without perforation. There was imperfect fluctuation close to the auricle; the pulse and temperature were nearly normal.

The next day under ether the bone was exposed; there was no pus beneath the periosteum, but a small spot of softening was found in the bone, just below the centre of the mastoid through which a probe passed into the mastoid cells. This sinus was then enlarged with a gouge and the diaplœe of the bone found to contain pus, but no pus, at least to an appreciable amount, was within the cells. A diagnosis of acute osteomyelitis was then made. Carbolic irrigation, drainage-tube and antiseptic dressing were used.

Great relief followed the operation; two nights afterward he had ten hours' sleep without narcotics, "the best night for many weeks"; in four days the

<sup>1</sup> Read before the Boston Society for Medical Improvement, April 14, 1890.