

# The Boston Medical and Surgical Journal

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## The Massachusetts Medical Society.

### THE ANNUAL DISCOURSE.

NOTE.—At an adjourned meeting of The Massachusetts Medical Society, held Oct. 3, 1860, it was

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

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

### THE REFLECTIONS OF A PHYSICIAN WHO STAYED AT HOME.\*

BY SAMUEL CROWELL, M.D., DORCHESTER, MASS.

THE physician, obliged to stay at home, shut out from the part the medical profession played in the world's greatest military tragedy, had his mind repeatedly disturbed and diverted from its normal course of thought and purpose.

He assumed greater cares and responsibilities. He watched with ever-increasing interest the tide of battle ebb and flow. He read the reports in medical journals and daily press with avidity, and admired, with an admiration tinged with envy, the splendid work done by the members of our profession in uniform. He applauded the devotion of our women, the self-sacrifice of our nurses, and followed, with pride

\* Delivered before the Massachusetts Medical Society, at Boston, June 4, 1919.

not unmixed with anxiety, the fortunes of son, daughter, relative, or friend. It is as such an outsider—an onlooker—that I address you.

A marked contrast exists between the present June meetings of this Society and those of one year ago. Relaxation and retrospection have taken the place of the tenseness of war preparation and its attendant anxiety. Today we are readjusting ourselves to the ways of peace; then, the country was facing what seemed a long and bloody war. A seeming apathy existed amongst the members of the medical profession, but, in truth, the members were but conscientiously trying to arrange their affairs in order to make the great sacrifice for their country's sake. A strenuous effort was in progress for the speedy enlistment of the medical profession. No post-mortem is to be held over the methods adopted. The men responded as all true sons of Massachusetts have ever done in the hour of need. As a result of their efforts and those of their colleagues throughout this country and abroad, the wounded soldier, on the battlefields of France today, was—in spite of high explosives and modern engines of destruction,—a fortunate man, compared with his brother of bygone days.

Today, he is cared for by the finest medical skill and devotion the world has ever known.

Then, the condition of the sick and dying was given little consideration. The soldier was fitted

out to fight, but having fought and fallen, there was accorded him few, if any, of the aids and comforts to enable him to endure his sufferings or restore him to health and usefulness.

Sad the fate of many a man, on entering such hospitals as then existed, festering with erysipelas and gangrene.

One sixteenth century battlefield stands out clear before us, dominated by the father of French surgery,—Ambrose Paré. There, surrounded by the wreckage and the carnage of war, the wounded and the dead, he refuses in his operations the boiling oil which his assistants proffer him for the control of the flowing blood, as before his doubting and skeptical colleagues he demonstrates to them that the tying of a single ligature around the severed blood-vessel could control hemorrhage better, surer, with far less pain, more humanely and rationally than by the older barbarous and frightful method.

The picture that comes down to us of this scene, primarily, commemorates a momentous anatomical and surgical advance in the treatment of bleeding arteries.

It also depicts the physician in response to the call to serve his country and humanity, where he is ever to be found: whether fighting death near the first line trench or in some lonely hamlet; in some great metropolitan hospital or in some quiet, experimental laboratory where, more frequently than the world knows, such men as Lazeur and Carrel have displayed greater courage and bravery in deliberately exposing themselves to horrible and fatal disease, so that future generations might live, than many a soldier on the battlefield.

We look in vain through the years preceding and the years following Ambrose Paré for some organized attempt to care for the wounded soldiers. Pestilence and disease have pursued and ravaged every camp the world over.

It is not until comparatively recent times that any attempt was made to better the condition of army life. There shines forth from the disease-ridden hospitals of the Crimean War an angel of mercy and hope in the person of Florence Nightingale, who proclaimed the dawn of a better day. But the day was slow in breaking.

The medical aspect of all past military operations in this country down to the present war is a gloomy picture.

That memorable winter spent by our Continental troops under General Washington at Valley Forge was one of want, disease, and death, with supplies spoiling on the road for lack of transportation, due to the apathy of the Continental Congress.

The enteric diseases that accompanied the Civil War were very severe,—more deadly than the bullets on the battlefield.

In '61, it was not until the sick and wounded began to come back, that accommodations were prepared for their reception. Then only were hospitals speedily established at Washington, Baltimore, and Philadelphia.

Specialists were scarcely known at that time in the Government service, and no organized effort was made to reconstruct or place the disabled soldier in a position to help himself. The less said about the Spanish War the better, especially as it came at a time when the medical world held its head pretty high, and boasted of its achievements.

Modern events began to point to a greater efficiency in the medical care of armies, in cantonment and in the field.

The world's attention was attracted toward the Japanese in their war with Russia, and the methods there applied for the welfare of the troops. The intensive study in recent years of communicable diseases, of their causation, of their prevention, and of the suppression of them when developed, had a special application to army life and was the principle upon which the health of the military forces was maintained in the war just terminated.

Especially noteworthy was the typhoid prophylactic vaccine used with such gratifying results in this country amongst the soldiers sent to guard the Mexican border before this present war began. It removed from this war one of the hitherto great contributing causes of sickness and death in army life.

These facts, accompanied by the willing support of the Government and the lavish generosity of the whole country, stimulated the medical profession to do its best in conserving the man power and economic force of the army and the Nation in order to crush the Hun.

While the final accounting of army deaths from disease will be much higher than what is about to be quoted, yet the report issued in the official United States Bulletin during the month of September, 1918, just previous to the out-

break of the influenza, is illuminating: That with over 1,700,000 men over-seas, the army death rate from disease is only 2.18 per 1,000 annually; the death rate for the same age of men in civil life is 6.7 per 1,000. Truly an astonishing statement.

This splendid record of the health of our military forces, during the first twelve months of the war, maintained by the vigilance and skill of our doctors in the army and navy, needs to be more forcibly impressed upon the public mind. Too many still believe the wild tales circulated during the first year of the war as to medical neglect and needless sickness in the cantonments.

The study of communicable diseases is supplanting the earlier work of preventive medicine, which, in reality, is the foundation rock upon which preventive medicine rests.

Up to September, 1918, when we were visited by the influenza, so completely were communicable diseases under control that the eastern menace of the Bubonic plague seemed the only possible disease that might obtain a foothold in the country and seriously affect the health of the people.

One would have felt safe in saying that never again would the civilized world, guarded by its present and fast accumulating weapons of defence against unknown diseases, be ravaged by extensive epidemics similar to the black death which carried off two-thirds of local groups of the population of Europe in the fourteenth century, or the great plague of London in the seventeenth century, when 68,000 people died in a single year. This influenza, this modern scourge, made us doubt as to our security for the future. The influenza, however, has passed by, leaving us with our experiences and our deductions, yet full of uncertainty as to future methods for its prevention and treatment, and while some advancement has been made as to treatment, little has been accomplished as to prevention.

It has taken a great many years from Jenner's discovery of the control of smallpox by vaccination, the suppression of yellow fever in Cuba, and the immunization of individuals to typhoid fever, to bring about our present methods for the prevention and control of communicable diseases.

The medical world felt that it had arrived at a point where it could control the health of communities, depending upon the extent to

which the free actions of people should be controlled by board of health regulations.

However, until a prophylaxis is found for the influenza, such regulations as now exist must be more rigidly enforced. Neglect brings its own penalties.

At the time of the Spanish War in 1898, we were not using the prophylactic vaccine for typhoid fever, but our understanding of camp sanitation was excellent; the value and importance of uncontaminated drinking water was thoroughly appreciated; the proficiency and experience of army surgeons was sufficient to have thoroughly preserved the health of our troops at that time,—yet the cry that swept over the land, of "Remember the Maine," caused our young men to rush to arms unprepared, undisciplined, and untrained. The results, in consequence, were disastrous to health and life. It proved a good, though sad, expensive, and humiliating lesson,—reflecting no credit either on the military or the medical profession.

One class of infectious disease pervades the land, whose etiology, clinical symptoms, and means of suppression, are known to the whole profession. It can be controlled, and its source of infection traced and suppressed in many cases as readily as typhoid fever, and yet it continues to exist. This is the age-old curse of society, commonly spoken of under the general term of "venereal disease." In a discourse of this character, one can hardly go into details as to its extent or its well-known ravages in military and civil life; neither can one more than casually refer to the tremendous amount of work undertaken in order to preserve the health of our troops in this direction by the rigid military discipline enforced upon the men, the work of the army and the navy, the Public Health Service, the Red Cross, the Y.M.C.A., by states and communities, supplemented by the suppression of alcohol. Our own State Department of Health started an excellent work by requesting physicians to report their cases of venereal disease and follow them up, but it is too early, as yet, to judge of its value. Added to these agencies were the earnest efforts of the whole country to protect and preserve the health and welfare of our boys in cantonment, in battle, and in hospital, with the result that there has been awakened and stimulated a hitherto unknown amount of attention toward the suppression of venereal disease.

Previous to the war, a voice was heard here and there sounding a note of warning, repeating the story, emphasizing again and again the unnecessary burden society was carrying as a result of this disease. All would agree that what was said was true, and there the subject seemed to end. The important thing to be remembered at this time is that the interest taken in the subject while the men were in uniform must not flag or be neglected with the soldier returned to civilian life. The menace still remains, for with the army restraints removed, old conditions will return.

It is not generally known to the public that after the men were put in uniform gonorrhoea and syphilis were, as other diseases, less prevalent than in civil life.

Extremists have advocated rigid and arbitrary methods in dealing with this subject. It enters so many social phases of life that the medical profession and State authorities are in a quandary how to proceed. It is a burning question, to be handled wisely and promptly. Thoughtful and serious-minded men are considering it from many angles. It is being presented to the public in plainer and more outspoken speech, by educational methods, by literature, by the moving picture, and by attempting to raise in the minds of every one a higher moral responsibility toward others.

To suppress this tolerated infection circulating unrestrained through the land, something stronger is needed than the present feeble laws and State Board of Health regulations; something more is required than the controlling of criminals or the actions here and there of some one individual known to be infecting others. Something more is needed than educational propaganda and moral suasion, though, exceedingly helpful, they will aid to a certain extent; but one must be extremely optimistic to expect these agencies alone to accomplish it. In the end, only when syphilis and gonorrhoea are classed and treated by our boards of health in the same way as other communicable diseases will they be fully controlled.

While the war raged and the reports of German atrocities appeared in the daily papers, hardly a physician but reviewed in his mind the relations, many of them extremely pleasant, that existed between himself and those of German descent in this country as well as in Germany,

trying to explain how, even under war conditions, these stories could be true.

As a medical student of five and thirty years ago in Germany and Vienna, there comes to mind many unpleasant instances showing certain characteristics of the medical profession there which help to answer these questions.

Then, fresh from the hospitals of Boston, where the care of the patients came first, and medical instruction so arranged that the patients were benefited greatly by medical teaching, one found that the patients in the Vienna hospitals were simply so much clinical material, and were kept in the hospitals in many instances, so it seemed, so long as they were of use for teaching purposes rather than for their own benefit.

The general impression a student received at that time was that the height and brilliancy of the practice of medicine were to have the findings at the autopsy table bear out the clinical diagnosis made during life.

A shameless disregard of decency or for the feelings of the patients was daily witnessed in the skin and gynaecological clinics, where the women patients were stripped entirely nude and passed around amongst a crowd of gaping students for examination.

One instance comes to mind of a young woman appearing daily at the throat and nose clinic with a beginning syphilitic perforation of her nasal septum. She was there for the students to watch the progress of the disease, see the perforation take place, with the destruction of the septum and the disfigurement of her facial appearance. No treatment was given, for the retarding or the cure of the disease would have spoiled the case for clinical instruction.

It happened one day that the class was examining in a hospital ward a patient suffering extreme distress, while the professor stood by rather jokingly and sarcastically commenting on the stupidity of the class in failing to make either a correct diagnosis or prognosis. The true significance of the situation dawned upon me about the time that the patient fell back in the bed dead.

The remark that I made to my neighbor I remember well: "With this great hospital full of patients, why could not the damned brute let the poor creature die in peace."

Many a student was impressed by the results of German medical scientific research; some at

least were disenchanted by their methods, and felt grateful that they did not exist in American institutions.

But to come back to the present.

The physician who stayed at home coming in closest touch with our great military organization were those serving on the Selective Service Local and District Boards. Through the meshes of their sieves were sifted the men who seemed fit for military duty. Quietly and faithfully working early and late, sacrificing time and strength, they did a patriotic work scarcely recognized, and obscured by more stirring events. Out to secure fighting men, determined none should escape who might serve the purpose, men were occasionally forwarded to the recruiting camps to be returned as unfit. "A man fit to do a day's work ought to be fit to fight," reasoned some examiners, "if he did have a small hernia or a slight apex murmur with no heart enlargement," while other physicians examined with excessive care, feeling mortified when an overlooked defect was found by the army surgeons and the man returned. "Better," reasoned some, "to have now and then a man sent home than one escape."

Many physical defects causing rejection of the men in the first draft were later on in the war passed over and the men accepted. The army surgeon's high physical standard under peace conditions had to be modified as time went on, and the draft doctor learned to appreciate the military point of view.

For example: One draft board in the first draft entrained for camp 270 men, of whom 20 were returned. In the second draft, 163 were entrained, with but 3 rejections at camp.

The local board physicians, on commencing their work, felt that they knew fairly well the standard of health and physical fitness of the men in their localities, but were greatly surprised and disappointed at the results of the examinations. So also were the men themselves. In that hurried preliminary sifting of 2,501,706 men examined throughout the U. S. in the first draft, 730,756, or 29.11 per cent., were rejected.

These rejected men in many instances may well bless the doctors who examined them, as well as the day they stripped for examination. Countless unknown and remediable defects were pointed out, and gratuitous and valuable advice was freely given as the men passed by.

A prominent manufacturer, chairman of a

Selective Service Board in one of our large mill towns, is quoted as saying that never again would he oppose an increase in the town's expenses by reason of the medical and nursing supervision of the children in the public school, especially the care of their teeth. The filthy mouths carried about by so large a part of the community for lack of early care and training, was unbelievable until pointed out by the medical examiner on his board.

The revelation of these remediable defects of the drafted men should furnish added proof of the value, from an economic and business standpoint, of medical supervision, at public expense, of the individual from prenatal life to his grave.

The wonderful transformation which took place in these newly drafted men astonished no one more than the examiners themselves.

Amongst the men were frequently found pale, flat-chested, stoop-shouldered, frail fellows, in whom no physical defects were found; it seemed a crime to send them to war when others seemingly stronger were rejected; yet regular living, physical training, and army life soon created a manly carriage, the results of health and spirits, which filled their hitherto apprehensive relatives and friends with pride and admiration.

These facts will prove among the strongest arguments for universal military training in the future.

In other ways, too, these physicians came to recognize the difference between the military and the civilian point of view with regard to the soldier. This is illustrated by an instance occurring at a dinner given during the early winter of 1918. A well known general severely criticized a previous speaker for referring to the soldiers of our army as our "boys." This general said the soldiers were *men*,—not boys; that they should be addressed always as men; it was a stern, hard job they had to perform, accompanied by privations, hardships, and danger. They should not be coddled by such terms as "boys." That may be the military point of view of it, necessary to the training of a soldier. No criticism is intended here!

The civilian point of view, nevertheless, will always differ. We know our boys are men; that the soldiers of the United States have always fought like men and measured up to the high standard of American manhood. But just so long as there are fathers and mothers, sweet-hearts and wives at home, the men of our armies

will always be looked upon as their "boys," whether they are 18 or 45. Furthermore, they always have been so called. There was Ethan Allen and his "Green Mountain Boys" of the Revolution; the "boys in blue" and the "boys in gray" of the Civil War; the songs that come down to us from that conflict and those stirring times tell the same story to the tune of "Tramp, tramp, tramp, the boys are marching," and "When Johnnie comes marching home again, hurrah!" and today we hear the rich, broad accents of Sir Harry Lauder's voice singing:

"All the lassies will be loving all the laddies,

The laddies who fought and won."

They are our boys, for we love them—all.

From the very first steps taken to organize our army for the war, it was apparent that the best medical and surgical care the country could supply was to be furnished for the men. The impulse came from our profession to offer its services and give of its best, whatever the sacrifice. The demand came from the government, from the parents of the men, from the troops themselves. The generous public, the individuals of means, lavishly supplied the funds for medical units to go over seas, for the hospitals, and the nurses.

Military medical schools were established for the special training of physicians and surgeons to meet the new conditions and diseases incident to the war. Some one has said that the "quacks and the fakers were swept aside" and little or no opposition was offered by them to vaccination, or other methods for the best and most scientific care and treatment to keep our soldiers and sailors fit.

Did this spirit of patriotism for once overpower the greed for gain in the heart of the charlatan, or was he overcome by the fear of censure?

Why, in times of peace, should not the American people demand of the Government the same high standard of medical proficiency? What is good in times of war should be good in times of peace.

It is a strange inconsistency of the human mind to see legislative committees, in the face of irrefutable and indisputable medical facts, swayed by medical commercialism and misguided sentimentalism, keeping down deliberately and with malice aforethought the standard of medical practice in this Commonwealth.

It is surprising that, while societies such as the Anti-Vaccinationist, the Anti-Vivisectionist, and like cults, flourish in different parts of the country, there is not a strong, energetic society of laymen organized for the purpose of encouraging and demanding legislation along sound scientific lines, insisting that each medical problem coming up year by year should be referred to and reported upon by experts qualified to judge as to their usefulness or worthlessness, and their judgment accepted.

The burden has been borne too long by the medical profession to finance and to fight alone and unaided. Too long have small bands of earnest physicians appeared at the State House on vital matters of public health, to be opposed by a horde of inexperienced and prejudiced objectors, there to be reminded by some committee chairman that if the case was so important, it was strange it was so poorly represented, or when, on the other hand, reputable physicians have appeared in goodly numbers, to have them open to the imputation of trade unionism; in spite of the fact that every measure for preventing disease, and raising the standard of public health lessens the income of every doctor in the Commonwealth. The true and dignified position for scientific medicine is that of consultant and adviser to the Commonwealth. The demand for a high standard of medical efficiency and public health regulations should come from the people, and upon the legislators should rest the responsibility of meeting these requirements.

At our annual meeting last June, we were addressed by a distinguished English guest from overseas. Care and anxiety were written in the lineaments of his face. Dread as to what the future held in store for the Allies he made no attempt to conceal, as he urged the speedy and united help of the medical profession and the American people. His remark that the Americans had boasted they could whip the world, and that the time had now arrived for them to make good, was received with an appreciative smile by his audience. None failed to grasp the deep significance of that remark.

It seemed as if by some process of mental telepathy his challenge to make good was conveyed to every fighting man throughout the land.

The American soldiers crossed the seas and landed on the shores of France at a time when

our Allies had their backs against the wall. Fighting and falling back, fighting and falling back to a point where disaster seemed imminent. Then the Yankees struck!

Our answer today to Sir William Arbuthnot Lane is to be found on the battlefields of France, and in the depth bombs of our destroyers. But let us ever bear in mind that back of our Army and Navy was the conscientious work of the members of the medical profession abroad and in the cantonments at home; not forgetting for a moment their personal sacrifices in order to perform this patriotic service. They have earned and deserve our gratitude and unstinted praise, and they can safely return into the ranks of civil life with the proud consciousness that they played an important part in shaping the destinies of the world and of our great republic.

### Original Articles.

#### INFLUENZA AND STREPTOCOCCUS HEMOLYTICUS.\*

By DAVID B. MEDALIA, M.D., 1ST LIEUT., M.C., CAMP HOSPITAL No. 97, AMERICAN EXPEDITIONARY FORCES.

I WAS called upon by the commanding officer of this hospital to write a paper on a bacteriological subject. Since the notice was very short, I chose to write on a very brief topic which happened to be part of my work while being on duty at Fort Oglethorpe, Georgia, U.S.A. The work consisted of an investigation of a couple of problems from the bacteriological standpoint.

After I completed my course at the Rockefeller Institute, New York, last April, I was sent on duty at Fort Oglethorpe, Ga., to take charge of a Pullman Red Cross Laboratory Car called "Lister." The purpose of such laboratory cars was to take care of any epidemic which might break out in any part of the country. They were then simply attached to a train and sent there for active work. They were completely fitted out with all the necessities of a fully equipped large sized laboratory. On them were an office, bath rooms, cooks, dining-rooms, sleeping quarters, water reservoirs, telephone, and her own electric generator.

\* Read before the Medical Officers of Camp Hospital 97, St. Dizier, France, March 19, 1919.

While waiting for an emergency call, I was doing some work in the laboratory of the General Hospital No. 14. Among other problems, there came up the question of what could be the cause of such a number of undiagnosed pyrexias in the hospital, which ran a course of a few days and then dropped down to normal and stayed normal. With the temperature there was also a slight irritation of the throat, nothing to amount to much. The chief of the laboratory turned the problem over to me to work out the cause of those symptoms. I proceeded to make cultures on blood and glucose agar plates as well as tubes from the nose, throat, and sputum. We also made direct smears from the same sources and stained them with various dyes. Carbol fuchsin brought out the bacillus "influenza" in great quantities in case after case. We made examinations on a number of the non-diagnosed pyrexia cases. The only satisfactory method was the direct smear from the sputum stained by carbol fuchsin, while the cultures were not very successful except for a few out of the whole number, which grew upon blood glucose agar. The bacillus "influenza" is a very delicate small comma-like bacillus, usually located between the cilia of the trachea, and if successfully grown upon the culture media does not seem to live very long on it, even though it is transplanted very often. The method of recovering the bacillus from the sputa was as follows: The specimen was collected in a sterile container, a big lump of the sputum was then put into a sterile petri-dish and washed with sterile salt solution; smears were then made and stained by diluted carbol fuchsin steamed for three minutes, washed off with water, and dried between two pieces of filter paper. This investigation helped to find out the cause of the pyrexias and throat irritation, and these cases were diagnosed "influenza."

The next problem came up about a majority of cases which were operated on for appendicitis and acquired a primary infection of streptococcus. The question was, where did it come from? We started up the search for the cause. Cultures were made from every surgeon, nurse, and attendant. The source for cultures were the throat, nose, finger nails, and hand gloves after they had been washed and sterilized. We also cultured the water, scrubbing brushes and soap. Plates with culture media were left