The Journal of the American Medical Association

VOL. XXVII.

CHICAGO, ILL., AUGUST 8, 1896.

No. 6.

ADDRESS.

CHAIRMAN'S ADDRESS.

Delivered in the Section on State Medicine, at the Forty-Seventh Annual Meeting of the American Medical Association at Atlanta, Ga., May 5-8, 1896.

BY CHARLES H. SHEPARD, M.D.

BROOKLYN, N. Y.

Fellow Members.—It was both with diffidence and reluctance that I accepted the honor and obligations of the chairmanship of this Section, a place which has been held by some of the most distinguished and gifted members of the AMERICAN MEDICAL ASSOCIATION, and for the time being I rely upon your patience and generosity.

The amount of useful information that has been diffused from this Section since it was first organized, has been possible only by the indomitable energy and self-sacrificing work of those who have labored in its field. They have plowed and sowed, and while we gather the fruit of their labors, it is also incumbent upon us to do our share in the promotion of the work.

Unfortunately, outside of the medical profession, but comparatively few minds are possessed of a practical knowledge of sanitary matters. Hence the necessity of continually reiterating and disseminating what many of us consider the most commonplace truths, until their full acceptance shall render our land a sanitary Eden.

The healing of disease is a most noble work and worthy of all praise, but he who teaches how to prevent disease is engaged in a higher and holier cause. It is not a question of how far it is well to go in destroying one's own business, for the lover of his race realizes that his own higher interests are bound up with the welfare of the people. We are now in the kindergarten state of knowledge regarding many of the most important sciences that bear upon the prevention of disease. Far reaching as recent developments appear to be, the glory of those yet to come will undoubtedly cast them into the shade in the not distant future. It is a matter for which to be thankful that one is able to devote a life to the advancement of ideas that may prove of incalculable benefit to mankind.

The ideal physician would be the State physician, whose position and income assured, would enable him to devote his entire time and best powers in seeking the highest interests of the community in the prevention of disease.

For ages men have sought for a panacea. New remedies become candidates for public favor with surprising rapidity, and are popular for a time, only to be displaced by a new candidate. Strive as we may, we are convinced that never will a remedy be found to obviate the penalty sure to be exacted by violated law. Preventive medicine will teach people how to live, and then ignorance and panaceas will die

a natural death. This is worthy of the earnest attention of the ablest minds, and will produce most important results. The loss of time on mere effects, instead of the original causes of disease, is like giving attention to the branches, instead of striking at the root of the deadly upas tree.

The first work on preventive medicine was furnished us by Moses, the great lawgiver, nor has it yet been surpassed by any modern discoveries. Granting all that is claimed for antitoxins of various kinds, and for vaccination as a preventive of smallpox, these are but so many milestones in the progress of preventive medicine, which shall yet lead to the cause of the original disturbance. Diphtheria, scarlet fever, etc., are filth diseases, and smallpox belongs preëminently to this class. Preventive medicine, with the aid of personal hygiene, will yet enable us to avoid all filth diseases of whatever kind.

As Rome carried civilization with her conquests, so shall preventive medicine, and this Section, as its representative in the AMERICAN MEDICAL ASSOCIATION, continue to diffuse a saving knowledge of human life in its all-conquering march.

It is well to look back occasionally, in order to measure our progress. Among the subjects which have been advocated by this Section were soil drainage and improved systems of sewerage, the better housing of the poor in our cities, the registration of vital statistics, civic cleanliness, quarantine reform and, more recently, improved pavements and public baths.

History tells us that sanitary measures, methodically carried out, are invariably followed by improved public health and a decreased death rate. But for the important sanitary measures carried out by the rulers of Rome, the eternal city would never have become the mistress of the world. Had it not been thoroughly drained, a large part of it would have been uninhabitable. The sanitary works of Rome, introduced when she was at the acme of her glory, have been a model for ages past, and will so continue for ages to come. Her enormous aqueducts, particularly those built by Agrippa, were virtual rivers brought into the city to flush the streets and sewers, and to supply all public and private requirements.

Before the streets of London were paved the inhabitants were as great sufferers from periodic fevers as are those of the most unhealthful rural districts in our own country. It has been computed by an eminent authority, Sir Lyon Playfair, that in one county alone in England, the pecuniary burden borne by the community in the support of removable disease and death, amounted to the annual sum of twenty-five millions of dollars.

After the paving of Dijon, the ancient capital of Burgundy, in the middle of the fourteenth century, dysentery, spotted fever and other diseases, became of less frequent occurrence in that city.

The evils of a certain form of modern architecture in our cities is a growing one that should be thoughtfully considered. The crowding together of tall buildings, necessarily depriving the lower floors of proper sunlight and ventilation, is one of the modern aggressions that is not of unmixed benefit, even in a business sense, involving the health of the occupants of all such buildings. The deficiency of sunlight and insufficient ventilation common to these structures, seriously affects the eyesight of multitudes, and the depressing effect of confinement and labor in the vitiated atmosphere, under such circumstances, render the occupants fit subjects of temptation in the shape of tobacco and other narcotics to satisfy the craving for the absence of the healthful stimuli of fresh air and light and thus render them liable to disease in every shape. The height of buildings should be in proportion to the width of the street. As a prominent and conscientious architect, Ernest Flagg, has well said in the May number of the *Cosmopolitan*: "It is best in this matter to place a curb upon private greed for the public good."

The disposal of the sewage of cities is a subject that is demanding more and more attention, for what now goes to waste, to the pollution of rivers and obstruction of harbors is a menace to health, besides being a pecuniary loss to the community. Sewage should instead be so disposed of as to be devoid of danger, and a profit to the city.

From its noiselessness, cleanliness and consequent comfort, the improvement of street pavements by the use of asphalt is intimately related to the health of the community, and this was strongly urged by Dr. Bell, in the *Sanitarian*, over thirteen years ago. It is now rapidly growing in favor, and making way for the horseless carriage which is to banish to the country districts the horse and his insanitary surroundings.

It is proper here to refer to the *Sanitarian*, the first journal in this country devoted to sanitary subjects, as the source from which I have been able to glean many facts on the progress and present status of preventive medicine in the United States, and also to the editor who projected that periodical in the same year that this Section was organized, and of which he was the first chairman twenty-three ago. This publication presents essays by the most distinguished sanitary authorities on a great variety of subjects, and the gist of sanitary medicine in all its phases.

Dr. Bell's activity as a sanitary reformer prevented the yellow fever from reaching the city of Brooklyn from Bay Ridge and Fort Hamilton in 1856. He fought against the quarantine system as it then obtained, and succeeded in reforming it on the basis of the regulations which he devised and reported to the National Sanitary Convention in Boston, in 1860. He devised measures in detail relating to departure, as the primary means of preventing the conveyance of infectious diseases from one place to another, and their introduction into new places. Moreover he instituted and successfully practiced, under the auspices of the National Board of Health, measures which prevented the yellow fever from being conveyed to other places from New Orleans, in 1879, without restricting commerce, and with the result of raising all the quarantines against that city within six weeks.

In a contribution to the Report of the New York Board of Charities for the year 1876, on the "Rela-

tion of Insanitary Conditions to Pauperism, Vice and Crime in New York," Dr. Bell suggested a mandatory law requiring assessment, seizure and destruction, at public expense, of a stated few of the worst tenement houses in the city and the conversion of their sites into grass plots, annually, as an efficient means of reform; means that would not only weed out the worst from year to year, but continually promote the improvement of the remainder, whose proprietors would not allow them to be destroyed, and the legislature has recently conferred the power of so doing, in a modified form, on the health authorities.

Municipal sanitation in New York and Brooklyn on a scientific basis, began thirty years ago, under the auspices of the Metropolitan Board of Health. The average death rate in New York, per 1,000 of the population, for the ten years preceding that date was 33.39; for the first ten years following it was 29.70; for the ten years ending December 31, 1894, it was 25.48. The death rate for 1895, according to the last report from the State Board of Health, was 18.25 per 1,000. Surely it would be difficult to find more significant results of practical sanitation equivalent to saving of about eight lives per 1,000 of the population, annually, and amounting in the aggregate, measured by the present population and death rate, to 14,464 lives annually.

One of the most imperative necessities for preserving the public health is an ample supply of pure water, and it is to be hoped that some better medium than lead pipe will soon be found for conveying drinking water through our houses. The more pure the water the more it acts on the lead to absorb the poison, and therefore it becomes the more dangerous. Possibly aluminum may come in to supply this pressing need.

The character of the public water supply is the first and chief concern of every intelligent sanitarian, for in that lurks the means of transmission of all the most virulent and fatal of the infectious diseases. As population increases the sources of contamination multiply and it becomes more and more difficult to secure an abundant supply of pure water. Rain water falling upon the earth's surface becomes more or less contaminated from the soil, with mineral matters, which it holds in solution, and should be used with caution. The home of the most deadly of the microscopic enemies of man is water. Many of the epidemics that have desolated different countries have been caused by the use of impure water. Cholera, typhoid fever and dysentery are fostered and disseminated almost exclusively through the medium of drinking water.

While the use of water ranks high as a remedy for many diseases, its greatest value is in the prevention of disease. Never was the true theory of disease understood until it was put forth by the advocates of the hygienic system of treatment, otherwise called water cure, which was very popular about the middle of this century. While not now conspicuously prominent as a separate system it has had a powerful influence in modifying the practice of all the other schools. Disease was known only by its phenomena and medicines by their effects. The true definition of disease is remedial effort, an action to cast out impurities. It wastes vital power, as a man would expend his strength to eject a thief from his premises. When people understand that disease is a vital struggle in self defense they will cease to fear it. They will fear only

its causes and instead of trying to suppress the symptoms will endeavor to remove the causes. Disease and the *vis medicatrix nature* are one and the same thing. When in the progress of knowledge it comes to be understood that in all relations between living and dead matter, the dead is passive and the living active, then the application of this truth to foods, remedies and poisons will settle many vexed questions and place mankind on the high road to perfect health.

It would be a profitable investment for any city which is suffering by reason of a polluted water supply to expend all the money that may be required for the substitution of a wholesome supply, either by going to new sources or by purifying the supply on hand. This can be demonstrated easily by figures that men of ordinary intelligence would be obliged to accept. The loss to several cities throughout our land from typhoid fever during the past year which has been traced to the water supply has emphasized this fact. A few of the cities have taken up the work of purifying their water by filtration, and in every case the decrease in the death rate has been most satisfactory and warranted all the outlay. This is a work that should be carried out by the cities in their corporate capacity rather than left to private enterprise. Where all are to be benefited all should be interested.

It is but trite to say that the Section on State Medicine has a most comprehensive work on hand, including as it does, preventive medicine, public hygiene, public baths, street paving, together with cleanliness of the streets, disposal of the garbage, factory inspection, cattle inspection, milk inspection, employment of child labor, cremation, etc. I will trespass on your time only to refer to a few facts in preventive medicine.

The camera and the bicycle, by calling people out into the open air, and giving them pleasant occupation and mental stimulus, is doing more to prevent disease than all the doctors in the land. We may be very thankful for the sudden popularity of the bicycle, in that it has given a wonderful impetus to the question of good roads.

The blessings of sunlight and fresh air should be more appreciated. The sun is the godfather of us all. The source of all light, heat, electricity, and energy, what wonder that it was once worshipped as the Creator. The future will recognize it not only as the best disinfectant, an all powerful preventive of disease, but also as a wonderful healer of disease. The more people can be taught to live in pure air out of doors, and bask in the rays of the sun, the less of disease there will be to prevent.

The Women's Health Protective Association of Brooklyn, N. Y., is doing a most useful work by preventing litter in the streets, by burning of garbage, and more and above all by endeavoring to abate the nuisance of expectoration in the public streets and conveyances. When that is accomplished there will be less of disease floating in the air ready to be inhaled at every breath.

The study of the microscope is gaining new impetus every year and giving us more and better information in regard to the minutiae of life. The knowledge of microbic life is so intensely attractive as to absorb the whole time of many students of eminent degree, and the wonderful results developed have many times astounded the world, and will in many ways help to prevent disease, by teaching us what to do in emer-

gencies, and yet what is now known may be considered as but the forerunner of what is to come. New facts have been so rapidly developed as to dazzle the imagination with their possibilities.

Already have the X rays, lately discovered by Roentgen, produced a profound impression upon the public mind. The correct view of this new radiant energy will undoubtedly soon be formed, when new experimental data appear. In the meantime we can rest assured that a new entrance to the region of the ether phenomena has been opened, and the importance of this fact can hardly be overestimated. It may be that the rays will be proved identical in kind with vibrations of light, heat, or electricity, already well known. It may be on the other hand, a new form of energy. It is easily possible that the new photography, when fully developed, may reveal to us secrets of cellular growth, glandular activity, and the like, that have hitherto proved inscrutable. The power of looking through a man, as reported by Mr. Edison, may yet lead to still greater discoveries in the prevention of disease.

No more desirable work has been done by any board of health than in looking after the adulteration of food, as in Ohio for instance. Of all the liars in existence, none are worse than those who advertise to furnish food or medicine and really deal out that which is bound to cause disease and leave ruin in its path. If there was a soul above filthy lucre in the patent medicine venter there would be none of this. To protect the ignorant public is the god-like mission of State medicine. But when we get pure food, much of it needs cooking, and cooking schools are immensely useful as a preventive of disease, not alone to prevent the waste of valuable portions, but also to be able to derive therefrom sound tissue for the building up of the entire man into his most vigorous condition.

The bad work that people make in dosing themselves with patent medicines, without a physician's prescription, is not unfrequently punctuated with a sudden death from overdosing with antipyrin, sulphonal, or some other coal-tar preparation. Children should not play with edge tools. The teachings of preventive medicine will do away with such work.

Another thing in which it is most desirable that the public should be enlightened, is the imperative need of rest, instead of what is called stimulation; that what are called tonics or stimulants are used only at a ruinous expense to the vitality, and if people would take time for recreation and recuperation, they would obviate the necessity for their use and prevent more disease than ever was cured.

If ever our people are to be redeemed from the thralldom and unmitigated and unlimited curse of tobacco using, it must come from the teachings of preventive medicine.

There is an immense amount of ignorance abroad in the community on the subject of health and the proper way of living to secure the best physical condition, and there is a corresponding need for instruction in such matters. That is why the charlatan has such free play in this country. One of the most important of all studies for old and young is that of personal hygiene. This it is that protects from personal contagion. This do and thou shalt live! That do and thy body shall become a fertile breeding ground for all manner of disease! The earlier in life this is recognized the more surely will success crown man's daily pursuits.

In fact, the very best preventive of all disease is a condition of well nourished physical purity, combined with a mental and bodily alertness that leads to the enjoyment of all good work. Such a one can walk through pestilence unharmed, will live out all his days, and, barring accidents, be gathered in when his full time shall have come, like a shock of corn fully ripened.

The delights of mental pursuits, in calling its devotee out of himself to the attainment of certain truths or facts and the vantage ground gained by every such conquest, giving broader field and more expansive view with intensified joys, place mental pursuits among the more desirable means for preventing disease and prolonging life.

The multiplication of intellectual entertainments and resources, that give the people something to think about and occupy their minds to the exclusion of things of a lower grade, is to be welcomed by all who place a higher faith in prevention than in cure. We very well know that if we can fill the minds of the young with the good, there will be no room for the bad.

Laugh as we may at the vagaries of the teacher of what is called mental science, there is a germ of truth at the foundation of it all. The mind reacts upon the body as well as the body upon the mind. We can magnify or minify our troubles; therefore if weak and delicate invalids can be made to believe that they are to get well, they are thereby in a better condition to become well. So also with one who girds himself up to face disease and disaster. He is by so much less liable to the disease or disaster, and should it overtake him he is better fitted to cope with the emergency.

The little that has been accomplished is but the forerunner of what is to come. The time is not far distant when the people will demand that all these desiderata shall be taken up in a manner commensurate with their importance, and then public baths will be made as free to the people as the postoffice and the public school. Good roads will be uniformly extended throughout our country, and kept in proper condition. Dwelling houses, and business houses as well, will receive their full modicum of sunlight and ventilation, pure water will abound, and excreta, along with garbage, will be disposed of with advantage to the community. Our public schools will be well lighted and ventilated, the children will be taught the evils of the indiscriminate use of narcotics of all kinds, and the pupils will not be overworked by a too cumbersome curriculum.

It will be a happier day for all when the people in their representative capacity shall take charge of all vagrancy, see that all who can labor shall have the opportunity, and those who are disabled properly cared for. This also is preventive medicine, and is but coöperation, wherein the people shall demand reforms to be carried out by the government, which is, or should be, but the expression of the will of the people. Thus will state medicine fulfill its highest duties. By some this might be called socialism, but the whole world is traveling that road. Our AMERICAN MEDICAL ASSOCIATION is but a step in coöperation by liberal minded men, lifting us for the time being out of the slough of competition, and our Section on State Medicine is preëminently socialistic in that it seeks the benefit of the mass through the power derived from the people in their collective capacity.

If ever legislation regarding public questions shall be elevated above the plane of practical politics or personal gain, we may obtain some results that will help to promote the best interests of the community, instead of, as at present, being made the foot-ball of conflicting parties.

Let us bear in mind that we are responsible for this condition of things, that it is every physician's duty to take an active and intelligent part in all political matters, and not leave them to the ignorant and vicious. When this is thoroughly carried out, and direct legislation comes in, a new era will be inaugurated.

A bill has been introduced in the Senate, creating a new cabinet officer who shall be known as Secretary of Manufactures and Commerce, and certainly this is of great importance to all of our industries, but of still greater importance would be a Secretary of Public Health, for if the health of the community is not assured, the industries are of small account.

While State medicine has saved the world from an immense amount of charlatanism and superstition regarding avoidable disease, there are larger fields and higher ground waiting for occupancy by the interested students who are to bless the community by their new discoveries. The range is too vast for any one department, but all will combine in this, that their work shall bless and lengthen the days of man, for all the achievements of the true physician are the common heritage of mankind, and thus is he to become one of the most potent of all the civilizing agencies of the future. This forward march is to go on, and blessed are we who are permitted to take part in the work, insignificant though that part may be.

During the past year the harvest of death has been very great in the ranks of medical men, particularly among the younger members, leaving gaps that will be hard to fill. The demands of modern society are too exacting, and the results of the pace that kills are sometimes realized too late. From out of our own ranks have gone Dr. Joseph Jones of New Orleans, Dr. James E. Reeve of Chattanooga, Tenn., and Dr. C. G. Comegys of Cincinnati, Ohio. They rest from their labors, and we shall see them no more, but the bright example of their noble work will remain to bless all the land.

Gentlemen, I am proud that you have thought me worthy to assist in your deliberations, and shall enter upon the duties of our session with an earnest desire to forward the good work.

Hopefully then, do I commit to your hands the pleasant task of spreading over this vast country the ennobling light of your wisdom and experience.

Excessive Doses of Bicarbonate of Sodium in Hyperacidity of the Stomach.—Tournier relates a couple of cases of intense gastric pain caused by hyperacidity, relieved by large doses of bicarbonate of sodium, with no accompanying inconveniences. The amount prescribed was 20 to 30 grams a day, which the patients increased to 60 and 65 grams, before obtaining permanent relief. The male patient continued these large doses for two to three years, securing a permanent cure, with no return of the gastralgia in the four years since. The other case was a young woman, who took at last 60 to 65 grams for a month, with the result of much improved gastric conditions and a gain of three kilograms in weight. She took the soda in a powder every half hour, followed each time with a little milk, of which she carried a small bottle with her when she left home. The elimination of chlorid of sodium in the urine amounted to 36 grams per liter, testifying to the actual transformation of the sodium in the organism.—*Province Médicale*, June 27.