

TRANSACTIONS

OF THE

North Carolina Health Officers'
Association

FOURTH ANNUAL SESSION

Raleigh, N. C.,
Monday, June 15, 1914

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ADDRESS OF WELCOME.

MR. CLARENCE POE.

That welcome is most genuine about which least needs to be said. So my only purpose this morning is just to tell you how glad your capital city is to have this progressive body of men here.

The fact is, we are always glad to see the doctors. If we are sick, Mr. Roosevelt's most emphatic "Dee-lighted" is not enough to express our pleasure, and when we are well we welcome them as about our most delightful citizens.

I really count it a great honor to have the privilege of welcoming you here. There is nothing North Carolina has accomplished in recent years that I am prouder of than her leadership in the Whole-Time County Health Officer movement. I am proud to see on the Confederate monument out there mention of things our forefathers did years ago. "First at Bethel, Farthest to the Front at Gettsburg" and so on; but it is a great deal more important for some of us sons to make records; and "First in County Health Officer work and Farthest to the Front in Hookworm Eradication" looks good to me. I hope this County Health Officer movement will have the same rapid success the Hookworm Extermination work has had. I can scarcely believe that it is less than six years since Dr. Stiles over there came to the A. & M. College with the Country Life Commission and I had to undergo a fusillade of abuse for defending Dr. Stiles and his Hookworm theory. Now I am told that ninety-eight counties have had the Hookworm campaign, that it is going on in the ninety-ninth, and ready to begin in the one hundredth.

I congratulate you on what you are doing. I almost envy you sometimes your ability to read the effects of your achievements in ruddier faces and brighter eyes and lighter steps. I congratulate you on being in this movement; I congratulate you, most of all, in being participants in a yet larger movement. A movement greater than the United States,

Fifth annual session will be held in Greensboro, third Monday in June, 1915.

OFFICERS.

DR. WM. M. JONES, *President*, Greensboro.

DR. D. E. SEVIER, *Vice-President*, Asheville.

DR. W. S. RANKIN, *Secretary-Treasurer*, Raleigh.

culosis Sanatorium, should be an institution for original research. Why not? At any rate, it is hoped, as the days go by, that the State Tuberculosis Sanatorium will become a model in every line of its activity. It is hoped that the sanatorium, *per se*, shall do its work according to the latest approved methods. It is hoped that in everything we do we shall be able to do it in such a manner that it will be a model to which anyone who may desire may go for study or observation. It goes without saying that at such a place the patients would receive the best possible attention and care from every standpoint.

We are now able to offer to the physicians and to the people of the State expert diagnosis in doubtful cases of tuberculosis. Our plan is to have the patient come to the Sanatorium and stay until we have exhausted, if necessary, every scientific measure known to the medical profession in the diagnosis of each particular case. It is necessary sometimes to keep the patient for some ten days in order to carry him through all the various tests. We have two patients now that we are just finishing. If they are found to have tuberculosis, they will probably be kept there several weeks, if they desire to stay until we have taught them thoroughly the hygienic measures necessary for them to employ in order to procure a cure in themselves and to prevent the transmission of the disease to others.

We have established, in connection with the Sanatorium, a training school for nurses. We have at this time four nurses in the training school. We plan to do four things: (1) Give a post-graduate course of a few months to graduate nurses, at the close of which, if the work has been satisfactorily done and the studies satisfactorily pursued, they will be given certificates in tuberculosis nursing; (2) Connect with other general hospitals in the State and give their nurses a three to six months' course in tuberculosis nursing, giving, at the time they receive their diplomas from the general hospital, to such as have satisfactorily completed this course, a certificate in tuberculosis nursing; (3) Conduct a regular training school for nurses, giving them one year of work in some of the general hospitals of the State, and at the completion of the course giving them diplomas as graduate nurses; (4) Conduct a training school for visiting nurses, and at the close of the course give a diploma or special certificate in visiting nursing. There is a wide opportunity, as well as a wide field for usefulness, for the visiting nurse today. There is also a demand for visiting nurses very far in excess of the supply. I am informed by Dr. Jacobs, Secretary of the National Association for the Study and Prevention of Tuberculosis, that it is impossible to procure visiting nurses sufficient to meet the demand. The field for usefulness in this line of nursing is perhaps much greater than in any other line of work that a nurse can do.

It is hoped, as soon as facilities and clerical assistance can be had, to keep in touch by correspondence with patients who leave the Sanatorium, see that they can obtain sputum cups, pocket flasks and other supplies that are so necessary in the prevention of the spread of tuberculosis, in order that they may carry out the hygienic measures that are taught them at the Sanatorium and not relapse into their former careless methods as regards themselves and others. It is a sad commentary on the State of North Carolina that in a very small number of counties, comparatively, can sputum cups and pocket flasks be procured for either love or money.

As soon as sufficient funds and clerical assistance can be had, it is hoped that we may enter energetically upon the enforcement of the law requiring cases of tuberculosis to be reported to the State Board of Health. It has been our experience that doctors do not care to go to the trouble and expense to report cases of contagious or infectious disease unless some good is accomplished thereby. We hope to make it worth while not only to the physicians, but also to the people who have tuberculosis and to the people who do not have tuberculosis, to report these cases. We mean by this that we hope to be of sufficient service to the profession and to the people to make it amply worth while to both of these classes of our citizens to report these cases. This will require some money, as well as a large amount of work. We are willing to do the work, and we hope that when the next legislature meets they will give us the money.

It is hoped in the very near future to offer our services to any community or city or institution to make a complete survey of the city, community, etc., and give them accurate information as to the prevalence of tuberculosis. Such a survey would comprise a systematic study of every human being in the said community. We have not the time now to give you the details of such a survey, but the idea is that when such surveys shall have been completed we shall be able to advise the city or community as to the exact number of cases of tuberculosis in the said community, giving their names and addresses. We shall be able to advise them of a second class of people that are below par and that must needs conduct themselves so as to husband their vitality and not expose themselves in any way to tubercular infection lest they come down with the disease. A third class, those that are robust and strong, can, if they desire, go on wasting their vitality and defying the laws of nature with comparatively—comparatively, mind you—little danger of being overtaken by the disease. After this information is in hand, we hope to offer to the community the kindly offices of the State Sanatorium and of the Bureau of Tuberculosis, to the end that the infective

cases may be removed from the community, and that the remaining people whose vitality is found to be below par may be kept under observation, to the end that tuberculosis may be stamped out of this community. Of course, it would be necessary then, a few years later, to conduct again this same careful survey in this community, in order that we might record the results of our work. It is hoped that before this Association shall meet again in annual session we shall have put into operation these ideas in at least one community, and that we shall be able to report to you the work accomplished, in so far as it goes. Then, if we can stamp tuberculosis out of one community, we can stamp it out of a second community, and a third, and so on, until it is driven from our grand old State.

There is much more that could be said, but we trust that this is sufficient to give you a general idea as to the policies of the State Board of Health in regard to the State Sanatorium and in regard to the tuberculosis campaign in North Carolina, the details of which will be worked out from time to time to suit the individual case and the individual problem. If this policy commends itself to the profession of North Carolina and to the thinking people of North Carolina, we have no fear that the legislature will provide us with sufficient funds to carry out these policies, and thereby protect our people from the greatest scourge that the people of North Carolina have ever had.

Mr. JOHN E. RAY: I come before you not to give information, but to ask help. I am a layman, not a physician, not an expert so far as medical knowledge is concerned, but through observation I have learned some things about a good many of the problems that concern us as citizens of our commonwealth. One of the two words that have been emphasized perhaps more than any other two words within my recent knowledge is *prevention*. It is a great deal easier to prevent tuberculosis than to cure it. I need not tell you gentlemen that. It is a great deal easier to prevent blindness than to cure it. So it is my purpose to come before you health officers this morning and to ask your assistance in preventing blindness in our State. The great steel corporations spend half a million dollars every year in devices for preventing accidents to the eyes of the machinists employed in their plants. That shows to what extent they regard prevention.

There are approximately 100,000 blind people in America, big and little, old and young. There are 1,700 and more in North Carolina. Of these 1,700 or 1,800 blind persons in North Carolina, at least 400 are blind who never should have been blind, had proper preventive measures been adopted at birth. I am not here to tell you how these preventive measures should be applied, but I am here to tell you that blindness

in babies can be prevented, and devices and plans have been so perfected that for ten cents an ampule can be secured from any first-class druggist which will contain enough antiseptic to prevent blindness in 22 babies in North Carolina during each year. This ampule is stamped with a date which states how long this preventive is supposed to last. If that period expires before it is used, it can be returned to the manufacturers. This preventive, of course you know, is silver nitrate. For the last four years efforts have been made to get our General Assembly to pass a law such as has been adopted in New York, Indiana, Pennsylvania and almost throughout Europe, looking towards the prevention of ophthalmia neonatorum. If such a law can be passed and put into operation in our State, which will cause the physician or midwife or any other person present at the birth of a child, to administer this prophylactic within twenty-four hours after the child comes into the world, then there will be blindness prevented which those of us who do not stop to think about it have no conception of. My purpose in coming before you is not to detain you, but simply to ask you to assist your humble servant in getting through the next General Assembly an act for the prevention of blindness. North Carolina has done a good part in educating and preparing for citizenship blind men and women. My purpose is to ask you to help me in every way possible to spread this information throughout the State and then to get through the approaching legislature some measure by which we can get some such information as this,—the report of the birth of every child within less than 24 hours after its birth, and the question, Did you apply the prophylactic? If not, why not? That has wrought wonders in the states where it has been put into operation, and I believe it would work wonders and prevent a great deal of blindness in North Carolina.

THE MEDICAL INSPECTOR'S RELATION TO MENTALLY DEFECTIVE CHILDREN.

W. H. CHASE, UNIVERSITY OF NORTH CAROLINA.

We are hearing much in the last few years of coöperation between physician and psychologist in the field of mental disease. Psychiatrists like Prince, Meyer, Freud, Janet, are using psychological concepts more and more in their work. In the field of mental defect we have a splendid example of such coöperation. Seguin, a physician, was the first to develop a scheme of education for these unfortunates. I need not refer to the classical work of physicians like Ireland, Barr, Shuttleworth, Tredgold, on this subject.

The psychologist, too, has contributed much. It was Prof. Witmar,

a psychologist, who started at the University of Pennsylvania the first free clinic for the examination of defective children. Dr. Goddard, the psychologist of the Training School at Vineland, is perhaps the foremost authority in this field today. Men like the late E. B. Huey, at Lincoln and Baltimore, Wallin at Pittsburg, have contributed much. Clinics have been opened at several of our universities where physician and psychologist work together in this field.

I want, then, to sum up briefly what, as the psychologist sees it, is the relation of the medical inspector to mentally defective children. We are coming to see that physical and mental are very closely related, and I believe that just because of this relationship the problem must be attacked by both physician and psychologist.

First of all, the psychologist regards mental deficiency, not as a single sharply delimited unit, but as the result of the working together of many factors. The human mind is not the sum of a few faculties, like memory, reasoning power, judgment, observation, and the like. It is rather the product of the working together of hundreds and thousands of simple mental traits, of which the mind of the individual is made up, in somewhat the same way as his body is made up of thousands of physical traits, like the height and weight of the individual, color of his eyes and hair, shape of his nose, and so on. We do not possess, for example, a memory, but hundreds of kinds of memory; memory for faces, for names, for emotional experiences, for colors, for music, and so on. And some of these may be good and some bad. What we call the memory is merely a convenient fiction to embrace all these. In the same way, we do not possess a single power of reasoning, or of observation, but these are merely convenient terms to embrace a great many traits which work together. And the working together of all these traits is determined, of course, by the fundamental laws of the nervous system.

The individual mind is, then, the product of thousands of simple mental traits. These of course appear in different degrees of efficiency in different individuals. All human minds follow the same general pattern, just as all human bodies do, but differences between them are even greater than differences in physical structure and function. When, in the individual, some trait is absent or not normally developed, we may speak of the individual as defective in that trait. All of us are, to some extent, mentally defective. Some of us have, for example, no ear for music, others a poor head for figures, and so on. But because, after all, these are not traits which are of fundamental importance, we manage to get on very well. Now suppose that an individual has a number of extremely important mental traits lacking in him, or poorly developed, traits like the ability to give continuous attention to things, like the

ability to recognize and remember forms and shapes well enough to learn how to read and write, like the power of moral discrimination, the ability to pick to pieces a situation and see the important parts of it, and so on. In such a case we speak of the individual as mentally deficient. But the difference between him and the man with a poor ear for music is really after all one of amount, of degree and not of kind. The one is lacking in the development of a relatively unimportant trait; the other, in many traits which are socially important. The normal shades over into the abnormal. Our definitions of mental deficiency must be, then, after all, relative. The question at issue is always whether the individual possesses certain fundamental traits in sufficient amount to enable him to become socially efficient in the sort of social group in which he lives. An individual who is so lacking as to be subnormal in the twentieth century in a civilized community might well be normal in a primitive state of existence; that is, he might possess those traits to a sufficient degree to enable him to keep his head above water.

Now with the severer degrees of mental defect certain fundamental abilities are so conspicuously lacking that no question can arise as to the ability of the individual to survive socially; but it is just the lighter and more puzzling cases that get into the schools, and form the problem of the medical inspector. A suspected child may be lacking in certain abilities; is he defective or not? The decision must, I believe, always be rendered in social terms; that is, are these traits lacking to such a degree, and are they of such social importance, that the individual can never become socially efficient? I have found, and I suppose that most of you have, that teachers are often likely to confuse true mental deficiency with the lack of some school ability that may be important in the classroom, but perhaps after all will not prevent that individual from leading a normal life, though of course not on the highest intellectual plane. A poor environment will of course retard mental growth. I have even seen cases where a perfectly normal child was suspected of being subnormal by a city teacher because he has received his training in some little country school, and, when he moved to the city, was far behind children of the same age in scholastic ability. Nor need I remind a body of physicians how often physical defect, that has operated to retard growth, is confused by teachers and others with mental defect. It is needless to say that an examination for mental defect should always be accompanied by the most searching examination of the physical condition of the child. The question of the diagnosis of the higher degrees of mental defect is always a most puzzling one, and often must be settled only by repeated and long continued observation. For a first hand study of some thirty border-line cases let me refer to

"Backward and Feeble-Minded Children," by E. B. Huey, published by Warwick and York, Baltimore, 1912.

I have been trying to make the point that a diagnosis of the sort of case of mental defect that gets into the public school must always be the result of the consideration of a great many factors and that the social point of view will be a helpful one in forming decisions, since the kind of mental traits which are not developed must always be taken into account. Do not understand me as tending to slight the physiological side of the matter. Mental defect is of course finally physical defect, correlated probably with arrested development of the cortical cells, and as everybody knows, it often has other physical expressions, in lack of motor control, for example. Mental and physical, as I have already said, cannot be considered as separate.

Another point which has become increasingly evident from the investigations of the last decade is the enormous importance of the factor or heredity. As evidence has accumulated, the number of cases of mental defect which can be attributed solely to such factors as irregularities at the time of conception, shock during pregnancy, injuries at birth, diseases of infancy, and so on, has been steadily reduced. Such cases of course exist, but often they are merely contributing factors, working on a soil already prepared. Tredgold, the English authority, estimated the number of cases due to hereditary factors as not far from eighty per cent of all. Mental traits, as we all recognize in a general way, are inherited like physical. But it has remained for workers like Goddard at Vineland and Davenport at Cold Spring Harbor to gather sufficient evidence to show the laws which are at work in the transmission of mental defects. I cannot enter here into this fascinating field. The book by C. B. Davenport, "Heredity in Relation to Eugenics," is the best summary of what has been found. (Published by Henry Holt and Co.) The bulletins of the Eugenics Record Office, Cold Spring Harbor, Long Island, New York, also contain much of value. Of studies of particular families, the recent book by H. H. Goddard, "The Kallikak Family" (Macmillan) is perhaps the best.

The study of human heredity has really just been begun, but enough has already been found to make evident the importance of supplementing the examination of the individual child by the most careful study of the family from which he comes, as well as by his own individual history, before a decision is reached. Certain families will often be found to serve as foci from which radiate long lines of defective descendants in every direction. At the bottom of it all, the trouble with the mental defective is that he comes from poor stock. The best way to deal with the defective child is to prevent his being born.

I pass now to another matter about which the psychologist has had

much to say in the last few years. This is the question of the measurement of intelligence. The condition which we call mental deficiency is so complex, and so shades over into normal conditions, that the task of diagnosis would be much simplified if it were possible to give to the individual simple tests of his mental ability so standardized as to afford a clear picture of the workings of his mind in various important directions.

It is easy enough to determine whether a child is below the normal for his age in height and weight; we have at our disposal measurements made on hundreds of children of different ages which serve as standards for comparison. Is it possible in the same way to measure the intelligence of the child? We do this roughly, of course, all the time, when we classify a child as bright, average, or dull. But when we attempt to measure the degree of intelligence shown by the individual in a more exact way, the problem becomes much more difficult. Much attention has been devoted in psychological laboratories to this problem, and certain conclusions stand out. First, there is no one single mental test that serves as a satisfactory measure of general intelligence. The mental functions are too complex to be satisfactorily measured by any one standard. Nor is it possible at present, and probably it never will be, to measure intelligence by any number of mental tests with the same exactness with which physical measurements are made.

But there are simple tests of mental ability which are extremely suggestive, and which should be of great value to the medical inspector. The best-known and most satisfactory of these are the Binet tests.

These are the result of a long series of investigations by the French psychologist, Binet, and have been widely used in this country, for the last few years, on thousands of school children in different parts of the country. There are two forms of these tests, one published in 1908, the other in 1911. The latter series may be obtained in translation from the Medical Book Co., Chicago, Ill., under the title "A Method of Measuring the Development of the Intelligence of Young Children, by A. Binet and Th. Simon." A revision of the scale may be also obtained from Dr. H. H. Goddard, Vineland, N. J., and from various other sources.

These tests consist of simple things that a child of a given age ought to be able to do, whether or not he has had the advantage of school training. In other words, they are tests of natural intelligence, rather than of school training. They are arranged by ages, five tests a year, from one year on through twelve years, and also for fifteen years and for adults.

A child of eight years, for example, should be able to do such things as state sensibly the difference between such materials as paper and

cloth, wood and glass. He ought to be able to count backward from twenty down to one, in twenty seconds, with not more than one error. He should be able without hesitation to name the days of the week, to count the values of six stamps, three of which are twos and three ones, in less than fifteen seconds. And he should be able to repeat five numerals given distinctly once by the voice, without mistake. Tests like these, as I have said, are arranged for the various ages. They require little apparatus, and that easily portable, and can be given to a child in from half to three-quarters of an hour. They are so simple, in fact, that one is inclined at first to underestimate their value. They must be given, of course, in a quiet room, to the child alone, and for any value to attach to the results, the directions must be exactly followed. I need not say to this audience that it is absurd to diagnose mental deficiency on the basis of these tests alone. But what they do give us, and that with a fair degree of exactness, is the mental age of the child, which of course may vary considerably from his age as determined by his birthday. And, if one finds that a sixteen-year-old child shows by these tests the mind of a child eight or nine years old, it is easy enough to see that mental defect is indicated. Just how much retarded the mental development must be in order to establish the presence of mental deficiency it is difficult to say. I am inclined to believe that no sharp line can be drawn, for several reasons. First, the sort of home from which the child comes has some influence in determining the rapidity of his mental development. Again, the scale is not perfect, the tests are not all of equal difficulty for any one year, and some are undoubtedly misplaced. There are children who show only a year or two retardation by the Binet scale who are undoubtedly defective, and others which show greater retardation who are normal; but, in general, a retardation of three years mentally is usually very significant. I may say that I have used these tests for nearly five years, with increasing confidence in their value, and that I believe that they furnish a very valuable "first aid" to the medical inspector in attempting to estimate the intelligence of the child with whom he is dealing. They ought, I believe, to be in the hands of everyone who has dealings with defective children.

But, the diagnosis once made, what should be the further procedure of the inspector? The ideal, of course, is institutional care for all, until the age of possible procreation is passed. If our states could so enlarge their institutions as to care for all defectives, the problem of the mental defective would not long remain a problem. But for many years this must remain an ideal. In a school system of any size, experience has shown that the best method of dealing with these children is to form for them a special class, in charge of a teacher who has had some

training in dealing with such children. No attempt is made in such a class to give the sort of work which is done in the regular grades, but instruction is individualized, and suited to the comprehension of the children. Such a class can also well serve as an observation class for the further study of doubtful cases. From such a class, too, transfers of the worst cases can be made to institutional care. The attempt to instruct such children in the regular classes is wasteful in many ways. In the small country school the problem is more difficult. Such children are a great discouragement to the teacher, and yet, if there is no hope of commitment to an institution, it is probably better that they should be in school, and subject to its restraining influences, than for them to run at large.

The State is just making a beginning of caring for such children. But, if very much is to be accomplished, present facilities must be greatly enlarged. The individual child is far better off under institutional care, he is happier, and capable of more development. But, most of all, it is only by working for better institutional facilities that the problem can be attacked at its source, and society saved from the evil brought upon it by allowing this poor stock to propagate itself generation after generation, filling our houses of refuge, our reformatories, our jails and our almshouses. The medical inspector should, I believe, devote himself to the social as well as to the individual aspects of the problem. He should, so far as is in his power, discourage the marriage of those whom he suspects to be of defective stock. He should work for better legislation along this line. He should educate the people to the value of caring for these unfortunates, and persuade parents of such children that institutional care is best for them. Once the child is born into the world, cure is of course impossible. The only remedy is prevention, and that must begin by forbidding procreation to those who are the bearers of defective protoplasm.

And finally, to make a concrete suggestion for the future, I believe that ultimately there should be here at Raleigh, in connection with the State Department of Health, a central free clinic to which could be brought from over the State children who are abnormal and sub-normal, for diagnosis and treatment. Such a clinic would involve but a small expenditure, as it would need to be open only on stated days for a part of the year, and would, it seems to me, gather up all the loose ends of this work as no other agency could do.

DISCUSSION.

DR. A. S. ROOR, Raleigh: It has been a privilege to hear Dr. Chase's paper, because what he has said has a direct bearing on the work which I have been doing in the Raleigh public schools for the past two years

as medical inspector. I agree with Dr. Chase in that the management of these mentally defective children should be relegated to the sphere of the psychologist, in large degree. In addition to the routine work of the medical inspector, looking after the hygiene of the school, contagious diseases, physical examination of the children, etc., he has a specific duty also toward mentally defective children. You have to distinguish between dull children and mentally defective children. Both in dull children who are backward in their classes and in feeble-minded children, the physical defects are relatively very much greater than in normal children. To give you an idea, in the examination of children who are in the room for defectives, in one of our schools here (we have twelve or fifteen defectives there) the average defective vision was thirty-five per cent, while the average among normal children is twenty-five per cent. Twenty-four per cent of these children had nasal defects, while the average among American school children is twelve per cent. The percentage of orthopedic defects was something like thirty, as against five to ten, the average for normal children. That is a small number of children from which to quote statistics, but I think even this number will show the excess of physical defects over normal children.

All cities the size of Raleigh should have a trained psychologist in connection with the school system, not only to diagnose the case, but to take charge of these children. We have in Raleigh, in one of the schools, a room set aside for these defectives. One of the teachers, who has been several years in one of the Northern schools, takes care of these children. The room is equipped with apparatus for making rugs, for carpentry, etc. These mentally defective children are, I suppose, the most eager children to get to school of all the children. Their minds are occupied all the time, and they get some training there which serves them in good stead in the future.

The removal of physical defects in dull children, as you all know, very frequently makes them grow normal mentally; that of course, is not true in the case of mental defectives. It has been my policy to make a special effort to remove the physical defects of these mentally defective children, in hope that they might develop mentally. In addition to the regular routine examination of the eyes, tonsils, adenoids, ears, nose, skin, glands, orthopedic defects, I make a special examination of the chest and lungs, spleen, liver—also the contours of the head, to find, if possible, if some of these cases are defective through traumatism. I think the duty of the medical inspector is to pay these children special attention, and after first finding that they are defective by the Binet test (if there is not a school psychologist to do that) to try to see if they can not get in some institution when the schools have carried them as far as they can.

DR. L. B. McBRAYER, Sanatorium: I have noticed with a great deal of pleasure the work Dr. Chase has been doing in various cities of the State, and have had the pleasure of observing at first hand some of his work in the Asheville schools. I am confident that this would be a money-saving proposition, if it were not considered from any other standpoint. That is, if the school children were properly examined in the first place, those retarded on account of physical defects could have those defects corrected and go along with their classes; and if those mentally defective were taken out of the regular classes, where they can not perhaps learn anything, and be put in classes to themselves, they would not be taking up the teacher's time and retarding the classes they are in. I believe the money now wasted in our public schools because of these defective children being in the regular classes would more than pay for the special equipment and teachers for these backward children. I am also convinced that in a very large majority of instances the medical inspector of schools would have to do this work. In Raleigh they are fortunate enough to have a trained psychologist to go around through the schools and study the classes. In the cities where they have separate school boards and separate health officers, they might be able to afford a psychologist to do this work. I commend it to the attention of the whole-time health officers of the counties, with the hope that as soon as they can get their work well in hand they may be able to add this to the present inspection of schools which they are doing. Of course, there is plenty of work for the county health officer.

I think the State is fortunate in having a man who is doing the work Dr. Chase is doing, and I think the University of North Carolina is performing its natural and normal function, and is carrying out the ideas of the president of that institution, when Dr. Chase goes out over the State making these studies and carrying this information direct to the people. Even publishing articles in the journals does not accomplish as much good as going around to the various towns and cities and showing the teachers how they can remedy the troubles they have.

This Association is fortunate in having Dr. Chase present, and I desire to express to him my personal appreciation of his valuable paper.

DR. C. W. STILES, Wilmington: Let me, first of all, congratulate the Society on hearing a paper on the medical side of psychology. This is a subject that the health officer must pay more attention to in the future than he has in the past. It is all very well for the health officer or medical inspector to examine the tonsils, adenoids, etc., but I can not get it out of my mind that the brain is just as important a part of the body as the stomach, and that a medical examination must include an examination of the actions of the brain. Dr. Nesbitt and I have been doing some of this work at Wilmington in making mental and physical tests there.

I have a feeling in this work that the term "mentally defective" is an unfortunate one to use, and we carefully avoid the use of that term in our work in New Hanover County. We tell the parents that we are studying the mental development of the child. We find some children ahead of their age, and that of course pleases the parents. From a practical point of view, I think it would be wise to use the term, "mental development," instead of "mentally defective."

Several points that came up in the discussion of the paper have interested me very much. Dr. Chase spoke of institutional life. He did not compare it with family life. A number of leaders in thought with whom I have discussed this question have taken the position that family life is the most important life for the child. I am very sorry indeed that I can not agree with them, but have to concur with Dr. Chase. I think that in many cases the parents are the greatest handicap the children have in life. I think it is safe to say that from ten to twenty per cent of all the children I have ever studied would be much better off in an orphanage than under the care of their parents. It is a sad conclusion to come to, and naturally the vast majority of mothers would not agree with it, but I can not escape the conclusion that in a great many of our families the parent is the greatest handicap.

Some one brought up the question of the money saved. Sometime ago Dr. Joyner asked me to make an offhand statement of the amount of money lost in North Carolina, in the rural schools of the State, because of the physical condition of the children. Of course, I did not have detailed information at hand and had to make a guess rather than an estimate, and my guess was that we were losing not less than thirty per cent of the money we were spending on education—not because we have not good text-books, good teachers and a good schedule, but because of the physical condition of our children. I believe thirty per cent is a very conservative estimate. We are certainly not getting returns on more than seventy per cent of the money we are spending on education.

Dr. Chase spoke of special schools. I wish we might have more special schools and get rid of the idea that we have to put every child through the same mill. I wish we could cut out a little Latin and put in more cooking. A great many of our girls would make better housekeepers if they knew a little more cooking.

School teachers should work hand in hand with the medical inspector. Teachers can be trained to the Binet tests in a very short time. Certainly any school teacher could soon learn to use a number of the psychiatric tests and cooperate with the medical inspector. There is a great advantage in going hand in hand. We have had the experience in Wilmington that a case of adenoids is found in the mental examination when

overlooked in the physical examination. The mental examiner found the mental retardation from the adenoids and sends the child back to the physical examiner. Of course, the ideal condition would be to have the medical examiners under the State Board of Health and the mental examiners under the State Board of Education and have them work in pairs throughout the State.

The point is brought out that mentally defective people should be urged not to marry. We are brought up against a pretty hard proposition there, and I am afraid we would have a pretty hard time getting it through. Personally, I would rather see Indiana's sterilization law. Of course, it will take time to bring that about, but I think the time will come when the State will adopt that law.

One final point. There is one point in our school system along medical lines which, to my mind, is fundamentally wrong. A high school girl is not permitted any more absences from school than a high school boy. I think the medical profession of this State ought to insist with the educational authorities that the girls of the high school should be permitted a greater number of absences per month or year, without having a mark against them, than the boys are permitted. It is absolutely cruel to make certain girls come to school during their menses. I have had a great many parents come to me about that question and beg me to take up the matter with the school authorities. My solution for that problem would be this, that in each school some lady teacher should be selected, one who is especially popular with girls, and that this whole subject should be placed in her hands and that she should be given the authority to excuse any absences on the part of the girls without any explanation at all. No questions should be asked, and that absence should not tell against the girl. Of course there would be some abuses in a system like that, but what of that? So much more good than harm can be done that the system would be justified.

There is one other point. In the work in New Hanover County we are coming across a very interesting and instructive feature in connection with the older girls. I would like to call your attention to that in the older girls, namely, the cases with enlarged thyroid glands. We have had in the school, I think, six special cases of enlarged thyroid glands, and in all these cases we found extreme nervousness, difficulty in study, and a seven-day menstrual flow. In talking with a man down in Atlanta and another in Richmond, I have found that they have made the same observation.

Dr. W. S. ANDERSON, Wilson: I just want to thank these gentlemen for the paper and for their speeches, and I want to say a word or two

about something which has not been mentioned exactly, that is, in the public schools of North Carolina, we have to accept the children as we find them, and you will all admit that it is a difficult problem to take a young child and tell his mental and physical capacity at the start. So I believe there should be a kindergarten attached to every public school in North Carolina, and that the kindergarten should be continued until the children are eight years of age. I do not believe any child should have to do regular school work until he is eight years old. During that time, if you have a first class physician and a first class teacher, they can very nearly determine the capacity of the child, and the children can be placed in the grades where they belong. This idea of putting children in school at six years of age and making them begin hard study and work at once is all wrong. If they are not capable of keeping up with the classes they will become nervous. If they are nagged and teased they will soon become disgusted and refuse to study and soon learn to hate school. If that same child were put in a kindergarten and allowed to play with education, because children get their knowledge at first from their eyes and fingers, if a kindergarten could be added to each public school in North Carolina, I believe that a great many people who are now in our asylums would be saved from that terrible fate.

SANITARY INSTRUCTION OF SCHOOL CHILDREN.

B. W. PAGE, A.B., M.D., HEALTH OFFICER ROBESON COUNTY, LUMBERTON, N. C.

The importance of sanitation is being recognized and the medical man has placed upon his shoulders the burden of being the pioneer in this field. With foresight and courage he has borne the responsibility, made the sacrifices, and led the van. He has raised his own standards and fitted himself for more exacting service without hope of reward, except in the consciousness of duty well done.

A wonderful change has taken place in the last quarter of a century to which all former ages so abundantly contributed. Scientific discoveries have dealt mortal blows to the doctrine of spontaneous generation. Already the specific germs of the most dread diseases have been discovered. Out of the recorded experience and observation of those who had wrought before has been assembled a working hypothesis which is being put to the test. Disease is preventable, and prevention is better than cure.

The medical profession now agrees that the information is sufficient. The charges are more than proven. What was belief is now certainty.

The accumulation of evidence can only increase the quantity without altering the quality. The other problems relate to its application.

Since sanitary authority does not extend to the rural districts, which compose four-fifths of North Carolina's population, the burden of sanitation must be placed on the shoulders of the general public. The great problem in sanitation then, is that of education. A movement of this kind must appeal to the intelligence of the people. It must awaken the public conscience, as Sir Francis Galton said, like a new religion. It must allay the prejudice and overcome long established customs. This cannot be accomplished in a day. It will take years to educate the public in the higher ideals.

For decades the public has seemingly refused to believe in this "monster of iniquity," and the lower strata of officialdom has joined hands with it, while the higher officials have considered it out of their domain. In all this the few physicians have waged the battle and the general public has looked on but has not seen.

The aroused public interest and the broader intelligence of the present make this an opportune time for the dissemination of the information collected by the medical profession. If once the real public, not the official public, can be reached and interested, the success will be at hand.

One of the most effective ways to use the material at our command in such a manner as not to arouse prejudice, and at the same time appeal to the common sense of the people, is through the schools.

In the sanitary instruction of school children, the health officer's success depends largely upon his ability to secure the coöperation of the teachers. He should endeavor to make the teacher in every community an assistant health officer. To prepare them for this work, they must be instructed by him at the teachers' institutes and teachers' meetings. They must be led to see that the success of their school is largely dependent upon the health of the community. They must be educated to see that the great majority of dull pupils result from some physical defect or disease, and that through their influence and that of the health officer a large per cent of these defects can be removed and the school work improved. They must see that contagious and infectious diseases are largely due to ignorance and carelessness, and that education is essential to their eradication. All teachers readily agree that education is a preparation for complete living, and that sanitation is an essential part.

Other factors that will influence teachers to coöperate in this humanitarian movement are: First, the State Law, which requires that sanitation shall be taught in the public schools; Second, the county

superintendent of schools, who has a very great influence over the teachers of a county; Third, through the press or from some lecture the citizen becomes interested in the community's health, and insists more and more on sanitary instruction of his children, as he understands its significance and importance. As leaders in the better tendencies of humanity, and in most of our altruistic activities, teachers realize that they have a rare opportunity to aid in the promotion of health work. Sanitary instruction represents the desire of the people to avoid disease, to live useful, wholesome lives, to protect themselves, their children and their families. It represents not only the self interest of the individuals, but their altruism as well. It represents one of the finest products of our civilization, the realization that health is the right of every man, and that the preservation of one's own health and that of his neighbor is a moral duty. It is the result of knowledge that disease is not a necessary evil sent by a chastising God, but is caused either by living things we call germs, which we get by direct contact with the sick, or by improper living.

The public school is the primary, all-important focus for the dissemination of health instruction. The child is at the plastic age when any form of instruction makes an impression, either good or bad, that is lasting and permanent. The interested teacher will readjust the school curricula so as to lay more stress on the essentials of human life and health. It is more important to educate future men and women in sanitation than to make them mental gymnasts. The school, supplemented by the home, must be the fountain head of health knowledge. The home, unfortunately, owing to the inefficiency of the school in the past, still lacks parents competent to instruct their progeny. The children of today and the future should have training in hygiene and life conservation to enable them later, as parents, to instruct their own children. But, unlike other studies, sanitation can be simplified. Through the children and through the various activities of a health officer, the entire population of a county can be influenced within a few years.

It is necessary that we correct some erroneous ideas that have existed in the minds of the public for ages. One of the most important factors in sanitation is the public education as to contact infection. Since there is no such thing as spontaneous generation, every contagious and infectious disease must come from a preëxisting and similar disease. The theory of aerial convection of diseases must be eliminated from their minds, and the fact that all contagious and infectious diseases are transmitted by direct or indirect contact substituted in its place. So long as people believe that these diseases are spread broadcast through

the air, just so long will it be difficult, if not impossible, for us to make much progress in our fight against their spread.

In Robeson County only forty-five per cent of the population is white, and fifty-five per cent negroes and Indians. Among the negroes and Indians the death rate was, when health work began, more than two years ago, like that for the vital statistics area of the United States, nearly twice as high as among the whites. One great cause of the high mortality rate among the negroes is their habit of visiting those sick with contagious diseases. This applies especially to tuberculosis. It seems to me that contact infection in this way is almost as detrimental to their health as their insanitary conditions around the homes.

The value of sanitary instruction cannot be overestimated. Sickness is a matter of daily occurrence in the life of the average individual. It is not a thing of the dim future, like death and old age. Unnecessary sickness is a direct charge on the individual concerned. If he can be made to see that a lowering of the morbidity and mortality rate is something that affects him financially, his active coöperation in securing a reduction in the amount of illness can readily be secured.

DISCUSSION.

DR. CHAS. T. NESBITT, Wilmington: It seems to me that probably the most important factor in education lies pretty close to the school house. It is not so much what the child hears at the school house as it is what he sees at the school house. The imitative faculty is the one upon which the mental development of the human race is based. The child's education is the result of a large number of impressions; his future intelligence is the result of the assorting and correlating of impressions. This brings you face to face with the necessity for furnishing that child an impressive and continuously impressive object lesson in sanitation in the institution in which he spends a large part of his time, and which is owned by the local government. When a child goes to a school which is badly ventilated, when he breathes a vitiated, overheated atmosphere many hours a day, when his eyes are strained by badly arranged blackboards, when the desks are not arranged with reference to comfort and the effects of the light, when he is furnished with drinking water from a well of questionable purity, when the water is served from a bucket with a common dipper, and when, in the interest of economy, the water which is not consumed from the dipper is poured back into the bucket, when he has no facilities for washing his hands, when he has a boggy, mucky playground, when he has an open, filthy surface privy, it seems to me that it would be ridiculous to undertake to teach sanitation. We certainly must begin at the bottom. We must get our county authorities, our boards of

education, so actively interested in the welfare of the children under their charge that they will furnish these children with an impressive object lesson in sanitation in the school houses. New Hanover County is an example of this form of inefficiency. I do not think there is any more spectacular example in any other county of the State. It is possibly not so striking in some of the counties of the State. It certainly furnishes ample material for an argument of this kind.

Now, so far as the didactic teaching of sanitation is concerned, that is very important. In our work, Dr. Stiles and his assistants have given a tremendous interest in sanitation. Their work has become very attractive to the children. Instead of disliking it and staying out of school to avoid it, the country children particularly look upon it as a very interesting diversion. No opportunity is lost under these circumstances in impressing upon the children the principles of hygienic living. I feel that we have a great deal to be thankful for in that respect, and that New Hanover County and North Carolina will never be able to discharge their debt to Dr. Stiles for that work, and that for years to come we shall be reaping the benefits of this tremendous undertaking. The teachers in the public schools of New Hanover County are probably equal to those in any other county of the State. It is not easy to interest the teachers in a new branch to be taught in the schools. The teacher receives a small salary. Unfortunately the taxable funds of the State do not seem to be able to supply adequate funds for teaching. Some of the teachers become interested in the work; others get tired of it and soon give it up. The teacher usually lives in the community in which she works, or near that community. The health officer often finds it disagreeable, and I am sure the teacher finds it disagreeable, to be confronted with the criticism that is almost sure to result when she undertakes to change the settled habits and fixed institutions of the home. The teachers must be educated along this line. They must be given to understand the importance of health in the children, and they must be brought to understand that their work would be much easier with healthy children than with sick children.

With reference to the negro as a factor, I want to say that we have found less difficulty in some respects in handling the sanitation problem among the negroes than among the whites. We have found no resentment among the negroes. We have found some results from the seeds we have tried to plant. More than half the inquiries received by the health officers are from negroes. We have had less trouble in enforcing the sewer connection law among the negroes than among the whites. I could cite case after case of negroes who have mortgaged their homes in order to put in a flush closet. We have had a reduction in the negro

death rate in Wilmington. The work has been going on for only three years, but the change has been very marked among the negroes. They have had really less instruction than the whites, but they have certainly used it to advantage. I think the whole thing resolves itself into the realization of human responsibility, the realization of the fact that man can not live unto himself alone, the realization of the fact that individual welfare depends upon the collective welfare of man. If this fact could work itself into our minds, that for a man to be safe, the whole citizenship must be made safe, we would be much nearer the accomplishment of our task.

HOW TO GET DEFECTIVE SCHOOL CHILDREN TREATED.

D. E. SEVIER, M.D., COUNTY HEALTH OFFICER, ASHEVILLE, N. C.

Mr. President, Ladies and Gentlemen:

The problem of securing the correction of defects among school children has been extremely difficult and caused much speculation and anxiety among the full-time health officers of the various counties of the State, who have been eagerly working to this great end. After the inspection of forty eight schools and the examination of 2,791 school children. I found 34.5 per cent with defects, and have secured a correction of 18 per cent out of this number, with good prospects for a continued correction. The first duty of a health officer should be to inform himself thoroughly as to making a correct diagnosis of the various defects to be found in school children, and he should remember that the ultimate success of his work and of the methods he may use show how well he has discharged his trust.

The health officer must be entirely candid with both the teacher and children, and each must thoroughly understand the other in order to be successful. A little common sense and good judgment must be used in order to avoid any proposition that may arise in the examination of a child, which is worth a great deal more in the end than a physician may imagine.

The most crying needs of correction are to be found in children where the family physician is making his daily or weekly rounds, treating the child and suggesting that an operation is really not necessary and that the child will soon overcome his disease by his mode of procedure. The first duty of the health officer would be to see each physician of his county and say to him that he expects to inspect the schools of his locality during the school term, and that he will request the parents to consult with the family physician, and in case he should have an operation and need assistance he is at liberty to call his choice

or a specialist, which may mean much to him in the future. The health officer's duty will be to examine each child to be found in the school-room in the most delicate way possible, and, at the same time, if he uses good judgment, he will win the confidence and esteem of the child to such a degree that any thing he may suggest will be carried out in detail. I have made it a rule to try and win the confidence of the teacher as well as the child, and while making the examination instruct the teacher how to diagnose a case, and in so doing I have found that the children of these schools are closely looked after, and their parents have been advised by the teachers to have the various defects corrected.

I started out by examining the children privately, but soon abandoned this method, as I found they were more frightened than when examined publicly, therefore I have been more successful in examining before the class. In so doing, the work can be made more impressive, and you will not only handle the children more easily, but the results are far better. I send a communication to each parent where the child is defective, after the teacher has visited the family, which they are pleased to do, and explain that the work is not compulsory, but will be helpful to the child. I then follow this up by seeing the parent and also writing him again, pointing out why it is so important to have the defect corrected.

If you can select a child in each school with very pronounced defects and get this case corrected it will have great bearing on all the other children who have defects. I have found in lecturing to children it is wise to point out what is likely to take place in children with defects after they have become grown, and explaining that these neglected cases are the ones that fill such institutions as county homes, insane asylums, and the institutions for the blind. I would advise that each county health officer appear before the teachers at their first meeting instructing them along the lines of detecting contagious and infectious diseases, and their duty to the various patrons of the schools, which they will readily grasp, as this is a hard problem for them, and one that causes them much annoyance. At the same time give them to understand that your purpose will be to help them shoulder their responsibility, and at this time explain thoroughly the defects to be found in school children.

It gives me pleasure to state that the teachers in the county of Buncombe have been most pleasant and rendered me great assistance in many ways, and it has been my purpose to use each as my assistant in the school district which it has been my pleasure to examine. I trust it will be in keeping at this time for me to make mention of Professor

W. H. Hipps, Superintendent of Public Instruction of Buncombe County, who has worked hand in hand with me along these lines, and rendered great assistance, influencing the teachers, and also the patrons of the schools, along the lines of correcting defects. It is a fact that school inspection without the assistance of the teachers and the superintendent of public instruction would be a complete failure. It has been my desire and ambition to assist the superintendent in every way possible, and it has been my pleasure to be present at the closing of a number of the schools and make health talks, and during this time I always explain what school inspection means, and what it means to the defective child in after life. I always request mothers to remain after lectures if they care to know about any defects which their children are suffering from, which I have found many to take advantage of.

During vacation I believe the most important time to have the defects corrected, as the child will not come in contact with his classmates, and discuss with them the operation which he has just undergone, which frightens many nervous children. At this time the health officer, while delivering health lectures, will come in contact with the parents and point out to them the great importance of having the defects corrected, in order to give the child a chance at an age when he needs it most. I believe that the health officer must have the confidence and assistance of each physician in his county, for with him he can accomplish this great work, and without him he is greatly handicapped, and to a degree that it is impossible for him to make good.

It seems to me it would be an excellent plan for the county to secure one or two nurses, depending upon the population, to follow up closely the school inspection, visiting the homes of each defective child, advising with the parents the importance of having the defects corrected at their earliest convenience, and ascertain if the parents are able to have the defects corrected.

In conclusion, I wish to say that one other great factor in securing the correction of defects in school children is the endorsement and assistance of the clergy along these lines. I have found that their advice to the patrons of the various schools has been just about as far-reaching as any one other factor, and I have found several that have taken a great delight in this work.

DISCUSSION.

DR. H. H. UTLEY, Smithfield: In discussing the subject of how to get defective school children treated, it is supposed that every school child in North Carolina has one set of parents, or, at least, each child has a father and a mother. When I began the school work last fall, I began at once to find adopted parents for the physically defective children of Johnston County. I spent three months trying to find these

adopted parents. I spent the remaining three months in visiting the schools, examining the children and getting them treated. The first thing I looked for was the adopted mothers. I attended the teachers' institute. I lectured and I talked to the teachers, explaining the necessity of having physically defective children in their school treated if they wanted to have successful schools this year. They heartily agreed to be the mothers of the children, the adopted mothers. I began then to find the adopted fathers. I went to the medical profession and to the ministers. They agreed to be the adopted fathers.

In getting the school children treated, it is necessary for them to have fathers and mothers, and practically all the time it is necessary for them to have other fathers and mothers besides their natural ones. It is impossible for the health officer of a county to reach the natural parent of every school child in the county, but the health officer can reach the adopted parents of every school child in the county.

After I had secured the adopted parents, as I said a moment ago, I then visited the schools. Right here is something that I dare say not many men know how to do, that is how to visit the schools. I don't know myself; I wish I did know. The success of a visit depends greatly on how the visit is made. I know a number of physicians in the State of North Carolina who are some of the best physicians I have ever seen to treat an adult population, but there are very few physicians in North Carolina who can treat children. In order for a county health officer to get treatment for physically defective children in his county he must naturally know something of child life. He must make a deep study of it. So one of the first things I did was to make a study of the children in the schools. The first thing that has to be overcome is the fear that a child already has of the visit of the county health officer. Sometimes it takes five minutes to overcome that fear, sometimes it takes forty or fifty or sixty minutes, but the county health officer who attempts to examine the school children and get them treated for physical defects without first getting the confidence of the children will have no results so far as getting treatment is concerned.

As I said in the beginning, I found some adopted mothers for the children. I told the teachers that they must be mothers indeed and in truth, and that they must teach their children not to fear them and not to fear me. Now, for the last three months of the school year, I visited sixty-five schools and examined over 3,400 pupils, and found seventy per cent of them physically defective, or about 2,200 physically defective. Of the 2,200, 1,000 have been treated.

Now, in order to get the child in the notion of taking treatment after you have secured the parents for him, you have to get the consent of

the child to be treated. That is a difficult proposition. I find that you can not get it in a forceful way. You must take on a child's life, a child's nature, you must become a child yourself. You must use child language. You must point out to him in a simple, easy way just what a physically defective child is. You must make him see and realize what it means to be physically defective. After you have done that, it is an easy matter then to get him to make up his mind to take the treatment. To encourage him in this treatment, I tell him of the report I have from neighboring schools. I work up a kind of jealousy among the schools, an anxiety to excel.

Now, as to the time for treating the physically defective children, I find that the best time is while school is going on, so that the other children may see the improvement in the child that has been treated, so as to get them to fall in line. I usually get a child who has been treated and one who has not been treated and ask the school to vote for the best looking or the one that can run fastest, etc., and in one hundred times out of one hundred they will vote for the child that has been treated. I attribute my success in getting children treated in Johnston County to the teachers and physicians, and what little I might have said to the children. I have been in the habit of giving the child a card stating the defects and advising him to go to his physician. At the same time, or shortly after, I advise the physician that I have given the child a card, and when the physician sees the child he will mention the matter to the child, and that gives him confidence in the physician.

DR. C. W. STILES, Wilmington: There is one point I would like to bring out in my experience and Dr. Nesbitt's that is slightly different from that of Dr. Sevier's. Possibly the larger number of workers at our disposal is the explanation of our results. We never examine a child in the presence of a child of another family. We examine members of the same family together, and we always try to have the mother present. Seldom indeed do we consent to examine an older girl without having the mother present. Everything we do is explained to the mother, and before we get through with the child the mother understands a good deal more about the child than she ever did before, from the physical point of view. Naturally, that could not be done working with a small force. We have, I might say, thirteen medical assistants this summer for the work, so that we are able to follow this method. When we take the hemoglobin of the child, that is explained; the blood pressure is explained.

Now, as to getting the child treated, that is the difficulty. Dr. Nesbitt and I discussed that matter pretty carefully before we began the work and finally adopted our plans. After the examination of the child we write the mother a personal letter—we do not use a blank, but write a personal letter, going directly on record as to our findings. We have told the mother in the meantime that our schedule will be shown to any physician she wishes to have see it. I must say that the physicians in the city have coöperated with us very nicely indeed. We have made many special examinations at the request of the physicians. We frequently make a note on our schedule as to the name of the family physician, and if we find anything very far wrong we call up the family physician and tell him of our findings.

The practice of examining children in the presence of other children has its danger. A little remark may be misinterpreted and repeated and distorted. Personally, I prefer to have the mother present, so that we can show her exactly what we find. If she understands, she will have that thing to attend to, if she can.

In connection with the tonsils, we had some difficulty at first. The difficulty was that the fathers "did not believe in cutting people up," as they expressed it. For some time we had a hard time getting around that difficulty. Finally a thought occurred to me and I think we have had more success recently. We showed the throat to the mother, put the flash light in and let her see the tonsils. Now, presume that it is a good large pair of tonsils. We do not argue from the point of the tonsils. We ask the mother if she can expect to have the fire burn if the flues are not in good working order. We tell her that though the child may get on all right with the tonsils as they are, yet if the child contracts diphtheria, his chances for recovery are very much lessened, and generally the parents give in. I may say that it is the exception that we advise personally that the tonsils be taken out. Of course, sometimes we emphasize the fact that medical aid should not be delayed. We put it this way—we find that the tonsils are diseased; consult a throat specialist and find out from him what should be done with those tonsils. We try to avoid the responsibility of giving direct medical advice, and we try to put it in the hands of the physician to give the final word.

DR. GEO. M. COOPER, Clinton: I want to stop for a second to say that we can not stress too strongly the fact that medical inspection is the solution of the problem. You can not teach sanitation in any better way than by the medical inspection of the children. The next most important thing is to get the defects treated. I can not let Dr. Sevier's

paper pass without commenting him for his high record, more than fifty per cent of his defective children treated. That is an unusually high percentage. I have tried in every way I can to get defective children treated, but I have no such record as that. I find that it is a problem for the State, county and community to take up and treat children who are not able to be treated. That is a problem for the officers of the State to work out in conjunction with the State Board of Health and the medical men who are high in authority.

A SCORE-CARD SYSTEM FOR SURVEYS OF SCHOOLS.

B. E. WASHBURN, M.A., M.D., HEALTH OFFICER NASH COUNTY, N. C.

An enterprise having for its purpose the enlightenment and betterment of the human race may temporarily meet with embarrassments and for a time have its progress delayed. But when public opinion becomes thoroughly committed to a proposition, only clear and intelligent direction is needed for it to become an activating force and a power in the solution of human problems. Protection of its people from conditions which tend to interfere with and impair their normal mental, physical, spiritual, and economical development is the highest duty of any government; and that state or nation is most enlightened and prosperous which has grasped this fundamental truth and undertaken to apply scientific knowledge toward the conservation of the lives of its citizens.

Education is a personal work and will vary in effectiveness and worth in any given society, for in all times and places there are wide differences in virtue, wisdom, and capacity among educators. Despite these differences in conception and efficiency among educators, however, each expresses, in some degree at least, the common conception and energy of his age and country. Therefore, the first essential for a successful educative effort is that the community as a whole should have a true estimate of the nature of the work to be attempted and its educative value.

All modern pedagogy teaches that the final object of our public school system is embraced in the definition given by Herbert Spencer that "Education is preparation for life." Although expressed many years ago it is only in recent times that the true significance of this definition has become realized. Our school systems have become more democratic and the curricula have been made to include studies that are

practical and that prepare the student for actual life. And it is just now that health, one of the most important subjects, has been given a place in the school work. Since this is true it offers a great opportunity to the physicians, as guardians of the health of the State, to cooperate with the teachers and school boards in giving this important subject the position it should occupy in the training of our future citizens. By work in the schools we are able to accomplish the elimination of the preventable mortality among children and to increase their efficiency; and through the acquisition of health habits in the children we are able to raise the plane of citizenship of the next generation.

The way to accomplish these results and to give health its proper consideration is by methods that will cause not only the school but the entire community to have a true estimate of the nature and value of public health. A great deal toward the accomplishment of this end can be attained, I think, through the cooperation of the county boards of health and education in carrying out a method of standardization of the schools along the lines of health, sanitation, and community improvement. A method that has achieved remarkable improvements in other departments of human endeavor is the score card system and I believe it will prove applicable to health work.

The first score card that was used to standardize an industry was devised in 1904 by Dr. Woodward, Health Officer of the District of Columbia, for the inspection of the dairies supplying the city of Washington. In 1906, Professor Lane, of the Dairy Division, Washington, D. C., devised a dairy score card that is now being used in many parts of the United States. Since 1912, the State Board of Education of Arkansas has been using a score card for rating the equipment of the rural schools in the State. In 1913, the Indiana State Board of Health used a score card for making rural sanitary surveys. Following a hook-worm campaign in Brown County, Texas, in 1913, a score card was used to stimulate interest in sanitary improvements in the rural schools of the county. For several years the American Medical Association has been using, on a large scale, this method of rating the medical schools of the country. These are, so far as I have been able to learn, the only instances in which the method has been employed.

Excepting the Dairy Score Card and the method used by the American Medical Association, the others were very simple and did not go into details sufficient to stimulate interest in improvements. The Indiana card, for example, consisted of a score for grading country

homes, there being ten divisions, each of which counted ten points. The divisions were as follows: Site of the house, sanitary condition of the premises, house, cellar, water supply, sewage disposal, barn and its surroundings, disposal of manure, and health. No standard was set to create an interest in improving the conditions or to suggest an ideal toward which each home could work.

The following score card has been devised for use in the rural schools of Nash County for the coming year. This card is made to embrace each detail of importance about the school and its surroundings and regarding the health of the pupils. Provision is made for grading the schools according to the points scored as Class A, Class B, or Class C schools. The card is not intended to be on the order of a police regulation but is simply a statement of the facts as found at each school and the setting forth of an ideal that each school should strive to attain. Credit is given for such conditions as tend to produce better health and education and is withheld for conditions of an adverse nature.

SCORE CARD FOR RATING THE SCHOOLS.

NASH COUNTY, NORTH CAROLINA.

Name of School

Township

School District No.

Race

To the Teachers and School Committeemen:

To become an effective instrument for the protection of child-health it is essential that the school should be a sanitary and healthful place for children to live in; and to obtain the best results from their school life it is necessary for the children to be free from acute illness and chronic physical defects. In order for a school to attain and keep its important and rightful place in the life of a community it must be made attractive in itself and must arouse in its patrons a sense of pride and cooperation. Activities outside of the routine class-room work must be stimulated and directed.

A committee composed of a member of the local school committee, of the teacher or teachers, and of the pupils, and to be known as the Betterment Committee, will be selected in each school. The duties of this committee will be to cooperate with the County Health Officer and the County Superintendent of Schools for the betterment of the school and its surroundings.

In order to place the work of the local committee on a permanent basis and in order to properly classify each school and each community this School Score Card has been devised. The aim is to fix a definite working standard of ideal conditions in all points which make for greater efficiency in school work. *Schools scoring 90 to 100 points will be rated as Class "A" Schools; those scoring 75 to 90 points as Class "B" Schools; and those scoring 60 to*

75 points as Class "C" Schools. Two inspections will be made during the year by the County Health Officer and the County Superintendent of Schools and any school advancing to a higher class during the school term will be placed on the Honor Roll.

B. E. WASHBURN,
County Health Officer.

OSCAR CREECH,
County Supt. of Schools.

(Reverse side.)

NASH COUNTY SCHOOL SCORE CARD.
Grading of School.

	Points Allowed	INSPECTION		Remarks
		Date, First	Date, Second	
I. GROUNDS (20 POINTS).				
1. Site of building and condition of yard as regards health. (Absence of rubbish, etc.)	3			
2. Condition of grounds as regards beauty. (Flowers, trees, etc.)	3			
3. Provision for sports. (Play grounds, swings, see-saws, etc.)	3			
4. Type and condition of privy. (See State Bulletin for classification)	6			
5. Water supply. (Pump)	5			
II. BUILDING (20 POINTS.)				
1. Condition as regards cleanliness	5			
2. Painted and in good repair. (Condition of walls, stairs, etc.)	5			
3. Arrangements for heating, ventilation, and light. (Wood supply, window shades, etc.)	5			
4. Water in school. (Cooler and individual cups)	5			
III. EQUIPMENT (20 POINTS).				
1. High school, college, or normal trained teacher. (First grade certificate)	5			
2. Attendance of teacher at Teachers' Association and interest of teacher in Reading Circle work	4			
3. Teacher's table and chair	2			
4. Class work equipment (Globes, maps, etc.)	3			
5. Style of desks. (Patented)	3			
6. Library. (Thirty dollar)	3			
IV. PUBLIC HEALTH (20 POINTS).				
1. Percentage of pupils having physical defects remedied. (Eye, ear, nose, throat, teeth, etc.)	10			
2. Percentage of pupils that have been vaccinated against smallpox	3			
3. Percentage of pupils that have been vaccinated against typhoid fever	1			
4. Percentage of children infected that have been treated for hookworms	6			

NASH COUNTY SCHOOL SCORE CARD—CONTINUED.

	Points Allowed	Inspection		Remarks
		Date, First	Date, Second	
V. COMMUNITY ACTIVITIES (20 POINTS).				
1. Active Betterment Association	4			
2. Boys' Corn Club*	4			
3. Girls' Canning Club*	4			
4. Literary Society or Debating Club	4			
5. Amount raised for betterment of school. (\$50)	4			

*A Poultry Club will be accepted.

By the use of such a card a community is shown how the school and its surroundings may be made healthful for the children, and it is also shown the relative importance of the different details so that it may be guided in the improvement of the school and the placing of it in its proper relation to the life of the people. The card also serves as a means of showing what other communities are interested in and are accomplishing and gives a school and community a means of being advertised comparatively. And by accomplishing these things the people are educated and the community and the county are made better and more healthful places in which to live.

DISCUSSION.

DR. E. F. STRICKLAND, Winston-Salem: It is perhaps as unlikely that we shall ever have a perfect system of sanitation and absolutely good health among our citizenship as to expect that we shall ever have a universally high degree of broad education. The work that we are engaged in in North Carolina is comparatively in its infancy. I thank Dr. Washburn for his paper, and the secretary of the association for giving me an opportunity to discuss it.

The idea of marking public schools and grounds by a score card system is new to me. I have realized since visiting a number of schools which it has been my pleasure to visit in Forsyth County during the last school term, the very great importance of having better regulations in the schools and in the grounds in which they are located. I have tried to impress all the teachers in the schools and likewise the children with the importance of ventilation, proper lighting, proper heating, proper desking, etc. If you have not the proper construction of a school building, and if you have not the proper facilities added thereto for seating, lighting, ventilation and heating, how needless a task to call the attention of these teachers, these coöperating teachers, to the im-

portance of carrying out your instructions. How simple and inconsistent it must seem to the child, who, with his ready mind, perceives at once the importance of the instructions and likewise the inadequate facilities. In my final report to our county board of education I made three suggestions. One was a recommendation for the abolition of the common drinking cup in all the schools of our county. The second was the abolition of the open well for all the schools, and the third was that a sanitary privy be installed for every school and for each sex. Our county board of health met soon thereafter and were kind enough to take up these suggestions and pass a resolution recommending the county board of education to carry out these instructions. I think it would be wise to have definite ideas and uniform plans for the school houses, in erecting new buildings. I think there should be a definite system by which these ideas could be put into execution. I think that the schools already built should be put into a sanitary condition. I think, from a competitive standpoint, it is wise to have a score card system so that we can ask and expect those in control of the schools to measure up as nearly as possible to the standard we have set. I think there is a great deal in this card. Whatever card might be used, I think it is proper and right that a standard be fixed and that encouragement be given so that the standard may be reached, or at least approximated.

Some gentlemen on this floor today has referred to the negro schools in his community. I want to say that in the visitation of the schools it has been my pleasure to visit about sixty-five, I believe, during the past term, and several of these were negro schools. You do not know, unless you are in the work, how you will be received and what encouragement you will get from the negro teachers and pupils in these schools, how eager, how anxious, how hungry, as it were, they evidently are for instruction, and what assurance they give you of the fact that they are needy, that they are willing, and that they mean to serve. I find in some of these school houses a few growing plants or flowers, I find a little attention paid to the sodding of the ground outside, I have found in many instances around these school buildings much more care and attention is given the grounds and less trash and rubbish than I have found around many of the white schools. I talk to the negroes about ventilation. I tell them that before the Civil War tuberculosis was almost unknown in their race, and I contrast it with the present condition. I tell them that the lack of free outdoor life in the fresh air and sunshine is the reason for their condition now, and that they must return to that life.

Now, as to score card I want to say that prizes might be offered, competitive prizes, just as you do in schools for mental development

and for oratory, etc. It is all along the line of education; it is all along the line of physical development, which is essential and of paramount importance to mental training, for without the former, of what value is the latter? I believe in the score card system.

DR. P. W. COVINGTON: The whole-time county health officer has of course, a great many important duties to perform, and among them I don't know of any that is more important than the sanitary inspection of school buildings and school premises. In fact, the State, appreciating the importance of this duty, has made it mandatory to make this annual inspection. It is with a view of standardizing that work that Dr. Washburn has edited this score card. I hope it will not be long before it, or a similar one, will be adopted by the health officers of the State. At a commencement recently in one of the schools of the State, there were twelve girls and one boy who were receiving their diplomas. What impressed me most was the fact that each of them was extremely hump-backed. All of them, I knew, had spent from four to eight years in that school. So that school was sending out, year after year, graduates particularly susceptible to all chest diseases. While the seating arrangements of the school might seem a very small thing, yet we can not realize the influence it may have on the health of the children. Of course, there are other important details, the water supply, the condition of the school building, the ventilation, and quite a good many others. So with such a score card any health officer can visit a school building and, after the examination of the grounds, credit each school with the number of points it deserves. By averaging all the scores he might get the average score of say 60 per cent for the schools of his county. No doubt the next year he might find the index raised to 65 or 70 per cent. By further urging and by bringing more influence to bear he might see the index raised to 75 per cent. So it is an important thing that we have a score card of this type. I would like to see a committee appointed to examine this card and make some recommendations to the county health officers with a view to adopting this system.

DR. W. M. JONES, Greensboro: I have listened with a great deal of interest to this discussion. We have tried to formulate a score card system in Guilford County, but our card is nothing like so complete as this card. In ours we include the buildings, the grounds, and the manner of obtaining water, the privies, etc., light and ventilation. Then the board of education has some requirements as to maps, dictionary, library, globes. We give a diploma to all those who fill the requirements, and in the office of the board of education and in the office of the board of health there is a list of those schools that reach the standard. The name of the school is put on the diploma, the date received, and the

teacher or teachers at the school. The diploma is signed by the secretaries of the boards of health and education and a seal put on. That is as much as we have done. We have not tried to divide the score by points. I have this for only one year, so I do not know what improvement has been made.

FUNDAMENTAL PRINCIPLES IN RURAL QUARANTINE.

ARCH CHEATHAM, M.D., DURHAM, N. C.

The word quarantine is from the Italian "quaran-tá" forty, because originally it lasted forty days. "The period during which vessels from infected or suspected ports are debarred from entering into a healthy one and from landing their goods, crew or passengers unless to be confined in a lazaretto."

Webster's definition of quarantine is "To compel to remain at a distance or in a given place without intercourse, when suspected of having contagious disease." The latter definition applies to my subject.

The first fundamental principles in rural quarantine or segregation laws was given by Moses, "When a man shall have in the skin of his flesh a rising, a scab or a bright spot * * * and the priest shall look on him and pronounce him unclean * * * and the priest shall shut up him that hath the plague seven days: And the priest shall look on him again the seventh day * * * and if the plague in his sight be at a stay * * * Then the priest shall shut him up seven days more * * *" (Full text in Lev. xiii: 2 to 6).

In the country or rural quarantines we often have to contend with conditions that are hard to control, such as this: It is rumored that Mr. or Mrs. J. or some of the children are sick. Sister A., brother B. or neighbor C go to see them, not knowing what the disease is, and having no one to leave the children with, sick or well, they take them. If they hear that the sick person has whooping cough, measles or mumps, they will say, "Why, they have to have that anyway, and this is just as good a time for the children to have it as some other time." So they make the visit, and often such visits spread the disease through the neighborhood, before it becomes known to the doctor in the community or to the health authorities, for many people do not think their children need the care of a physician when sick with such diseases. And, again, in rural sections, when the people gather at church, they often have to take all the children, and the children are brought into more or less contact with children from many homes, in some of which there may be persons sick with communicable diseases. Often, too, the sick child has come along also. What is said about the family and church will apply to

the Sunday School and day schools as well. When whooping cough, measles, mumps, scarlet fever, diphtheria and chicken-pox are known to be present in the community, parents should be watchful, for frequently children are sick for some time before the nature of the illness is recognized, and if during this time they mingle with others, the disease is likely to be spreading. It has been said that we are long on law-making and short on enforcement. "Community betterment will never come by law, but by higher community ideas and ideals." Law does not make ideals, but ideals make laws enforceable.

"The whole method of dealing with the cases of communicable disease should be arranged in such a way that there is as little interference with the well members of the family as is consistent with proper protection. The less burdensome the process is made, the more prompt physicians will be to report their cases and fewer concealed cases will there be." By making laws that are not enforced or followed, we create lawlessness. We create in community life the very element of weakness which we seek by law to mend. In the early colonial settlements, especially New England, the ideas upon which the settlements were built leavened the whole mass of people. "We have a tremendous law enforcement machinery but little idea, sentiment and sympathy for the higher purposes of community life." The fundamental principles of rural quarantine or any other quarantine is therefore education; education in health and sanitary matters, for ignorance has developed disease and death. Ignorance does not know or care to know how to avoid infection or the spreading of disease. "Ignorance, always self-sufficient, scoffs at scientific truths." Ignorance in its worst form of superstition refuses to fight against disease, saying, "It's God's will" that hundreds of thousands of innocent children should die painful deaths.

Ignorance and superstition have been too long teaching submission to the supposed will of some "Divine Power" creating children only to murder them. Education will stop that nonsense. Prosperity may feed the children, but knowledge must protect them.

We can not hope for much improvement in rural quarantine until we educate the people to the fact that such diseases as whooping cough, measles, mumps, scarlet fever, diphtheria and chicken-pox are not necessary diseases that children must have, and each householder should give special attention to the welfare of his neighbors' children, *by keeping at home those of his own sick with a communicable disease until all danger of spreading the disease is passed.* No right-minded citizen wants to be responsible for the occurrence of sickness in others, sickness that may deprive them of their life.

We must have a well thought-out ideal for community betterment and

stand for it and let our people know we stand for it. Then we will have the coöperation that will make rural quarantine effective, and then the health department will limit the spread of communicable diseases.

DISCUSSION.

DR. G. M. COOPER, Clinton: I want to say that, of course, the principle of quarantine is broadening and being established in the minds of the people. I want to say this much in regard to fumigation, whenever the day arrives when we have the same confidence of the general public in preventive work as they now have in fumigation, the millennium will be here, as regards health work.

THE PLACE OF THE COUNTY PHYSICIAN IN HEALTH WORK.

L. N. GLENN, M.D., GASTONIA, N. C.

When I was asked by our ever alert Secretary to write a paper on the above mentioned subject I felt almost as if I had been placed in a row-boat without oars. Our progress along health lines has been so marvelously rapid during the last decade that we ordinary county physicians can scarcely keep up with the march. Several counties in our good State have employed whole-time health officers and have made such rapid strides that the health laws of the State have been revised and re-revised to keep up with progressive ideas until the county physician who can keep up with the laws is a rarity, his knowledge thereof having been entirely disconcerted and he again being put to sea.

About all that he is sure of since his powers have been curtailed is that he is the all-important official, who, when it comes to attending to paupers and prisoners, can say with William Cowper in his "The Solitude of Alexander Selkirk":

I am monarch of all I survey,
My right there is none to dispute;
From the center all round to the sea,
I am lord of the fowl and the brute.

The fruits of his past labors are now to be gathered by those who did not plant. He has been, but is not, in the eyes of many of those who gloriously march in the vanguard of our health forces, and who, with the fly on the chariot wheel exclaim, "What a dust I do raise."

These same progressives would place him high and dry on some secluded sand-dune and artfully and triumphantly label him in his proper place among the hulks and fossils of a barren past, so great and so satisfactory has been their splendid evolution from the insignificant position occupied by them in the not-very-long-ago past; in the days

when the lamented Wood with nothing to work with, with no sentiment to help, nor colleague even to encourage, builded wiser than he knew; in the days of the recently retired Lewis, who crowned his almost lonely administration by discovering and placing at the head of our health work the best secretary in the whole United States—Dr. W. S. Rankin. These were the men who laid the very foundation for the splendid aggressive officials of today to build on.

It fills us with zealous pride to see strong brilliant young men like Rankin, Shore, and Ferrell, together with their able corps of assistants respectively, giving to their beloved State of North Carolina the very best service within them for the nominal remuneration they receive.

It warms us to active effort when we observe Stiles, and his willingness to forego the eminent success which could in no way escape him in private practice, that he might render a broad and humanitarian service not only to the land which gave him birth but to mankind in general.

Indeed, are we filled with admiration when we see such wonderful manifestations of self-sacrifice and devotion to health work as is shown when such men as McBrayer voluntarily give up a splendid and lucrative practice in one of the very best cities of our whole Southland, built up by years of relentless effort both mental and physical, sever the strong ties of friendship which have more or less unconsciously bound strong minds and strong hearts together in an affection that is never realized until broken, and dedicate his future life to the noble and glorious work of tearing the very tentacles of the Great White Plague from the lives of our boys and girls, our young men and our young women, and offering back to the State, for its service, a splendid citizenship.

When we observe the rapidly growing sentiment for a Department of Health with its head a member of the president's official family and feel sure that this great achievement is a thing of the near future, we almost lose sight of the insignificant county physician far in the rear.

When we contemplate what has been done, how it has been done, and by whom it has been done; when we take stock, as it were, of the condition of health affairs today and again look around at the generals who are so brilliantly directing our health forces, we must likewise look for the private in the ranks in order to arrive at a proper estimate of our conquering forces. This, my friends, brings us to the discussion of the place of the county physician in health work. Instead of having to deal with a subject void of value, without any position to take, without any theme to stress, without any ground to occupy or point to make, we make bold to say that we have been made sponsor for that all-important class of physicians who in a very large measure constitute the very

basic element of our whole health structure. In the past as well as at present they may well be called the Paul and the Apollos of our health work, since it was they, and is they now, who did, and are still doing, the planting and watering that our none the less appreciated advanced health officers might gather the increase. May it not be forgotten that the harvesters of today have not been the planters, the sowers, or the tillers of the past. These advanced health men have come on the scene of health service after many seasons of modest labor by the ordinary county physician. Regardless of his poor crops in the field of health work he has never yielded to discouragements and disappointments, but steadily and persistently plodded on till he has realized that his labors are at last fruitful.

To be sure, we do not lay claim to all that is being done, but we do claim that in a very large measure the humble county physician of the past has engendered a certain amount of that strong sentiment that has brought about our present advanced position in health matters. The place of the county physician in health work is a most strategic position. He has a far greater opportunity for good constructive work, if he be the right kind of a man, than almost any other official, while on the other hand he has a great opportunity to do destructive work, if he be a man of sinister motives.

Our county physicians well know of the many times in their work that they are in a place to wonderfully aid our health forces and also are aware of the fact that often they are in a peculiarly tenable position for the man who wishes to nullify the best efforts of able and energetic health officers.

Slowly, perhaps, but most surely, can he crystallize sentiment for substantial health work if he be the right kind of man.

Just so surely can he retard health work if he so elects.

He can be a most valued constructor or a much deplored destroyer. His position is well-nigh invulnerable and his activities, either for good or for evil, are especially fruitful.

He should be a man of many good qualities, possessed of an unlimited supply of tact, prudence, and energy, and above all things, a teacher even more than a doctor. He should be able to eradicate ignorance and prejudice and impart enlightenment and a spirit of liberality and consideration.

Because he is not a whole-time health officer by no means limits his open fields of usefulness nor does it prescribe limited duties for him. He has the broad liberty and open opportunity to do any of the many things that are essential to the success of the best of our whole-time men.

He has the same opportunities that they have except that he is not so well paid and may perchance not be able to give his work the amount of time necessary for accomplishing results.

Only a very few years ago it would have been an absurdity to have advocated a whole-time health officer in any county in the State, but today we are very proud indeed that we have perhaps more whole-time health men than any state in the whole Union. You might say that our health work never occupied the respectful position that it now occupies until we had some whole-time men, but you must admit that the whole-time men are but products of evolution in which the county physician must be given some share.

In health work, as in other things, it takes money to do things. In most of our counties we will find men of excellent business qualifications on the boards of county commissioners. These men are incessantly harassed with all kinds of propositions which are no more than so many tools trying to get under the lid of the county treasury. These commissioner-guardians of sacred funds must of necessity keep the lid well nailed down. In order to get a peep under the lid for the advancement of public health, the county physician must be plausible, tactful, resourceful, determined, respectable, and respectful, and if these qualities properly exercised fail to get funds I would almost condone calling in a high grade yeggman. Above all, the county physician must not only be possessed of these characteristics, but he must display energy and show results.

Decidedly one of the greatest functions of the county physician is to discharge faithfully his duties to his fellow health workers, and most especially to the Secretary of the State Board of Health. He should keep this official fully advised at all times as to the condition of health matters in his county. He should be prompt and accurate in all his reports to his superior officer and call on him freely for advice and information, to the end that their united efforts may, as they surely will be, crowned with success.

Let us then encourage and assist the county physician in his trials and tribulations. He is an indispensable man and as much as we would like to supplant him with whole-time men it remains a task for the distant future. Many counties from force of circumstance must keep him indefinitely.

To some of you he may appear an insignificant element in our health work, but I must contend that he is just as indispensable as he is insignificant.

The increase in the number of whole-time men will in a large measure depend upon the development of the county physician. I am sure you

are cognizant of the fact that most of our present whole time men were at one time members of that humble class of men modernly dubbed "ordinary county doctor."

The point has been stressed that the county physician is not entitled to, and has no right to be honored with the distinctive title "Superintendent of Health" but as far as I am informed, I do not think I am misrepresenting him when I say for him that he is not clamoring for nor has he ever clamored for such a title. That label he has never considered essential to his success nor has he ever envied the man who does.

Their right to do whatever health work they see fit to do has never been abridged.

Conclusion.—I must contend then, that, for the present, the county physician has a place in health work. He is a strong spoke in the wheel and cannot at present be dispensed with. He has been a potent factor in developing and securing what we have; he is a potent factor in maintaining what we have; he is a potent factor in evolving from his sphere to that of the whole-time health officer, and, except as he evolves, may his tribe never decrease.

DISCUSSION.

DR. H. D. STEWART, Monroe: But few people, perhaps, recognize the difference between a county physician and a county health officer. I think we need a new name. You know people in general, in the mass, look upon the county physician as a law giver in general and as a public servant in general. They call on him for anything under the sun, no matter what they want. The county physician can not do everything under the sun for nothing. He can not attend labor cases and lecture at schools and go all over the county and do what is required to be done. The doctor can not neglect his general practice and do the work that ought to be done. In some counties he gets \$200 a year, and in others \$50 a year, hardly enough to pay him for one trip over the county. Until we get the people to realize the value of health and get them to spend more money on health, not much can be done. I am glad to say that has been done in several counties. It is a strange thing that law makers will spend more money on hogs than they will spend on people. The county commissioners are afraid to spend money on health work. I think they ought to do it anyhow, and public opinion will come their way eventually, if they get results. It makes no difference what a man does, there will be many people to oppose him, but if he is right he will eventually have all the people with him.

DR. J. M. PARROTT, Kinston: I take it that every thinking man is more or less interested in public health work. The time has come in North Carolina when we must put ourselves squarely on record in favor of the whole-time health officers for the counties if we expect to go

forward in health matters. Therefore this is a question that deserves a great deal of consideration. The fact that this is necessary does not mean that we ought to rush into it without special thought. I am very much of the opinion that the State at large is now ready for a more aggressive campaign for whole-time county health officers than we have had up to this time. During the recent twelve months I have felt the wisdom of trying out the work here and yonder before going into it on a broad scale. It is a matter of too much importance to run the risk of failure by going into the matter before we are ready. North Carolinians are peculiar in some ways. They want to be shown. They are almost intolerant of mistakes. The whole-time health officer is almost a new thing in sanitary matters in this country, and we have to blaze our own pathway. In doing this, confronted by the conditions existing in the State, it is far better for us that we move along slowly and surely, as we have done in the recent year. However, the movement has been sufficiently tried now for us to push forward with increasing confidence.

One of the papers very truthfully referred to the fact that this is a day of specialism. That being true, this is a day when the work of the health officer must be done by a health specialist. In fact, it is nothing but right that it should be.

Some time ago I was reading a paper by a distinguished writer in which he spoke of the work and responsibilities of doctors. He said the doctor should look after all the children in the neighborhood, advise with the parents in regard to social affairs in the home, advise the people as to hygiene—in fact, he made a lengthy catalogue of the duties of doctors. I made a little calculation, and I found that it would take thirty-six hours out of every twenty-four to do all those things, leaving no time for himself or to make a living for his family. Now, we can not expect physicians to do the health work in North Carolina. It is our duty to support the officers that are elected, but when we have done that we have done about all we can afford to do. The doctor has a responsibility in regard to health matters that he should not shirk, and that none of us will shirk. But, on the other hand, we must realize that we have reached the point when we must set aside a man, and it takes a man, to do this particular work.

DR. C. W. STILES, Wilmington: I should like to speak in reference to the question of a whole-time health officer.

It seems to me that the logical trend must be in the direction of the full-time health officer. No practitioner can serve satisfactorily in that capacity, for the reason that the work of the health officer is police work, and a man can not exert himself in police work against the people upon whose fees he is dependent for his bread and butter.

The point has been brought up that the practitioner must support the health officer. In following out the full-timers, I find this officer is not supported unanimously by the practitioners. Not long ago I attended a meeting of health officers in another State, and the question came up, what is the greatest obstacle in the way of public health work? It is an interesting fact that the health officers at that meeting replied almost unanimously, "the practitioner." That sounds perhaps like a bold statement, but that was the judgment of the meeting of quite a number of health officers,—that the greatest obstacle they have in their work day after day is the general practitioner of medicine. This view of those health officers gave rise to a good deal of reflection on my part, and I have asked myself a good many times since then what is the reason the general practitioner does not support the full-timer more than he does.

The point has been brought up that the practitioner must support the health officer. I want to speak on that. In following out the full-timers, I find this officer is not supported unanimously by the practitioners. Not long ago I attended a meeting of health officers in another State, and the question came up, what is the greatest obstacle in the way of public health work? It is an interesting fact that the health officers at that meeting replied almost unanimously, the practitioner. That sounds perhaps like a bold statement, but that was the judgment of the meeting of quite a number of health officers, that the greatest obstacle they have in their work day after day is the general practitioner of medicine. The unanimous view of those health officers gave rise to a good deal of reflection on my part, and I have asked myself a good many times since then what is the reason the general practitioner does not support the full-timer more than he does.

In the last twenty years I have been in health work and have had to deal with two classes of people in particular. One class is the practicing physician and the other is the school teacher. In my opinion, the school teacher is today the person who supports the health officer more than any other person in the community, and if I were to estimate in a very cold-blooded way my experience of twenty years past, I would say that the difference between the aid given by the practitioner and the aid given by the school teacher is this, 90 per cent of the practitioners will make a speech in favor of public health work, and when they get back to their general practice, about 10 per cent of them will put into effect the words they have spoken. With the school teacher you are dealing with a person who comes to you, rolls up his sleeves, and says, What can I do to help you? Working with both classes of people, I want to say to you frankly that it is the school teacher of the South

today who is responsible for the public health work, and not the physician. The school teacher is the person who is forwarding this work. If all the medical practitioners were to die today, the movement would go on supported by the school teacher. I feel that the medical practitioner has reached today almost a crucial point in this matter, and that unless the general practitioner does support it more actively, the health movement will become a movement of the schools rather than a movement of the medical forces. I want to urge that the practitioner get at the back of these men who are putting in all of their time in health work.

THE NECESSITY FOR A WHOLE-TIME HEALTH OFFICER: HOW ALONE HE CAN BE PROCURED.*

JOHN BLOUNT, M.D., WASHINGTON, N. C.

I notice upon the program that I was to discuss the County Physician in Health Work, but I prefer rather to discuss the necessity for an able county physician in each county devoting his whole time and energy to that work and how alone he can be procured.

It is absolutely necessary first to "find out the cause of this effect, or rather say the cause of this defect, for this effect defective comes by cause."

In my opinion there is but one way, and that through the combined coöperation of all the physicians in each county. All factional differences, all county politics, all damning of preventive measures with faint praise must be relegated to that oblivion to which they should so long ago have been consigned. Since man is the source and reservoir of human infections it is plain that man is man's greatest foe in this regard. The fact that most of the communicable diseases must be fought in the light of an infection specific from man to man is one of the most important advances of preventive medicine, but the task of prevention is rendered much more difficult from the fact that most of the infections depend upon the control of man himself. We can arbitrarily control our environment to a very great extent, but the control of man requires the consent of the governed. For these reasons it is easier to stamp out yellow fever than to control typhoid fever. It is easier to suppress malaria than tuberculosis.

And yet, though much of his effort goes unheeded, the true physician finds great satisfaction in the study and application of the principles of prevention, not even aspiring to the high tribute paid Edward Jenner by Thomas Jefferson: "You have erased from the calendar of human afflictions one of its greatest scourges. Future nations will know by

* This paper was read as a discussion of the preceding paper, "The Place of the County Physician in Health Work."

history alone that the loathsome smallpox has existed and by you has been extirpated." Yet how many of us in our daily lives see this measure fail absolutely because we are not united to do battle in behalf of vaccination.

The time has come and is now at hand when we can trust no longer the great body of physicians to do this great work. The time has further come when the great body of physicians must recognize the necessity of having a whole-time health man who will keep these matters constantly before the public.

This is an age of specialism, and the specialist of today coming most rapidly to the front is the public health specialist. The day has long since come when the surgeon who, in ignorance or negligence of scientific facts, by the employment of a faulty technique secures a bad result is measured by his folly. The day, thank God, is at hand when the general practitioner, in ignorance or negligence of the powers of preventive medicine, failing to accord the public the protection that is due them, will be weighed in the balance by that same clientele and found wanting.

No disease has been dealt a more dramatic blow by artificial immunity than typhoid fever. The baneful malady that has raged through the ages in all the countries of the world has at last succumbed to a preventive vaccine, although once it has developed it is still resistant to every known scheme of treatment.

Von Petenkoffer, though proceeding upon the false theory of soil pollution, by his persistency and thoroughness freed Munich of typhoid fever. His example should pulse with living interest for us all, and with a knowledge of the sanitary closet, the banishment of the fly, the prevention of soil pollution, and added to all these vaccination, we as medical men should regard the presence of two or three cases of typhoid fever as a medical disgrace, and should we fail to so recognize it the public will soon awake to the fact that we are negligent and careless.

The notice in the *Progressive Farmer* this week that the health officer would appear at a number of places for three consecutive periods for the free administration of typhoid antitoxin made me blush for shame that in my county not even the most violently contagious diseases are reported, and if reported are reported half-heartedly.

"When Bocaccio's knights and ladies ran from plague-ridden Florence to a walled city not far distant; when Pepys, with head bowed down, as his diary tells us, stalked the London streets, at the time of the Black Death, they would have given their jewels and their money to have received into their healthy bodies a few doses of bubonic plague vaccine."

A whole-time health officer would have but little trouble in convincing them that Dr. Hoffkines' vaccine was the one essential.

There is no sphere of medicine today crying out more piteously for enlightenment, encouragement and education than tuberculosis. The modern message abounds in hope because tuberculosis, if an early diagnosis is made, is coming more and more to be recognized as a curable disease. But mingled with that hopefulness is the fear that it is transmissible. The hopefulness is a most encouraging feature, but the fear of it has gone to the greatest extremes, branding the tuberculosis patient as a leper. I am thoroughly of the opinion that tuberculosis should be among the list of diseases requiring notification, but this can never be until we have robbed the public of the wholesale fear and there is instilled into the public mind the feeling that if the patient is taught how to live there is no danger in him.

So certain is the victory of modern science that when one knows just wherein lies the danger, and takes precautions, one may nurse consumptives year after year and still be safer than in any other employ.

"When one in three of the flowers of our youth, and one in four of our ablest workers are carried off by a dread plague, when wealth exceeding what comes to our shores in commerce every year is every year exported to that bourne from which no traveler returns," is it a wonder that I ask the coöperation and support of you, gentlemen, for a whole-time health officer?

Rockefeller may expend another million in the eradication of hookworm and yet the campaign will only have begun. Stiles estimates that sixty-eight per cent of the rural homes in the South are without closets of any kind. Some schools have not these accommodations, and are, therefore, hotbeds of infection. After all, the campaign is one of education and there can be no hope of its ultimate eradication until that campaign has progressed very much farther than it has today. "To change the habits of half a nation requires time, patience and infinite tact."

"If you ignore the customs and prejudices of the people, the reformer and benefactor will meet with rebuff and failure." And while we are prodding and awakening interest in this great public matter, let me say right here that the medical profession will come in for its share. "Be not weary in well doing," gentlemen, and in supporting a whole-time health officer in a campaign against hookworm be ye well assured that it will "result in a fundamental and permanent control or eradication of the communicable disease."

There is no more wide or complex problem than the health of school

children, because during certain ages all children are at one time or another in school.

Within recent years it has only been recognized that the State owes more to the child and more to itself than a mental education to a greater or lesser degree. In the majority of schools where no attention is paid to the pupil's individual physical welfare nor any attempt is made to recognize the disease which careless parents neglected to observe at home, many thousands of lives are sacrificed annually and hundreds of others bear the scars of the educational fray until life's work is over.

It has been estimated that eleven per cent of the public school children are unfitted to enter into competition with their healthy fellows, and as these require education the same as the non-defective, medical inspection provides a means by which this large number may be materially reduced. Then, too, viewed again from its economical side, there is the early detection and isolation of the contagious diseases, and by this early detection there is effected a saving of no small magnitude.

"The enlightened statesman knows that the strength of a nation lies in the strength of its people, and the highest function of law is the protection of their life, health and development." "That public health is public wealth." The public too is rapidly awakening to the fact that the prevention of disease is more economical than its cure.

That the public may be wise in the selection of their statesmen and sane in the legislation requested of them, there can be no safer way than through the educational campaign effected by this health officers' association.

I am fully aware that I have but lightly touched upon the field of usefulness of the whole-time health officer. The custom, if generally adopted, rather than stale the infinite variety of his usefulness will become more and more of a necessity. The whole-time health officer is here to stay, and if every doctor, united to do battle against that dread monster, communicable disease, will go home to his clientele with that confidence in preventive measures that is the prerequisite of success, no longer will those long-suffering counties be without an efficient health officer.

PROGRAM FOR THE SUMMER MONTHS FOR THE WHOLE-TIME HEALTH OFFICER.

DR. WILLIAM M. JONES, GREENSBORO.

The question of the program for the work of the county health officer during the summer is a pretty big question because of the differences between one county and another, the different conditions that face the whole-time men in one county and another. I do not know the way in which other whole-time men have obtained the results they have, I know results have been obtained, but I do not know the methods used. If I did, perhaps I could not apply those methods in my particular case. So whatever I may say will be from the actual experience that I have had. That is not much, but I do not want to go into any theory about something I have not tried.

Now, as to the first thing, the improvement of the school grounds. We have heard this afternoon some excellent ideas on the score card plan discussed by Dr. Washburn, and then we heard Dr. Nesbitt talk of the psychological effect on the child of the school and the grounds. I believe that has far more importance than is generally attached to it. If the child goes to a school house where there is an old well with the top knocked off, windows that have probably never been washed, walls all cracked, seats it would take an acrobat to sit on, that child will not be favorably impressed with the school. By means of a card record we try to keep account of all the schools visited during the year. On this card we take account of the condition of the school grounds—the well, whether the grounds are high and dry, if the building is two-storied, whether there are sufficient means of escape from the upper windows, etc. For the last two years I have worked fairly hard, and I have yet in the two years to reach every school in the county. I take these cards in the summer and write to the school board of each particular school, stating the defects we have found. That comes along as the general work of the year and as part of the work I am going to do this summer, and I am now engaged in looking after the schools and getting out these letters to the various boards.

The next point I want to consider is the question of the hookworm campaign. This, I think, in any county where you do have the hookworm, is simply the opening wedge to health work in the county. The first thing, you get the topography of the county, you get to know the people of the county. Another thing is that when you treat these children, these cases of hookworm, it takes just a little while to get the results. You carry the microscope with you, you show the

eggs, you give the treatment, you instruct the patient to collect the worms and bring them back at the next meeting, you take the patient's weight. You can show them with the eggs and you can show the worms. It takes only a little time to convince the patient and his friends and neighbors. It impresses them, and then if you go on and tell them about typhoid fever and about destroying the excreta and give them minute instructions they will obey you. This is one of the strongest points in the hookworm campaign. We ran a campaign of five weeks, and at every meeting the numbers increased.

Now, another point that I want to emphasize to some extent is the value of giving the public scientific data regarding cancer in such a way that they can understand it. We had Dr. Bloodgood, of Baltimore, with us, and he made an address on this subject, and since that time several physicians in the county have helped out, and we have reports from Wilmington to Waynesville and on beyond of 280-odd cases of cancer that were operated on as a result, cases that waited too long and in which the operations gave only a short extension of time, and many early cases. In our own county there have been a number of these early cases that have come to physicians to have small moles, etc., removed. I think the public is entitled to some information on cancer.

The work I want to do this summer particularly is along the line of typhoid fever and infant mortality. They are the two conditions that cause the high death rate in my county. They are the conditions, then, that I must fight this coming summer. Now, the people generally do not recognize the fact that typhoid fever is a communicable disease. Typhoid fever is just as communicable as any other communicable disease, although one is not so likely to contract it probably as a case of smallpox. The death rate is about 105 to 1. In fact, it is so fearfully high all over the United States that I think typhoid might well be called the American disease. Well, typhoid fever can be prevented, but the instruction that is generally given the families where there are cases of typhoid is entirely inadequate. Physicians simply tell them to sterilize the discharges, and they perhaps throw a little carbolic acid on the discharges and bury them.

I want to give you a little illustration. A case of typhoid occurred in my county last summer. About five weeks after the physician reported that first case, he reported five other cases in the same family. I went to the house to investigate, and I found that several hundred yards from the house was a spring, and about twenty yards from this spring was a hole in the ground where the discharges were buried, draining directly into the spring from which the other members of the family were getting their water.

I have written the physicians of my county a circular letter urging them to report promptly, and offering to go myself and give the people the opportunity of using typhoid vaccine, or, if the physicians prefer, I offer to give them the vaccine.

I have arranged so far in five places in the county for the organization and formation of clubs of mothers, or community clubs. I get the mothers that are interested to attend these meetings, and we have decided to take Holt's little book for mothers, on the care and feeding and handling of children, and study that. Our plan is that I shall go once a month and we will take up the course of lectures in this book, and I will give them a lecture. In two weeks the club meets again, when I am not there, and they will discuss the questions we took up at the previous meeting. Then at the next meeting I go and give them an opportunity to ask any questions they do not understand about the former talk and take up the next series in the book.

To show you how that has progressed, I took a little village where it is always hard to get a crowd. The first time I went there were two mothers, the next time there were five, the next time there were fourteen. I believe that in this way we will get the mothers interested, and not only interested, but that it will be a source of some advantage to them in feeding and handling and taking care of their children, and in that way we will lessen the death rate.

One more thing I want to say, and that is about the contest we held last year in the way of a better babies contest. This contest, I believe, has resulted in more real good—I believe the lives of more babies have been saved as a result of this contest as it was conducted with us last year, than from any other one thing that has been done along health lines in the county since the work has been organized. We began this work through the woman's clubs. They got in touch with the clubs in different sections of the county, community clubs and woman's clubs, and gave them the idea and got them interested. Then the social service department made dates for the examination of babies at different localities in the county on certain days. I think we had seventeen of these points. The physicians of Greensboro and High Point helped out, and the physicians in the county came and helped. Then we had the contest in the city, and finally the contest at the fair. The fair authorities were more or less skeptical as to the proposition. They did not want to give us much of a place and did not want to give us any money at all, but they soon saw that it was a money making proposition for the fair. Right after it was over, the secretary of the fair said that next year we could have the best place in the building, and that he would put up the long green. The main prize we will give this year will be for the child that

shows the greatest improvement over last year. Each child has the score card given last year, and the child that makes the most improvement over last year will get the first prize. Of course, the main object is to get the mothers interested and to get them to studying the question in a scientific way. This year we are going to have a bigger and better contest than we ever have had before.

Now, the last thing I want to say is about a vacation. I think we all ought to have a vacation. We shall feel better and work better for it, and we will not get into a rut.

DISCUSSION.

DR. J. HOWELL WAY, Waynesville: I want to commend especially the remarks of Dr. Jones, whom we all recognize as one of the most efficient and most practical health workers in North Carolina, and to say to you as a physician and as a general practitioner of medicine and as one interested in public health that we appreciate very much the kind of work that Dr. Jones is doing because he is doing practical work.

Now, it is a crucial time for the medical profession of North Carolina in relation to public health work because the work is big and wide and round and large, and because it is our work. It is not the work of the school teacher. It is not the work of the college man; it is not the work of the lawyer, but it is the work of everybody in general and especially the work of the members of the medical profession. The responsibility for the inception of this work is ours, and it is no one else's. We are the fathers and the mothers and the nurses of this great public health movement, and we can not escape the responsibility for its future. Whom does society charge specifically with the duty of standing in the pulpits and inciting men to higher and nobler deeds and lives? The college man, the minister of the Gospel. Public sentiment requires apparently that every year we must have thousands of laws made, and farmers, doctors, lawyers and shoemakers, and others of the community units, get together and enact those laws. Who is eventually responsible for those laws being rightly framed and correctly interpreted? The lawyers, though they represent a minority of society. In the same way the medical profession are responsible for public health work. They can not evade it, they can not shirk it. Who is responsible for the attitude of the medical profession? The specialist? No, the general practitioner of medicine is the man who makes the sentiment of my profession. That being our position, and I believe I am correct, it behooves us to be thoroughly alive to our opportunities, and, with not a word of criticism of the general practitioner, because I love him, I respect him, because I know he is an overworked man, I want to say that I am afraid the average general practitioner does not keep himself abreast of this movement as he should. The best health officers

we can get are men who have been actual practitioners. They know how to deal with people. Health officers must be careful that theories, undemonstrated propositions, are not carried to the general public as facts. Doctors, they say, are slow about these things, but what is the reason? Why, because the doctor, the general practitioner of medicine, has his days and his nights full of doubt and uncertainty, and he is not so cocksure of certain pathological entities producing certain definite results. The average general practitioner will generally say to you that typhoid infection is due to bad drinking water. Yet that average general practitioner believes that in the future typhoid fever will be split up into possibly three or four divisions. The average general practitioner believes that some of these fevers are due to extrinsic influences, and yet the average practitioner who has practiced medicine for fifteen or twenty years will say that he believes some of these cases are due to intrinsic influences.

Now, our public health people must be careful. I do not want them to go slowly, because the world is moving fast. I want the average practitioner to pull himself a little bit faster and farther, and I want the health people to put out to the general public only demonstrated facts, and I want them to stop there. I do not want the average practitioner of North Carolina to get it into his head that this is not his responsibility, and that it is not his duty to watch for it and pray for it every day of his life. The very day he became a doctor of medicine he took upon himself certain duties and responsibilities that will not cease until he stops the practice of medicine or enters the Heavens above.

DR. CHAS. T. NESBITT, Wilmington: I have been doing a good deal of very serious thinking since I have been here at this meeting. I attended a meeting of the full-time county health officers last October in which we groped around for some plan of procedure that would be satisfactory and effective. The true importance of that meeting last October did not dawn upon me until today, and a further important feature of that meeting did not dawn on me until Dr. Way was speaking.

Public health work is new work. It had its beginnings some time ago, many years ago, centuries ago, thousands of years ago, it had its beginnings, but it has dragged through long periods of inactivity for the lack of methods of precision. The discoveries of the microscope, the discoveries of the great bacteriologists and pathologists of the world, have supplied those methods of precision. Every fact on which the health officer works has been the result of the inquiry of the average practitioner. The scientific world has responded to that man with certain specific information regarding the cause of disease. That that information is not full and complete and comprehensive is a matter we will not dispute, and

that further scientific discoveries may modify our views in regard to all diseases is another matter we will not dispute. We have a great many concrete facts upon which to base our present position. We feel very much elated over the possession of these concrete facts. We feel, as Dr. Way put it, exceedingly cock-sure about some things. Dr. Way stated the truth when he said we might be too cock-sure, because we might, and sometimes I believe we are. I can appreciate very clearly Dr. Way's idea of the attitude of the medical practitioner, because I had about eighteen years of that work before I became a public health man. This thing remains as the truth of the present situation. We are all groping. We have had a little light, but it is just the twilight of the dawn. There is plenty of room for the general practitioner and the public health man to meet. There is enough light in the dawn for the average practitioner and the public health man to see the earnestness and the sincerity and the honesty in each other's faces. One of the most serious mistakes I have made, and I am perfectly frank and willing to face it, is in being too ready, in many cases, to attribute unworthy motives to those who disagree with me. I realize fully that I have not been alone in that field. I realize fully that in all of our efforts we have made the one crippling mistake in men working for the common good, that of thinking of self just a little too much. When the practitioner of medicine steps out into his field he must forget himself if he is to be successful. He can not forget himself entirely, but his major interest must be in the community he serves. When the public health man steps out to serve the public he must forget himself just a little bit more than the general practitioner. I look back at our October meeting and I feel that our gropings at that time and our present gropings are a very appreciable distance apart, our present gropings being much to the fore. I have been astonished, most gratifyingly astonished, at the accounts the whole-time health officers have given of their achievements. I have been amazed that so much could be accomplished. I know what they have been through, I know what they have had to buck up against, because I have had the same things to buck up against. I know how they wanted to do the things they were not permitted to do, because the public is groping very far in the rear, and because the general practitioner is groping just a little in the rear. Dr. Way said a very true thing when he said that the average practitioner was not keeping up enough with the public health work. With his enormously busy life it is impossible for him to keep up with the public health work of a man who devotes his whole time to it. He is excusable, to a very great extent, for his criticism, which is the result of ignorance of the work of the public health man.

I want to add a little something to the program of the whole-time county health officer, not only for the summer, but for the rest of his life. His work is too big, too magnificent, to permit anything to impede his progress. We, all of us, have allowed small personal matters to impede our progress. There has not been perhaps the confidence and respect there should be between the three sets of men working for the public good. We must get together, the medical profession, the State Board of Health, and the full-time county health officers. The three groups must step out together to fight this battle with disease. We can not escape it any longer. We have lost too much time in our differences; we must not lose any more time in that way, and as a member of the North Carolina Full-time Health Officers' Association I want to propose on the part of the association a resolution setting forth an expression of confidence and respect on the part of our association in the State Board of Health, its executive officer and the medical profession at large.

DR. G. M. COOPER, Clinton: Gentlemen, I remarked this morning that we were doing pioneer work in this whole-time health officer movement. I said this also, while we are doing hard work, pioneer work, I feel we are pretty near a basis of thorough understanding between the State Board of Health, the whole-time health officers, the county physicians, and the general practitioner. I am gratified at Dr. Nesbitt's remarks. Some of us know the difficulties under which Dr. Nesbitt has had to work; some of us know the difficulties under which the State Board of Health has had to work; and I am glad we have arrived at a time when we can get together and have a thorough understanding. I will ask Dr. Nesbitt to draft that resolution immediately.

While he is doing that, and while we are discussing this work of the whole-time health officer for the summer months, I want to give an experience I have had, if you will pardon me for being personal. It is pertinent because of the fight the State Board of Health is having right now with a certain city in North Carolina. I think the State Board of Health is exactly right. If the State Board of Health can not point out to the people of North Carolina a town that is advertising all over the country for health seekers and summer vacationists, when we were all there last summer and know things as they are, if the State Board of Health can not point out these things, upon whom are the people of North Carolina to depend to point out these things? The State Board of Health can not have any spleen or malice against that city.

The remarks I am going to make about a little piece of work in our town would be pertinent. You know Dr. Stiles and his associates have worked out a process by which they can definitely detect whether or not a

person is taking into his system fly-borne filth. Several weeks ago I collected some specimens and sent them to Dr. Stiles, and he found that we had one person out of seven consuming this poison. I followed this up by getting him to send a letter about this matter. I listened for adverse criticism, but all I heard was favorable. I heard one person say that Dr. Stiles was going out of his way to write such a letter. The fact is that most of the people take it in the spirit in which he sent it out. That will enable us, I think, without any trouble, to get the sanitary ordinances passed for the whole town, a matter I have been working on for three or four years. I just mention this so that if any other whole-time officer would like to have this test made I think Dr. Stiles would be glad to make it.

DR. H. D. STEWART, Monroe: May I speak of a matter briefly here? There has been an epidemic of mad dogs in our county. One comes along and bites about twenty dogs, and it takes some of those dogs about six months to go mad. I want this association to go on record as asking the next legislature of North Carolina to pass a law requiring all dogs to be muzzled. Require them to be muzzled so that they can not bite, but can eat and drink and bark. I wish North Carolina could be the first state in the Union to do this. I think no other state has such a law. I think we ought to ask the legislature to pass such a law requiring dogs to be muzzled. I move that the President of this Health Officers' Association appoint a committee with Dr. W. S. Rankin on it asking the legislature to pass such a law.

This motion was not carried.

The following resolution offered by Dr. Chas. T. Nesbitt was adopted by the Association:

Resolved, That we, the full time county health officers, here assembled, desire to express our appreciation of the assistance rendered us in our work by the State Board of Health and its executive officer, Dr. W. S. Rankin, and to publicly proclaim our confidence in and respect for these officials.

The Auditing Committee made the following report:

We, the undersigned Auditing Committee, have carefully looked over the Treasurer's books and find same to be correct, as per his report.

D. E. SEVIER, *Chairman*.

E. F. STRICKLAND.

A. CHEATHAM.

The Committee on Nominations made its report as follows: For President, Dr. William M. Jones; for Vice-President, Dr. D. E. Sevier; for Secretary-Treasurer, Dr. W. S. Rankin. This report was adopted and these officers elected.

DR. J. HOWELL WAY, Waynesville: I hardly think we ought to adjourn without adopting a resolution tendering the thanks of the State Health Officers' Association to our retiring President for his successful administration of the affairs of the Association, for his able, masterly address and the progressive ideas contained therein and for his courteous, wise presiding over the deliberations of this body today. I move that we adopt this resolution by a rising vote.

This motion was seconded, and a rising vote of thanks was tendered Dr. Cooper.

The Health Officers' Association then adjourned.