

Industrial education is, therefore, a movement capable of doing great good for the race. They should be taught to economize, to save their money and put it in homes and farms. That for their race the dangers of Sodom lie in the towns and cities; that there lurk consumption and death.

These things, and much more, should be taught to the negroes, not only for the sake of right, but to make them stronger physically, so that they may resist the infection of tuberculosis.

The isolation of those infected with tuberculosis would unquestionably limit the disease in a great measure, but the difficulties of enforcing or carrying into effect in any way the isolation of the thousands of indigent tuberculous negroes in every state in the South are so great as to make the suggestion impracticable, though something may be done on that line.

The state could enforce the isolation of the tuberculous patients in their convict camps and penitentiaries, which are often great harbingers of the infection of tuberculosis.

The establishment of sanatoria for the isolation of the tuberculous should receive more attention from philanthropists and the civil authorities. In Massachusetts and other states they have been successfully conducted by the state for several years. Such establishments need not call for expensive buildings, but rather the cottage system, or even on the plans of the plantation quarters for slaves, where the negroes enjoyed such immunity to tuberculosis. They should be located in the country, where the inmates can get plenty of outdoor exercise and when able do farm work, and assist in paying the expenses of such institutions. Very few negroes would be able to pay their expenses at these sanatoria, and they would necessarily have to be charitable institutions, but they could be maintained at a probably less per capita expense than those at the hospitals for the colored insane, and I am sure that the same number of tuberculous negroes are a source of greater danger to their families and to their friends than the same number of their insane, if left in the care of their families. Aside from the isolation feature of sanatorium treatment for consumptives, the hygienic education that it gives to the patient and through him to his relatives and friends will materially aid in protecting many who are exposed to the disease.

There should be several such sanatoria in every state. Even if they should entail a great expense to the state, in the end it will be economy, because in a few years, perhaps a quarter of a century, when tuberculosis will have a chance at the weakened offspring of this and the coming generation of negroes, the havoc will be so great among that race and the danger to the whites so clear that enormous expenditures will have to be made in order to relieve the acuteness of the situation. The state and municipal authorities will spend thousands to prevent an epidemic of smallpox or yellow fever, yet spend almost nothing to prevent the spread of a disease which destroys a hundred times as many of our citizens, and which entails far greater and more prolonged suffering than both of those diseases, besides the direful effects on the offspring of its unfortunate victims.

Unquestionably, tuberculosis should be managed by the health authorities, as are the other infectious diseases. In some of the cities every case of tuberculosis is required to be reported to the health officers, who instruct the patient and his family as to the methods to use to prevent the spread of the disease. The patient is not interfered with in any way, except that he is

expected to employ the usual methods of destroying the sputa, and to follow the simple rules of hygiene to protect those with whom he comes in contact. After the removal or death of the patient the patient's room, or house, is disinfected just as for other infectious diseases.

The health officer of every city and county should be required to understand the use of a microscope, and it should be a part of his duty to examine, without charge, every specimen of sputum sent to him. He should also be skilled in physical diagnosis, so that the physician or patient could call him in to clear up the diagnosis in cases of doubt, as is required of him in the other infectious diseases. We all know that tuberculosis is one of the curable diseases if the diagnosis is made early and intelligent treatment is applied. If the public could be educated to call in the health officer in the early stages of tuberculosis and thereby become certain of the diagnosis, not only would many of the patients be saved, but it would aid in lessening the infection, because it would give the health officer the opportunity of instructing the patient and his family on the hygienic measures necessary to prevent the spread of the disease before the home had become infected.

Since the tuberculous patient is dangerous to his friends and the community only from his ejected sputa and directly in proportion to his habits of spitting, the antispitting ordinances, which are already in force in all cities for their public buildings, cars and streets, are doing great good by lessening the chances of breathing the infection from the atmosphere. The states should adopt such ordinances for public buildings of all kinds, including schools, churches and depots. Of course, they would not always be enforced, but a placard announcing the ordinances and stating the reason for their adoption, would call attention to the dangers of spitting, and would aid in molding public opinion against the spitting evil.

Physicians who come in contact with negroes at their homes should, more than any other class of whites, consider it a duty to instruct them in the simple methods of hygiene, particularly when one of the family is afflicted with tuberculosis. The whites should be educated along the same lines, and when the laity, both among the whites and blacks, properly understand the nature of tuberculosis, the life history of its germs, and the methods to employ to prevent its spread, then, and not until then, may we hope to limit the ravages of this disease, the greatest enemy to mankind, and which is the principal agent that threatens the extinction of our "brother in black."

PUBLIC HEALTH POWERS.

WHERE UNDER OUR FORM OF GOVERNMENT DO THEY RESIDE AND HOW SHOULD THEY BE EXERCISED?*

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The theme for discussion involves the analysis of two questions:

1. Where under our form of government do public health powers reside?
2. How should they be exercised?

In dealing with the first of these questions it becomes necessary to call attention to a few fundamental principles and distinctions that apply to all forms of govern-

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ment. Obviously, in all governments power must be lodged somewhere, and on the seat of its lodgement depends the form of government. In a pure democracy all power resides in the people; in an absolute monarchy it resides in the ruler or king. Between these two antipodal forms of government many modifications exist, in which power varying in kind and degree is delegated to the legislative bodies or to officials, civic or military.

Every governmental power, therefore, that is true to the type of government to which it belongs must be derived from the source of power corresponding with that form of government, that is to say, in a democracy every governmental power that can be legitimately exercised must be derived, either directly or indirectly, from the people; while in an absolute monarchy every such power must come in legitimate descent from the king or ruler.

Without delaying time to deal with modifications of these two generic forms of government, it may be said that in any form of government the exercise of a power not clearly derived in accordance with the principle just stated is illegitimate, and therefore revolutionary and dangerous. It follows, therefore, that a public health power in order to be legal must be logically and legitimately derived from the source of power existing in the form of government of which it is a function.

This principle announced, we are now ready to enter on a specific discussion of the first division of the subject, namely, where under our form of government do public health powers reside?

All will concede that after the independence of the states was achieved and before the formation of the Union was accomplished all governmental powers of every kind, including, of course, public health powers, must have resided in the states, or in the people thereof. By the adoption of the federal constitution a national government was created, and to it certain powers were delegated, the powers so delegated being specifically enumerated. Unless it can be pointed out in the constitution that public health powers were surrendered to the national government, they must remain with the states, where they originally belonged. It may be safely asserted that no clause in the constitution can be pointed out that transfers public health powers from the states to the nation, hence the conclusion is irresistible that they still belong to the states. Any one who may take issue with this proposition is challenged to point out in the constitution the clause that overthrows it.

An official who occupies a national position in reference to public health matters was once asked by the writer to point out such a clause, whereon he forthwith cited the power to regulate interstate commerce, conferred on the national government by the constitution. The citation was utterly fatal to his contention.

Before concluding this paper evidence will be furnished from the highest possible source—the Supreme Court of the United States—to prove that while power to regulate interstate commerce does belong to the national government, power to regulate health does not so belong, the two powers being entirely separate and distinct.

Some persons assume that because the power of the national government is supreme in some things it must be so in all things, forgetting that the constitution itself specifically points out the spheres of supremacy of the national government.

"Inclusio unius est exclusio alterius," or the inclusion of one is the exclusion of the other, is a logical law of interpretation that applies to the constitution of the United States as to all other documents.

By applying this law we are able to formulate the definite and incontrovertible proposition, namely, that all powers not specifically or impliedly conferred on the national government are reserved to the states.

Other persons assume that the national government possesses public health powers in and over the states because they think it should be so; that is, they permit their preferences, and not the constitution, to decide the question. Such a position is not entitled to any respect whatever; therefore, time will not be consumed in combating it. The question is, not what should be, but what is.

In this connection it may be well to quote the tenth amendment to the constitution, adopted soon after the ratification of that instrument by the states. It reads as follows:

The powers not delegated to the United States by the constitution, nor prohibited by it to the states, are reserved to the states, or to the people.

In the face of these plain and strong words, and in the absence of any specific or implied grant of public health power to the national government, the conclusion can not be avoided that such power belongs exclusively to the states.

We now appeal to the highest tribunal in the land, namely, the Supreme Court of the United States, for an interpretation of the constitution on this point.¹

In *Gibbons vs. Ogden*, 9th Wheaton, p. 203, Chief Justice Marshall said:

Inspection laws, quarantine laws, health laws of every description, as well as laws for regulating the internal commerce of a state and those which affect turnpikes, roads, etc., form a portion of that immense mass of legislation which embraces everything within the territory of a state not surrendered to the general government. No direct general power over these subjects is granted to Congress, and consequently they remain subject to state legislation.

In *Fertilizing Company vs. Hyde Park*, 97 U. S., p. 667, Mr. Justice Swayne said:

That power (the police power) belonged to the states when the federal constitution was adopted. They did not surrender it, and they all have it now. It extends to the entire property and business within their local jurisdiction.

In *Patterson vs. Kentucky*, 97 U. S., p. 505, Mr. Justice Harlan said:

Hence the states may, by police regulations, protect their people against the introduction within their respective limits of infected merchandise. A bale of goods on which duties have or have not been paid, laden with infection, may be seized under health laws, and if it can not be purged of its poison, may be committed to the flames. So may the states by like regulations exclude from their midst not only convicts, paupers, idiots, lunatics and persons likely to become a public charge, but animals having contagious diseases.

Judge McLean, in the *Passenger cases*, 7 How., p. 400, said:

In giving the commercial power to Congress the states did not part with that power of self-preservation which must be inherent in every organized community. They may guard against the introduction of anything which may corrupt the morals or endanger the health or lives of their citizens.

In the *Passenger cases*, 7 How., p. 414, Mr. Justice Swayne said:

The states of the union may, in the exercise of their police powers, pass quarantine and health laws, interdicting vessels

1. For the extracts from decisions of the Supreme Court introduced the writer is indebted to a masterful argument on "Federal and State Powers as to Quarantine," delivered by Hon. Edgar H. Farrar of New Orleans, at a quarantine convention held in Mobile in February, 1898.

coming from foreign ports, or ports within the United States, from landing passengers and goods, prescribe the places and time for vessels to quarantine, and impose penalties on persons for violating the same; and . . . such laws, though affecting commerce in its transit, are not regulations of commerce. . . .

Feb. 25, 1799, Congress passed the following act:

The quarantine and other restraints established by the health laws of any state, respecting any vessel arriving in or bound to any port or district thereof, shall be duly observed by the officers of the customs revenue of the United States, by the masters and crews of the several revenue cutters, and by the military officers commanding any port or station on the sea coast; and all such officers of the United States shall faithfully aid in the execution of such quarantine and health laws, according to their respective powers, and within their respective precincts, and as they shall be directed from time to time by the Secretary of the Treasury.

The above extracts from decisions of the Supreme Court of the United States, to which many others of similar tenor might have been added, seem to prove beyond controversy that public health powers belong wholly to the states.

While regarding this principle as thoroughly established, the writer stands on record as having repeatedly expressed the opinion that certain public health powers should be conferred on the general government, the nature and scope of which will be discussed later on in this paper. It would seem that such a grant of power could not be conferred in any other way than by an amendment to the constitution.

We are now prepared to enter on the consideration of the second division of our theme, namely, how shall public health powers be exercised, or, in other words, how shall a public health system suited to our form of government be formulated and executed?

Ranking the public health system of a country as quite equal, if not superior, in importance to that of a judicial or military system, the answer to the question just propounded is worthy of close and critical study.

A categorical statement of the cardinal principles that should be embodied in a public health system for this country may be made as follows:

1. The system should conform closely to the spirit and genius of our government.

2. It should, as far as possible, recognize and respect the principles of local responsibility and of local self-government.

3. It should be co-extensive with the country, and susceptible of immediate enforcement whenever and wherever needed.

4. It should be based on a uniform, coherent and complete organization of the medical profession of the entire country.

5. Boards and bureaus of health should be composed of physicians only, and eligibility for positions in such bodies should depend on membership in the organized medical profession.

6. All medical health officials should be elected by the organized medical profession of the territory or district over which their several jurisdictions extend. All non-medical officials should receive appointment, either directly or indirectly, from the same source.

7. The system should be widely divorced from politics, and should be wholly independent of commercial influence.

8. It should be substantially uniform for municipalities, counties and states.

9. The first function of the system should be advisory; the final one, executive.

10. Economy of administration should be a distinguishing feature of the system.

Should any of these propositions be deemed vulnerable or impracticable, attack on them is invited, as the writer flatters himself they are susceptible of easy and successful defense. Before proceeding further, however, it might not be amiss to briefly comment on some of the propositions.

The first proposition affirms a truth the value of which can not be overestimated. The public health system of a monarchy and that of a democracy must, in some respects, radically differ. In a monarchy, the power needed to operate the system must be drawn from the king or ruler, and all health officials must receive their appointments from, and be responsible to, the same source; while in a democracy the power to operate the system must, in the last analysis, be drawn from the people; and all health officials—medical and non-medical—must, either directly or indirectly, be responsible to the people. That is, the public health systems of these two forms of government must be supplied with vitality and power from two opposite poles or sources.

The same principle applies, *mutatis mutandis*, to all modifications of these two forms of government.

If in the construction of a public health system this principle be violated, either tyranny, on the one hand, or anarchy, on the other, will, sooner or later, terminate the life of a system that fatally transgresses a fundamental law of jurisprudence. We may just as well transplant a tree by placing its branches in the soil and its roots in the air and expect it to grow and flourish and bear fruit as to expect that a public health system constructed to suit a monarchy will permanently live and prosper in this country. Should such a system become a permanent institution in this government it will be because the people have abandoned the faith of their fathers and turned their backs on the blood and treasure spilt and spent in purchasing rights they prized more than life itself.

The second proposition follows naturally and logically on the first, and simply reaffirms the doctrine of local self-government, a doctrine that has been so inbred in the blood and bone of our body politic as to become an integral part of its organic life.

The third proposition will be accepted on its mere statement.

The fourth will also, I hope, as it stands with relation to some of the propositions that follow as premise to corollary.

The soundness of the fifth and sixth propositions will not, I presume, be questioned by a body of medical men, but their practicability may be. An argument on this point will be offered a little later.

The seventh, eighth and tenth propositions will, I feel confident, be accepted without argument.

The ninth proposition may need some explanation. This will be given in another and more appropriate connection.

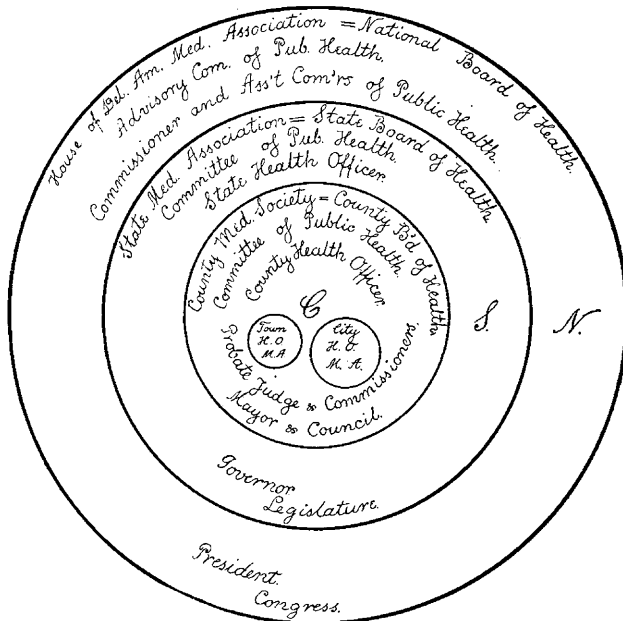
An effort will now be made to apply the principles just enunciated to the hypothetical construction of a public health system for this country, and in so doing use will be made of a diagram, with the hope that thereby the work of construction can be both shortened and rendered more complete and perspicuous. The same unit of construction will be adopted as that generally agreed on for the organization of the medical profession of the country, namely, the county.

The first problem, therefore, to be solved is to formulate a public health system for a county that will be sus-

ceptible of application to all counties, wherever situated. Let the inner or smaller of the three concentric circles in the diagram (in the center of which is the letter C) represent the territory of a county, within which are two smaller circles, one representing an incorporated city, the other, an incorporated town. Within the circle C and within the smaller circles are enumerated, respectively, the authorities that should co-operate in the protection of the health of the people of a county and of all incorporated cities and towns therein.

For the county, it will be seen that these authorities are given as follows:

1. A county medical society, to membership in which all reputable and licensed physicians in the county, including those in incorporated cities and towns, should be eligible.
2. A committee of public health, composed of from five to ten of the most experienced and trustworthy members of the county medical society.
3. A county health officer, with an assistant for each beat, or for two or more beats, according to the size and population of the beats.



4. County authorities, that is, the probate judge and commissioners, or officials corresponding thereto.

For incorporated cities and towns the authorities are indicated on the diagram as follows:

1. City health officer (City H. O.).
2. Town health officer (Town H. O.).
3. Municipal authorities (M. A.).

A little analysis will show the wisdom of an arrangement of authorities such as that proposed, and also of the partition of power that will be made among them.

The organization of a county medical society, composed of the legal and reputable physicians of the county, is a basic principle of construction that must be laid in order to build up a public health system best adapted to our form of government.

Such an organization, aside from being the logical bedrock of the system, would materially promote the advancement of scientific and practical medicine, and by rapidly disseminating among the members the well-digested results of research and experience would render them more skillful and resourceful than they would otherwise be when called on to do battle against disease.

The county medical society should be by law consti-

tuted the board of health of the county, and in that capacity should be made the legal adviser of county and municipal authorities on all sanitary and public health questions, subject, however, to such supervision by the state board of health as might be provided for by law. Endowment with such advisory power would naturally stimulate the members of the county board of health to devote more or less special study and attention to sanitary and public health problems, and thus to better equip themselves for the responsible position accorded them.

Further, the meeting-hall of the board would furnish the best possible field for the discussion of all public health questions that might arise, and whatever conclusions might be reached each member would be disposed to accept them in good faith as the judgment of a majority of the members, rendered after full and fair discussion.

Without such a court of last resort differences of opinion as to the best methods of procedure would be continually arising, and in danger of disturbing the harmony, if not of destroying the perpetuity, of the system.

To endow a few physicians of a county with plenary public health powers, without allowing their colleagues any voice whatever in the discussion or direction of public health policies to be pursued under critical conditions, would inevitably lead to discord and disruption and possibly at times to unwise and injudicious action.

In times of peril or pestilence the combined sanitary wisdom of all of the members of the county board of health should be made available, which can not be done in any other way than by making the county medical society the county board of health.

Such a body could, in its regular meetings, discuss broad sanitary questions and indicate general lines of policy to be pursued under varying conditions, but, obviously, a county board of health thus constituted would be too large and unwieldy to meet emergencies, hence the necessity for the second one of the county health powers mentioned above, namely, a committee of public health.

As already stated, such a committee should be composed of from five to ten of the wisest and most experienced members of the county board of health. While large discretionary powers should be delegated to such a committee, it should be required to report its action from time to time to the parent body, when, after thorough review and discussion, such action could be either approved or disapproved. Such a committee would soon become trained in its work and could be very safely trusted to act for the best interests of all concerned.

Next in the list of authorities come the executive officers; that is, a county health officer, with assistants, for the county, and city and town health officers for the incorporated cities and towns.

While the general duties of these officers should be definitely fixed by law, yet in the performance of those duties they should be subject to the guidance and control of the committee of public health.

Lastly, the scope of authority of the county and municipal powers must be fixed, namely, that of the probate judge and commissioners and of the mayor and councilmen. These officials are supposed to be laymen, and, although unacquainted with disease and sanitary science, they must play an important part in executing a public health system suited to a democracy.

They are the legal custodians, respectively, of the treasuries of the counties and of any incorporated cities and towns therein. To them only should belong the

right of appropriating the people's money for public health purposes, except such sums as may have been by law specifically set aside for definite purposes and placed at the disposal of the medical health officials. The county and municipal authorities, being elected by, and, therefore, responsible to, the people, should properly be held accountable for the wise and judicious expenditure of the people's money for public health purposes, as for all other purposes. For violation of this obligation the people could punish said officials by displacing them from office, a check that could not under the proposed system be applied to the medical health officials, they being elected by the organized bodies of the medical profession, and not by the people.

As a public health system can not be executed without money, these county and municipal authorities must, from the treasuries they respectively control, furnish this indispensable lever; hence, as said, they occupy a very important relation with respect to the enforcement of a public health system.

According to the system thus briefly sketched for a county, it will be seen that the advisory and executive health officials, county, city and town, are to be physicians and representatives of the organized medical profession of the county, and that in the application of the teachings of sanitary science to the prevention of diseases they shall avail themselves of the resources of practically all the physicians of the county; that is, the medical health officials would be expected to furnish the expert knowledge necessary to execute a public health system for a county; while the county and municipal authorities would be expected to furnish the money necessary to execute such a system.

When the expenditure of money has been authorized by the county or municipal authorities, as the case may be, to the corresponding medical health officials should be accorded the right of directing the mode of expenditure. If expert knowledge is needed to point out what should be done to protect the public health, the same kind of knowledge is needed to direct how it should be done, else the expenditure of money for such purpose would often be injudicious and wasteful.

In the practical enforcement of the proposed system in a county, including incorporated cities and towns therein, the consecutive steps to be pursued by the coordinate authorities may be stated as follows:

1. The medical health officials of the county, or of the municipality, as the case may be, would advise what should be done.

2. The county and municipal authorities would decide as to whether or not money should be expended.

3. If money is to be expended the medical health officials would supervise the mode of expenditure; that is, the first function of said officials would be advisory, the final one executive.

A little reflection will show the wisdom of such division of authority and of such partition of power.

The members of the medical profession of a county are unquestionably more competent than others to judge of the personal and professional fitness of one another for filling public health positions; hence to no other electors could the selection of expert advisers be so safely and wisely entrusted as to the organized medical profession of the county.

For even stronger reasons the people should exercise the right of selecting the guardians of their treasuries. These guardians, although not physicians, are usually intelligent men, and, therefore, fully capable of deciding on the wisdom or not of expending money for public

health purposes, when the reasons therefor are laid before them by physicians in whose knowledge of sanitary affairs and in whose interest in the welfare of the community they repose entire confidence.

Were medical health officials, elected in the way proposed, permitted to expend money for public health purposes (except definite sums set aside for specific uses) without the endorsement of officials elected by, and responsible to, the people, very soon the cry of unwise and lavish expenditures, however unfounded they might be, would overthrow and utterly destroy such a system.

The only way, therefore, of achieving the best results is to so frame a public health system as to place the selection of the medical officials in the hands of those most competent to name them, and at the same time to leave to the people, acting through the custodians of their treasuries, the right to decide whether or not they will provide the means for operating the system.

Objection might be offered to a system that is made dependent on such a contingency, but the answer is easy.

If the people will not provide the means for operating a public health system they will not enact a law making it mandatory on the custodians of their treasuries to provide the means; hence either alternative leads at last to the same test—the will of the people. But if a public health system be provided that works promptly, efficiently and economically, the people will give it their warm support, and such a contingency as that mentioned will not be apt to happen. However, should it occur through antagonism on the part of incumbent county or municipal authorities, popular clamor could soon bring the offending authorities to terms, and at the next election such officials could be retired from office. Any difficulty that might arise in this way would be infinitely less than would result from any other system that can be devised.

We are now prepared to enlarge the system so as to make it comprehend a state.

Let the next larger circle in the diagram, marked S, represent the territory of a state. In that circle are enumerated the powers that should enact and enforce public health laws for the state, to-wit:

1. A state medical association, which should be by law constituted the state board of health.

2. A state committee of public health, composed of ten or more members elected by the state board of health.

3. A state health officer, elected by the state board of health.

4. The governor, as the state executive officer.

5. The legislature, as the law-making power.

The arguments advanced in support of a similar division of public health authorities for a county apply with even more force to the above division of state authorities, and, therefore, need not be repeated here in detail. Some explanation, however, may not be out of place.

The state medical association, hereafter to be called the state board of health, should consist of an organic union of the county boards of health; that is, membership in a county board of health should, *ipso facto*, carry with it membership in the state board of health, conferring the right to attend all meetings, to introduce new measures, to participate in discussions, etc. The voting privilege, however, should be so regulated as to give to each county board of health its due share of strength.

A state board of health thus organized would furnish the medical men of the state a forum for the discussion of public health questions and a tribunal for their set-

tlement—so far as they are concerned—that would tend more than all else to cement the profession together, and to promote that harmony and unity of action without which a thoroughly efficient public health system suited to our form of government can not be maintained.

A state board of health organized as indicated above would for a stronger reason than that applied to a county board be too large and unwieldy to act quickly, or to meet sudden demands, hence the absolute necessity for the existence of the two next authorities mentioned above, namely, an advisory committee of public health and a state health officer. Both of these should be elected by, should act for, and should be responsible to, the parent body—the state board of health.

The state health officer should be clothed with executive authority, but should receive counsel and help from the advisory committee whenever he applies for it, or whenever the committee chooses to give it to him.

The relations between the several state officials should correspond with those outlined for county officials; that is, the function of the medical health officials should be to furnish the advisory and executive skill necessary to enforce a public health system, and that of the governor should be to authorize the expenditure of money for such enforcement, whenever in his judgment the facts represented and the recommendations submitted seem to justify such expenditure.

The function of the legislative authority should, of course, be to enact a code of sanitary laws for the state, in doing which it should freely avail itself of counsel from the state board of health.

Lastly, it remains to see how naturally and logically the system applied to counties and states can be applied to the nation, and made to comprehend certain well-defined public health powers.

Let the largest of the three circles in the diagram, marked N, represent the territory of the nation. Within that circle the following arrangement of health powers is proposed:

1. The House of Delegates of the American Medical Association as a national board of health, to which the health officer of each state should be one of the annual delegates from his state.

2. A commissioner of public health and two or more assistant commissioners, elected by the House of Delegates.

3. An advisory committee of public health consisting of the health officers of the several states.

4. The president, as a national executive officer.

5. Congress, as the national legislative power.

In order to determine what public health powers should be conferred on the national authorities just enumerated, let us assume that every incorporated city and town in the United States does all it should do for the protection of the health of its people; that every county in the United States likewise does all it should do; and, finally, that every state does all it should do, obviously, what remains undone, and what could be better done by all the states working together than by each state working separately, will then become clearly apparent.

Public health powers falling in either one of these categories should be delegated to the national authorities. A little analysis will show what these powers are.

In the first category, or what would remain wholly unprovided for, one function only can be mentioned. That function would be:

To provide an appellate tribunal for the adjudication of any conflicts that might arise between state boards.

In the second category, or what could be better done by all the states working together than by each state working separately, several functions may be mentioned:

1. To adjust the public health relations of this country with foreign countries, under which head would fall the ascertainment of the health conditions prevailing in said countries, maritime quarantine and disinfection, and the examination of immigrants to ascertain their fitness for admission.

2. To supervise interstate quarantine.

3. To determine what infectious and contagious diseases should be controlled by law, and to fix the periods of incubation of such diseases, thus establishing uniformity in these matters among the states.

4. To establish uniform tables of nosology, and to regulate the forms according to which vital and mortality statistics should be collected by the states.

5. To provide for the inspection of foods and drugs.

6. To exercise supervision over the pollution of streams flowing from one state into another state.

7. To adopt uniform rules governing the transportation of the bodies of deceased persons from one state to another state.

8. To establish on a broad scale a laboratory for the study of the causation, course, pathology and prevention of diseases.

Under such grants of power the national officials should exercise their authority according to the same principle as that laid down for county and state officials; that is, the medical officials elected by the American Medical Association would furnish the expert knowledge and executive supervision necessary for national public health purposes, and the officials elected by the people—the president and Congress—would authorize the expenditure of money for such purposes.

Objection might be alleged against this principle of procedure on the ground that the time consumed for interviews and correspondence between the medical officials, on the one hand, and the corresponding municipal, county, state and national authorities, on the other, before action could be taken, would render the system inadequate for meeting emergencies. Such, however, need not be the case.

A city or county health officer could communicate very quickly with the officials whose cooperation would be needed; a state health officer would be required to consult the governor only, and the national commissioner, the president. Beside, great and pressing emergencies are not very frequent, and in the event of their occurrence provision could be made for permitting medical officials to incur necessary expense in meeting them until such time as all formalities could be complied with.

The cooperation among officials, from a municipality up to the nation, which the system demands, would very soon establish such mutual confidence as to guarantee the utmost harmony on all occasions.

SUMMARY.

The views expressed in this paper may be briefly summarized as follows:

1. Public health powers reside in the states.

2. Counties and municipalities derive all public health powers they exercise from their respective states, and, therefore, are subject to supervision, and, in the last analysis, to absolute control by said states.

3. For the common good, certain public health powers, already enumerated, should be conceded by the states to the nation, provided that the states are allowed

representation in selecting the executive officer who is to exercise these powers, and also representation on the advisory committee for such officer.

4. The selection of all advisory and executive health officials—county, state and national—should be delegated to the organized medical profession of these divisions of government, respectively.

5. Municipal, county, state and national officials, who have been elected by the people, respectively, must control the expenditure of money for public health purposes, except such sums as have been legally appropriated for specific purposes and placed at the disposal of the medical officials.

6. Each division of government, that is, each municipality, county, state and the nation, should provide the funds for executing public health measures ordered by its officials.

By agreement, however, the nation, a state and a county, or municipality, might concentrate their skill and money on any point at which a great menace to the public health exists.

Thus might be formulated and operated a homogeneous, logical and coherent public health system for this country—one whose foundations would be deeply laid in the soil of every county of the United States, whose superstructure would embrace the harmonious systems of all the states, and whose dome would culminate in a crown of conceded and beneficent national authority.

Think of the possibilities of such a system! Aside from securing the removal of unsanitary conditions, the collection of vital and mortuary statistics, the prevention or suppression of outbreaks of infectious diseases, reports on the topography and climatology of every county in the United States, the system could provide for a close and critical study of the domestic, sanitary, industrial, educational and racial conditions existing in every precinct—yea, every household—of the country.

From such data, the statistologist, demographer and sanitarian could evolve truths and principles easily susceptible of being applied to the elevation of the material, physical, mental and moral welfare of the people. Indeed, no better force than the public health officials of a county under the proposed system could be provided for taking the census at the decade periods, they being better acquainted with the people and with existing conditions than any appointees that could be named.

It goes without saying that the medical men of the counties, of the states and of the nation, true to the traditions of the profession, would offer to contribute, "without money and without price," their advisory skill toward the building up of such a system. For the executive health officials only, a large part or all of whose time would be occupied, need remuneration be provided. This should be done by the civil divisions corresponding with their respective jurisdictions.

In view of the "eternal fitness of things" and of the immense, valuable and unrequited services that would be rendered by the great body of the profession in executing such a system, the demand that boards and bureaus of health should consist of medical men only would certainly be deemed both modest and just.

That the proposed system can be built up does not admit of a doubt. If the medical men in every state will resolve that it shall be done, and will then proceed to educate the people in the merits of the system, the end will unquestionably be achieved.

DISCUSSION.

Dr. H. A. MOODY, Mobile, Ala.—Every citizen likes to feel that whatever may be the governmental arrangements above

him he has some means of controlling them, some way of correcting errors and some way of punishing any faults or acts on the part of the officers in charge, should they be contrary to the laws of the country or to the public good. It seems to me that any system which controls the health of a city or a state or a nation ought to be controlled by the citizens of that city, state or nation, and not by any one individual. I am very glad to be able to say that to-day we are under the charge, so to speak, of a gentleman against whom no one can say a word. He is a good man and a good officer, and everybody likes him; so no one can attribute to him, personally, any criticism we may make of the system itself. But we must look to the future as well as the present, and the day may come when we should regret very much that it is impossible for us to change a health officer located in any city or state, no matter how obnoxious he may be, or however he may neglect his duty. Here will be a man in control of our health affairs who is entirely unsatisfactory to us in every way, and yet we will not be able to help ourselves. I say, I am glad to refer to this matter now when conditions are so satisfactory, in order to call attention to our plight if at any time conditions should change for the worse.

A few days ago I met a gentleman from one of the Gulf states, who expressed himself as satisfied with the turning over of quarantine matters to the Marine-Hospital Service. I asked him how he would like to have foreign officers in control of the police of his state. "Oh," he said, "the doctor has appointed all of our old officers, and so it is all right." That is the way it is. If they will appoint officers who are familiar with and satisfactory to the people, and who know all the requirements of the neighborhood, it is all right. But a day may come when some one else will be in charge, and he may appoint officials who are obnoxious to the people, so much so that it may almost raise a riot in some of our states if they are placed under the control of such an agent.

So I think it not only desirable but necessary for this Association to study the subject and see if we can not have it arranged on a republican basis, and not on the basis of a dictatorship, as seems to be the case at present.

I am not sufficiently informed in quarantine matters to discuss other points raised by the paper and which struck me very forcibly; but, like every other American citizen, I want to have a voice in the appointment of the officers over me. At present I have no voice whatever, and it is only because the gentleman in charge is so acceptable personally, and so thoroughly in sympathy with us, that the system is satisfactory; but when the satisfactoriness of any system depends on the personality of the officer at the head of it, it is not a good system to live under.

Dr. R. D. MURRAY, Key West, Fla.—I do not speak as a government officer, but as a "locked-in" man. I sympathize with those people who do not like to have officials forced on them, but I am sure I never went into a place that I did not leave it full of friends. I do not believe a locally acquainted man is always a proper man to control an epidemic. As to the head of the service being fit or unfit, you must remember that he is under the control of a civil officer of this government, who is appointed by the President and confirmed by the Senate, and you can reach him, if you want to, very readily.

Wherever I have been I am proud to say I have left the places full of friends of Murray. On the whole, I think it is better for a foreigner to come down and help people in distress than for a local man to be placed in charge. The local men, as a rule, have too many animosities, belong to too many churches, or have been black-balled in too many clubs. And you know the women cut a figure, gentlemen, at times.

Dr. H. D. HOLTON, Brattleboro, Vt.—We have all given expression, especially in the American Public Health Association, to the necessity for a school for health officers, where all who are called to administer the sanitary affairs of a community could have an especial preparation for such duties. It would seem wiser that the health organizations of the Nation, state or municipality should be under the control of trained sanitarians rather than that of the National, state or local medical organization composed of medical men who have

received little, if any, special sanitary training. At the present time the medical men who have the sanitary affairs of states in their keeping are medical men who have acquired what sanitary knowledge they have since their graduation. The great difference in duties imposed on county officials by the constitutions and laws of the different states would make it impractical to have the sanitary affairs of a county administered by the officers of counties in some of the states.

I am in accord with the gentleman from Florida that better and more satisfactory work is accomplished with less friction by having a general officer outside of a particular locality pay an official visit to that particular bailiwick and direct the work. He is free from the prejudices and the fascinations to which the gentleman alluded, and he can and does do his duty without fear or favor.

Regarding a National health organization having any power in the sanitary work of a state, or any interstate authority, I should say that we all recognize that all power conferred on health officials is a police power. Congress and the National executive have the right to regulate interstate commerce, which is not only the interchange of commodities, but also of personal intercourse of the inhabitants of one state with those of another; therefore, if persons affected with any communicable disease in a given state attempts to exercise that part of interstate commerce which consists in personal business intercourse with persons or the transporting of infected goods into another state, it is clear to my mind that National authority has the right to say on what conditions and under what restrictions these transactions shall be conducted. May I ask the author of the paper in his final summing up to make plain the principle of a National health department which should be organized without this power?

DR. J. M. LINDSAY, Havana, Cuba—I will start out by saying that I have no bouquets to throw, and have no knife up my sleeve for any one. I have been working for six months, leaving Havana for the purpose, to see whether we could not get the same quarantine regulations in all the ports of the Gulf. I first came to the American Public Health Association, and got them to endorse a paper I was taking around on an educational tour of the south. The majority agreed with me. (I found only one or two who refused to sign the paper.) I assert that quarantine should be under only one head, but to-day we have it under two. We have it under the U. S. Public Health and Marine-Hospital Service and we have it under the trust known as the Galveston Conference, which we can not get at to save our lives, though we can get at the Marine-Hospital Service. That is under the government, and they do not dare not to answer any letter we write. If they did, we know how to get an answer—through our senator. I have a friend from my district who can always get my letters answered if I can not. I want to say, however, in this connection, that so far all my communications to the department have been answered.

Now, as to the different states: After leaving Florida we come to Dr. Sanders's own state. We find there a peculiar condition. The state has nothing to do with the matter. A board is appointed; composed of physicians? No; part physicians and part commercial men, but controlled and run by two people.

I visited that state and asked them to give us the same quarantine regulations at Mobile that we had at Pensacola, Fla., and at Gulfport, Miss. They said: "It is a bitter pill to swallow. Florida and Mississippi are open, but we are tied down by that Galveston Conference and can not do anything. Beside, we do not know what Dr. Sanders, who has charge of all the counties outside of Mobile, will do." There is your condition in Alabama.

I next came to Louisiana, and I asked them to let me come before them and discuss the matter, so as to get them in line with the U. S. Public Health and Marine-Hospital Service, and give us the same regulations as in Mississippi and Florida. They said they could not call a meeting of the board to hear any such proposition, but at the next meeting, which would be at some time in the near future, or in four or five months, they would take the matter up. While I was in

Chicago on business, I received a dispatch that they were going to call a meeting, but I could not get there in time.

One of the things I wanted them to do was to use the Marine-Hospital inspectors in those tropical ports where the United States had placed such officials, and not to appoint a man from Louisiana; because it was really not under the police power, and they had no right to collect \$200 to pay these men in foreign ports. They would not agree to that. Then I asked them if they could not call a meeting of that conference and break loose from it, because I believed there was no law giving to Louisiana, Alabama and Texas the right to form a trust. I believe in state rights, but when the states seek to give up those rights to a trust, then I believe we had better go under a trust that we can reach through our senators and representatives, and not a trust that we can not touch at all. I believe to-day, instead of fighting fifteen or twenty years to form a new organization, we had better fall in line with the U. S. Public Health and Marine-Hospital Service and get them, as far as possible, to take charge of the entire matter, give us scientific laws, and not be afraid that the south will not support them, because the south will support any scientific quarantine regulations. They say they can not do anything because the people of the south are not educated on the subject. Well, I find that they are educated, and where they are at all deficient it is the fault of the men who know all about it, but who refuse to go out and explain, but seek, on the other hand, to retard the movement in every way.

We have not had a case of yellow fever in two years; still, this port and those of Alabama and Texas have decided that every piece of baggage, every passenger (I believe they use bichlorid of mercury; which is what we used to do when we were looking for fomites) must be disinfected at the port of departure and again at the port of entry. And they will never assume any of the responsibility, but will always try to put it on some one else.

Some six months ago I happened to be in Nashville, and I said to a friend of mine up there: "Judge, you have been losing golden opportunities in the south because of quarantine regulations. I am trying to get the people to give us better regulations in this regard, so we can get the trade of forty millions of people, and I believe it is time the people of the north took charge down there. These are Gulf ports simply because they happen to be on the Gulf geographically, but as a matter of fact they are the ports of the entire nation, and the forty million people in the north have a right to tell these men that they are entitled to protect themselves so far as their health is concerned, but they have no right to make every ship that comes in pay a bonus to get into American ports." He said: "Well, you are going to try to wake them up?" I said: "Yes, sir; that's what I am going to try to do." He said: "Well, I feel sorry for you." "Why?" "Because they will declare it unconstitutional. We in the south declare everything unconstitutional. We have had the shell long enough, and it is time now to change around, because we want the oyster."

To get into Florida and Mississippi costs nothing. To get into Alabama or Louisiana the ship must be disinfected at its expense. Now, I say that when they tell a ship, "You can not do business in this port unless you contribute so much a month to the pay of our inspectors," they go beyond their police powers and enter the National province. They should not be allowed to take that subsidy from the ships, and the sooner we get a new system the better—not such a one as Dr. Sanders proposes, because I tell you when you go up against that you won't have any regulations at all. I know if I had my choice to go up against the Marine Hospital or that trust, known as the Sanders' trust, I would take my chances with the United States every time.

DR. W. H. SANDERS, Montgomery, Ala.—The gentleman who has just taken his seat has indulged in details and personalities that had no connection whatever with my paper. He has set up his opinion on great constitutional questions against the consecutive opinions pronounced by the Supreme Court of the United States since its foundation by the government down to the present time; he has talked about state

rights and trusts and has connected me with what he calls the "Sanders' Trust." I decline the prominence he gives me as being at the head of a monopoly. I am simply the executive officer of the organized physicians of Alabama, selected by them, and I am removable by them at will.

DR. J. M. LINDSAY—I had reference to this trust which you are trying to form.

DR. SANDERS—I have simply proposed a scheme for forming and conducting a democratic system of public health, not one under a single man or a single corporation. The gentleman speaks of the "Galveston trust." I do not know anything of that, and therefore can say nothing of it. Without going into the details he injected into his remarks, and which have nothing whatever to do with the matter under discussion, I will remind him that the first division of the question under discussion is: Where, under our form of government, do public health powers reside?

I attempted to show, and believe I did show, by decisions of the Supreme Court, that they reside in the state governments and not in the general government.

DR. LINDSAY—Have they the right, under the police power, to place a man outside, as they do, to work in the foreign countries?

DR. SANDERS—By consent of those countries. The general government can not put a man there without consent.

DR. LINDSAY—I mean to hold up ships and make them pay; is that police power?

DR. SANDERS—When a ship arrives at the borders of a state the state can deal with it, under her police powers, as she thinks proper.

DR. LINDSAY—When she gets to that state?

DR. SANDERS—Yes, sir.

DR. LINDSAY—Not before?

DR. SANDERS—No, sir; neither can the general government nor the Marine-Hospital Service acting for it. If Cuba, for instance, allows the general government or the state of Alabama to place representatives in Havana to disinfect ships, it is merely a permission and not a right at all.

Now, Mr. Chairman, many positions have been taken that should be answered. Should all public health powers be concentrated in one service, the Marine-Hospital Service, for instance, then all diagnostic power must be conceded to the same service. The officials of that service must do our diagnosing for us. I undertake to say that within the past few years distinguished representatives of the Marine-Hospital Service have made conspicuous errors in diagnosis. If we surrender the public health power now possessed by the states we must also surrender the right to say whether an infectious disease is present or not. In 1897 a fever began to prevail on the Mississippi coast. A number of medical gentlemen, I among them, went there, and after a prolonged investigation decided the prevailing sickness to be yellow fever. The chief of the Marine-Hospital Service selected an ex-official of his service, one who had served in it a number of years, a Cuban by birth, who had grown up with yellow fever, and had attained sufficient prominence in the profession of this country to be filling the chair of pathology in the University of Pennsylvania (I allude to Dr. Guiteras), and sent him down to the Gulf coast to investigate and report. Dr. Guiteras examined into the disease and declared, despite the opinion already announced, that the disease was not yellow fever. I would have conceded in advance that no better man than Guiteras could have been chosen for the work. On a certain Monday morning the announcement went out unanimously from the medical men on the ground that the disease was yellow fever. Dr. Guiteras arrived the following Wednesday, and on Friday telegraphed the chief of the Marine-Hospital Service: "I have examined 29 cases, 25 are dengue, 4 doubtful." Not very long after that Dr. Guiteras accepted the diagnosis that had been made before he reached the scene.

Since then I have seen other members of the service make mistakes in diagnosis. If you surrender the right to control these matters, I repeat, that you must also surrender the right to say whether any infectious disease exists that needs control. That is a dangerous power to concede.

I can not accept the proposition that it is better to have some one come from a distance to regulate these matters. I have had six years' experience as a public health official in my state, and it has been an active one. I should have said that this scheme I have inadequately explained is based on the public health system that has prevailed in Alabama for twenty-five years. It is no visionary scheme, and can easily be projected into a National bureau. Everything proposed inside of that state line (indicating on the diagram) has been in existence in Alabama for twenty-five years.

DR. LINDSAY—What about Mobile?

DR. SANDERS—About ten years ago a number of the commercial men of Mobile went to the legislature, then in session, and, as a very powerful lobby, secured the passage of a special law creating the Quarantining Board of Mobile Bay, which is out of harmony with our system. It would require considerable detail to explain how this was brought about. We are biding our time, and probably by waiting we will see the true system prevail again at Mobile.

With the exception of the Quarantine Board of Mobile Bay, not a commercial man has served on any Alabama board of health for twenty-five years. The members of such boards are physicians, and in no other way can these matters be taken out of politics. Boards of health should be composed of physicians, and health officials should be selected by the organized physicians of the locality over which such officials are to preside. In Alabama the state or county authorities can decline to act on our advice, but if they do the responsibility rests on them. Our authority is merely advisory in the beginning, but if the state or county authorities authorize the expenditure of money, then our authority becomes executive. That is to say, our authority is at first advisory, but if money be appropriated it becomes executive. We have found the system to work admirably for twenty-five years, and we are anxious to see it propagated to other states, and also projected into a National bureau of public health that will correspond to our democratic form of government, and not with a monarchy.

DR. H. D. HOLTON, Brattleboro, Vt.—You said something about interference with interstate commerce. I don't quite understand that.

DR. SANDERS—If the counties do all they should to protect the health within their borders and the states all they should to protect it within their borders, nothing remains for the Nation to do but regulate interstate and foreign quarantine. That is all that remains undone for the Nation to do. It is constitutional for the National government to aid the states in the enforcement of public health laws. The National Bureau of Public Health that formerly existed was founded on that idea. The National government can aid any city or state in trying to control an epidemic, and can appropriate money for that purpose, and send a representative to aid in the struggle. Suppose an epidemic should appear in this city, and the Nation should send here a representative, a sanitarian fully equipped and competent to aid in dealing with the situation, and authorized to aid financially, do you doubt that the health officer of the city of New Orleans and the health officer of the state of Louisiana would accord to that representative of the Nation due consideration and to his opinions due weight?

DR. HOLTON—Suppose the National health officer insisted on regulating things in his own way, would he have any right to do that?

DR. SANDERS—Under the scheme outlined three officials would be on the ground, the city, the state and the National officials, two of whom would be a majority and decide the policy to be pursued. To give the National representative absolute control would require an amendment to the constitution, and, in my opinion, would be very unwise.

Further, the expenses of a campaign against an outbreak of sickness could be equally divided between the city or county, as the case might be, the state and the National government. That would offer a premium on early and prompt action on the part of the county or city. The local officials would know that

by acting promptly they would get the help of the state and of the Nation, which would stimulate them to promptness of action and not to ignore conditions under the idea that by shutting their eyes to them they could get rid of them.

DR. LINDSAY—Where is that ultimate advisory power? In the American Medical Association?

DR. SANDERS—Yes, sir; the American Medical Association should have advisory power for the Nation, for the President, and for Congress; advisory power in the first instance, and then, by suitable laws, it could be invested with certain executive power. Let the Nation be guided in public health matters by its sanitarians, its physicians. When advice from such a source should be laid fully before the Nation, as is done in the state of Alabama, the Nation could either accept or reject it; but if the Nation should act on such advice, then let the American Medical Association, through a National bureau of commissioners of public health, execute its own advice. That is the policy in Alabama.

DR. LINDSAY—That is democratic?

DR. SANDERS—Yes, sir.

DR. LINDSAY—For the Nation to give over this right to the American Medical Association?

DR. SANDERS—The Nation is competent to delegate authority to the American Medical Association, or to any class of men it chooses. I think that is a fundamental principle which can not be successfully controverted. The Nation is competent to delegate its power to any body of men; and if it chooses to delegate it to men selected by the American Medical Association, who can dispute the right?

Before taking my seat I will say that in 1897 yellow fever prevailed in several places in Alabama before its presence was discovered at Ocean Springs, Miss., its original seat. Since then not a case has occurred in Alabama, although the states alongside, Florida on the one side and Mississippi and Louisiana on the other, were overrun, more or less, with yellow fever in 1898, 1899, and, to some extent, in 1900. Not only so, Alabama protected her people and her commerce at a remarkably small cost. For three years the total expense of conducting the state quarantine in Alabama was in round numbers \$20,000, and for two of those years the state was entirely protected. My information is that for the same three years Mississippi expended more than \$100,000 and got no protection either year. The other states mentioned doubtless expended large sums for the same years and likewise were overrun with the fever. Is not that simple statement of fact a strong endorsement of the Alabama system?

The United States Public Health and Marine-Hospital Service seems to be gradually but certainly usurping the public health powers of the states, which the Supreme Court has said many times is unconstitutional. In addition to being unconstitutional, I believe such usurpation unwise and impracticable. The officials of that service acquire their positions by undergoing examination, and are not chosen either by the people or by their colleagues of the organized profession, consequently they sustain absolutely no representative relation either to the people or to the profession. The chief of that service, who dictates the public-health policy to be pursued by his service, need not be a member of any local medical organization or of this Association, and therefore is entirely independent of any advice or recommendations that might proceed from this body.

Here are assembled representative medical men from the states, and it seems a fair proposition that they should have a representative commissioner of public health of their own selection, through whom they could advise the Nation on public health questions, and whom they could displace from office on his refusal to obey their recommendations.

Venesection and Saline Infusion in Heatstroke.—It is reported by a contemporary that in two cases of heatstroke in Cincinnati twelve ounces of blood were withdrawn, and replaced by an equal amount of physiologic salt solution, with excellent results. Temperature was reduced, convulsions ceased, and the patients fell into refreshing sleep within an hour.—*Med. Age.*

ONE THOUSAND CASES IN STUDENTS' OUTDOOR OBSTETRIC PRACTICE.

REPORT OF FIRST SERIES IN THE OUTDOOR OBSTETRIC DEPARTMENT OF THE UNIVERSITY COLLEGE OF MEDICINE.

JOHN F. WINN, M.D.

Superintendent and Obstetrician-in-Charge of Obstetric Clinics; Lecturer on Obstetrics in University College of Medicine; Obstetrician to Virginia Hospital.

RICHMOND, VA.

I have the pleasure of submitting my report of the first series of 1,000 cases in the outdoor obstetric department of the University College of Medicine for the period of (nearly) eight years, ending Oct. 23, 1902. To be strictly accurate, a service of seventy-six months is represented, the two stations not being provided with regular attendants during four of the college vacations.

Of course, the average number of patients treated annually increases year by year, as the service becomes better known. As far as I know, this work is the first attempt on the part of any medical school in the southern states to conduct a systematic and regularly organized free service for lying-in women at their own homes. Each office or station is centrally located in a laboring district, and fitted up for the residence of three students who respond to obstetric calls only.

It is befitting to add that the successful results of the undertaking are to be attributed, in a large measure, to the hearty co-operation of the students and to their uniform courtesy and professional dignity in the performance of their duties.

The armamentarium of the attendants at each of these two obstetric stations consists of a leatherette telescope or satchel about twenty-two inches long, ten inches wide and eight inches deep, containing the following:¹

Three agate wash basins.	Boric acid.
Towels.	Chloroform.
Green soap.	Ergotol.
Hand brushes.	Fluid extract ergot.
Scissors.	Croton oil.
Linen bobbin tape.	Strychnia tablets.
Sterile gauze.	Chloral hydrate solution.
Absorbent cotton.	Fountain syringe.
Bichlorid tablets.	Catheter.
Lysol.	Perineal pads.

SIMPLE TECHNIC.

With the unsanitary environments usually encountered, it must, of course, be remembered that anything approaching a complete aseptic technic is impossible; yet the greater necessity for cleanliness is impressed on the minds of the students, and all attendants constantly endeavor to observe, as rigidly as circumstances will admit, the principles of asepsis in reference to vaginal examinations. In doing this no claim is made for any great array of antiseptic or aseptic paraphernalia. On the contrary, the aim is to reduce everything to the simplest possible system of disinfection and asepsis. While the students are not limited as to the number of vaginal examinations, they are encouraged and advised to practice abdominal palpation in all cases if time permits, not only for verification of diagnosis, but for the purpose of reducing to a minimum the danger of infection by vaginal touch.

1. Students provide themselves with hypodermic syringes and clinical thermometers. The satchel is not furnished with forceps or other instruments, for the reason that all operations are performed by me; and if such instruments were so accessible, the temptation to use them in my absence might lead to disastrous results. The absence of instruments from the above list is thus explained. A valuable acquisition to this satchel will be found in the form of a large copper pan, like one I have been using for a long time in my private obstetric bag. Its dimensions will correspond with the inside of the telescope, and it will afford a more capacious and ready sterilizer in these homes, and will also serve a useful purpose when asphyxiated infants need to be placed in hot water.