

«Without finding out whether the epidemic was cholera, bubonic plague or leprosy, they immediately put in practice isolation, quarantine and useless disinfection. But to-day we know that all diseases must be treated according to their individuality and that the precautions taken against them, must be adapted exactly to their special nature and ethiology.

«The pest that at this moment attracts the universal attention is the bubonic plague. It is commonly believed that a person attacked with this pest, is a perfect focus of infection, and that the disease is transmitted only by the persons attacked with it or through his personal effects; to such an extent did this idea prevail that the most recent international conventions were founded on it.

«Notwithstanding that in comparison with olden times we enjoy now the great advantage of knowing, by the aid of the microscope and by means of experiments on animals, the nature of each case of pest with absolute certainty; and in spite of the inspection of vessels, the quarantine, the isolation of patients and the disinfection of their dwellings practiced with the greatest care, the plague has been transmitted to many places, often assuming large proportions. And why has this happened? We know it now, thanks to the lesson that experience has given us in the last years with regard to the mode of transmission of the plague. It has been discovered that, excepting in the rarest cases, where the patient suffers complications of the plague with pneumonia, a condition which fortunately is not very frequent, the real agents of propagation are rats. There is not the slightest doubt that the greatest number of cases in which the pest has been transmitted by vessels, the cause of the transmission has been rats from vessels contaminated with the disease; and it has been also demonstrated, that when the rats have been exterminated, either intentionally or by accident, the plague has rapidly disappeared, whereas in other cases when no attention was paid to the plague of rats, the epidemic continued. This relation between the plague of rats and human pest was totally ignored up to a very short time ago, and therefore censure should not be cast on those who proposed the measures actually in force, which have been nugatory in their results. But nevertheless, it is now time that this knowledge of the ethiology of the disease should be made use of in all international traffic arrangements.

«With regard to cholera,» continues the eminent Doctor, «the case is essentially different. Under certain circumstances the disease can be conveyed directly from one to another human being; but the principal and most dangerous agent of propagation is water and therefore it should be preferentially and most carefully examined to check the advancement of the disease. In Germany, where such measure has been put in practice, we have succeeded in exterminating, during four consecutive years, the plague of cholera, which epidemic had often invaded the country from other infected places, without interrupting international traffic.

«Such examples are sufficient, according to Dr. Knoch's opinion, to demonstrate that in order to avoid the epidemic, the first thing to do, is to attack the root of the disease, without losing time and means in unnecessary and useless methods.»

It seems that the above general conclusion is in accord, first, with the report made on the ethiology of malarial fevers by Drs. Vallin, Kelsh, Laveran and Railliet, published by the Board of Health of Mexico in its Bulletin of January 31st. of the current year, and, secondly, with the Medical Report made by the Military Surgeons of the United States, Walter Reed and James Carroll, on the ethiology of yellow fever, which report was presented at the Conference of Havana in April 1901, and was afterwards reproduced, with amendments, at the International Hygienical Congress held in Buffalo in September last.

The report first alluded to, demonstrates that malarial fevers are principally propagated by the bite of the mosquito, of the anopheles species which causes the inoculation of the human blood with Laveran's haematosary; that stagnant water does not engender malarial fever; that dirt recently turned does not contain germs, and the latter are not carried by air nor by inanimate articles, nor emanate from the water of swampy places. It is also asserted that the mosquito, in order to inoculate malarial fever, needs to take the haematosoa from a human being or from an animal, transform it into its body and afterwards inject it into the human system. The report continues: that the prophylactic means to be derived from these new discoveries, are: the extermination of the mosquito which can be obtained by inexpensive means, with the result, that two of the worst calamities of humanity, the malarial fever and the phylariosis, will disappear, without inconveniencing commercial traffic.

The report of the Military Surgeons of the United States reads, in part, as follows: «The general opinion is, not only amongst unprofessional people, but also in the medical world, that yellow fever is communicated through the clothes or other articles that the patient may come in contact with. The origin of epidemics of a desolating character, has been attributed to the single fact of unpacking trunks containing wearing apparel which is suspected of being infected, for which reasons the efforts made by the sanitary authorities of the United States have been towards the thorough disinfection of wearing apparel coming from ports where yellow fever exists. To such extremes have these precautions been carried, in order to avoid the entrance of the disease, during time of epidemics, to the United States, that all articles of personal use, such as bed clothes, etc., have undergone disinfection both at the port of embarkation and of destination, even though such articles had not been in contact with persons attacked with yellow fever. The fact of a person having stayed for a single day in a city where some cases of yellow fever have occurred was sufficient to subject his baggage to a most thorough disinfection by the sanitary authorities. It is, therefore, a very important question to decide whether the contagion is transmitted by the clothes, bedding and personal effects, that have been in contact with a yellow fever patient. Though the medical literature presents numerous examples of the infection not having been reproduced through such means, the report considers it would be desirable to prove, by experimenting on persons not enjoying immunity, the theory of the contamination of yellow fever through infected clothes and articles.»

To that end, scrupulous experiments were made,

which proved to be of a wonderful nature, especially from the point of view of the great sacrifice made in behalf of humanity and science, as stated extensively in the above Report, the conclusions of which are as follows:

«Yellow fever is transmitted to a person not enjoying immunity through the bite of a mosquito which has sucked previously the blood of a person attacked with the disease.»

«Yellow fever is not conveyed through bed clothing, or wearing apparel, nor merchandise or articles of any kind having been in contact with persons suffering from that disease; and therefore the disinfection of such articles, for the purpose of avoiding the propagation of yellow fever, proves to be entirely unnecessary.»

«The propagation of yellow fever can be efficiently restrained by the extermination of the mosquito and the protection of the sick against its bite.»

III.

From all the statements heretofore made, it can be seen that the solutions of the problem for avoiding the propagation of the principal epidemics have been modified in accordance with the continued progress in science, and therefore it is to be desired that in view of the important and transcendental scientific discoveries attained since the First Pan-American Congress in 1890, its recommendations be re-considered, proposing other measures which will be more in accord with the progress of the present time, and more in harmony with the necessities of maritime and interior communications, the development of which have attained such large proportions and will undoubtedly continue to do so all over the world.

We, therefore, propose that the Second Pan-American Congress approve the following resolutions:

«The Second International Pan-American Congress recommends to the nations therein represented, the execution of obligatory sanitary conventions, in accordance with the following bases:

«First. That quarantine called rigorous, shall be abolished on all kinds of merchandise and commercial articles, and vehicles of transportation in maritime and inland traffic, between ports and territories of the contracting countries.

«Second. That the quarantine of observation may be imposed on vessels transporting passengers, in order to make the Sanitary Inspection on board ship; but the vessel or vessels shall not be detained on that account before being granted libre pratique for a period which cannot exceed forty-eight hours.

«Third. The object of the quarantine of observation, is to isolate such persons as may be suffering with any contagious disease, either on board the vessel or in the lazaretto or hospitals, and also to have the opportunity of watching carefully such passengers as may be suspected, after the medical inspection has been made at the point of arrival and destination.

«Fourth. On passenger trains, from an infected place and running into two or more different countries, the quarantine of observation shall not exceed, at each of the boundary lines, the necessary time for the medical inspection, which should not take longer than four hours, during which the sick with the plague shall be taken to the hospital,

and, if necessary, the car or compartment where the patient has travelled shall be disinfected.

«Fifth. Passengers and freight coming from a clean and healthy harbor or inland point and going through an infected place, without stopping at such place further than the necessary time to continue their trip, shall not be subjected to quarantine of observation or to any other sanitary form at the point of arrival or destination.

«It is especially recommended to all nations of the American Continent the adoption of hygienic systems of sewerage, and of pure water supply, in all their ports and maritime towns, as the best prophylactic means against the propagation of contagious disease.»

Mexico, October 22th., 1901.—*G. Raigosa*, President.—*Joaquin D. Casaus*.—*Jose Lopez Portillo y Rojas*.—*Emilio Pardo (Jr.)*.—*Pablo Macedo*.—*Alfredo Chavero*.—*Francisco L. de la Barra*.—*Manuel Sanchez Marmol*.—*Rosendo Pineda*.

SESSION OF JANUARY 24, 1902.

Secretary Duret.—The 10th. Committee has submitted a project of resolutions on international sanitary regulations, which the Chair rules be printed and distributed among Their Excellencies the Delegates, reading as follows:

RESOLUTIONS presented by the Tenth Committee on International Sanitation Policy.

1st. The International Sanitary Regulations shall be in charge of the Governments of each country which shall exclusively have the right to adopt sanitary measures and to establish sanitary stations, both on land and on sea, as well as to determine the time, which shall be as short as possible, during which vessels may be detained for disinfection; and lastly to adopt all the necessary precautions to prevent the invasion of contagious diseases.

2nd. In each port of the signatory nations two kinds of detentions shall be established:

- I. For inspection or observation;
- II. For disinfection.

3rd. Merchandise of all kinds, proceeding from a clean port or place, passing through an infested territory without being detained further than the necessary time for their transit, shall not be subject to any detention or sanitary measure further than that of inspection at the port or place of arrival; but with the understanding that such detention shall not exceed the time absolutely necessary for the disinfection. The same rule shall apply to the railroad transportation of merchandise in transit.

4th. The signatory nations agree to give all necessary assistance to the local, provincial, or municipal authorities within their respective limits, in order that the most adequate sanitary provisions be established, so that the restrictions for the detention of vessels be reduced as much as possible, until the final abolishment of said detentions be obtained.

5th. The signatory nations bind themselves to the effect that their respective sanitary bureaus shall give opportune notice to the diplomatic or consular representatives, accredited in each of said nations respectively, of the existence and propagation of the following diseases: Cholera, Yellow Fever, Bubonic Plague, Small Pox and any other contagious disease.

6th. The authorities having in charge the sani-

tary service of the ports shall make a note upon the bills of health, of the contagious diseases which may have existed prior to the clearing of the vessel.

7th. In order to improve the relations among the authorities in charge of the sanitary service, there shall be convoked, for mutual benefit, a general Convention of representatives of said authorities, under the following bases:

The International Sanitary Convention shall be formed by Delegates, not to exceed more than five, appointed by each of the signatory republics, selected, as far as possible, from among the members of the Sanitary Boards or Bureaus. The Convention shall meet every three years, and one or several Republics may be represented by Delegates, each Delegation having a right to a vote.

The first general Convention shall be convoked by the President of the United States, at Washington, within one year counted from the date of the approval of these resolutions by the Conference, and each Convention shall designate the place where the next meeting shall take place.

The Convention shall elect by a majority of votes an Executive Committee composed of five members, and this Committee presided over, ex officio, by the Surgeon General of the Marine Hospital Service of the United States, shall constitute a Permanent Bureau of International Health at Washington, D. C.

The General Convention shall be considered as a consulting body, and shall undertake to effectively and actively propagate the last scientific discoveries on sanitary matters, in order to protect the public health and to facilitate commerce.

The General Convention, during its sessions, or the Executive Committee, when it is not in session, may appoint sub-Committees of experts, who, in accord with the local authorities, shall investigate the sanitary conditions of the ports or places in which contagious diseases may exist or any other conditions which may affect the health of the American Republics, and to carry correspondence with the different Sanitary Bureaus for the purpose of recommending the most efficacious measures in case of any emergency.

Each Government shall pay the expenses and salaries of the Delegates and experts appointed by it.

Office expenses, and those incurred in special investigations, publications, translations, and distribution of information, shall be defrayed from the moneys of a special fund created by the annual budget of each of the signatory Republics, under the same bases as those at present established for the maintenance of the International Bureau of American Republics. The General Convention and its Executive Committee may avail themselves of the facilities furnished by said International Bureau for correspondence, book-keeping, auditing, payments, care of archives, and expenses of administration.

Mexico, January 24, 1902.—(Signed) *Juan Cuestas*.—*Volney W. Foster*.—Not agreeing with resolution No. 7, *Lorenzo Anadon*.—*Joaquin Walker M.*—*E. Pardo, jr.*

SESSION OF JANUARY 28, 1902.

Secretary Macedo.—The 10th. Committee has submitted a new text on International Sanitary Regulations, instead of that previously submitted and which was published as annex No. 6 of the Minutes of the Thirtyfifth day. As the Committee has with-

drawn its first text and has requested that the second be considered for discussion, said text is under discussion, as a whole, reading as follows:

NEW TEXT of the Resolutions concerning International Sanitary Police, presented by the Twelfth Committee.

The advance in medical science in America, has rendered it necessary that aseptics or sanitation take the place of antiseptics or quarantine. In other words, it is more important to put cities in such sanitary conditions that diseases cannot propagate than to be in the necessity of preventing infection by means of quarantine, which hinders traffic and brings obstacles to commerce.

The constant increase of common interests in the American Republics renders it necessary for the present Conference to adopt methods and make recommendations for the improvement of sanitary conditions, in order to attack contagious diseases, and that the restrictions of quarantine, so injurious to all, be substituted by precautions which may do away with the causes of quarantine itself. In this manner, not only its consequences will be avoided, but the precious treasury of human life will also be efficaciously protected. A system of sanitation shall free merchant vessels and railroads from the large expenses in which they have to incur on account of the inconveniences of quarantine.

Strict quarantines, and some times prohibitory, have been adopted whenever contagious diseases have appeared in several ports of the Continent, and the losses suffered on that account, as well as the discredit resulting from the existence of such contagious diseases, cast upon the places where the disease has appeared, exceeds the amount of expenses which the sanitation of those same ports might have required. And the ports of embarkation suffer, not only for such reasons, but the evil is also felt by the producer and the consumer, whose dependence on each other is so manifest. In an Essay published in the «Forum» corresponding to the month of February, 1899, Surgeon-General Wyman, of the Marine Hospital Service, of the United States, dealing on the subject of extirpation of yellow fever in the ports of this Hemisphere, said:

«It can scarcely be doubted that the terrible yellow fever will disappear almost entirely; but something more than this must be done. Even if that great pestilent center called Havana should be purified and freed from the infection of yellow fever, it would remain liable to be infected again by contagion from other ports of Central and South America, which are in no better condition, and it is an important question, therefore, to promote whatever may be necessary in order to extirpate yellow fever from the American Continent, without losing sight of the fact that disease belongs entirely to the Western Hemisphere.

«And it is not a deceitful optimism to believe in the possibility of an international sentiment inducing to consider the existence of yellow fever in a port and its bad sanitary conditions as a shame upon the government on which such port may depend. Each nation ought to be responsible for the conditions of its territory and dependencies contributing towards the propagation of epidemic diseases, to the great risk of other cities with which it intends to maintain friendly commercial relations. With regard to our cities being free from the fever, thanks to sani-

tation, the government ought to solicit the co-operation of representatives from each of the other American Republics, in order to hold a Convention to be composed of hygienists, civil-engineers, and financiers, whose work would consist in preparing a treaty prescribing the inspection of ports,—the principal focus of yellow fever—by a Committee of representatives from the Republics interested. Each of the contracting countries would contract the obligation of putting into practice the precautions recommended by such Committee, or any other which would seem most appropriate, according to the opinion of said Committee.»

Every nation, almost, has adopted the new methods of sanitation, thus obtaining much good, and as a result of those methods progress has been realized by passing from the prohibitory quarantines to sanitary observations and a disinfection so complete that disease germs cannot easily be reproduced.

Dr. Liceaga, President of the Board of Health of the Mexican Republics, refers in his project of resolutions submitted by the Honorable Mexican Delegation to the Second Pan-American Conference, to the methods which were so successfully employed in France in 1890, to prevent the invasion of cholera, prevailing at that time in Spain, which methods consisted in the creation of disinfecting autoclaves for the baggage of passengers and of small lazarettes for persons attacked or suspected to be attacked with the disease, without interrupting communications or disinfection merchandise.

Much good has been done by the several sanitary conventions held in different places, for they have served as links to facilitate to the nations the most adequate means to obtain the best systems of international sanitation. The two Conventions of Rio Janeiro and Lima were the results of the six Congresses which had taken place previously in different countries, and both were modelled on that of Rome; being so very similar, that during the debates which took place at the International American Conference of Washington in 1890, the two were submitted for the approval of the Congress, indiscriminately. From that time medical science has been able to demonstrate that quarantine can, up to a certain point, be an efficient method to prevent the invasion of contagious diseases; but that it is not a competent method of prevention.

Doctor Francisco Rosas, President of the Sanitary Congress of Lima in 1899 said the following:

«Innumerable occasions have served to scientifically demonstrate that the closing of ports and frontiers does not prevent the invasion of epidemics, but rather that these penetrate and are rapidly propagated in the countries that observe isolation, because in the erroneous idea that they are free from all danger, they become careless and do not adopt the proper measures to prevent the progress of the disease.»

The unhealthy quarters of our towns and cities are the principal foci of propagation of the diseased germs; but let those quarters be cleaned and disinfected, and those germs will die out. Cleanliness should, be the principal care of cities, and in support of this truth Doctor John Billings, an eminent expert, made the following observations several years ago: «a very considerable portion of the excess of deaths in a city is due to the poverty of the inhabitants of some of its suburbs. In some districts of all the great centers of population are to be found peo-

ple insufficiently fed and clothed, who live so huddled together that cleanliness, decency and morality are very difficult, if not impossible to obtain. In those places are gathered together the idle, the bad-intentioned and the most corrupt of the district, and there, the classes grow through heredity indolent and inclined to evil ways. Mixed among them and living under identical conditions are to be found honest, laboring people who live from hand to mouth, who if they are ill have to go to the hospital, and the indigent who are unable to provide for their own support. The death-rate in those suburbs is from 50 to 150 per cent greater than that of the better classes of the population; the mean term of life is 10 or 15 per cent less on account of the poverty and misery; a large part of the sick have to be helped by public charity and a third part of those who died has to be buried at the public expense.

«The problem to improve the sanitary conditions of those suburbs, to prevent the increase of unclean, damp, dark dwellings and the crowding together of neighbors, lessening the burden which weighs on the community, without impoverishing that town any more or attracting more vagrants and criminals, is one of the most arduous tasks for modern civilization and for municipal governments.»

«It is easy to prove to any practical man that the high death-rate and of the diseases in the city causes heavy expenses to be incurred for the maintenance of hospitals and other benevolent institutions, and it is just as easy to demonstrate that an abundant supply of pure water, the cleanliness of the streets, a good drainage and regulations for the construction of buildings, properly complied with, are the best methods to diminish the death-rate and diseases.»

Surgeon-General Wyman, treating on the same subject, had said that previous Sanitary Congresses and Conventions have mistaken the cause for the effect by trying to prevent the latter leaving the former intact. In a paper read before the Third Pan-American Medical Congress of Havana, he said:

«Let me be allowed to compare the methods of quarantine employed until now with the present ones and those which in the future will be used to exterminate epidemic diseases like, the yellow fever. Under the ancient regime, and, as soon as the fever appeared in any locality, a strict quarantine was immediately observed for the neighboring or distant localities with which any communications was possible. The newspapers made it known that «Podunk» that surely was well satisfied with his vigilance had decreed the quarantine for all the world, and its example was followed by other towns in order not to be outdone by «Podunk.» And it is not intended to ridicule such precautions, but I only want to state how much better is the method now in use, and which consists in the concentration of the restrictive efforts in the neighborhood of the focus of infection, and how much more prudent those precautions will appear in a future not far distant, when it will be clearly seen that thanks to them the towns, on account of their better hygienic conditions, can behold with certain serenity the invasion or the breaking out of any infectious disease.»

The diseased germs as well as other animals require food. The sources of nourishment being done away with, they can not live.

In a report on sanitation and progress, presented at Havana in 1901, Surgeon General Wyman says: