Pan American Sanitary Bureau:
Annual Report of the Director
Fiscal Year 1941-42

WASHINGTON, D. C.
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The report below submitted covers the activities of the Pan American Sanitary Bureau during the year 1941-42, the 40th of its existence. As in the past, the cooperation of the members of the Directing Council of our Bureau and of the national health authorities of all the American Republics has been of inestimable value in carrying on our program.

It is a pleasure to place on record once more my appreciation of the assistance given by the Pan American Union and its Director General in furnishing us with office space and rendering other valuable services. The facilities made available to the Bureau have been gratefully appreciated, for without such cooperation there is a strong probability that this work might have been seriously curtailed.

Hugh S. Cumming
Director, Pan American Sanitary Bureau
PERSONNEL

The personnel of the Pan American Sanitary Bureau, as elected at the Tenth Pan American Sanitary Conference, continues to be as follows:

DIRECTOR............................... Dr. Hugh S. Cumming
                                        Washington, D. C.

VICE-DIRECTOR.......................... Dr. João de Barros Barreto
                                        Rio de Janeiro, Brazil

COUNSELORS............................. Dr. Miguel Sussini
                                        Buenos Aires, Argentina
                                        Dr. Antonio Peña Chavarría
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                                        Lima, Peru
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                                        Lima, Peru
                                        Dr. Justo F. González
                                        Montevideo, Uruguay
                                        Dr. Luis Gaitán
                                        Guatemala

TRAVELING REPRESENTATIVES*.........Dr. John D. Long
                                        Dr. John R. Murdock
                                        Dr. Anthony Donovan
                                        Dr. Henry Hanson

SANITARY ENGINEERS.................... Mr. William Boaz
                                        Mr. Edward D. Hopkins

*Appointed by the Director.
GROWTH

The Pan American Sanitary Bureau has been in existence for 40 years, the last 22 of them under the same Director. During 1941-42 the expansion already noticeable in previous years was continued and accelerated. These increased activities were due mainly to suggestions and recommendations made by the Pan American Sanitary Conferences and the Pan American Conferences of National Directors of Health, but also to the problems created by the world crisis and the difficulties experienced by health authorities in the different countries in securing and transporting products necessary for effective work. The larger funds available for maintenance have enabled the Bureau to carry on its new activities, while the willing spirit of cooperation of all the members of the staff has been of inestimable value in the accomplishment of its purposes.

In the development of all these efforts constant care has had to be exercised to avoid incurring responsibilities for which the Bureau was not fully prepared from a financial or a personnel standpoint, especially if they represented programs which had to be carried on over a period of years. Should the case have been otherwise, steps would have been taken to secure in advance the approval of the Directing Council, as being the proper procedure. Its consent would have been deemed essential before assuming any new responsibilities, even if these might contribute to the betterment of health conditions in the Americas. This policy will continue to prevail even when facilities permit of greater expansion, as the policy of our organization has always been based on the principle of cooperation and advice from all those interested.

The work of the Bureau has naturally been somewhat handicapped by the war situation, which while presenting new problems for solution also restricts the scope of activities, but in spite of these difficulties the functions of the Bureau are being carried on as effectively as possible.

There has been a tentative reorganization of field work, with Atlantic, Pacific and Caribbean divisions, as indicated last year, the scholarship program has been expanded and developed, assistance has been given in the improvement of hospitals and in developing public health nursing and sanitary engineering programs, the medicofilm service has continued to grow, and the Bureau has had increasing representation at various scientific meetings. It has been possible also to secure the services of experts who, at the request of the various countries, visited these countries to aid in organization work or in fighting disease epidemics.

SPACE

One of the handicaps with which the Bureau has had to contend for a number of years is the lack of office space and facilities. This problem is still awaiting solution, although efforts are being made to alleviate conditions.
The work of the Bureau continues to be conducted under the guidance of the Director and Assistant Director, and the immediate supervision of the Secretary, in conformance with the classification of functions described in the last Annual Report, which is as follows:

Editorial (including especially the publication of the Bulletin and transactions of the Conferences)
Epidemiology and Vital Statistics
Library
Translating
Accounts
Distribution of Publications
Files
Legal

In addition to the Director, the Assistant Director, and the Secretary, the central office staff in Washington included at the end of the fiscal year: 1 editorial assistant, 1 statistical assistant, 1 librarian, 11 translators and stenographers, 1 file clerk, 1 typist, 1 clerk, 1 clerical assistant, 1 assistant librarian, 1 fiscal officer, 1 messenger, and 1 chauffeur. Some of the stenographic personnel are, however, employed on a temporary basis. At the present time the following countries are represented in our office staff: Argentina, Brazil, Cuba, Mexico, Panama, the United States, and Venezuela.

During the fiscal year the field personnel has included 7 permanent and 2 temporary traveling representatives and 3 sanitary engineers.

DIRECTING COUNCIL

It is a matter of much regret that it has been impossible to call a meeting of the Directing Council of the Bureau since the last Conference of Directors of Health. Some of the members of the Council, however, were able to be present at the meeting in Atlantic City and Washington in October, 1941, and availed themselves of this opportunity for consultation. In a few instances calls have been made upon certain members of the Council, notably Drs. Martínez Báez and De Bayle, when their assistance seemed useful in specific problems, and the other members would likewise be called upon should occasions arise in which their help seemed valuable.

At the risk of being repetitious, I cannot let this opportunity pass to urge again what I have suggested in previous reports, namely that the members at the next Conference consider seriously an interpretation of

1The Legal section was discontinued in the last months of the fiscal year, first because of the resignation of the man in charge and then because the little amount of work devolving upon it did not justify its continuance.
the Constitution and Statutes of the Bureau to the effect that the members of the Directing Council be designated by the authorities of the countries they represent, thereby eliminating any possibility of the occurrence of embarrassing situations such as have arisen in the past when positions on the Council were held by persons no longer having official status in their country.

**PAN AMERICAN HEALTH DAY**

The celebration of Pan American Health Day throughout the Western Hemisphere on December 2nd has already taken deep roots, and it is to be hoped that it will continue to grow. With each year interest in it has increased, and it has become the occasion for ceremonies of all kinds, in the various countries, honoring health workers of the past and their achievements, as well as for reporting present activities and problems and announcing plans for future work. It is a movement that deserves encouragement and development, both for sentimental and for practical reasons.

Last year the Bureau sent special messages to the health authorities of the various countries and also distributed educational material to them and to the schools of both the United States and the Latin American countries, as well as sponsoring a radio broadcast in commemoration of this day and dedicating a special number of the Bulletin to it. Radio broadcasts, newspaper articles, the dedication of buildings and monuments, banquets, the showing of films, scientific debates in colleges, visits to hospitals and to the tombs of famous hygienists, presentation of medals, commemorative stamps, a child health contest and essay contests, and special meetings of health authorities marked the day in the various countries. Further details of these activities may be found in the Bulletin for January and February of 1942.

As in previous years, the Bulletin is devoting its December issue to this special day, and a number of publications have already had to be prepared to satisfy the demand for material bearing on this celebration. These include No. 156 “Pan American Health Quiz,” No. 158 “Public Health and Medicine in Stamps of the Americas,” No. 159 “Some Pan American Pioneers in Public Health,” and No. 177 “Public Health in the Americas.” There is little doubt that the date will meet with eager reception this year.

**COMMITTEES**

Committee on Malaria.—The members of the Committee on Malaria are: Dr. L. L. Williams, Dr. Henry Hanson, Dr. Mark F. Boyd, Dr. C. A. Alvarado, Dr. João de Barros Barreto, Dr. Victor A. Sutter, Dr. Luis Vargas, and Dr. Arnoldo Gabaldon. A great deal of praise is due
to Dr. Arnoldo Gabaldon, chairman, and the members of his Committee for what they have been able to accomplish in spite of the very serious disadvantages under which they worked. The Sub-Committee on Malaria Surveys will prepare and submit to the Conference a report of its activities; a Malaria vocabulary, based on the report of the Malaria Committee of the Health Organization of the League of Nations, has been translated and is soon to be printed; and in process of preparation is a Directory of persons interested in malaria.

One of the projects which the Bureau has in mind for the future is the compilation of similar directories for other fields, such as tuberculosis and cancer.

Committee on Nutrition.—The members of the Committee on Nutrition are: Dr. E. V. McCollum, Chairman, Dr. Justo F. González, Dr. Pedro Escudero, Dr. Jorge Mardones and Dr. W. H. Sebrell. It is a matter of deep regret that Dr. Justo F. González, enthusiastic sponsor of the creation of the Committee on Nutrition of the Pan American Sanitary Bureau, was lost to us before he could enjoy the results of his efforts. However, the work of this Committee will be reported upon at the Conference.

The Bulletin of the Pan American Sanitary Bureau has already published a number of articles on nutrition, and is at present preparing a summary of developments since 1934. Besides this, the Office of the Coordinator has furnished financial assistance to the Bureau in its project of the publication of a Manual on Bromatology, in Spanish. Publication of this Manual has now been completed, and it will soon be ready for distribution.

Committee on Public Health Code.—The Committee on Public Health Code included the following members: Dr. João de Barros Barreto, Dr. A. de la Garza Brito, Dr. C. E. Paz Soldán, Dr. Mario J. LeRoy, Mr. Gregorio Márquez, Secretary. The draft of a model code which was prepared by the Secretary is at present under consideration by the various members, but, due to the many different factors and conditions concerned, this may require quite some time. At least a preliminary report, however, is expected to be presented to the Conference.

At the request of various national health departments, assistance, mostly in the form of advice and publications, has been given by the Bureau in the drafting of public health laws. Among recent legislation are Uruguay's new Public Health Law and the Cuban and Colombian regulations concerning laboratory technicians.

Remarkable work has been accomplished by these committees in spite of all of the difficulties connected with organization, and separated as the members are. Countless opportunities and possibilities are still
open before them, and it is hoped that these will be developed gradually. It would be desirable if some way could be found to arrange for meetings of these committees at least once every two years so that they could plan their work in a more effective manner.

PAN AMERICAN SANITARY CONFERENCE

The XI Pan American Sanitary Conference is to be held in Rio de Janeiro in the second half of the year 1942. Although the Conference had originally been planned for the beginning of June, the Bureau suggested a postponement to September 7-18, which has been accepted, according to information received from the President of the Organizing Committee and ratified by the Government of Brazil. Although the Conference is free to choose its own program, the following subjects for discussion were recommended by the IV Pan American Conference of National Directors of Health, and this has been brought to the attention of the Organizing Committee at Rio de Janeiro, presided over by Dr. Barros Barreto:

- Chest Survey: Tuberculosis and Pneumoconiosis
- Influenza or Grippe
- Undulant fever
- Typhus in America
- Chagas' Disease, Pinto, and other American Parasitoses
- Infantile Diarrheas (including Salmonellosis)
- Degenerative diseases (including cardiovascular diseases and cancer)
- Public Health Standards: Project of a model Pan American Sanitary Code

At the meeting held by public health officials in Atlantic City and Washington it was also suggested that the subject Continental Defense and Public Health be added to the agenda, and this has been referred to the Brazilian authorities. The Bureau is lending its best cooperation in furthering the work of this Conference and is in constant communication with the Brazilian authorities. While the Bureau has in general been discouraging international meetings at the present time, there is no question that this meeting is of sufficient importance from various standpoints to warrant its being held. The war has intensified so many health problems that it is almost essential to obtain an exchange of views among the sanitary authorities of all the countries of the hemisphere. Since Canada sent a representative to the IV Pan American Conference of National Directors of Health, it has been suggested to the Brazilian authorities that an invitation to the Canadian government would be very timely on this occasion. The Conference is almost the only body functioning in the international field of public health at the present time, which makes it especially important that the meeting not be abandoned.
ANNUAL REPORT OF THE DIRECTOR

ATLANTIC CITY CONFERENCE

The meeting of the American Public Health Association in Atlantic City and Washington in October, 1941, offered an excellent opportunity for the representatives of the National Departments of Health of the Americas to get together for the purpose of considering the effect upon their countries of the present world war and also to discuss plans for the XIth Conference. There were more than 35 Latin American delegates, including Ministers, Directors of Health, and other distinguished sanitarians. They made three recommendations for action by the Pan American Sanitary Bureau, the text of which is quoted below, and gave assurances that they would try to obtain the active cooperation and support of their various governments in putting these plans into effect. A number of these matters will undoubtedly come up for discussion at the Rio Conference.

(1) Preparation of public opinion so that the various Governments will intensify their efforts in defense of the health of their peoples; with emphasis on the fact that the defense of human capital is the foundation of all other defense, and that the greatness and prosperity of a nation rests on a strong and healthy people.

(2) Creation by the Pan American Sanitary Bureau, because of the emergencies of war and in order to facilitate Government action in the above direction, of a special temporary section, composed of delegates from the different countries and members of the Bureau. This section will study public health measures for joint application in special cases in any country which may have a repercussion on other countries.

The immediate work of this section may include the following activities:

(a) Intensification of the exchange of medical and auxiliary-medical personnel among the Latin American countries and between Latin America and North America.

(b) The making of a survey or census of the production and necessities of the various American countries, in order to attempt to satisfy their needs and to facilitate mutual exchange, the different characteristics of their production to be taken advantage of.

(c) The securing of priority for the exportation of articles needed for the defense of health.

(d) The application of a social criterion, that is, one free from any spirit of profit where costs are concerned, to these articles when they are to be used by official and semi-official organizations.

(e) Encouragement of the adoption of such quarantine measures as will tend to bring the sanitary defense of each country into harmony with the general defense of the continent.

(f) The requesting of the Pan American Sanitary Bureau to seek authorization from its member countries for the inclusion in the agenda of the next Pan American Sanitary Conference of the subject Continental Defense and Public Health, so that it may be considered by the various countries, exclusively from the technical-medical point of view.

(g) Finally, the emphasizing to the various Governments of the importance and urgency of the next Pan American Sanitary Conference, to be held in Rio de Janeiro, so that all of them will be represented with a maximum of preparation and of enthusiasm.
(3) Invitation of the Dominion of Canada to be represented the same as the other American Nations, in the section referred to in the second paragraph of these resolutions, and to adhere to the preceding agreements, if it considers this expedient.

**MEETING OF MINISTERS OF FOREIGN AFFAIRS**

In January of 1942 the Third Meeting of Ministers of Foreign Affairs was held in Rio de Janeiro, and the following resolution with regard to the improvement of health and sanitary conditions was adopted:

The Third Meeting of the Ministers of Foreign Affairs of the American Republics Resolves: 1. To recommend that the Governments of the American Republics take individually, or by complementary agreements between two or more of them, appropriate steps to deal with problems of public health and sanitation, by providing, in accordance with ability, raw materials, services and funds. 2. To recommend that to these ends there be utilized the technical aid and advice of the national health service of each country in cooperation with the Pan American Sanitary Bureau.

**OTHER MEETINGS**

There is constant demand for representatives of the Pan American Sanitary Bureau to attend conferences on various subjects. Only a limited number of such invitations can be accepted, for financial as well as other reasons. The meetings described below may be considered as typical.

In September of 1941 the Secretary attended the meeting of the American Hospital Association in Atlantic City, and in October the Director, Assistant Director and Secretary represented the Bureau at the meeting of the American Public Health Association, in the same city.

A number of talks on the work of the Bureau and on medical and health conditions in Latin America have been given by the Secretary of the Bureau, who has also spoken over the radio on several occasions.

Dr. John R. Murdock, Traveling Representative, was one of the Official Delegates of the United States at the Assembly of the International College of Surgeons in Mexico City, August 10–14.

At the invitation of the Surgeon General of the U. S. Public Health Service, the Director attended a conference of the State Health Officers of the western States to consider the general plague situation with members of the Public Health Service. The meeting took place in Salt Lake City on August 28 and 29, 1941. In recognition of the growing danger of the introduction of disease from other regions, a Conference of Colonial Health Officers of the British West Indies has been summoned by the British Colonial Office and the United States Commissioner, probably for next August. The Director of the Pan American Sanitary Bureau has been invited to attend and plans to do so if at all possible.
One of the most significant contributions to public health progress has been the recognition of its importance by increasing appropriations devoted to public health work. This has meant that rural areas could be served, as well as more remote regions which previously had had to be neglected. Greater emphasis has been placed on the need for full-time health work and for specialized training. In this respect the public health scholarships awarded by the Bureau have made possible the specialized training of personnel, taking into consideration both the needs of the Departments of Health which they will be serving, and the personal inclinations and abilities of the students themselves. It may be pointed out again that the assurance of permanence of office and adequate remuneration to these people will go a long way toward improving public health conditions on a firm basis. Increasing consideration is also being given to the social phases of medicine.

Great strides have been made in improving the hospital and sanatorial facilities of the various countries, with special attention to leprosy and tuberculosis. There was created in Argentina, by a decree of August, 1941, a National Tuberculosis Commission under the National Department of Health. In October the Dominican Republic completed its first tuberculosis sanatorium. The disease continues to receive careful consideration elsewhere, and the trip made by Dr. Esmond R. Long under the auspices of the Pan American Sanitary Bureau in the early part of this fiscal year, to a number of countries in the Caribbean area, helped in arousing new interest. Efforts have been made in Colombia as well as in other Republics to increase the number of beds, and the National Tuberculosis Committee of Mexico has announced an ambitious program which will include the building of several hospitals, a sanatorium and a preventorium. Attempts are also being made in various countries to organize annual campaigns for selling tuberculosis seals on the same plan as that used in the United States. The Pan American Sanitary Bureau is now revising and expects to publish in the near future a Spanish translation of the "Diagnostic Standards and Classification of Tuberculosis" issued by the National Tuberculosis Association of the United States.

Yellow fever seems to be under better control, and the plague situation has improved in Argentina, Bolivia, Ecuador and Venezuela, the disease also being more or less limited, in Brazil, to the State of Pernambuco. There has been a decrease in the number of cases of smallpox. In Argentina a new section was created in the Institute of Bacteriology, in 1940, for the study of salmonellosis and dysenteries.

Brazil's campaign against malaria is being carried on with some success, and Peru has created a National Malaria and Rural Sanitation Service. In this same country also, the opening of new roads has
brought an increased demand for all kinds of sanitary improvements and more hospitals. In the latter part of 1941 concrete inverts and side slabs used in drainage, manufactured in the Canal Zone, were sent to Ciudad Trujillo in the Dominican Republic. A trip made to this republic by two representatives of the Bureau in the spring of 1942 revealed that in San Cristobal great improvement had been made in reducing malaria. In August the problem of mosquito control was studied in the area around the Mexico City airport, resulting in a decrease in mosquito production there.

In Argentina, concern over echinococcus disease has led to the creation of a division of Prevention of Animal Hydatidosis in the Livestock Division of the Ministry of Agriculture, as well as a section for the prevention of human hydatidosis in the National Department of Health. Already plans for a control campaign have been worked out, and a national conference is to be held. In September of 1941 the members of the committee of the Center for Study and Prophylaxis of Hydatidosis in Uruguay met with the group from Buenos Aires to discuss the founding of a National Society of Hydatidosis, and an accord has been arranged between Uruguay and Brazil on the prevention of this condition.

In the last part of 1941 the National Department of Health of Argentina was given authorization for the creation of a section on cardiovascular diseases. A Municipal Cardiology Institute has already been founded in São Paulo, Brazil, and in Rio de Janeiro plans have been made for the creation of a service for the treatment of these diseases. Paraguay has had a special clinic since the end of 1941, in the Department of Public Assistance.

Nutrition services have been improved to a great extent, including education of the people with regard to the importance of an adequate diet. At the request of Dr. A. V. Sutter, Director General of Health of El Salvador, a study was made and a report submitted on the production, processing, distribution and sale of fresh fluid milk in San Salvador.

Water supply and sewage systems are being modernized and improved, with the aid of traveling representatives and engineers of the Bureau, whose services have been in increasing demand. They have given help to Peru, Chile, Bolivia and Ecuador in the improvement of their water supplies, and have made recommendations for new legislation. Likewise in Costa Rica they aided Dr. Mario Lujan Fernandez, Minister of Health, and his assistants, in planning improvements for the water supply of San José and its surrounding plateau region.

Even industrial hygiene, one of the newer fields, is beginning to receive more and more attention. In February of 1941 the Division of Industrial Hygiene of the United States Public Health Service was named coordinating body for all activities on behalf of the worker em-
ployed in national defense work. In Mexico, an Industrial Hygiene Code was prepared in cooperation with the Sanitary Engineering Department of the Federal Health Service but was considered inadequate and is being revised. Also, a monthly magazine devoted to this field, "Higiene y Seguridad", is being published. Mexican health authorities now compel factories and mines to register for inspection and to provide first aid kits hung on the walls.

SCHOLARSHIPS AND FELLOWSHIPS

As may be seen from previous reports, the Pan American Sanitary Bureau has for some time sponsored a program of scholarships, fellowships and internships by means of which students are exchanged among the various American Republics, as one of the most useful ways of promoting better understanding and friendship among these countries. Certain of the Latin American Republics, notably Chile, Venezuela and Argentina, now are offering similar scholarships to students of other republics. Word has also been received that Cuba, Mexico and Panama are planning to offer scholarships. By this interchange, professional men will be able to familiarize themselves with the methods, achievements, language, and even with the problems of their colleagues in other countries.

The fellowships sponsored by the Bureau include those granted in cooperation with the United States Public Health Service and the Department of State of the United States, the Coordinator of Inter-American Affairs, and various institutions. The most important of this last group are those made available through the Commonwealth Fund, the holders of which are now in process of selection.

The entire group of fellowships includes internships and even residencies in hospitals of the United States Public Health Service and others, and training especially for postgraduates in public health, general medicine and surgery. In addition to the above, the special fields of gastro-enterology, nutritional diseases, diseases of the blood, cardiology, pediatrics, biochemistry, physiology, cancer, epidemiology, bacteriology, obstetrics, dermatology, neurology, ophthalmology, otorhinolaryngology, parasitology, dentistry, nursing, and sanitary engineering were represented this year. The fellowships were distributed as follows: Argentina (9), Bolivia (3), Brazil (10), Chile (3), Colombia (6), Costa Rica (2), Cuba (3), Dominican Republic (2), Ecuador (3), El Salvador (1), Guatemala (4), Haiti (1), Honduras (1), Mexico (4), Nicaragua (1), Paraguay (4), Peru (1), Uruguay (1), and Venezuela (3), a total of 62 (14 Public Health and 48 Coordinator). From June 1939 to June 1942, 136 fellowships were given, distributed as follows: Argentina (12), Bolivia (3), Brazil (16), Chile (18), Colombia (8), Costa Rica (6), Cuba (7), Dominican Republic (5), Ecuador (6), El Salvador (3), Guatemala (6), Haiti (9), Honduras (3), Mexico (8), Nicaragua (3),
Panama (2), Paraguay (6), Peru (6), Uruguay (3), Venezuela (6). On occasion it has also been possible to arrange for the training of other personnel in the United States, invariably at the request of the national authorities concerned.

The Commonwealth Fellowships will probably number 15. They allow one year’s study in the United States in the field of public health or post-graduate medicine, and are open to properly qualified citizens of the other American republics. Physicians, sanitary officers, technicians, public health nurses, etc., are eligible for these fellowships, and their selection will be made in cooperation with medical and health authorities of their respective countries. Whenever possible they will be interviewed by traveling representatives of the Pan American Sanitary Bureau. Candidates must have a good knowledge of the English language, as well as fulfilling certain other qualifications. The provisions of the fellowships include travel costs, living allowances while the holder is in the United States, and tuition.

It is interesting to record the fact that from May 1, 1940 to June 30, 1942, 514 members of the medical and allied professions of Latin America visited the United States and got in touch with the Pan American Sanitary Bureau.

COOPERATION WITH THE COORDINATOR OF INTER-AMERICAN AFFAIRS

The Pan American Sanitary Bureau and the Office of the Coordinator of Inter-American Affairs have continued during the past year the cooperation previously established on various matters concerned with improving public health in the Americas. The Bureau has offered its services to the Office of the Coordinator for help in carrying out programs being planned and others already in effect, and the Coordinator’s Office, in turn, has been able to give the Bureau valuable financial assistance on a number of projects for health protection and especially in the scholarship program.

As a temporary activity the Coordinator’s Office has set up an Office of Health and Sanitation. Its work, it is understood, will be of a purely emergency nature, brought about by the unusual needs of the defense programs, and while its accomplishments will have a permanent value they are not intended to infringe in any way upon the work of the Pan American Sanitary Bureau. Already several of its plans, some rather large in scope, have been put into effect, and others are being considered.

COOPERATION WITH OTHER INSTITUTIONS

The Bureau has undertaken other activities for the purpose of assisting agencies other than the public health services in the Latin American Republics in carrying out work along similar lines, since it has at its disposal information and contacts which can be of great assistance to
these agencies. The Bureau was able to do this without cost to itself and has facilities which enable it to act as a liaison between these agencies. One service of the greatest usefulness at the present time consists in assisting in the procuring of priorities and in the shipment of drugs, hospital supplies and equipment, and construction material for hospitals and water supply systems. Help has also been furnished in the securing of biologic standards, strains of bacteria, etc. by national institutes of hygiene or bacteriological institutes. Through its Library the Bureau has supplied information, received from national and local health authorities, to military and naval authorities in national defense work.

PHARMACOPEIA

The Spanish translation of the first series of articles on “The Pharmacopeia and the Physician” mentioned in last year's report has now been completed, published in book form, and distributed in the various Republics. A second series of articles is now in process of preparation, and will be issued and distributed as was the first.

Continuing the policy initiated with the previous edition, the Bureau is now cooperating in the translation of the XII Revision of the U. S. Pharmacopoeia.

COLOMBIAN SANATORIUM

As mentioned in the previous Annual Report, at the invitation of the Colombian government Dr. Esmond R. Long of the Phipps Institute in Philadelphia was appointed as Traveling Representative of the Pan American Sanitary Bureau for the purpose of advising the Trustees of an Endowment Fund, bequeathed by a citizen of Colombia for combating tuberculosis, on construction of a tuberculosis sanatorium. Dr. Long went to Colombia in June, and after conferences with authorities there a site for the sanatorium was chosen near Bogotá and a local firm of architects was engaged to draw up plans. Advantage was also taken of Dr. Long's trip to have him deliver some lectures on public health problems to groups in Panama, Costa Rica and Venezuela interested especially in tuberculosis, in accordance with an agreement with the Division of Cultural Relations of the Department of State. Dr. Long returned to the United States in September, but continued to lend his assistance to the sanatorium project. A committee of men eminent in tuberculosis work was formed for the purpose of reviewing the plans for the construction of the sanatorium, and after two meetings of this committee the plans were approved and transmitted to Colombia. Authorities there expressed their deep appreciation of the aid and assistance rendered to them, and stated that the Board of Directors of the Sanatorium, which is to be called the San Carlos Sanatorium, was
interested in beginning construction as soon as possible. The Pan American Sanitary Bureau has been trying to help in obtaining priorities for construction materials.

HOSPITALS

It may be seen from previous reports that the Bureau has, on request, helped various countries in planning and equipping new hospitals and a national institute of health, and in the spring of 1942 Dr. F. C. Smith of the U. S. Public Health Service visited Quito and La. Paz in connection with equipment for the Social Security hospitals under construction in those cities. In view of the desirability of expanding this program the Bureau has encouraged the organization of the Inter-American Hospital Association.

At the meeting of the American Hospital Association in Atlantic City in September of 1941, 22 delegates representing hospitals in Argentina, Brazil, Canada, Colombia, the Dominican Republic, Ecuador, Haiti, Mexico, Paraguay, Puerto Rico and the United States, met to discuss plans for this organization, long anticipated as a means of facilitating cooperation among hospitals and institutions in the Western Hemisphere. Hospital authorities from other countries not represented sent word of their support of the plan. The name Inter-American Hospital Association was chosen for this organization and a preliminary constitution was prepared and approved, following which temporary officers were elected. Suggestions for early activities included (a) the addressing of national organizations, directly or indirectly interested in hospitals, in order to secure their cooperation and make them understand the resources which are already available in the United States and other countries; (b) to start a membership enrollment, especially through local agencies, so as to place the association on a sound economic basis for the future; and (c) organization of an Inter-American Institute for hospital administrators in some appropriate place in Latin America. The office of the Coordinator has allotted a small fund to start the work of the organization and our Bureau is cooperating by furnishing office space and such advice as may be necessary. It is expected that Mr. Félix Lamela, Secretary of the Association, will come temporarily to Washington to take preliminary steps and to start what activities might be properly initiated at that time.

MENINGITIS IN CHILE

An epidemic of cerebrospinal meningitis broke out in May, 1941, in Chile, the first of any significance in its history. Previous cases of the disease were reported in 1910, according to some, and in 1920 according to others. However, it was not until 1923 that proof of its identity was established bacteriologically. Complete records of cases have been
kept only since 1932, and only occasional cases have been reported, although in 1938 there was a small epidemic on the Island of Quiriquina, extending as far as Talcahuano, which resulted in 10 C 3 D. The 1941 epidemic began in Valparaíso, and later broke out in Santiago. Although complete data are not available, it was reported that there were 686 C 138 D in 1941, giving a case mortality of about 20%. 1012 C 222 D were reported in Chile in the first half of 1942.

In November, 1941, upon receipt of requests from the national health authorities, published material on meningitis and its control, including microfilms, was sent immediately. The treatment recommended was the use of the sulfanilamide drugs, especially sulfanilamide itself and sulfapyridine, which seem equally effective. Excellent results had been obtained from the use of this latter drug by three doctors in Nova Scotia, and a description of their treatment was included in the material sent to Chile.

LANGUAGES

Again and again the Bureau has been approached with regard to the translation of books. The Bureau is naturally interested in making the scientific production of different republics known to each other. It is, however, recognized that translation is mostly a makeshift and that the solution to a better understanding among the Americas is a wider knowledge of the so-called Pan American languages. This is being gradually accomplished, but an acceleration of it would permit more first-hand consultation of material, make easier and more beneficial the exchange of professors and students, and in general aid in strengthening the understanding among these peoples which is the foundation of any lasting friendship. Public health authorities and medical schools could contribute toward this end by requiring, or at least encouraging, a wider knowledge of these languages.

VENEREAL DISEASE CONTROL

Because of its importance from the standpoint of public health, venereal disease has been the subject of resolutions adopted at a number of Pan American Sanitary Conferences, including the sixth, the eighth, the ninth and the tenth, and also it was discussed at the last two Conferences of National Directors of Health. This reflects the attention granted to the subject in practically all of the American Republics. Recently this has been still more emphasized due to the need for protecting the armed forces and for strengthening the national defense. Public health authorities are becoming increasingly aware of their responsibilities in the control of these diseases and have been quick to take advantage of the new weapons available to fight them. An important step in this direction was the reciprocal notification among the
various countries, through the Pan American Sanitary Bureau, of sources of infection.

In previous annual reports of the Bureau there has been reviewed the progress made both in legislation and in actual control in the various countries. Among recent developments the following may be mentioned. In Peru decrees were issued in 1941 requiring compulsory treatment of contagious cases, and a National Venereal Disease Control Service, dependent from the National Department of Health, has been created. Since 1936 Peru has celebrated an Anti-Venereal Disease Day on the first Sunday in September, and in 1941 this day was decided upon as the date for the opening of the First Peruvian Anti-Venereal Week (Jornadas). A part of the proceedings at that time was a statement of opposition to licensed prostitution. Twenty scientific papers were presented at the meeting. In Bolivia a department of venereal disease control has been established as a result of the Chaco war, treatment being compulsory. Colombia is reported to be making plans for a more intensified campaign. Dr. Murdock and sanitary engineer Dashiell of the Bureau made a special study of the treponematosis, yaws, in Haiti, for the purpose of devising a plan for its control and elimination there.

It was suggested that an excellent opportunity to furnish an object lesson and conduct a cooperative practical campaign against venereal disease would be along the United States-Mexican border, after the approval and full cooperation of the authorities of both republics were procured. This was promptly done and a plan agreed upon by all the parties concerned, including the National Departments of Health of both Mexico and the United States. The necessary funds being obtained, the Surgeon General of the United States Public Health Service assigned Dr. Joseph S. Spoto early in February, 1942, to serve as Traveling Representative of the Pan American Sanitary Bureau. Dr. Spoto went at once to Texas, where offices were established in El Paso. Shortly after his arrival he conferred in Mexico City with the Mexican Federal health officials regarding the various steps to be taken. It was agreed that the plans should include provision for (1) the training of personnel, (2) treatment and prophylactic supplies, and (3) an educational campaign, comprising the distribution of literature and posters and the presentation of school and adult lectures. The necessary personnel would be furnished both from the United States Public Health Service and the National Department of Health of Mexico. A number of young Mexican physicians would be selected for training, to be assigned to posts in the border communities upon completion of their training period.

Although the campaign has not yet reached its full development, some desirable results are already manifest. Among these should be mentioned the compulsory periodic examination of food handlers and
prostitutes and also the distribution of posters and pamphlets in an effort to educate the people and enlist their cooperation in the fight against these diseases.

By the first of June the physicians trained under this program were established in their stations and had begun work. The government officials in the border communities were very cooperative, those of Ciudad Juárez being especially so. On June 10th an agreement of cooperation was reached between authorities of that city and representatives of the Federal Health Department of Mexico and of the Pan American Sanitary Bureau, providing for a venereal disease ward and its personnel, for increased efforts at repression of prostitution, and for a new clinic for the treatment of venereal diseases. Later in the month the red light district of Ciudad Juárez was closed.

The Bureau was happy to participate in this venture both because of the benefit to both countries concerned and because of its possible future utilization for the training of physicians and experts from other countries. The program is another example of Pan American collaboration in an effort to promote the welfare of the people of both countries. It is felt that not only the government authorities but also the people of Mexico as a whole are appreciative of the results attained thus far, and that the United States will profit no less from these cooperative efforts.

**TYPHUS FEVER STUDY**

There has been of late, if not an increase, at least a better recognition of the prevalence of typhus fever, especially in countries where its presence was unsuspected or denied before. The investigation of rickettsia-caused diseases has made definite progress in a number of countries, especially in Latin America, bringing about a better knowledge of vectors and reservoirs in the different regions. Diagnostic procedure techniques have been greatly improved, and studies on preventive vaccines, particularly in the United States and Europe, have shown valuable results.

It is realized that, as on previous occasions, typhus fever may prove to be one of the most important post-war problems, because of malnutrition, crowding and poverty. This will assume special importance for the Americas if any important currents of immigration develop. For this reason the Bureau was glad to cooperate with the United States Public Health Service in investigations on the value of the so-called Cox vaccine against typhus. These studies were initiated in August and September by Drs. R. E. Dyer and N. H. Topping of the National Institute of Health of the United States, with the assistance of one of the traveling representatives of the Bureau, Dr. A. Donovan, and include about 2500 vaccinations which these men made in Bolivia.
at that time. Inspection visits were later made on 5 occasions, and this work will be continued for another year.

The Rio Conference could very well consider the appointment of a permanent committee on typhus fever on a basis similar to that of the other committees.

TOUR OF CHILEAN PHYSICIANS

In December, 1941, a group of about 20 Chilean physicians arrived in the United States for a three or four months' visit under the auspices of the Office of the Coordinator of Inter-American Affairs and the Pan American Sanitary Bureau, with the purpose of studying and observing the methods, programs, organization, scientific standards and administration of medical institutions in the United States. These men were chosen at a contest sponsored by the Caja de Seguro Obligatorio de Chile (Workers' Social Insurance), and came to the United States at their own expense. They were met in New York by the Assistant Director and Secretary of the Bureau and were brought back to Washington for a short stay to make final arrangements for their tour. At that time also they availed themselves of the opportunity to see the more important scientific and public buildings of the city.

Through the very generous cooperation of the Kellogg Foundation and its President, Dr. George B. Darling, fellowships for study at the University of Michigan were given to ten of the physicians who were particularly interested in tuberculosis and pediatrics. They arrived in Ann Arbor on December 8, and spent part of their time in Ann Arbor but also took short trips to Detroit, Battle Creek, Chicago, Cleveland, Cincinnati and Nashville.

The remaining members of the group were given letters of introduction to such institutions and individuals as might be of most assistance to them. The majority stayed in New York, where five of them were given fellowships for study in the New York Postgraduate Medical School, and one physician especially interested in rural hygiene visited Georgia, Tennessee and Virginia. This latter group of ten physicians visited medical schools, hospitals and institutions in Boston, New Haven, Philadelphia and Baltimore in the latter part of February and early in March.

Upon completion of their visit these twenty physicians expressed themselves as exceedingly appreciative of the cooperation and cordial welcome which they had met everywhere, and indicated that they had profited greatly by their visit. Some of the comments of the graduates seem of special interest and are here quoted.

Because of lack of information, our trip was made at a time when the climate was unfavorable to us and when we could not take a regular course in a North American University, since these had begun previously. The interchange of
information between the involved countries and universities would be the best solution of this inconvenience. In our special case, the period of necessary orientation was much too short. Given more time, the opportunity to practice the English language, the knowledge of the customs of the country, the acclimatization of the foreigners and the courses of study in the universities would have been easier and more beneficial. In reference to finances, we should say that due to the fact that we were strangers, we were obliged to incur excessive expenditures which sometimes were out of proportion and were the results of our inexperience entirely. We believe that the best practice would be to inform the person involved, as fully as possible, and hand over to him a limited sum of money, according to which he would adjust his expenses. It is recommended that the minimum time for a trip of study should be three or four months, including not only the Mid-West, but a few other states of exceptional importance as well. Because we were experienced post-graduates, we have benefitted greatly from the trip. We have obtained a vast amount of data and information and we hope we have absorbed the real essence of the medical work in the United States. A comparison between the methods practiced in the U.S.A. and those of our organizations will be of inestimable worth to us.

The Bureau was very happy to lend its assistance in this enterprise, especially since the men themselves and the Chilean authorities had cooperated in bearing the chief part of the expenses.

NURSING

In view of the importance of the role played by nurses in the field of public health, the Bureau has tried to lend its assistance in this movement. Its intervention has consisted in bringing a limited number of nurses to the United States for postgraduate training in public health, procuring well qualified Spanish-speaking nurses to go to the various countries to help organize nursing schools and public health services, and furnishing advice and literature on request. Assistance and encouragement are now being given, also, to established nursing services and societies in defense activities.

In developing a project for the sending of public health nurses to various republics, upon the invitation of the proper authorities, for the purpose of stimulating and assisting in the organization of public health nursing administrative practices and the improvement of curricula in existing nursing schools, two public health nurses have already been detailed to Ecuador and the Bureau is at present in the process of selecting and assigning nurses to other countries from which requests have been received. It is hoped that the development of this project will result in a coordination and integration of all nursing activities in the various republics into an over-all program with a definite objective in relation to both medical and public health services. As mentioned above, the most recent undertaking of this nature by the Pan American Sanitary Bureau is the organization of a nursing school and health center in Quito, Ecuador. This project has been in existence for
several months. In that city Miss Anne Caccioppo, assisted by Miss Bertha M. Marsch, has been active in the reorganization of the School of Nursing of the Central University during the past year, although formal classes have not yet begun.

In addition to the work of the School of Nursing, the nurses in the Quito unit have been active in related fields. A three months postgraduate course in nursing was given at the Hospital Eugenio Espejo to those nurses and nursing-sisters capable of teaching and assisting in the modern development of the nursing program, a twelve-week course in personal hygiene and maternal and child health was given for staff members and inmates of the home for delinquent girls, and twelve session lectures in supervision were presented for staff members of nursery schools. Programs at present in progress, or planned for the near future, are a two months summer course for school teachers in an effort to promote health and hygiene among school children, a course in school health supervision in the American College, a photography and description project on the “Aspects of Public Health Nursing in Ecuador”, studies in the administration and organization of the Hospital Eugenio Espejo for the purpose of developing teaching facilities for the School of Nursing, and studies for the development of a health center and public health services in connection with public health nursing field work.

The above outline of this project is typical of the nursing program as planned for the other countries. In this way a coordinated picture of nursing as a profession will be presented and all American agencies concerned with nursing, such as the Rockefeller Foundation, The Institute of Inter-American Affairs, the Children's Bureau and the Pan American Sanitary Bureau, will work cooperatively.

In other countries the following developments are of interest. With the establishment of a Visiting Nurse and Social Service Department, Costa Rica has taken the first step in the realization of a plan for the creation of a group of thoroughly trained public health nurses. At present Costa Rica has 140 nurses, working in obstetrics, as social workers, and as school nurses. The Public Health Nursing Service of El Salvador is being used more and more to give assistance in case-finding both in tuberculosis and in the campaign against venereal diseases. Cases, when found, are given standard treatment. An appropriation for the establishment of a public health institute and of a medical school for the specialized training of public health personnel is included in the 1942 budget of Bolivia. In 1940 Uruguay continued the specialized training of personnel by offering its second series of courses for medical hygienists, the second for visiting nurses, and the first for health officials. Of these people, 18 medical officers and 70 nurses were chosen, by competitive examination, for the capital and
field health services. Venezuela in 1940 established a National School of Nursing, able to take care of 150 students, and a School of Social Service.

GENERAL FIELD ACTIVITIES

Field activities in 1941–42 were again under the direction of Senior Traveling Representative John D. Long. The field force included Dr. Long, Dr. John R. Murdock, Dr. Anthony Donovan, Dr. Henry Hanson, Dr. Felix R. Brunot, Dr. Vernon Foster, Dr. Joseph S. Spoto, Mr. Walter N. Dashiell, Mr. Edward D. Hopkins, and Mr. William Boaz, and in addition two temporary traveling representatives, Drs. Juan Carlos Alonso Mujica of Buenos Aires, Argentina, and Jorge Castillo of Antofagasta, Chile. All countries represented in the Bureau, with the exception of Cuba and Paraguay, were visited during the year, and every effort was made to comply with all requests for assistance in emergency situations.

During the year Dr. Long visited Chile, Peru, Brazil, Argentina, Uruguay, Bolivia and Ecuador, traveling 47,123 miles by plane and 10,690 miles by other means of transportation. In July he visited Santiago, Chile, by request, in connection with an outbreak of typhoid fever and meningitis. As in the past, he also devoted considerable time to inspecting anti-plague operations in the various countries, spending August in Peru, September in Brazil, Argentina and Chile, October in Ecuador (where he also assisted in the development of public health nursing activities), and a part of November again in Peru, at which time he also visited the Valleys of Lurín and Chimbote in connection with the inauguration of anti-malarial measures in cooperation with the Rockefeller Foundation and the National Health Service. One visit was made to Uruguay, where sanitary conditions are good and the death rate very low. In December Dr. Long came to Washington, D. C. for a conference with the Director of the Bureau and the Coordinator of Inter-American Affairs. During January and February visits were made to Chile, Argentina, Brazil, Peru, and Ecuador, with regard to sanitary and other matters. Dr. Long went to Quito, Ecuador, in March in connection with a Health Center there, but shortly afterwards resumed his anti-plague work, going to Chile, Argentina, Brazil and Peru. In Peru and Ecuador Dr. Long also inspected health centers, water supplies, nursing activities, and considered other sanitary matters.

Traveling Representative John R. Murdock, with headquarters in Panama City, visited Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Haiti and the Dominican Republic during the past year. In addition, he attended the British Colonies Conference in August with Dr. Cumming and made a trip to Washington, D. C. in December and January. The problem of sanitation along the route
of the Inter-American Highway has received considerable attention during this year, the question being discussed with the Directors of Health of the various countries through which the highway passes. These countries have been making special studies of conditions and most of them have already reported their findings. They are at present taking steps to improve sanitary conditions in all towns and areas through which the highway passes and are taking special precautions in regions where dangerous diseases are endemic, to prevent the spread of these diseases. From February 21st to March 6th Dr. Murdock, with Engineer Dashiell, accompanied Mr. E. W. James and representatives from the Office of the Coordinator of Inter-American Affairs on an inspection trip of the highway from Tapachula, Mexico to Panama City, R. P.

Considerable time was spent in Costa Rica assisting the Minister of Health, Dr. Mario Lujan Fernandez, and his assistants in planning improvements in the water supply of San José and the surrounding central plateau region, and in discussing other sanitation and public health problems.

Five weeks were spent in the Dominican Republic during March and April. Great improvement in the control of malaria was noted in San Cristobal. Surveys were made in other regions of the country, and reports were prepared and recommendations made on the incidence of malaria. Upon the request of Dr. Jules Thebaud, Director of Health of Haiti, Dr. Murdock and Engineer Dashiell went to that country in May for the purpose of making a survey of sanitary conditions and health problems. Important cities and towns in the northern, central and southern parts were inspected, and a special study of plan (yaws) was made.

Traveling Representative Anthony Donovan visited Peru, Ecuador, Bolivia, Chile, Argentina and Brazil during the fiscal year 1941-42. 45% of his time was spent in Peru, his headquarters, and 55% outside of that country. Dr. Donovan visited all the above countries except Bolivia in connection with antiplague work, in some cases making several visits. With the collaboration of Engineer E. D. Hopkins he prepared a description of the use of the "flame-throwers" in antiplague work. This was published in the Bulletin of the Pan American Sanitary Bureau in October, 1941. With vaccine prepared by the Rocky Mountain Laboratory of the U. S. Public Health Service, Hamilton, Montana, 221 men were vaccinated against yellow fever in Oroya, Peru. 207 prevaccination blood specimens had been taken and these were sent to Montana for protection tests. It is planned to obtain post-vaccination blood samples from as many of these men as possible. In August and September Dr. Donovan went to Bolivia with Drs. R. E. Dyer and N. H. Topping of the National Institute of Health of the United States. He
worked with them in performing about 2500 experimental vaccinations with the Cox anti-typhus vaccine in the vicinity of Achacachi. Later he visited the locale on five different occasions to inspect this work, which is to be continued for another year. The control work is being carried on by Bolivian personnel. Visits were made in May to the typhus laboratories of the Institute of Hygiene and the Butantan Institute in São Paulo, Brazil.

Dr. Donovan's work also included inspection of refugee concentrations in Ecuador, interviews with scholarship candidates, discussion of plans for a proposed hospital in La Paz, Bolivia (where a nursing school project was also discussed with the health authorities), a visit to Quito in connection with the formation of the nursing school and health center there, inspection of water treatment plants and milk pasteurization plants in Peru, Chile and Brazil, as well as miscellaneous reports and recommendations.

After a trip to the United States, Dr. Henry Hanson resumed his duties as Traveling Representative in September. During the year he visited Panama and the Canal Zone, Colombia, Ecuador, Venezuela, Trinidad, British Guiana, and Brazil. A great deal of his time, both in Venezuela and Brazil, was devoted to preliminary work on a Geography of Malaria in South America. Advantage was taken of the stay in Venezuela to discuss with the Chairman of the Pan American Committee on Malaria problems of common interest. Dr. Hanson was in Brazil from about the middle of January until June. In Rio de Janeiro he went over material at the National Malaria Service and with Dr. Abel Vargas, Director General of the Service, made a tour of nearby anti-malarial work. In Natal, Manaus and São Paulo, which were visited with the same purpose, he saw very effective malaria control work. Throughout Brazil, he was impressed with the emphasis placed on the laboratory side and the lack of practical application of control measures in the campaign against malaria.

In Ecuador Dr. Hanson made a visit in October to the Chillos valley, where subsoil drainage suggested by him last year was being put in and seemed to be working out quite well. This and adjoining valleys had been inspected by Dr. Hanson in February of 1941, at which time *pseudo punctipennis* larvae were found on seepage outcrops as high as 8300 ft. Since the Chillos valley is considered the richest and potentially the most productive in the vicinity of Quito, considerable attention had been devoted to the malaria problem there, with the purpose of developing a control campaign and if possible eliminating the disease entirely. However, lack of available adequately trained personnel at that time, and the nearness of the valleys to each other, seemed to indicate that complete eradication could probably not be
accomplished. In the high altitudes of Bolivia and Ecuador, the north of Argentina, the coastal valleys of north Chile, and all the valleys of Peru as far as the Department of Lambayeque, the Anopheles pseudo-punctipennis is a very important carrier. In Quito Dr. Hanson conferred on sanitary precautions necessary for the neutral zone between Ecuador and Peru.

In Colombia Dr. Hanson visited laboratories, the water purification plant and hospitals in Cali, and at the request of Dr. Robledo he went to Pasto, in Nariño Province, to investigate the Verruga incidence and the epidemiology of the disease.

Dr. Felix R. Brunot was able to remain with the Pan American Sanitary Bureau for only about two months of the fiscal year 1941-42, all his time being spent in Brazil in plague observations.

Dr. Vernon Foster took up duties with the Bureau on January 2, 1942, at which time he was transferred from the U. S. Public Health Service. Until the middle of April he was in Washington, D. C. and at the Quarantine Station at Rosebank, N. Y. He arrived in Lima, Peru on May 20 and spent the rest of that month observing the work of the Peruvian anti-plague service. Early in June he and Dr. Donovan were in Oroya, Peru, in connection with the field experimentation with yellow fever vaccine, after which they conducted an intensive anti-plague campaign in the Hacienda Ucope and in the town of Mocupe, Peru.

Dr. Joseph S. Spoto was likewise assigned to the Pan American Sanitary Bureau early in 1942 by the U. S. Public Health Service. His work was in connection with the anti-venereal disease campaign being carried on along the United States-Mexican border. A full description of this work is given in the discussion under "Venerable Disease Control."

Sanitary Engineer Walter N. Dashiell continued on duty in the Caribbean Unit during the past year. At the request of Dr. A. V. Sutter, Director General of Health of El Salvador, Mr. Dashiell, with Dr. Murdock, went to San Salvador late in July to furnish advice and assistance on milk sanitation. Following this, a trip was made to Costa Rica at the invitation of Dr. Lujan for the purpose of making an investigation and recommendations with regard to the public water supply system of San José and of other cities and to study existing legislation with reference to sanitary control of water supplies, preparing recommendations for a program of improvement of the water supplies throughout the country. As a result of these studies and of conferences with the Minister of Public Works and with the President, a bill was prepared authorizing changes in the water supply control of Costa Rica, providing especially for the establishment, in the Sanitary Engineering Division of the Health Service, of a new Water Supply Section to
be responsible for the design of all new water supply systems, including extensive modifications of existing systems. This bill became law in October with only one modification.

Through the efforts of Engineer Dashiell and Dr. Murdock, arrangements were made in Panama for the shipment of steel forms which had been ordered by the Dominican Government, and also chlorinating equipment was forwarded to San José for the benefit of the Costa Rican Health Service. Later, on more than one occasion, it was possible to assist Costa Rica in obtaining cylinders of chlorine when a shortage existed. As noted in the report on Dr. Murdock's activities, he and Engineer Dashiell accompanied a group on an inspection trip along the route of the Inter American Highway, in February. In April visits were made to Haiti and the Dominican Republic, in which latter country malaria control activities, begun the year before, were studied, and assistance was given to Sanitary Engineer Demetrio Gañan in setting up a plant in San Cristóbal for the manufacture of precast concrete inverters and side slabs for use in malaria drainage work. Malaria problems were also studied in several other communities. From the Dominican Republic Dr. Murdock and Engineer Dashiell returned to Haiti, where, at the request of Dr. Thebaud and of General Dunham of the Institute of Inter-American Affairs, surveys were made of sanitary conditions in a number of localities. Engineer Dashiell gave four lectures on environmental sanitation to a group of about 50 young students at the Haitian Medical School, and two field inspection trips were made with this group.

Peru, Chile, Bolivia, Ecuador, Panama and the United States were visited by Sanitary Engineer Edward D. Hopkins during the past year. His time was spent chiefly in studying existing or proposed public water supplies and giving assistance to the governmental agencies concerned. All possible aid was given to the Chief Sanitary Engineer of Peru in establishing a new sanitary engineering department in the Dirección General de Salubridad. At Tumbes and Arequipa in Peru and at Santa Rosa in Ecuador special water supplies for military installations, both surface and underground, were studied. Sketch drawings were made of the public water supplies of Santiago, Valparaíso and Viña del Mar, in Chile, of Yungay, Huánuco and Cajamarca in Peru, and of Guayaquil, Ecuador. Throughout Peru, operators using chlorine were shown how to use and interpret the orthotolidine test for a residual chlorine content in the water.

Malaria studies were made for Chimbote, Peru, Quito, Guayaquil, and the principal cities in the El Oro Province, Ecuador, and for Cochabamba, Bolivia, and help was given to the Rockefeller Foundation's malaria-control program in Luren, Peru. Studies were made and maps drawn of areas near Lima, Peru, and Santiago, Chile, where sewage was
being used for irrigation water, and a similar map drawn of Antofagasta, Chile, showing a fly breeding area, sewer discharges, bathing beaches and other sanitary features. At Piura, Peru, sewage treatment plant design and operations were studied and recommendations made. Help was given to a special committee from the Office of the Coordinator of Inter-American Affairs in a study to determine the sanitary needs for the province of El Oro, Ecuador. Mr. Hopkins made a complete revision and strengthening of the course in Sanitary Engineering at the National Engineering School in Lima, Peru, which has now been taken over by local sanitary engineers trained in the United States.

At the request of the Ministry of Labor, Health and Social Welfare, Sanitary Engineer H. E. Hargis was detailed to make a study of malaria conditions in Mizque, Bolivia, thus complementing similar work by Sanitary Engineer Hopkins in Cochabamba. In each case reports were submitted to the proper authorities at the conclusion of the investigations. While in Mizque Mr. Hargis was also invited to look over the proposed site for a public water supply.

Sanitary Engineer William Boaz remained in Mexico throughout the year, mostly on a part time basis, working on water supply problems, mosquito control, swimming pools, sewage disposal, industrial hygiene, fish culture, and the pasteurization of milk, and giving assistance and advice for the sanitation of markets, restaurants, barber shops and beauty parlors. He spent much time in Morelos, especially in the capital, Cuernavaca, where in addition to water supply and mosquito control problems he also worked out plans for a trout culture station, at the request of Gov. Col. Elpidio Perdomo. The state of Puebla was visited many times because of the pollution of the capital’s water supply. At the resort of Acapulco, in the state of Guerrero, two dams have been almost completed on a mountain stream above the city. The water will be chlorinated, and provision is being made for extending a line from the system to the marine base across the bay. However, the work will probably not be completed for another year.

A project was initiated in connection with the prisons of the country and plans were worked out for modernizing the Federal Penitentiary. This work was begun but restrictions, shortages and rising prices caused by the present world crisis have necessitated a postponement of the program until after the war. The sanitary engineering construction program planned toward the end of the last administration is being carried on. Since recently it has been extremely difficult, and even impossible, to get sanitary equipment from the United States, Mexico has begun to manufacture certain enameled cast iron fixtures and metal accessories herself. One plant in Mexico City is working twenty-four hours a day to try to comply with the demand for its product.

Mr. Boaz was instrumental in bringing together the U. S. Public
Health Service, the U. S. Food Division, the Texas State Department of Health, and the Mexican Federal and State Health Services to work out a plan for safeguarding the health of both Mexican and American consumers of oysters from the Gulf of Mexico. Assistance was also given in stimulating the development of fish culture stations, and in designing several small public markets to be built in Mexico City. After conferences with the leaders of the tourist interests and with Dr. Manero, a clean-up program in border towns was begun, to make these places cleaner and more attractive for tourists.

Studies were made of some deposits of aluminum-containing ores from which alum could be processed, since aluminum sulphate is necessary as a coagulant in water treatment and it is difficult at present to import sufficient quantities. One of the deposits is now being worked, although it cannot produce enough to supply the demand. Mr. Boaz was able to be of some assistance at various times in securing priorities, export licenses, etc. for importers of pipe, valves, and sanitary equipment. At the time the Bureau ended its sanitary engineering program in Mexico Mr. Boaz was working on the preparation of a display on potable water supply and its contamination, for a permanent exposition which it is planned to develop into a health museum.

INTERNATIONAL EPIDEMIOLOGY

The most serious epidemic reported during the past year was the outbreak of epidemic cerebrospinal meningitis in Chile, which is discussed elsewhere in this Report.

Cholera.—The Western Hemisphere has been free from cholera for many years.

Plague.—The fluctuations observed in the incidence of plague in the Americas during the last few years make it very difficult to determine the latest tendency of the disease with any degree of accuracy. However, in general the situation in 1941 showed improvement over that in 1940. It can also be said that plague is now less prevalent in the coastal areas of America and has even been completely eradicated from certain regions, and that if there is no relaxation of the present precautions there should be no more international transmission of the disease. Again this year, human cases have been reported in Argentina, Bolivia, Brazil, Ecuador, and Peru.

In the following summaries, C is used to indicate cases and D deaths. Figures for plague in Argentina (56 C 28 D) are much lower for 1941 than for 1940, when there was an epidemic, with a high case mortality. Of these, 52 C 27 D were in the Province of Córdoba, the others in Mendoza and Santiago del Estero. For the first 6 months of 1942, 22 C 9 D were reported, all in the Province of Córdoba.

In Bolivia, the Chief of the National Anti-Plague Service reported
70 C 42 D in 1939, 49 C 29 D in 1940. No cases have been officially reported for 1941, although the public health authorities admit that the disease is present in the interior.

Brazil showed an increase in the number of cases, reporting 97 C 34 D in 1940 and 157 C 61 D in 1941. Most of the cases arise from rural foci in the northeastern part of the country, 60% of those for 1941 corresponding to the State of Pernambuco. Preliminary figures for the first six months of 1942 are very encouraging, being 9 C 1 D.

1 C (imported) was reported in Santiago, Chile, in 1941, and Valparaíso had one fatal case. In 1940, 1 C 1 D (imported) were reported in Santiago. 4 C 2 D have been reported for the first 6 months of 1942.

Ecuador's anti-plague campaign has been very successful, and the decrease observed in 1940 (69 C 50 D) continued throughout 1941 (39 C 14 D). Moreover, the coastal regions remain free from the infection, and all the cases reported in 1941 occurred in the inter-Andean region of the Province of Chimborazo, where the disease has been identified as endemo-epidemic. Only one case has been reported for the first half of 1942.

Dr. Atilio Macchiavello, Director of the National Institute of Hygiene at Guayaquil, Ecuador, has said that "In the Andean zone the only province capable of maintaining plague infection is that of Chimborazo, and in that province, only the river basins. This may be because of a temperature and humidity favorable to flea activity, at least during the winter season... Among the factors influencing the occurrence of plague, may be mentioned those of agricultural-economic origin, such as type of farming (grain), dwelling construction (stone, clay, straw); those of climatic and topographical origin (rain in relation to agriculture, average humidity and temperature, altitude, etc.); those depending on social habits (promiscuity, dwelling, wakes, lack of change of clothing, drunkenness, etc.); and those of biologic origin (rats, fleas, guinea pigs, etc.)."

The following observations of Dr. Long, Chief Traveling Representative of the Pan American Sanitary Bureau, are of interest in this connection. "In cooperation with the Institute of Hygiene (of Ecuador), a satisfactory explanation has been worked out of the endemicity of bubonic plague in the inter-Andean regions. It would appear that the X. cheopis flea harbors the infection between active seasons below 3,000 to 3,500 meters (9,840 to 11,480 feet) of altitude, and the C. londinensis flea above those altitudes. Both fleas harbor and are found in the rat burrows. Infected fleas of both species have been taken from rat burrows in the vicinity where human cases had occurred."

In Peru, figures for 1941 (67 C 33 D) show improvement compared with the year before (182 C 70 D). The decrease in plague in Peru can be appreciated best when measured in terms of decades. Thus, the
average number of annual cases has decreased 85% from 1903-31 to 1932-40. During the first half of 1942, 82 C 34 D have been reported.

With regard to Peru Dr. Long says, "Despite several sharp outbreaks of bubonic plague in several localities in the early months of the year, said outbreaks having been produced by infected fleas transported by field laborers in their clothing and effects, from hacienda to hacienda, the National Antiplague Service has worked efficiently and has promptly controlled all outbreaks. . . . New techniques involving the combined use of the flame thrower, fumigation of rat burrows with cyanogas, generous use of poison, and rigid cleaning of premises with the burning of refuse and garbage encountered, have given excellent results. In some localities where the disease was formerly constantly present, cases have not occurred for over a year after the application of the above indicated measures. Also, after such a complete cleaning up of a city or town, it has been noted that the morbidity and mortality rates have declined in quite a noticeable manner."

In the United States 2 human cases of plague were reported in 1941, both in California, in the interior. In addition, plague infection was found in rodents or in their ectoparasites in California, Colorado, Idaho, Montana, New Mexico, North Dakota, Oregon, and Washington, North Dakota being the most eastern point thus far invaded. The spread of this rodent plague should be recognized as a potential menace.

No cases of plague have been reported in Venezuela since 1939-40, although the disease may have assumed an enzootic nature in an isolated region of the State of Aragua.

Typhus.—Although many of the American Republics, as noted last year, have remained free from typhus, and there have not been in recent years the terrible epidemics that have lately scourged many countries of Europe and colonies in Africa, still the situation in general does not seem to have improved. The greater apparent prevalence of the disease may be partly due, however, to better notification and registration of cases.

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The disease is endemic in several departments in Bolivia, 498 C and 100 D being reported in 1941, mostly in La Paz and Oruro Departments, and health authorities admit that the true number of cases and deaths is probably much higher than the statistics show. Experimental inoculations with a new vaccine were made in Bolivia in August and September of 1941. Besides, 316 C of relapsing fever were reported in 1941, with greatest incidence in La Paz.

Although the official reports for State capitals of Brazil show a total of 26 D in 1941, 15 of them in Belo Horizonte and 11 in São Paulo, the figures for the whole country are not known. Brazil, however, also
has the problem of spotted fever, especially in the States of São Paulo and Minas Gerais.

The situation in Chile has shown little change in the past two years, there being 435 C 71 D recorded in 1940 and 446 C 38 D in 1941 (figures of the Chilean Public Health Service), but according to Estadística Chilena, official statistical publication of Chile, there were 65 deaths from typhus in that country in 1941. Cases were reported in 1941 from the port cities of Valparaíso (77 C 4 D), Talcahuano (56 C 6 D) and Antofagasta (47 C 3 D). Up to the middle of June 1942, 470 C 31 D have been reported.

In Colombia the rickettsia problem has been investigated by various workers, among them Dr. Luis Patiño-Camargo who reported 3 C of rat-borne typhus in Bogotá in 1941 and whose discussion of the disease in that city will soon be published in the Bulletin, and Dr. Juan A. Montoya, who has made investigations in the interior of the country and on April 20, 1942, reported that exanthematic typhus, apparently of the classic or European type and also of the rat-borne type, had been found in 6 of the 14 Departments and that the disease is more prevalent than was heretofore believed. Spotted fever has also been identified in Colombia, that country being one of the three known foci of the disease in the Western Hemisphere.

In Cuba 1 C of the rat-borne type of human typhus has been officially reported in 1941, and 5 C of rickettsiasis, also rat-borne, have been listed in the weekly reports of the Cuban Public Health Service for 1942. In 1940 7 C of rickettsiasis were reported. Private physicians suspect the presence of the disease in some provinces where it has not yet been identified in autochthonous form.

In Ecuador typhus, possibly endemic, was reported in Quito and vicinity. The available figures for Ecuador for 1941 show 97 C and 15 D, mostly in this area.

In El Salvador, where the disease has only been recognized since 1937–38, 6 C were reported in 1941, all of them in the cities of San Salvador and Santa Ana.

Typhus seems to be increasing in Guatemala. In 1941 there were 1,898 C 444 D listed, most of them in the Department of Quiché, as compared with 1,495 C 329 D in 1940.

Jamaica reported an outbreak in 1942, with 21 C from March to May.

The situation in Mexico has not changed appreciably, there being 1,084 D in 1941 as compared with 923 in 1940 and 1,016 in 1939.

Reports from the Republic of Panama and the Canal Zone show 7 C (3 in Panama City and 4 in Colón) in 1941, and 2 C in the Canal Zone during the first three months of 1942.

Although the situation in Peru appeared to have improved last year, the figures for 1941 again indicate an increase, reports showing 1,936 C,
over half of them in the Departments of Puno and Cuzco. 923 C have been reported for January–June, 1942.

Early reports for the United States suggest a picture similar to that in Peru, since the decrease noted last year has not been continued. In fact, the figures increased from 1882 C 101 D to 2787 C 135 D. In 1941 there were 517 C of Rocky Mountain spotted fever, as compared to 457 C in 1940.

In Venezuela, where the presence of typhus was first confirmed in 1939, there were 72 C and 3 D reported in 1941, the disease being of the rat-borne type. These figures represent an increase over those for 1940 and 1939.

**Smallpox.**—A great many of the Republics were free from smallpox in 1941 and many others had lower figures to report. Altogether, the situation related to this disease in the Americas seems encouraging. Argentina had no cases in 1940 and very few, if any, in 1941.

Reports for 1941 show 211 C 30 D from smallpox in Bolivia, a figure slightly lower than that for 1940, which was 342 C 15 D, though both are admittedly incomplete.

National figures are not available for Brazil, but in 1941 the National Department of Health received reports of only 11 D, most of them alastrim, in the State capitals. 4 of these deaths, as well as 126 C, occurred in the city of Rio de Janeiro.

Canada in 1941 had only 26 C, 25 of which were in the Province of Saskatchewan. In 1940 there were 11 C, and 87 of the principal cities reported no cases of the disease.

One death from smallpox in Chile in 1941 is reported by Estadística Chilena, official statistical publication of Chile. None have been reported for 1942.

The Secretary of Labor, Public Health and Social Welfare of Colombia reported 1085 C and 28 D in 1941, a significant reduction when compared with the 1940 figures (1992 C 44 D). The figures of the National Statistical Service are usually higher (168 D in 1940). The available data for 1942 are not so promising.

Ecuador reported no cases of smallpox in 1941 or in the first half of 1942.

No smallpox cases were reported by the Director of Health of El Salvador either in 1940 or 1941.

In Guatemala the number of cases officially reported in 1941 (18 C 6 D) was higher than in 1940 (6 C 1 D). The health authorities there believe that the real number of cases is probably much higher.

The Department of Public Health of Honduras has recently reported that as a result of the smallpox vaccination campaign the disease has been almost completely brought under control. In 1941 only a few cases were reported: 2 in Trujillo and 4 in Tela, Atlantic port town.
The uninterrupted decline observed in Mexico in recent years in the incidence and mortality of smallpox was not continued in 1941, when 2336 D were reported, as compared with 1203 in 1940, but all the principal sea ports, except Tampico, which had one case, were free of the disease.

While no cases were reported from Nicaragua to the Bureau during 1941, this does not necessarily mean that there were none. 43 C and 15 D were reported in 1940.

Panama in 1941 reported 6 C, 3 of them of alastrim. Of the 3 smallpox cases, 2 were in Colón, the other (imported) in the Province of Darien.

The disease is widespread and apparently increasing in Peru, though this statistical increase may be due to better reporting. A total of 3143 C (1542 C in the Department of Cuzco alone) were reported in 1941 as compared with 379 C in 1940; on the basis of figures for the first 6 months (1147 C) the situation in 1942 may show some improvement.

The United States has finally reduced its incidence of smallpox to a considerable extent, from much higher figures to 2839 C 15 D in 1940 and 1390 C 13 D in 1941, perhaps the lowest on record.

Uruguay’s record for 1940 and 1941 has been perfect, following an intensive vaccination campaign in 1936-37.

Venezuela has had in recent years an alastrim epidemic which in 1941, however, showed a considerable decrease, the figure being 205 C 9 D as compared with 955 C 20 D in 1940, with about the same proportion for January-June 1942. A widespread vaccination campaign is being carried out, according to the health authorities. The case mortality has not been as low as should be expected in the case of alastrim, however. While most of the principal ports reported cases, these were very few: Maracaibo 2, La Guaira 9, Puerto Cabello 4.

Yellow fever.—Although health authorities are always on the alert for the yellow fever menace, the situation in general as viewed in the light of developments in the last few years is encouraging. Protection tests have revealed the apparent eradication of the disease from North and Central America as well as from the West Indies, and in South America only some regions of Brazil and Colombia have been consistently infected, though Peru showed the highest figures in years in 1941, and in Bolivia the disease may have existed for years in endemic form in the jungle. Classic yellow fever has not appeared in epidemic form in America since 1937, and the contributions to the epidemiology of jungle yellow fever have been outstanding.

In Bolivia 2 D from yellow fever were reported in 1941. For the first 6 months of 1942, 94 C 45 D were reported, most of them in the Department of Santa Cruz.

There were only 19 confirmed deaths from jungle yellow fever in
Brazil in 1941, in the States of Pará, Amazonas, Acre and Baía, as compared with 164 in 1940, and only 4 from January to June of 1942. Vaccination has been carried out on a large scale. More than 2 million persons had been vaccinated in the rural areas by December 1941.

Colombia in 1941 reported 34 D, more than in 1940 (21 D), but from January to June of 1942, only 9.

In Peru 163 C 76 D were reported in 1941, all in the Department of Junín, as compared with only 2 D in 1940. Vaccination is obligatory in certain infected regions. No cases have been reported for the first 6 months of 1942.

Venezuela had 1 D from jungle yellow fever, confirmed by viscerotomy, in Guasipati, State of Bolívar, in August 1941, after many years in which no confirmed cases were reported, though the disease had often been suspected in the State of Bolívar. The authorities were immediately placed on the alert, especially those of the Permanent Yellow Fever Service, and planes crossing the area were ordered fumigated. Investigations indicated that the possibility of an epidemic was very remote.

Poliomyelitis.—There have been several outbreaks of poliomyelitis during the past year in various countries. In spite of extensive research work being done in an effort to establish the means of transmission of the disease, nothing certain has yet been accomplished and in the meantime the disease seems to be on the increase.

In the last few years Argentina has had a few cases, but no outbreaks. In Bolivia there were 4 D in 1940, according to Demografía, the official statistical publication.

Brazil has reported 10 D in the State capitals in 1941 (14 D in 1940). Information recently received shows 27 C 1 D in Rio (which in 1940 reported 21 C 8 D), 3 D in Porto Alegre (1 D in 1940), 2 in São Paulo (1 D in 1940), and 1 each in Vitória, Salvador (2 in 1940), Manaus and Niterói in 1941. There has been no serious epidemic since that of 1939 in Rio de Janeiro.

There has been little change in the poliomyelitis situation of Chile during the past three years (about 24 C 6 D; Estadística Chilena lists 25 D for 1941). Up to the middle of June 1942, 17 C have been reported. The outbreak in the early part of 1941 in Antofagasta (11 C) was mentioned in last year’s Report.

According to figures furnished by the Ministry of Public Health and Social Welfare of Colombia, there were 256 C 2 D from poliomyelitis in that country in 1941. The Department with the highest figures was Boyacá, with 55 C.

In Costa Rica there was a light epidemic in March-August, 1941, with 28 C and only 1 D. 21 of the cases were in the capital, San José.

A serious epidemic has been recorded in Cuba, which according to the Director of Health reached its peak in June and July 1942, wherefrom
it began to subside. Up to the end of July 1942, more than 400 C had been reported, the highest figures corresponding to the Provinces of Habana and Oriente.

Ecuador reported only 1 C 1 D, in Guayaquil. No cases have been reported in Guatemala in the last 2 or 3 years. Mexico had 4 C in 1941 as compared with 21 in 1940. The last cases reported in Nicaragua were those of 1940 (14 C). In Panama there was one doubtful case in Colón in 1941, and in Paraguay 10 C. Peru reported 6 C in 1941 and 27 C for the first 6 months of 1942. In 1940 there were 62 C. Puerto Rico had an outbreak in June–July 1942 with 26 C. In Trinidad there was a serious outbreak from October 1941 to June 1942, when 221 C were reported. The peak was reached in January 1942, when 66 C were reported. Therefrom it commenced to subside and in July only 2 C were listed.

The United States in 1941 had 9,086 C 812 D, 23% more than the average number of cases for 1936–40. The disease was most prevalent in the southern and southeastern states, especially Alabama, Florida, Georgia and Tennessee, although it was more epidemic in type in the north and northeast. In the first seven months of 1942 there were 1,020 C, but although this is 44% less than the number for the corresponding period of 1941, the disease, when measured in longer periods, seems to be increasing. Larger and larger amounts of money are being collected each year to maintain the National Foundation for Infantile Paralysis, $2,104,460.53 being contributed in 1941 and nearly 4 million in 1942. It is still not known how the disease is transmitted, although the virus has been found in certain flies and isolated from sewage. The Sister Kenny method of treatment for incipient cases is finding favor, the technique being modified to a certain extent.

In Venezuela, the epidemic observed in the Department of Libertador from October 1940 to July 1941 accounted for 136 C 19 D. In the whole country, and for the calendar year 1941, 205 C 37 D were recorded, compared with 65 C 7 D in 1940.

Epidemic Meningitis.—In 1941 there was a serious outbreak of this disease in Chile, which has already been discussed under “Meningitis in Chile.” In 1940 there were 694 D from this disease in the United States, and 713 were recorded in 1941. Close to 2000 C have been reported in the first half of 1942. Canada in 1940 had 100 D.

Bartonellosis.—Long thought to be limited to Peru, this disease has also been found in Ecuador and Colombia and its presence is now suspected in Chile (at least a condition clinically resembling Carrión’s disease, without the bartonella being found in the blood). 489 D were attributed to this disease in Colombia in 1940, according to Anuario Estadístico (Colombian Statistical Yearbook). In 1941, 395 C and 67 D were reported from the Department of Nariño alone. Although the
vector is not yet known, it is thought to be nocturnal in habits and to prefer dark places. Figures for Peru indicate that in the Lima hospitals a total of 179 C were attended, with 40 D, during the period 1937–1940, and 64 C, with 18 D, in 1941.

Chagas' Disease.—More American Republics are added every year to the list of those which have reported the presence of American trypanosomiasis in man. Up to 1940 this included Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Mexico, Paraguay, Peru, Uruguay and Venezuela. The disease is now reported, or at least suspected, in the coastal regions of Ecuador; and in Guatemala a condition similar to trypanosomiasis has been found in school children but the parasite found seems to differ from cruzi. The disease may also exist in Bolivia, as the parasite has been found in Triatomas of several regions and 2 suspected human cases have been observed. In Argentina 630 C have been recognized up to June 1940. In Chile two species of Triatomas have been found capable of transmitting the disease, Tr. inJestans and Tr. spinolai. Infestation has also been found in domestic dogs and cats. 27 C had been diagnosed parasitologically up to the middle of 1940, 23 of them in the Department of Huasco. Seroreactions have revealed 98 latent clinical cases. In Colombia 13 human cases confirmed by xenodiagnosis in Cundinamarca have been described by Otálora. In El Salvador 4 C have been confirmed in recent years, 2 of them in 1940, but the Trypanosoma seems to differ morphologically from the cruzi. In the United States the infection has been found in insects and mammals in the southwestern part of the country.

Onchocerciasis.—Onchocerciasis has only been found to exist in 2 American Republics, Mexico and Guatemala. In Mexico it has only been noted in 2 States, Oaxaca and Chiapas, but since the vector exists in other parts, the infection is capable of spreading. It has been estimated that 20,000 persons are affected by this disease in Chiapas and 11,000 in Oaxaca. Medical inspectors of the onchocerciasis service found in 1941 6,866 cases of filariasis, from whom 10,530 cysts were removed. The proportion of infection in the two regions where onchocerciasis is known to exist in Guatemala is smaller than in former years. The new situation created by the Pan American Highway, which crosses infected zones, must receive consideration. The Pan American Sanitary Bureau has had under consideration for some time the carrying out, in cooperation with the Mexican and Guatemalan authorities, of a survey which may furnish data on which to base an effective campaign against the disease. Some preliminary correspondence on this subject has already been exchanged with the authorities of the two countries directly interested and with the Inter-American Indian Institute, the Governing Board of which made certain recommendations for a study of the disease.
OTHER EPIDEMIOLOGICAL DEVELOPMENTS

In Peru, one of the first countries where brucellosis was identified in the Western Hemisphere, 615 C were treated in the Lima hospitals alone, with 52 D, during the period 1937–1940, and 102 C, with 5 D, in 1941. In Argentina 1430 C have been identified from 1938 to 1940. At least 16 C have been recognized in Cuba, and in El Salvador 1 C was reported in 1941. Official statistics for Mexico show 226 D in 1941 from this disease.

Argentina has reported an increase in the number of cases of epidemic encephalitis. A recent worker (Bejarano, Rev. San. Mil., 724, Oct., 1942) has expressed doubt that the human cases so far reported there are actually of equine encephalitis, in view of the fact that the neutralizing power of the virus has not so far been confirmed in the laboratory. The United States had an epidemic, especially in the Middle West, during July to September 1941. For the whole calendar year more than 3000 human C were reported, with a case mortality of 9%. In 1941 the existence of the Eastern type virus of equine encephalitis was established in Mexico, in the State of Tamaulipas, the clinical diagnosis being confirmed in the laboratory. It was authoritatively estimated that up to June, 3,275 horses out of approximately 55,000 had been affected by the disease, the mortality being 65–80%. The epizootic apparently started in a strip of territory of some 21 miles south of the Bravo River, and advanced toward the south, affecting the towns of Camargo, Reynosa, Matamoros and San Fernando.

BULLETIN

The Bulletin has this year continued its previous editorial policy, as discussed in the last Annual Report, reviewing sanitary developments throughout the world and especially in the Americas, and aiming chiefly at keeping health workers in all the American countries informed as to advances in their field. With the increase in the number of English-speaking readers of the Bulletin, more special articles and summaries in English have been published, so that these readers may become familiar with the research done by workers in Latin America.

During the year 1941 both original papers and translations were published, as in former years. The number of original papers was 51, an average of more than 4 in each issue. The subjects included in these papers have been: Carate; Chediak's Micro-Reaction; Conference of National Directors of Health; Flame Thrower; Garbage, Burial of; Gardens, School; Health Work, School; Housing, Miners'; Industrial Hygiene Service; Mortality, Infant, in Haiti; Pan American Health Day; Pan American Sanitary Bureau; Plague in the Americas; Plague Investigations; Plague, Pneumonic; Poliomyelitis Epidemic in Costa
Rica; Public Health Education in Mexico; Public Health in America, Regionalization; Rocky Mountain Spotted Fever; Scientific Institutions in Latin America; Social Service of Mexico University’s Medical School; Soy Bean; Tuberculin Patch Test and Mantoux Test in Indians; Tumors, Malignant; Venereal Lymphogranuloma, Xylol in Treatment of; Yaws. The Annual Reports of the National Departments of Health were also presented, as previously, in the form of special articles.

The subjects covered in the series of Pharmacopoeia papers were: Dehydration, Acidosis and Alkalosis, Treatment; Dropsy, Treatment; Epilepsy; Fractures, Compound; Fusospirchotosis (Vincent’s Disease), Therapy of; Gonorrhea; Leukorrhea; Malaria; Ophthalmology, Use of Drugs in; Pediatrics; Rickets; Tuberculosis, Pulmonary, Use of Drugs in. Other translated papers included: Diagnostic Code; Infirmary, for Communicable Diseases; Vitamin Therapy.

Reviews of periodical literature covered the following topics: Allergic Diseases; Avitaminosis, Tropical; Bartonellosis; Beriberi; Blindness; Brucellosis; Cancer; Child Welfare; Deficiency Diseases; Diphtheria; Dysentery; Encephalitis; Goiter; Gonorrhea; Influenza; Intestinal Parasites; Leishmaniasis; Leprosy; Malaria; Maternal Welfare; Measles; Meningitis; Milk; Mosquitoes; Mycoses and Dermatoses; Narcotics; Nutrition; Pellagra; Pinto or Carate; Plague; Pneumonia; Poliomyelitis; Rabies; Rheumatism; Scarlet Fever; Smallpox; Snake and Spider Bites; Spirochotosis; Syphilis; Trachoma; Trypanosomiasis; Tuberculosis; Typhoid Fever; Typhus; Venereal Disease Campaign; Venereal Lymphogranuloma; Water; Whooping Cough; Yellow Fever.

In March, 1942, a Public Health in Wartime section was added, and it is also planned to add in the near future a section on Nursing. In the calendar year of 1941 the Bulletin contained 1374 pages, as compared with 1321 pages in 1940. Should printing and material costs continue to rise, however, serious consideration will be given to reducing temporarily the size of the Bulletin. Circulation has been maintained around 10,000, with subscribers in more than 4,300 towns, most of them in Latin America. No effort has been made to increase distribution of the Bulletin in towns where there already are subscribers.

The number of publications of the Bureau has now reached 179.

INQUIRIES (Consultas)

The section of the Bulletin devoted to inquiries is continuing to gain in importance and popularity, and the subjects on which information is sought are widely varied. Some idea of the usefulness of this section may be seen from the fact that inquiries come from directors of laboratories, health authorities, professors, editors, publishing houses, physicians, medical students, sanitary engineers, chiefs of government agencies, directors of hospitals, etc. Since it is not possible to publish all
inquiries, only those are published which are of particular importance or interest. From January through June of 1942, information was requested on the following subjects:

Arsenic, Bodnar method for determination of; bacteriological technique (bibliography); blindness prevention societies; blood calcium, dosage of ion fraction; books, disinfection; burns, treatment; cancer (urotherapy, metallotherapy and cobra venom); cemeteries, health precautions; certificate, premarital; child psychology (bibliography); dengue; epidermophytosis, prevention in swimming pools; filariasis, treatment; fingernails, presence of eggs or cysts of parasites under (bibliography); genus Hemispora (recent bibliography); goiter, treatment; hay fever in Latin America; health authorities, photographs; hookworm: worm count and anemia; hookworm disease, in pregnant women; hospital and clinic organization, journals; hotel construction and management; hypertension, treatment; industrial hygiene, publications; insane asylum, construction; jerked beef, health requirements; leprosy, bacillus, modification of Cooper technique for staining of; leprosy, puak (Colacasia) and sapotoxin in transmission of; marihuana, pharmacodynamics; meats, vitamin content in different climates; meningitis control; mortality, infant, in United States; mortality, maternal, foetal and infant, in Latin American cities; mosquito repellent (culicifuges); nutrition (bibliography); orange juice, effect on gastric acidity; pH (bibliography); plague (bibliography); plastic surgery (bibliography); posture posters; quinine therapy in pregnancy; refuse, disposal of, in hospitals; septic tanks, construction; sewerage facilities in Latin America; sick leave for government employees of United States; Siphonaptera, bacteriology of guts of; smoke problem, solutions in some cities of United States; social workers (bibliography); sulfaguanidine, composition and therapeutic uses; sulfanilamide salve and paste; syphilis, congenital, treatment; syphilis, use of bismuth in; trypanosomiasis, American, diagnosis and discovery; tuberculosis, as an occupational disease; tuberculosis, mortality rate; tuberculosis, promin in; ulcer, peptic, diet therapy in; vaccine, new type, to be tested in Bolivia; vaccine, typhoid, oral use of; venereal disease control societies; Venereal Day in Peru; viruses, filtrable, limits of centrifugation; vitamin A, extraction; vitamin B₆, effect of deficiency on nervous system of animals; vitamin E, effects on reproduction; water supplies, potable; yeast, dry, absorption of; yellow fever, Aedes index.

LIBRARY

The growth and development of the Pan American Sanitary Bureau Library reported last year have been continued during 1941-42, despite lack of space and of facilities for the distribution, display and utilization of its collections. The Library is being recognized more and more as the only source of much valuable material on Latin America, for which reason it is making a definite effort to increase and complete its collections, keeping constantly in mind the needs for the future.

More books were bound in 1941-42 than during the previous year, and the number of journals being currently received exceeds 900. In its capacity as Executive Organ of the Sanitary Conferences and as international health center for the Americas, the Library is the recipient of rare and valuable official reports and records, in addition to which a
wide variety of material comes to it in exchange for the Boletín de la Oficina Sanitaria Panamericana and for books sent to it for review.

A list of Latin American scientific societies and institutions (Publication No. 141) was prepared during the year and has already met with an enthusiastic reception. The alphabetical list of medical and public health journals of Latin America, now ready for distribution, is expected to meet with wide acceptance and demand. Another activity of the Library staff is the furnishing of assistance in the preparation of articles for the Boletín and for individual publications, such as No. 166, "Health and Living Conditions in Latin America." Already discussed under "Exhibits" is the Library's collection of health posters.

During the past year the facilities of the Library have been placed at the disposal of military and naval authorities engaged in preparing for continental defense. Information of the type needed by them is supplied by national and local health authorities of the various Republics, who are thus making a valuable contribution to the defense of the hemisphere.

In October the Library became an active member of the Medical Library Association. It is hoped that through this membership the Library may be able to increase its collection of books and also to complete certain journals through the Medical Library Association Exchange.

EXHIBITS

As noted last year, collections of Latin American health posters have in the past been loaned to scientific exhibitions and a number have been distributed among North American institutions. In turn, several of the Latin American countries brought very fine exhibits to the meeting of Directors of Health in 1940. The Latin American Republics have shown a decided interest in securing posters from each other, and the Bureau has been glad to distribute such as have been received for this purpose.

At several sanitary conferences it has been urged that emphasis be placed upon health expositions or exhibits, and for this purpose the Bureau has prepared two large displays, one illustrating developments in public health in this hemisphere, the other portraying the work of the Bureau. The former was on exhibit at the IV Pan American Conference of Directors of Health and also at the New York World's Fair. The second was arranged especially for the 1941 meeting of the American Public Health Association in Atlantic City, but was also displayed at the meeting of the American Medical Association in June, 1942. It is hoped that this can be taken to Rio de Janeiro for the Conference, but transportation difficulties may preclude such an undertaking.

During the past year some small displays were made for medical or
health meetings, and exhibits on tuberculosis were sent to several Latin American countries, through the Bureau in cooperation with other agencies. If transportation problems had not made it impossible, similar exhibits would also have been sent to other countries. On occasion the Bureau has furnished assistance in obtaining the loan of films and posters for special celebrations in the various Republics, an example of this being Cancer Week.

**MICROFILM SERVICE**

As noted in last year’s report, the Bureau has been glad to cooperate with the Friends of the Army Medical Library Association and the Office of the Coordinator of Inter-American Affairs in a program planned to make the research workers of the different countries acquainted with each other’s scientific literature, through the Microfilm Service. Their light weight makes microfilms particularly suited for airplane transportation, an advantage of great importance especially in wartime, when any other means of transportation is extremely hazardous as well as being much slower. The articles available include quite a large amount of Latin American material, especially in the library of the Pan American Sanitary Bureau. It is a matter of regret to the Bureau that the microfilm service, although utilized to a certain extent, has not reached its maximum utilization, perhaps because of lack of understanding of the services provided.

Last year the weekly publication *Current List of Medical Literature* was sent, as an experiment, to a number of institutions, medical schools and medical libraries in Latin America, and microfilm copies of articles were made available upon request, gratuitously. At the present time about 170 medical agencies and institutions in Latin America receive the Current List, and some 60 subscriptions have been received from Canada and other countries. Thus about 25% of the subscribers are foreign.

When the success of the microfilm service seemed well established and its usefulness fully demonstrated from an inter-American standpoint, it seemed appropriate to widen its sponsorship by inviting a long established organization to join it. The Medical Library Association was therefore invited to join the group, and it accepted at the annual meeting in New Orleans in May, 1942. It is hoped that with the entrance of this Association the circle of usefulness of the service may be widened, since the librarians can help a great deal in this connection. The Current List will undoubtedly permit them to furnish a wider coverage of the literature, and in addition they can perhaps ascertain more accurately which journals are most suited to the needs of their patrons, thus effecting savings in planning their collections.

The financial independence of the project seems assured to a certain
extent because of the support it is receiving from both governmental and private sources. It is believed, however, that it would be advisable to continue this service on a free basis in Latin America. It has been suggested that the Current List be indexed and a preliminary attempt to do so has been made, since such indexing seems desirable.

VITAL STATISTICS

The Bureau has for many years been intensely interested in the collection and publication of vital statistics and has undertaken several special projects in addition to the regular reports (weekly and monthly) which it publishes. A series of articles on statistical methods is in progress of preparation at the present time, and a number of surveys have already been made on topics such as particular diseases. The recent translation and publication of the international nomenclature of causes of death and of a proposed diagnosis code for morbidity statistics have proved of value to the various countries. The Bureau is now preparing a statistical report on the Americas which is to be more extensive than the regular annual reports.

A new service initiated this year has already been enlarged and developed. Upon receipt of requests from several countries, arrangements were made for a vital statistics expert from the U. S. Bureau of the Census to visit these countries and assist their vital statistics departments in solving some of their problems. So successful was this service that the Census Bureau has now made other of its specialists available on a consultation basis, and is contemplating plans for standardizing statistical organization throughout the hemisphere, in cooperation with the Inter-American Statistical Institute and the Latin American authorities. Students from the Latin American Republics here on scholarships or sent here directly by their governments have found that the facilities of the Census Bureau are available to them also.

As in the past, the Pan American Sanitary Bureau will continue to cooperate closely with the U. S. Bureau of the Census, the statistical departments of the various Republics, and the Inter-American Statistical Institute.

FINANCES

During the fiscal year 1941–42 the regular income of the Bureau, including quotas received, was $102,372.42 and the amount of expenses paid was $86,813.98. The expenses paid may be classified as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries, including field personnel</td>
<td>$47,002.85</td>
<td>54.1%</td>
</tr>
<tr>
<td>Publication of Monthly Bulletin and Other Material</td>
<td>17,170.89</td>
<td>19.8%</td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td>14,388.30</td>
<td>16.5%</td>
</tr>
<tr>
<td>Office Equipment, Stationery, and Other Supplies</td>
<td>3,760.43</td>
<td>4.4%</td>
</tr>
</tbody>
</table>
With regard to quotas on June 30, 1942, 10 Republics have paid up to date, 6 have one year's quota pending, 1 has two years' quotas pending, and 4 have more than two years' pending. One of these, however, has paid for the last fiscal year, and the arrears in this case are for years previous to 1938-39.

Out of other funds administered by the Bureau, $101,594.19 have been spent during the year for various purposes, including tests of new typhus and pneumonia vaccines, fellowships and other assistance to Latin American health officers and physicians for trips and studies in the United States, microfilm service, publication and distribution of a "Manual de Bromatología," projects, exhibits, and various traveling expenses.

As may be seen from the above, the favorable balance of last year has been maintained and if expenditures are carefully controlled and the contributing Governments continue their support as in the past, the financial position of the Bureau should remain on a stable basis. It is important that this encouraging status be maintained if the Bureau is to perform successfully the duties assigned to it by the Pan American Sanitary Code and the Pan American Sanitary Conferences.
PUBLICATIONS OF THE PAN AMERICAN SANITARY BUREAU

Actas de la Tercera Conferencia Sanitaria Internacional de las Repúblicas americanas. Español.
Actas de la Quinta Conferencia Sanitaria Internacional de las Repúblicas americanas. Español.
Transactions of the Sixth International Sanitary Conference of the American Republics. English and Spanish.
Transactions of the Seventh Pan American Sanitary Conference. English and Spanish.
Actas de la Octava Conferencia Sanitaria Panamericana. Español.
No. 1.-Prevención de las Enfermedades Transmisibles. 60 páginas.
No. 2.-Código Telégrafo. 94 páginas.
No. 3.-Higiene Pre-natal. 7 páginas.
No. 4.-Higiene de la Leche. 10 páginas.
No. 5.-Ordenanzas Modelos para Leche. 11 páginas.
No. 6.-La Ruta. 12 páginas.
No. 7.-Organización del Servicio de Sanidad Pública de los Estados Unidos. 26 páginas.
No. 8.-O Surto Epidémico de Febre Amarela no Rio de Janeiro. 13 páginas.
No. 9.-La Profilaxis del Bocio Endémico. 10 páginas.
No. 10.-Higiene Infantil. 2 páginas.
No. 11.-El ABC de la Sanidad: Organización. 15 páginas.
No. 12.-Contagio e Prophylaxia da Tuberculose. 18 páginas.
No. 13.-Uso del Chloro en la Purificación del Agua. 15 páginas.
No. 15.-Reglas de Higiene Infantil. 2 páginas.
No. 16.-Higiene Pre-Escolar. 3 páginas.
No. 17.-Conservación de la Vista. 6 páginas.
No. 18.-El Control de las Enfermedades Transmisibles. 25 páginas.
No. 19.-Colecta, Examen e Identificación de las Pulgas Murinas. 11 páginas.
No. 20.-Código Sanitário Pan-Americano. 20 páginas. Portugués.
No. 21.-El Paludismo: Modo de Evitarlo. 4 páginas.
No. 22.-El Cuidado de la Sífilis en la Práctica General. 33 páginas.
No. 23.-Meningitis Cerebroespinal Epidémica (Meningocócica). 4 páginas.
No. 24.-Los Derechos del Niño. 4 páginas.
No. 25.-Anomalías y Adenoides (Vestigios de Adenoides). 8 páginas.
No. 26.-La Sanidad a Través de los Siglos. 62 páginas.
No. 27.-El Verde de Paris. 9 páginas.
No. 28.-Diagnóstico del Paludismo. 9 páginas.
No. 29.-Cáncer. 9 páginas.
No. 30.-El Diagnóstico de la Fiebre Amarilla. 14 páginas.
No. 31.-Natalidad, Mortalidad Infantil y Mortalidad Puerperal en las Américas. 59 páginas.
No. 32.-Nutrición. 8 páginas.
No. 33.-Tuberculosis de Tipo Infantil. 8 páginas.
No. 34.-El Verde de Para. 9 páginas.
No. 35.-El Parasitismo Intestinal. 8 páginas.
No. 36.-Nomenclatura Internacional de las Causas de Muerte. 16 páginas.
No. 37.-El Interrogatorio en el Diagnóstico Precoz de la Tuberculosis Pulmonar. 3 páginas.
No. 38.-Typos de Organización Sanitaria. 3 páginas.
No. 39.-El Interrogatorio de la Sanidad. 9 páginas.
No. 40.-Cáncer. 9 páginas.
No. 41.-La Higiene y Protección del Niño. 25 páginas.
No. 42.-Cuidado de la Madre. 21 páginas.
No. 43.-Código Sanitário Panamericano. 23 páginas.
No. 44.-Nuevo Concepto de la Nutrición. 17 páginas.
No. 45.-La Declaración Obligatoria del Embarazo. 10 páginas.
No. 46.-La Diabetes en el Tropico. 15 páginas.
No. 47.-Los Censos en Sanidad y en Epidemiología. 13 páginas.
No. 48.-Higiene Común para el Pre-escolar. 5 páginas.
No. 49.-El Diagnóstico de la Fiebre Amarilla. 14 páginas.
No. 50.-Acta Final, II Conferencia Panamericana de Directores Nacionales de Sanidad. 16 páginas.
No. 51.-Milk. 8 pages.
No. 53.-Vacunación Antidiftería. 8 páginas.
No. 54.-Grasas Blancas (Manteo). 6 páginas.
No. 55.-A Lucta Anti-Larvaria no Impaludismo. 6 páginas.
No. 57.-Diagnóstico Retrospectivo de la Fiebre Amarilla. 6 páginas.
No. 58.-El Problema de la Alimentación en el Uruguay. 9 páginas.

* Exhausted.
| No. 69 | A Luta Contra a Febre Amarela | 8 páginas. |
| No. 69 | Actas Generales, II Conferencia Panamericana de Directores Nacionales de Sanidad | 241 páginas. |
| No. 61 | Inmunización Profiláctica de los Recién Nacidos con BCG | 22 páginas. |
| No. 62 | Epidemiología de la Lepra | 5 páginas. |
| No. 63 | Fumigantes | 21 páginas. |
| No. 64 | Clasificación de las Bacterias | 3 páginas. |
| No. 65 | La Higiene Mental | 11 páginas. |
| No. 66 | Creación de un Área de Notificación de la Mortalidad | 6 páginas. |
| No. 67 | A Derrazñado no Rio de Janeiro | 6 páginas. |
| No. 68 | Vacunación Antídota por la Vía Oral | 15 páginas. |
| No. 69 | Educación Física | 6 páginas. |
| No. 70 | Diagnóstico de la Tuberculosis | 6 páginas. |
| No. 71 | Loporranio de Carville | 9 páginas. |
| No. 72 | Higiene Rural | 16 páginas. |
| No. 73 | Ventilación de las Escuelas | 2 páginas. |
| No. 74 | El Cultivo de la Quina | 24 páginas. |
| No. 75 | Oncocerciasis | 9 páginas. |
| No. 76 | Clasificación de las Bacterias | 3 páginas. |
| No. 77 | La Higiene Mental | 11 páginas. |
| No. 78 | Servicio Social | 44 páginas. |
| No. 79 | Creación de un Área de Notificación de la Mortalidad | 6 páginas. |
| No. 80 | Diagnóstico de la Tuberculosis | 6 páginas. |
| No. 81 | La Higiene Mental | 11 páginas. |
| No. 82 | Fumigación de los Buques | 5 páginas. |
| No. 83 | Inmunización Profiláctica de los Recién Nacidos con BCG | 22 páginas. |
| No. 84 | Organización Sanitaria en el Uruguay | 16 páginas. |
| No. 85 | La Mortalidad Infantil en El Salvador | 10 páginas. |
| No. 86 | El Sistema de Convalescente en la Medicina | 8 páginas. |
| No. 87 | Centros de Higiene Infantil | 8 páginas. |
| No. 88 | Fumigación de los Buques | 40 páginas. |
| No. 89 | Pasteurización de la Leche | 20 páginas. |
| No. 90 | Control de las Enfermedades Transmisibles | 70 páginas. |
| No. 91 | Encuesta sobre Enfermedades Tropicales | 4 páginas. |
| No. 92 | Racialorganismo | 20 páginas. |
| No. 93 | El Dáctilo de la Tierra | 59 páginas. |
| No. 94 | Tratamiento Quirúrgico del Ofidismo | 11 páginas. |
| No. 95 | Latin American Vital Statistics | 5 páginas. |
| No. 96 | Pan American Sanitary Bureau | 70 páginas. |
| No. 97 | El Problema de la Fiebre Amarela en América | 10 páginas. |
| No. 98 | Fumigación de los Buques | 14 páginas. |
| No. 99 | La Fiebre Amarilla en América | 10 páginas. |
| No. 100 | Profilaxis de la Fiebre Amarilla | 6 páginas. |
| No. 101 | Actas de la Novena Conferencia Sanitaria Panamericana | 535 páginas. |
| No. 102 | El Saneamiento del Suelo | 17 páginas. |
| No. 103 | Report of the Director of the Pan American Sanitary Bureau to the Ninth Pan American Sanitary Conference | 8 páginas. |
| No. 104 | Profilaxis y dominio del paludismo | 24 páginas. |
| No. 105 | Fumigación de buques | 14 páginas. |
| No. 106 | Snake-Bites | 10 páginas. |
| No. 107 | Obras Sanitarias de Protección a la Infancia | 47 páginas. |
| No. 108 | Las Repúblicas Americanas ante las Conveniones Internacionales de Sanidad | 5 páginas. |
| No. 109 | La Lucha Antirrábica | 27 páginas. |
| No. 110 | Third Pan American Conference of National Directors of Health---Summary of Proceedings | 10 páginas. |
| No. 111 | Vejigas Antirratas | 4 páginas. |
| No. 112 | Tratamiento Anti-Leprérico | 14 páginas. |
| No. 113 | Pautas de Organización Sanitaria | 12 páginas. |
| No. 114 | Nomenclatura para Enfermedades Mentales | 28 páginas. |
| No. 115 | Dispensarios | 9 páginas. |
| No. 116 | Escuelas de Sanidad | 21 páginas. |
| No. 117 | Lecciones de Concreto | 10 páginas. |
| No. 118 | Servicio de Peste | 6 páginas. |
| No. 119 | Tabulaciones de Servicios Sanitarios | 15 páginas. |
| No. 120 | Décima Conferencia Sanitaria Panamericana: Acta Final | 20 páginas. |

* Exhausted.
THE PAN AMERICAN SANITARY BUREAU is an independent international public health organization. It was created by the Second International American Conference (1901-1902), organized by the First Pan American Sanitary Conference (1902), and reorganized by the Sixth (1920). It is governed by a Directing Council elected, together with the Director, at each Pan American Sanitary Conference, and supported by annual quotas contributed pro rata by all the American Republics. The Bureau is interested primarily in the prevention of the international spread of communicable diseases, and also in the maintenance and improvement of the health of the people of the 21 American Republics. Under the provisions of the Pan American Sanitary Code (1924), it has become the center of coordination and information in the field of public health, in the American Republics. It also acts as a consulting body at the request of national health authorities, carries on epidemiological and scientific studies, and publishes a monthly Bulletin, as well as other educational material. Pan American Health Day is celebrated annually on December 2 in all American Republics. Address all correspondence to the Director of the Pan American Sanitary Bureau, Washington, D. C.