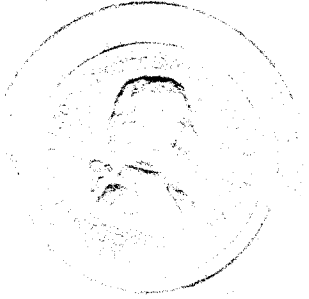


**Meetings in Commemoration
of the Centenary Graduation
of Carlos Juan Finlay**

**THE JEFFERSON MEDICAL COLLEGE
OF PHILADELPHIA
SEPTEMBER 22-23, 1955**



These meetings were arranged in cooperation with officials of the Republic of Cuba and with officers of the Pan American Sanitary Bureau. It was the general feeling that the most appropriate tribute to Carlos **Finlay** would be found in an authoritative conference on yellow fever, a subject to which **Finlay** was completely dedicated.



These addresses are designated as the
William Potter Memorial Lectures.

Mr. Potter was a member of the Board of Trustees of The Jefferson Medical College from 1894 to 1926 and its president from 1897 to 1926.

Carlos J. Finlay, M. D. — 1833-1910

CLASS OF 1855, JEFFERSON MEDICAL COLLEGE

Carlos **J. Finlay** was born in Camaguey, Cuba in 1833. His father was a Scotch physician, his mother was French. His early education was by private tutor. At the age of eleven he was sent abroad for schooling in France and in Germany. The process of education was frequently interrupted by illness but he achieved a solid foundation in the classics, history, mathematics, geography, physics, and languages. For the latter he had great facility and insisted upon this all of his life-breakfast was always in Spanish, lunch in English, and dinner in French. Presumably, he reserved German for certain other periods.

In 1853, at the age of 20, Carlos **Finlay** came to Philadelphia with his uncle, Philip de Barr&es, and both registered at the Jefferson Medical College. But **Finlay** signed with the name Charles and on October 27th paid the matriculation fee of \$5, and the course fee of \$15. On the 17th of October, 1854, he registered for his second year. At that time he paid another fee of \$15 and indicated that his preceptor was S. W. Mitchell. In reality he was the first pupil of Weir Mitchell and his first disciple. This was the beginning of their lifelong friendship. He received his doctor's degree on March 10, 1855. No record of his thesis has been found.

Following his graduation he evidently spent an additional year with Weir Mitchell in Philadelphia but in 1856 he began a series of travels, which included a period in Paris of post graduate study in ophthalmology. He finally began permanently to practice medicine in Havana in 1864. His great interest in epidemiology and public health began in 1867 when Havana suffered from a severe epidemic of cholera. His logical reasoning showed that the disease was water-borne. and he traced one phase of the epidemic to the original case. His views were, however, so opposed to those of the time that his communication was refused publication.

During the next few years he undertook to investigate the matter of yellow fever in spite of his busy practice. The basic equipment was the microscope which he had brought from Philadelphia. His long series of publications on yellow fever began in 1872. In due course he became established as a foremost authority on this disease, first officially recognized in 1879 when the Governor General appointed him to cooperate with the United States Commission on Yellow Fever. He served several similar appointments in the following years; perhaps the most notable was as Chairman of the Yellow Fever Board organized in 1899 by the provisional government of Cuba. This group worked closely with the United States Army Board headed by Walter Reed. In 1902, at the end of the occupation, **Finlay** became Chief Sanitary Officer of Cuba—a position from which he retired in 1909 at the age of 76.

In February 1881, as a representative of Cuba and Puerto Rico to the International Sanitary Conference in Washington, **Finlay** first presented his argument as to the necessity of an intermediate agent to explain the transmission of yellow fever. This idea was completely original, independent, and thoroughly heretical. In August of the same year, **Finlay** declared the vector to be the mosquito now known as *Aedes aegypti*. Prior to the latter announcement **Finlay** had undertaken the experimental inoculation of informed volunteers by the use of infected mosquitoes. He believed that he succeeded in these first attempts. His subsequent attempts (the total amounted to 102 during twenty years) were perhaps less convincing. In retrospect it is almost impossible to evaluate these experiments, for the difficulties in clinical diagnosis were then, as now, enormous. Certainly the theory was completely established by the work of the Army Board headed by Walter Reed. No reader of **Finlay's** original reports can escape the idea that this extraordinary man, without resources and without the spiritual support of his colleagues at the time, actually managed a very considerable affair of much daring and of enormous originality. Considering the state of knowledge of those times this man stood far ahead.

Although history has marked **Finlay** for his work on yellow fever, his interests were wide. He made significant contributions in the fields of leprosy, beri beri, **filariasis**, trichinosis, relapsing fever, cholera, **tuberculosis**, and many other topics.

Finlay was rather firm in his convictions. During twenty years he gained only one follower for his mosquito theory but he continued to proclaim it at every opportunity and was considered something of a crank. He added to his reputation as a determined individual when at the age of 65 he joined the American Army as a Contract Surgeon and undertook active duty with the troops in Cuba.

Jefferson Medical College recognized the quality of **Finlay** and his work by awarding him the honorary degree of Doctor of Science in 1902. It was also at about this time that he was proposed by his friend, Weir Mitchell, for honorary fellowship in the College of Physicians of Philadelphia. He received many honors in his lifetime from many nations and from many scientific bodies.

Carlos **Finlay** died on August **20th**, 1915. By that time he had become a hero. The ensuing years have dealt well with the man and with his work. There is a **Finlay** Institute in Havana, a **Laboratorio Carlos Finlay** in Panama, a **Finlay** Institute in Colombia. There are **Finlay** streets in various cities. The Pan American Medical Congress celebrates **Finlay's** birthday, December **3rd**, as the official Day of American Medicine. The commemoration of the centenary of **Finlay's** graduation is a proud time, for Jefferson is greatly honored by its relationship to the "poor practitioner" who became a prophet.

Thursday, September 22, 1955

SYMPOSIUM ON YELLOW FEVER

MCCLELLAN HALL, JEFFERSON MEDICAL COLLEGE

CHAIRMAN: DR. FRED L. SOPER (WASHINGTON)

10:30 A.M. Convener: Professor J. Earl Thomas, Chairman of the Faculty

DR. PEDRO NOGUEIRA (CUBA)

The early history of yellow fever; The *Finlay* period.

DR. A. F. MAHAFFY (CANADA)

The *golden* period of conquest; *Asibi* becomes an immortal.

DR. JOHN BUGHER (NEW YORK CITY)

Jungle yellow fever.

DR. J. AUSTIN KERR (POONA, INDIA)

Yellow fever — the *Saraswati* of virology.

2:30 P.M. Convener: *Professor* Kenneth Goodner

DR. OCTAVIO PINTO SEVERO (BRAZIL)

Progress in the program for the eradication from the Americas of *Aedes aegypti*.

DR. JORGE BOSHELL M. (COLOMBIA)

Yellow fever in *Central America*; The post-war spread as a threat.

Thursday, September 22, 1955

SYMPOSIUM ON YELLOW FEVER

Continued

DR. WILBUR DOWNS (TRINIDAD. **B.W.I.**)

The *reappearance* of yellow fever in Trinidad after 40 *years* absence.

DR. FRED L. SOPER (WASHINGTON)

The unfinished business with yellow fever.

At 6:00 P.M. the Trustees and the Executive Faculty of the *Jefferson* Medical College will receive the distinguished visitors at the *Barclay*.

At 7:00 P.M. the distinguished *visitors* to the Finley Commemoration will be entertained to dinner at the *Barclay* by Wyeth *Laboratories*.

8:30 P.M.

BIOGRAPHICAL SYMPOSIUM

PHILADELPHIA COLLEGE OF PHYSICIANS
NINETEEN SOUTH TWENTY-SECOND STREET

Presiding:

DR. LEWIS C. SCHEFFEY
President of the College of Physicians

A. DR. HORACIO ABASCAL (HAVANA)

The doctrine of *Finlay*.

B, DR. LEANDRO TOCANTINS (PHILADELPHIA)

Finlay and *S. Weir Mitchell*; An Intellectual *partnership*.

C. DR. P. S. HENCH (ROCHESTER, MINNESOTA)

The conquest of yellow fever.

Friday, September 23, 1955

COMMEMORATIVE CEREMONIES

McCLELLAN HALL, JEFFERSON MEDICAL COLLEGE

Presiding:

VICE ADMIRAL JAMES L. KAUFFMAN
President of The Jefferson Medical College

11:00 A.M. *Invocation*

His Excellency

MOST REVEREND J. CARROLL McCORMICK, D.D.
Auxiliary Bishop of *Philadelphia*

Presentation of the delegation from the Republic of Cuba by
DEAN GEORGE ALLEN BENNETT

Address by the representative of *the* Minister of Health,
Republic of Cuba,

DR. FELIX HURTADO, AMBASSADOR

Unveiling of sculptured portrait of *Carlos J. Finlay* by his grandson,
ALFREDO FINLAY

Conferral of honorary degrees.

Address by

DR. JOSEPH E. SMADEL (WASHINGTON)

The glory of the united effort in *a great* crusade.

Address by

MAJOR-GENERAL ALEXANDER J. ORENSTEIN
(JOHANNESBURG, UNION OF SOUTH AFRICA)

Carlos Finlay, practitioner and prophet.

Benediction

BISHOP McCORMICK

HORACIO ABASCAL. M.D.

Professor of Tropical Dermatology and **Venerology**, Cuban School of Tropical Medicine; Secretary of the Academy of Medical, Physical, and Natural Sciences, Havana. Recipient of many honors and awards. An outstanding authority in the history of medicine.

JORGE BOSHELL M. M.D.

Chief, Central American Jungle Yellow Fever **Studies**, Pan American Sanitary Bureau; formerly Director, National Institute of Health (Bogota) ; formerly Director, **Escuela Superior de Higiene (Bogotá)** ; formerly in charge of Field Work on Jungle Yellow Fever, Ministry of Hygiene, Colombia.

JOHN C. BUGHER, M.D.

Director for Medical Education and Public Health, The Rockefeller Foundation (New York); formerly Director, Division of Biological and Medical Sciences, Atomic Energy Commission (Brookhaven) ; formerly Director, Yellow Fever Research Institute (Lagos, Nigeria) ; formerly Director, Yellow Fever Laboratory (**Bogotá**, Colombia) ; Member of Staff, International Health Division, The Rockefeller Foundation (beginning 1938).

WILBUR G. DOWNS, M.D.. M.P.H.

Director, Trinidad Regional **Virus** Laboratory, Caribbean Medical Center, Port-of-Spain, Trinidad. Member of Staff, International Health Division, The Rockefeller Foundation (beginning 1941). Has served on a number of foreign stations with distinction.

PHILIP S. HENCH. M.D.. M.S. (MED.). D.SC. (HON.), LL. D. (HON.)

Professor of Medicine, Mayo Foundation **and** Graduate School of Medicine, University of Minnesota; formerly Colonel, M.C., U.S.A. Nobel laureate in Physiology and Medicine, 1950. The outstanding authority on rheumatism and arthritis and one of the leaders of American medicine. Dr. **Hench** has for many years made the story of yellow fever his special interest. He was influential in establishing the unique memorial called Park **Lazear** (near Havana) on the site of the Reed transmission experiments.

FELIX HURTADO, M.D.

Professor of Pediatrics, Faculty of Medicine, University of Havana; Ambassador of Cuba in Charge of International Sanitary Matters and Medical Sciences; formerly Undersecretary of Health (Cuba). An international leader in child welfare movements, Dr. **Hurtado** has identified himself with many humanitarian causes.

JOHN AUSTIN KERR, M.D.

Director, Virus Research Center, **Poona**, India; Member of the Staff, International Health Division, The Rockefeller Foundation (beginning 1926). Distinguished service in many parts of the world in investigations and in applications of **public** health measures for the control of infectious diseases.

SPEAKERS

ALEXANDER F. MAHAFFY, M.D., D.P.H., D.T.M., C.M.G.

Retired (Victoria, B. C.); formerly Director, Colonial Medical Research (Great Britain) ; formerly Joint Secretary, Colonial Medical Research Committee (Great Britain); formerly Director, Yellow Fever Research Institute (**Entebbe**, Uganda) ; formerly member West African Yellow Fever Commission; formerly Member of the Staff, International Health Division, The **Rockefeller** Foundation (1923-1946).

PEDRO NOGUEIRA, M.D.

Outstanding authority in the field of preventive medicine and public health in Cuba. His avocation for many years has been the history of yellow fever. Chiefly instrumental in bringing about the erection of the monument to the heroes of the Yellow **Fever** experiments at the site of Camp **Lazear**,

MAJOR-GENERAL ALEXANDER J. ORENSTEIN, M.D. (JEFFERSON 1905). M.R.C.S.. F.R.C.P.. F.R.S.I.

Honorary Fellow Royal Society of Medicine, Fellow Royal Society Tropical Medicine and Hygiene (Hon.); **LL.D.** (Hon.); C.B.; C.M.G.; C.B.E.; Chief Medical **Officer**, Rand Mines Central Mining Corporation (Johannesburg) ; formerly Director General Medical Services, Union of South Africa Defense Forces (World War II); formerly Director of Medical Services (East Africa) ; formerly Acting Director, South African Medical Corps (World War I); formerly Panama Canal Medical Services (1905-1912). Preeminent in the field of industrial medicine. He has applied the theories of **Gorgas** to secure the welfare of vast numbers of men employed in mining operations.

OCTAVIO PINTO SEVERO, M.D., D.P. H.

Consultant to the Pan American Sanitary Bureau on *Aedes aegypti* eradication. Formerly Chief of National Yellow Fever Service, Brazil (1932-1950). One of the world's foremost authorities on vector eradication and control.

JOSEPH E. SMADEL, M.D., M.SC. (HON.)

Director, Division of Communicable and Parasitic Diseases, **Army** Medical Service Graduate School, Washington; formerly Lt.-Col., M.C., U.S.A.; formerly Associate Member, Rockefeller Institute for Medical Research; Director, Commission on Hemorrhagic Fever; formerly Director, Commission on Immunization, Armed Forces **Epidemiological** Board. Leading authority on rickettsial and viral diseases.

FRED. L. SOPER, M.D., C.P.H., D.P.H.

Director, Pan American Sanitary Bureau; Regional Director, World Health Organization for the Americas. Formerly Member of the Staff, International Health Division, The Rockefeller Foundation (1920-1950), formerly Director, Rockefeller Foundation Health Commission Typhus Team, Preeminent **health** administrator of our time. He is known for his vast and successful campaigns in species eradication of mosquitoes (*Anopheles gambiae* and *Aedes aegypti*) and **for** the execution of gigantic programs in the control of yellow fever, malaria, and typhus.

LEANDRO M. TOCANTINS, M.D.

Professor. Clinical and Experimental Medicine; Director, Charlotte Drake **Cardeza** Foundation. Jefferson Medical College, Philadelphia.

“Conquerors of Yellow Fever”

The painting hanging at the back of the platform in McClellan Hall is the work of Dean Cornwell, N.A. and is the property of Wyeth Laboratories. Its normal home is the Army Medical Service Graduate School, Walter Reed Medical Center, Washington.

This painting depicts one of the great moments in medical history. The event occurred on 27 August, 1900, on the grounds of Columbia Barracks Post Hospital near Havana. Dr. Jesse W. Lazear, member of the Army Board, is shown inoculating Dr. James Carroll, also a member of the Board, by applying an infected mosquito. Dr. Carroll developed yellow fever as a result of the inoculation, the first case of the series. Dr. Lazear himself died of yellow fever a month later as a result of self-experimentation, a martyr to science.

The elderly onlooker is, of course, Dr. Carlos Finlay, full of confidence that his theory of mosquito transmission—already 20 years old—will be fully vindicated.

The officer in white uniform at the center of the painting is Major Walter Reed, President of the United States Army Yellow Fever Board.

The officer with hat in hand behind Finlay is Dr. Aristides Agramonte, a Cuban physician and member of the United States Army Board. Behind Agramonte is Lt. A. E. Truby, Commanding Officer of the Hospital. Seated at the left in the foreground is Major Jefferson R. Kean, Chief Surgeon of the area. At the opposite end of the table is seated General Leonard Wood, Governor-General of Cuba. Himself a physician, he threw the weight of his authority behind the Board, both as to funds and more particularly in the serious matter of employment of informed volunteers.

The officer seated on the railing is Dr. Robert P. Cooke, Contract Surgeon, who volunteered to be shut in a house with infected bedding for 20 days to prove the non-infectiousness of “fomites.” Behind him is Dr. Roger P. Ames who had medical charge of all cases of experimental yellow fever.

Standing at the far right is John R. Kissinger, Private, and next to him John J. Moran, Acting Steward. These were the first two enlisted men to volunteer. Next stands Warren G. Jernegan, Private, who volunteered first for an infected clothing experiment and later for inoculation. Behind Kissinger is the face of a Spanish immigrant, representative of the four who volunteered: Beniguo, Fernandez, Presedo and Martinez. Behind Moran is the face of an American private, representative of the eleven additional volunteers: Dean (Case X-Y), Olson, Folk, Forbes, Andrus, West, Hanberry, Sonntag, Weatherwalks, Hildebrand and England.

Mr. Cornwell took a bit of artistic license in the affairs of this painting. It might perhaps have been justifiable to have included amongst these immortals a portrait of Maj. Wm. C. Gorgas, Chief Sanitary Officer in Havana. His measures of control, based on the results of these experiments, made possible the eradication of yellow fever from urban communities.