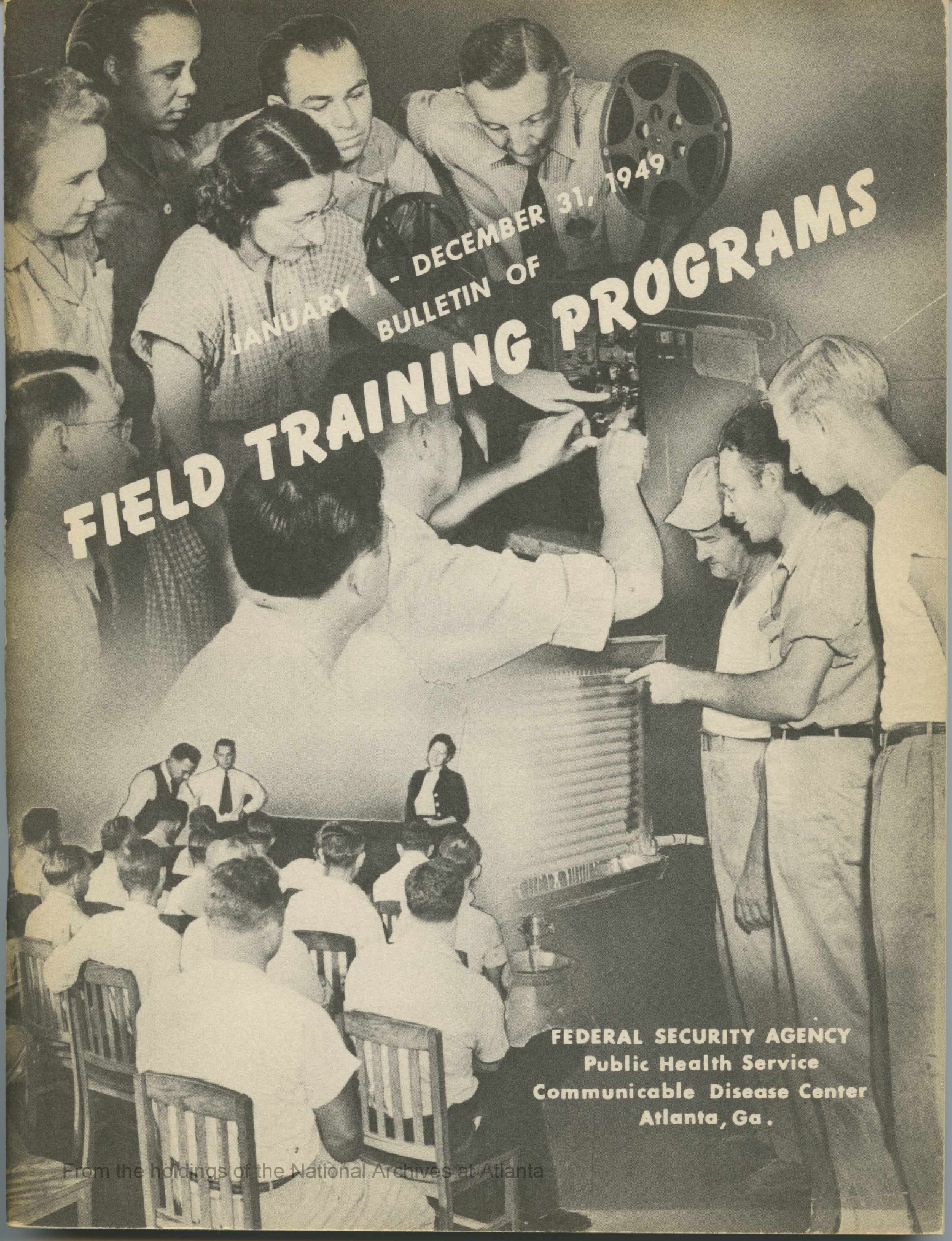

BULLETIN OF FIELD TRAINING PROGRAMS

JANUARY 1 - DECEMBER 31, 1949

FEDERAL SECURITY AGENCY
Public Health Service
Communicable Disease Center
Atlanta, Ga.

BULLETIN OF

FIELD TRAINING PROGRAMS

January 1 - December 31, 1949

FEDERAL SECURITY AGENCY
PUBLIC HEALTH SERVICE
COMMUNICABLE DISEASE CENTER
TRAINING DIVISION
ATLANTA, GEORGIA
AND
COOPERATING AGENCIES

R. A. Vonderlehr
Medical Director in Charge, CDC

E. S. Tisdale
Chief, Training Division, CDC

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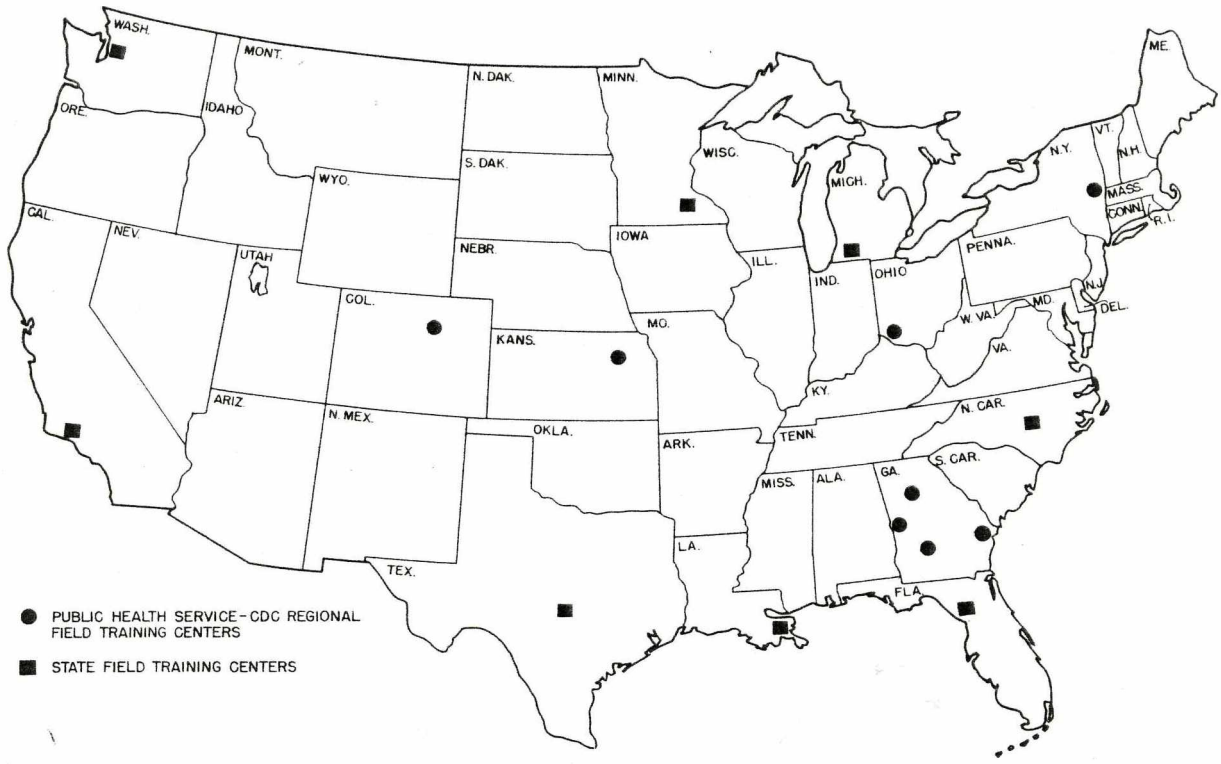


Regional Public Health Service-CDC- Field Training Centers and State Training Centers for Public Health Personnel with which Cooperative Relationships Have been Established

The primary purpose of the Training Division during the past two years has been to develop and improve techniques of field training for public health personnel. To that end, regional field training centers have been established in the southeastern, the northeastern, and the mid-western sections of the country.

State health departments in Georgia, Kansas, and New York, have assisted with the development, maintenance and operation of these field training centers to which a corps of trained and experienced field training teachers were assigned by the Training Division.

Field training in the following categories has been carried on at the Georgia regional centers during 1947 and 1948: In Savannah-Chatham County - field training of health educators and public health records personnel, in Columbus-Muscogee County - field training for graduate sanitary engineers and sanitarians, in the City of Atlanta - field training in rodent and insect control and housing evaluation techniques, in Albany-Dougherty County - field training in malaria control and basic sanitation for foreign trainees, also for sanitary engineers and sanitarians.

Cooperation by the Georgia Department of Public Health and certain outstanding city-county health departments in Georgia has made it possible to successfully operate these field training centers. Without the sympathetic and enthusiastic support of the directors of these health departments, no effective field training could have been carried on by the Public Health Service to assist the states in the southeastern portion of the country. Professors of sanitary engineering from Columbia University and from the University of Missouri have worked on the staff at the Columbus Field Training Center during 1947 and 1948 assisting with the correlation of field training with academic studies. Graduates from the Georgia Institute of Technology, Harvard University, Johns Hopkins University, Massachusetts Institute of Technology, University of Michigan, University of North Carolina, and Purdue University, have completed three months in field training at Columbus, Georgia.

One of the principal aims of the regional training centers has been to assist state field training centers in the training of public health personnel. An example of cooperation during

1948 was the loan of personnel from the Atlanta office to assist the Louisiana Field Training Center at New Orleans during the ten weeks sanitarian course. A sanitary engineer and an entomologist were loaned for weekly periods and acted as staff members of this field training center. This team assisted in planning and conducting the field training in malaria and insect control and in rodent-borne disease control. Audio-visual training aids such as film strips, motion pictures, and manuals have also been made available not only to Louisiana, but also to the Texas Field Training Center at Austin and to the Florida Field Training Center at Gainesville.

In cooperation with the New York State Health Department and the Troy-Rensselaer County Health Department, field training courses for sanitary inspectors have been conducted throughout 1948. An interesting feature of the work at this regional center has been the development of in-service training programs in environmental sanitation in which the teaching staff takes the training courses to the trainees. Such in-service training was conducted during August at Pittsburgh, Pennsylvania. Other large cities in New York State and throughout District #1 of the Public Health Service may benefit from the regular courses at the New York State-Rensselaer County Public Health Training Center and from such in-service training courses.

Another regional field training center is located at Topeka, Kansas, and was established through the cooperation of the Kansas State Board of Health and the Topeka City-Shawnee County Health Department. The State of Kansas has provided excellent quarters for the training center which are shared with the Shawnee County Medical Society. This center has specialized in training sanitarians and workers in the field of milk and food sanitation. Training in the purpose and use of public health records has been given for clerical personnel.

Specialized training for sanitary engineers engaged in stream pollution control activities is one of the features of the recently established field training program at the Water and Sanitation Investigations Station in Cincinnati, Ohio. During the past year laboratory training for bacteriologists in the field of milk and food sanitation has also been conducted. Such field training courses will be expanded during 1949, particularly in the field of stream sanitation as the national program of stream pollution control assumes larger proportions.

During 1948 cooperative relationships with the state field training centers shown on the above map were established. Those states that are planning or have already established their own public health training centers may receive assistance from the Training Division through the temporary loan of experienced training instructors. Training aids, including motion pictures and film strips, manuals, insect keys, and certain publications useful in training are available. Experience gained through more than two years of conducting field training programs is available to the states through consultative services. In addition to receiving consultative service, those states contemplating the establishment of their own training centers may send personnel to the regional training centers outlined above for special training. Such training may include the organization and administration of training centers as well as the conduct of specific training programs.

Ellis S. Tisdale

FIELD TRAINING PROGRAMS

TABLE OF CONTENTS

FIELD TRAINING PROGRAMS – TABLE OF CONTENTS (Cont'd)

* *Digit left of decimal indicates basic program type.*
Digit to the right of decimal indicates variations within the basic program.
Digit to the right of hyphen indicates principal location of field training.

BASIC PROGRAMS

1.00 to 1.99 - Sanitary Engineering
2.00 to 2.99 - Sanitation
3.00 to 3.99 - Insect and Rodent Control
4.00 to 4.99 - Public Health Administrative Technics
5.00 to 5.99 - Public Health Laboratory
6.00 to 6.99 - Public Health Education Technics

LOCATIONS

0 - Special Arrangement
1 - Atlanta, Georgia
2 - Savannah, Georgia
3 - Columbus, Georgia
4 - Topeka, Kansas
5 - Albany, Georgia
6 - Troy, New York
7 - Cincinnati, Ohio

TRAINING PROGRAM STAFF

● **TRAINING DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA**

E. S. Tisdale, Senior Sanitary Engineer, Chief
R. J. Hammerstrom, S. A. Sanitary Engineer, Assistant Chief
Marshall Walker, Jr., Administrative Assistant

INSECT AND RODENT CONTROL BRANCH, ATLANTA AND ALBANY, GEORGIA

R. C. Barnes, Scientist, In Charge
C. F. Fehn, Engineer (R)
A. R. Kinney, Jr., Training Instructor
H. H. Rogers, J. A. Sanitary Engineer
J. F. Hackney, M.D., Director of Public Health, Atlanta, Georgia
S. W. Graydon, Public Health Engineer, Atlanta Department of Health, Atlanta, Ga.
D. M. Wolfe, M. D., Commissioner of Health, Albany-Dougherty County Health Department, Albany, Georgia
R. S. Howard, Sanitary Engineer, Dougherty County, Albany, Georgia
M. H. Goodwin, S. A. Sanitarian (R), Director, Emory University Field Station, Newton, Georgia

PUBLIC HEALTH INTERNSHIP TRAINING BRANCH, ATLANTA, GEORGIA

Elmer L. Hill, Surgeon, Training Officer, Public Health Administration
R. W. Buck, S. A. Engineer, Training Officer, Housing Sanitation
Emil A. Tiboni, Training Officer, Housing Sanitation
J. E. Borches, Training Officer, Special Services
Mary Garretson, Evaluation Section

PUBLIC HEALTH TRAINING STATION, COLUMBUS, GEORGIA

J. A. Thrash, M.D., Director, Columbus Public Health Training Station, and Health Commissioner, Columbus-Muscogee County Health Department
C. D. Spangler, Sanitary Engineer, Senior Training Officer
Clyde F. Herring, S. A. Sanitary Engineer (R), Training Officer
Richard F. Clapp, S. A. Sanitarian (R), Training Officer
Veronica F. Richeimer, R. N., Public Health Nurse, Training Instructor
Porter L. Musick, Sanitary Engineer, Training Instructor
Martha J. Spence, Bacteriologist, Training Instructor
G. T. Turnipseed, Sanitarian, Training Instructor
J. W. McCain, Sanitary Engineering Aid, Training Instructor

SAVANNAH FIELD TRAINING STATION, SAVANNAH, GEORGIA

C. A. Henderson, M. D., Director, Savannah Field Training Station and Health Commissioner, Savannah-Chatham County Health Department
Ruth Sumner, Ph.D., Training Officer, Health Education

TOPEKA FIELD TRAINING CENTER, TOPEKA, KANSAS

D. D. Carr, M. D., Director, Topeka Field Training Center, and Health Officer, Topeka City-Shawnee County Health Department
H. E. Eagan, Milk Specialist, Senior Training Officer
R. E. Kious, Training Officer, Sanitarian
Alpha K. Kenny, Training Officer, Health Department Records

TRAINING PROGRAM STAFF (Cont'd)

Charles J. Sheetz, Sanitary Engineer Consultant, Topeka City-Shawnee County Health Department

Leslie W. Rowles, D.V.M., Veterinarian Consultant, Topeka City-Shawnee County Health Department

Jeanette Rosenstock, R.N., Public Health Nurse Consultant, Topeka City-Shawnee County Health Department

Emil Freienmuth, Public Health Laboratory Consultant, Topeka City-Shawnee County Health Department

V. M. Winkle, M.D., Assistant Director of Local Health Administration, Kansas State Board of Health

Roberta Foote, R.N., Public Health Nurse Consultant, Kansas State Board of Health

Evelyn Ford, Records Consultant, Kansas State Board of Health

NEW YORK STATE-RENSSELAER COUNTY PUBLIC HEALTH TRAINING CENTER, TROY, N.Y.

F. E. Coughlin, M.D., Director, New York State-Rensselaer County Public Health Training Center, and Rensselaer County Commissioner of Health

M. H. Thompson, Dr. Engr., Assistant Director, New York State-Rensselaer County Public Health Training Center, and Director, Division of Environmental Hygiene, Rensselaer County Department of Health

Juliette Julien, R.N., Director of Nursing, Rensselaer County Health Department

J. F. O'Brien, S.A. Sanitarian (R), Senior Training Officer

H. W. Haas, Engineer

Donald B. Stevens, S.A. Sanitary Engineer (R), Training Officer

Participating Members from the New York State Department of Health:

Hollis S. Ingraham, M.D., Director, Division of Communicable Diseases

F. W. Gilcreas, Assistant Director, Division of Laboratories

Charles A. Holmquist, Director, Division of Sanitation

Earl Devendorf, Assistant Director, Division of Sanitation

Anselmo F. Dappert, Principal Sanitary Engineer

Charles R. Cox, Chief, Bureau of Water Supply

Andrew F. Allen, Chief, Bureau of Camp Sanitation

Stanley T. Barker, Chief, Bureau of Sewage Treatment and Waste Disposal

Charles C. Agar, Senior Sanitary Engineer

Albert I. Howd, Associate Sanitary Engineer

Walter D. Tiedeman, Chief, Bureau of Milk and Restaurant Sanitation

C. Sidney Leete, Principal Milk Sanitarian

Franklin L. Schacht, Ph.D., Supervising Milk Inspector

Frederick W. Graves, D.V.M., Senior Milk Sanitarian

Clarence W. Weber, Senior Milk Sanitarian

Michael J. McCormack, Assistant Milk Sanitarian

U. S. PUBLIC HEALTH SERVICE WATER AND SANITATION INVESTIGATIONS STATION, CINCINNATI, OHIO

Vernon G. MacKenzie, Sanitary Engineer Director, Officer in Charge, Water and Sanitation Investigations Station

Maurice LeBosquet, Jr., Senior Sanitary Engineer

TRAINING PROGRAM STAFF (Cont'd)

C. T. Butterfield, Bacteriologist
C. C. Ruchhoft, Chemist
Luther A. Black, Bacteriologist
F. M. Middleton, S. A. Sanitarian (R)
Ernest P. Dubuque, Sanitary Engineer, Training Officer

ON ASSIGNMENT TO STATE HEALTH DEPARTMENTS

Charles C. Wilson, Training Officer, Health Department Records, Columbia, South Carolina

● LABORATORY DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA

Seward E. Miller, Senior Surgeon, Chief, Laboratory Division
R. F. Reider, Senior Surgeon, Assistant Chief, Laboratory Division

Parasitology Training Staff

Marion M. Brooke, Scientist, In Charge, Parasitology Branch
Alan W. Donaldson, Scientist
Harry D. Pratt, Scientist
Wilton M. Fisher, Surgeon (R)
Paul Weinstein, S. A. Sanitarian (R)
Morris Goldman, S. A. Sanitarian (R)
Mae Melvin, Parasitologist
Lois Norman, Parasitologist

Guest Lecturers

Justin M. Andrews, Scientist Director, Deputy Officer in Charge, Communicable Disease Center, Atlanta, Georgia
David S. Ruhe, Surgeon, Communicable Disease Center, Atlanta, Georgia
Aimee Wilcox, Protozoologist, National Institute of Health, Memphis, Tennessee

Parasitology Consultants

William W. Cort, Ph.D., Professor of Parasitology, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Maryland
Ernest C. Faust, Ph.D., Professor of Parasitology, Department of Tropical Medicine, Tulane University, New Orleans, Louisiana
Stanley B. Freeborn, Ph.D., Assistant Dean, College of Agriculture, University of California, Berkeley, California

Bacteriology Training Staff

Martin Frobisher, Jr., Bacteriologist, In Charge, Bacteriology Branch
Elberton J. Tiffany, Bacteriologist
Philip R. Edwards, Bacteriologist
Martin M. Cummings, S. A. Surgeon
George A. Spendlove, S. A. Surgeon
Libero Ajello, Scientist
Elizabeth I. Parsons, Bacteriologist
Joseph H. Schubert, Bacteriologist
William H. Ewing, Bacteriologist
Robert A. Patnode, Bacteriologist
George C. Klein, Bacteriologist
Margaret C. Drummond, Biochemist
Jerrydean H. Robinson, Biochemist

TRAINING PROGRAM STAFF (Cont'd)

Guest Lecturers

Robert J. Anderson, Senior Surgeon, Assistant Chief, Tuberculosis Control Division, Washington, D.C.
C. W. Emmons, Mycologist, National Institute of Health, Bethesda, Maryland

Bacteriology Consultants

Norman F. Conant, Ph.D., Professor of Mycology, Department of Bacteriology, Duke University School of Medicine, Durham, North Carolina
Herald R. Cox, Sc.D., Director, Viral and Rickettsial Research, Lederle Laboratories, American Cyanamid Company, Pearl River, New York
William F. Friedewald, M.D., Chairman, Department of Bacteriology, Emory University School of Medicine, Emory University, Georgia
Russell Y. Gottshall, Ph.D., Assistant Director, Bureau of Laboratories, Michigan State Health Department, Lansing, Michigan
Thomas F. Sellers, M.D., State Health Officer, Georgia State Department of Public Health, Atlanta, Georgia
David T. Smith, M.D., Professor of Bacteriology, Duke University School of Medicine, Durham, North Carolina
William Steenken, Sc.D., Director, Research and Clinical Laboratory, Trudeau Sanatorium, Trudeau, New York
Stuart Willis, M.D., Superintendent, North Carolina State Sanatorium; Secretary, National Tuberculosis Association, McKain, North Carolina
Eugene C. Woodruff, M.D., Director of Laboratories, Maybury Sanatorium, Northville, Michigan

● **VETERINARY PUBLIC HEALTH DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA**

James H. Steele, Veterinarian, Chief, Veterinary Public Health Division

Training Staff

Ernest S. Tierkel, S.A. Veterinarian (R), In Charge, Rabies Control Branch
Martha E. Eidson, Bacteriologist

Consultant

Thomas F. Sellers. M.D., State Health Officer, Georgia State Department of Public Health, Atlanta, Georgia

● **PRODUCTION DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA**

Gale C. Griswold, Chief, Production Division
Wilmer H. Kimberly, Chief, Production Branch
Harry A. Sherrill, Chief, Story Division Branch
Merle I. Wimmer, Chief, Utilization Branch
Everett Priest, Text Writer, Utilization Materials
Richard E. Brown, Film Specialist

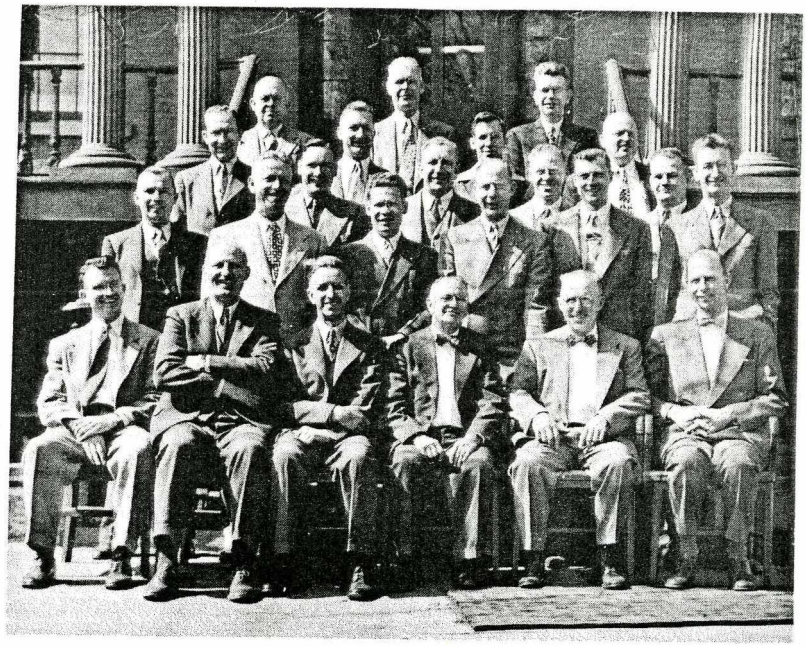
● **ADMINISTRATIVE DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA**

Nelle Barmore, Librarian, In Charge, Library Branch

ADVANCED SANITARY ENGINEERING TRAINING IN STREAM POLLUTION ABATEMENT PROGRAMS (1.1-7)

TYPE OF TRAINING PROGRAM: Lectures, laboratory demonstrations, with emphasis on interpretations, and field demonstration of survey equipment for supervisory sanitary engineering personnel
LOCATION: Water and Sanitation Investigations Station, Cincinnati, Ohio
TIME: February 7 — February 25, 1949 (tentative)
STAFF: E. P. Dubuque, Engineer
Members of training staff, personnel of the Water and Sanitation Investigations Station and prominent consultants in specific fields

A. OUTLINE OF TRAINING PROGRAM



Staff and participants in stream sanitation practices course Cincinnati, Ohio March 15 — April 2, 1948.

The program covers a three week period, furnishing training in organizing and operating stream pollution and industrial waste surveys. Additional time is devoted to the latest techniques, methods, and interpretation of bacteriological, chemical and biological analyses of water, sewage and industrial wastes. The bacteriological, chemical, and biological phases of the sanitary engineering problems will be stressed equally with the engineering aspects. The emphasis in this program will be on stream sanitation surveys and interpretation of data. More than half of the time will be devoted to lectures supplemented with visual training aids. The remaining time will be divided approximately two-thirds to laboratory demonstrations and one-third to field trips. Time will be available for informal group discussions of the various problems.

Some of the major subjects which will be covered in this intensified training course are:

Methods of organizing stream pollution abatement programs and industrial waste surveys
Legal aspects of stream pollution abatement
Interpretation of stream pollution data and its application to water supplies
Methods of investigating industrial waste problems and latest developments on the removal of substances causing taste and odors in water supplies
Bacteriological, biological, and chemical aspects of stream pollution and latest test techniques
Sewage treatment plant control tests
Recent developments in rural sewage disposal with emphasis on water carriage systems
Efficiencies of water and sewage purification processes
Water quality standards
Relative efficiencies of chlorine and chloramines as bactericidal agents
Fluoride problems in water supply

Laboratory demonstrations will be carried out at the Station research and training laboratories. Instructions will be given in the theory, latest modifications and interpretations of the tests.

ADVANCED SANITARY ENGINEERING TRAINING IN STREAM POLLUTION ABATEMENT PROGRAMS (1.1—7)

(Cont'd)

B. ENTRANCE REQUIREMENTS

This program is offered for sanitary engineers with a wide background in stream sanitation. Candidates should be graduate engineers and should be recommended for training by the state health officer or an appropriate Federal official.

No tuition will be charged. Trainees are expected to arrange for their own living and traveling expenses while attending the course, either through state stipend or other means.

C. APPLICATIONS

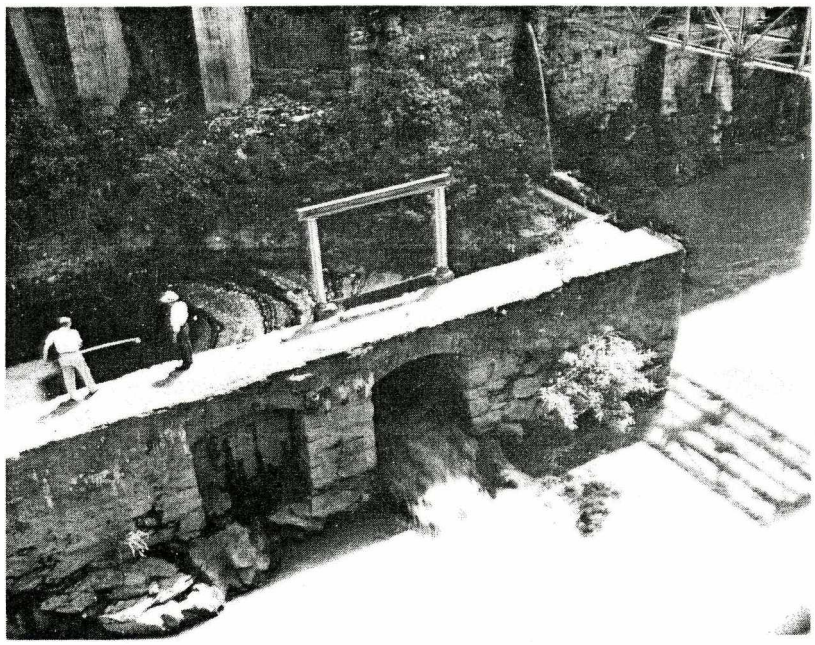
Letters of application for this program should be sent to the Officer in Charge, Public Health Service, Water and Sanitation Investigations Station, Cincinnati, Ohio. The letter should give the name and a brief outline of the education and experience of each applicant and should bear the appropriate recommendation of his superiors. Only a limited number of candidates can be accepted for this program due to the physical limitation of space. Applications should be made prior to January 15, 1949.

ORIENTATION COURSE FOR SANITARY ENGINEERS IN STREAM AND INDUSTRIAL WASTE SURVEY METHODS (1.2-7)

TYPE OF TRAINING PROGRAM: Lectures, laboratory demonstrations and extensive field training in stream and industrial waste survey activities for sanitary engineers with limited experience in this field
LOCATION: Water and Sanitation Investigations Station, Cincinnati, Ohio
TIME: June 20 – September 9, 1949 (tentative)
STAFF: E. P. Dubuque, Engineer
Members of the training staff and personnel of the Water and Sanitation Investigations Station

A. OUTLINE OF TRAINING PROGRAM

The programs covers a twelve-week period and furnishes training in the techniques and methods of conducting and operating stream pollution and industrial waste surveys, together with inspections of various types of water and sewage treatment plants. Sampling and gauging equipment utilized in making surveys will be demonstrated and used by the trainees. The bacteriological, chemical, and biological phases of the sanitary engineering program will be stressed, together with the engineering aspects.



Engineers collecting sample of dye wastes at industrial sewer outfall.

Approximately three-quarters of the time will be spent in laboratory and field work. The remainder of the time will be used for lectures, interpretation of analytical results, report writing and guided discussions of the problems encountered.

Some of the major subjects which will be covered in this intensified training course are:

Methods of organizing stream pollution abatement programs
Methods of investigating industrial waste problems and latest developments in the removal of substances causing tastes and odors in water supplies
Conduct of a stream pollution survey and the writing of a report
Conduct of an industrial waste survey and the writing of a report
Interpretation of stream pollution data and its application to water supplies
Bacteriological, biological, and chemical aspects of stream pollution investigations
Sewage treatment plant control tests
Recent developments in rural sewage disposal with emphasis on water carriage systems
Efficiency of water and sewage purification processes
Water quality standards
Efficiency of chlorine and chloramines as bactericidal agents
Inspections of water treatment plants, well water supplies, and sewage treatment plants

ORIENTATION COURSE FOR SANITARY ENGINEERS IN STREAM AND INDUSTRIAL WASTE SURVEY METHODS (1.2-7)

(Cont'd)

Physical and chemical testing of detergents and bactericidal efficiency of quaternary ammonium compounds

Laboratory demonstrations will be carried out at the Station training laboratories. Instructions will be given in the theory, latest modifications and interpretations of the results.

B. ENTRANCE REQUIREMENTS

This program is offered for sanitary engineers with little or no experience in stream pollution and industrial waste survey methods. Candidates should be graduate engineers and should be recommended for training by the state health officer or an appropriate Federal official.

No tuition will be charged. Trainees are expected to arrange for their own living and traveling expenses while attending the course, either through state stipend or other means.

C. APPLICATIONS

Letters of application for this program should be sent to the Officer in Charge, Public Health Service, Water and Sanitation Investigations Station, Cincinnati, Ohio. The letter should give the name and a brief outline of the education and experience of each applicant and should bear the appropriate recommendation of his superiors. Only a limited number of candidates can be accepted for this program due to physical limitations of space. Applications should be made prior to May 15, 1949.

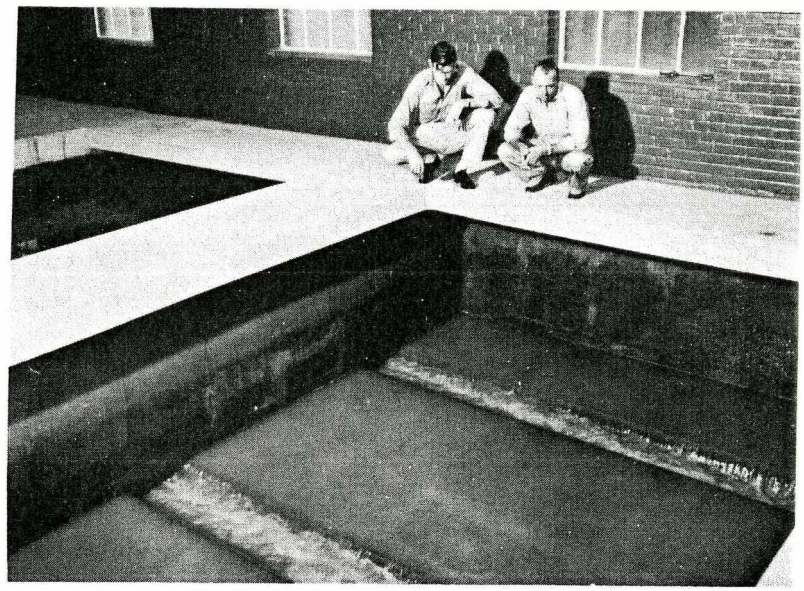
GENERAL SANITARY ENGINEERING FIELD TRAINING (1.3-3)

TYPE OF TRAINING PROGRAM: Practical field training for graduate engineers
LOCATION: Public Health Training Station, Columbus, Georgia
TIME: June 20 — September 10, 1949
STAFF: C. D. Spangler, Sanitary Engineer
R. F. Clapp, Sanitarian
and other members of the staff of the Columbus Public Health Training Station, Columbus-Muscogee County Health Department, members of the staffs of the Columbus Water Department, the Albany Field Training Station and the Training Division, CDC

A. OUTLINE OF TRAINING PROGRAM

The program covers a twelve week period, giving field training in many phases of public health engineering. Although this program is designed for public health engineers who are engaged in supervisory positions with local health departments, it is available to sanitary engineering personnel of state health departments who will derive benefit from this type of field training.

These practical assignments will be primarily a field training experience where the trainee will actually engage in the regular activities of an operating health department, as well as learn the public health engineering aspects of other public works departments in the area. Arrangements have been made to:



Engineer and instructor observe washing of sand filter.

- Participate in the operation of a rapid sand-filtration treatment plant for the municipal water supply
- Participate in the drilling of wells
- Participate in construction of septic tank systems
- Make operating reports on a sewage treatment plant
- Make inspections and reports on several types of garbage disposal
- Work on rodent and insect control programs
- Make food sanitation inspections and surveys
- Inspect and report on milk production and milk processing
- Make housing, premise, and plumbing surveys
- Practice field techniques of health education
- Carry out the standard laboratory techniques necessary to supplement any portion of the program listed above
- Brief experience in industrial hygiene, swimming pool sanitation, meat processing, school sanitation, stream pollution, and sanitary surveys.

Adequate laboratory, construction, and operational equipment, and projection and transportation facilities are available.

The trainees are divided into groups of 2 or 3 men and these teams rotate during eight weeks of field practice. The trainees are changed from team to team so that they have an opportunity to learn from each other. The teams are given specific daily assignments in the various activities. A variety of large and small municipal water and sewage treatment plants are available. Over 200 food handling establishments, approximately 80 producing dairy farms, one holding type pasteurization plant, and one high-temperature short-time pasteurization plant are available for food and milk sanitation field practice. Three sanitary land fills and one incinerator, six swimming pools of various types, and operating programs in insect and rodent control, well drilling, and septic tank and privy construction are also available.

Extensive use will be made of training aids such as film strips, motion pictures, and demonstrations to supplement the field work. The trainee will run laboratory tests connected with the various phases of the training and will be instructed in the theory and interpretation of the tests.

Excellent cooperation is given by the Columbus-Muscogee County Health Department in the conduct of the training program. The sanitation program of the Health Department represents an annual expenditure of approximately $115,500 for an estimated population in Muscogee County of 96,000 including the City of Columbus which has a population of 57,000.

B. ENTRANCE REQUIREMENTS

This program is offered for engineering graduates who have had a satisfactory background in environmental sanitation and are recommended for training by a state health officer, an appropriate Federal official, or the dean of an accredited school of engineering or public health.

No tuition will be charged, but trainees are expected to arrange for their own living and traveling expenses while attending the training program, either through state stipend, their personal resources, or other arrangements with their employers. Rooms for single men are readily available although desirable apartments for families are difficult to obtain.

Trainees should bring field and laboratory work clothes.

C. APPLICATIONS

Application for the training program will consist of a letter to the Training Division, Communicable Disease Center, Atlanta, Georgia, giving the name and a brief outline of the education and experience of each applicant, and bearing the appropriate recommendation of his superiors. Due to the physical limitations of space and staff, this office must make final decisions regarding the acceptance of trainees. Applications should be in this office as soon as possible.

SANITARY ENGINEERING FIELD TRAINING FOR U. S. PUBLIC HEALTH SERVICE REGULAR CORPS OFFICERS (1.4-3,0)

TYPE OF TRAINING PROGRAM: Practical field training for graduate engineers followed by additional supervised field experience in state and local health departments

LOCATION: Public Health Training Station, Columbus, Georgia; other Communicable Disease Center field training stations; and selected state and local health departments

TIME: Three-year training program to be arranged

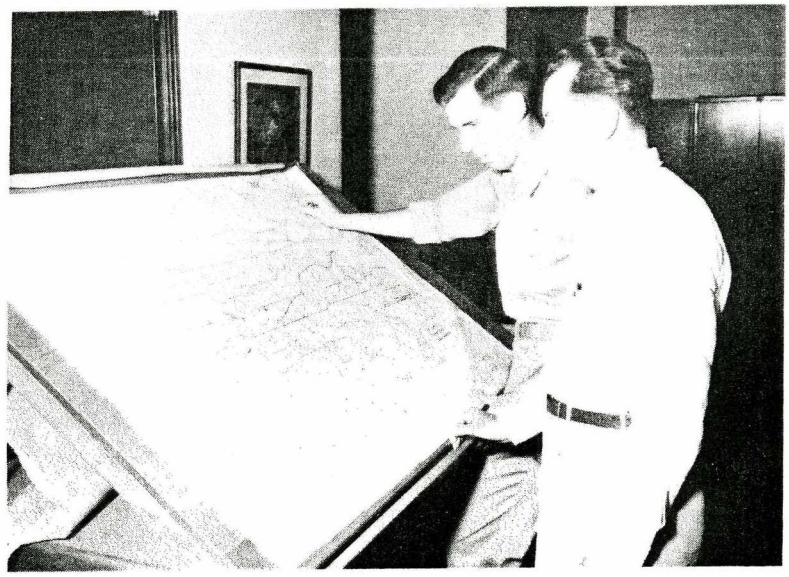
STAFF: Columbus Public Health Training Station:
Members of the staff of the Columbus Public Health Training Station
Members of the staffs of the Columbus Water Department, the Albany Field Training Station, and the Training Division, CDC
Members of the staffs of other Communicable Disease Center field training stations; members of the staffs of the Divisions of Sanitary Engineering and Sanitation of selected state and local health departments

A. OUTLINE OF TRAINING PROGRAM

This three-year field training program is designed to provide wide field experience in sanitary engineering and environmental sanitation activities for regular corps sanitary engineer officers of the U. S. Public Health Service who have recently completed one year of academic instruction leading to an M P H degree or an M.S. degree in sanitary engineering.

The field training will be divided as follows:

1. Assignment to the Columbus Public Health Training Station, Columbus, Georgia, for a period of three months to take the regularly scheduled training program, General Sanitary Engineering Field Training.



Public Health Service officer discusses environmental sanitation program with city sanitary engineer.

2. Assignment to another Communicable Disease Center field training station for a period of nine months to work as assistant to the sanitary engineer in charge of the division of sanitation of the local health department concerned.

3. Assignment to a selected state health department to work in the division of sanitary engineering on various state health department sanitary engineering activities.

4. Continuation of assignment in (3) above for one year or assignment for the same period of time to a city-county health department as sanitary engineer in charge of all environmental sanitation activities of that department.

The training at the Columbus Public Health Training Station is designed to provide the trainee with a period of intensive training in the usual public health engineering activities of a large local health department. For further information concerning the contents of this training program, see the description of the course, General Sanitary Engineering Field Training.

SANITARY ENGINEERING FIELD TRAINING FOR U. S. PUBLIC HEALTH SERVICE REGULAR CORPS OFFICERS (1.4-3.0)

(Cont'd)

The assignment of the trainee to one of the other Communicable Disease Center field training stations, following the completion of the twelve-week program at the Columbus Public Health Training Station, is designed to give the trainee more experience in planning and carrying out an environmental sanitation program in a large city-county health department. While the trainee is more concerned with the actual operations of the health department and will work as assistant to the sanitary engineer in charge of the division of sanitation, he will still have the benefit of the guidance from the training standpoint of the Communicable Disease Center senior training officer at that field training station.

At the completion of one year of training at the Communicable Disease Center field training stations, all trainees will be assigned to the division of sanitary engineering of certain selected state health departments. This training will include supervised experience in the various sanitary engineering activities of the state health department. Working under more experienced sanitary engineers, the trainee will actually carry out programs in water supply, sewage disposal, stream sanitation, food and milk sanitation, camp and recreational area sanitation, and other activities. The trainee will be rotated through these various activities but will receive enough practical experience to have a thorough working knowledge of state health department activities.

The last year of the field training program will depend upon the trainee's previous academic training and experience and the particular type of duty for which he is being trained. Those officers who will be trained for specialized work in water supply, sewage disposal, and related activities will continue their assignment to the state health department for additional field experience in these activities. Those officers who are being trained for more general duty will be assigned by the state health department to which they were previously assigned to a city-county health department in that state. The trainee will have full responsibility for developing or continuing the environmental sanitation program of the local health department.

B. ENTRANCE REQUIREMENTS

This three-year training program is designed for regular corps sanitary engineering officers who have recently completed the academic instruction indicated previously. During this period of training, the officer will be assigned on full-pay status and all travel from station to station on change of field training assignment will be paid for by the Government.

C. APPLICATIONS

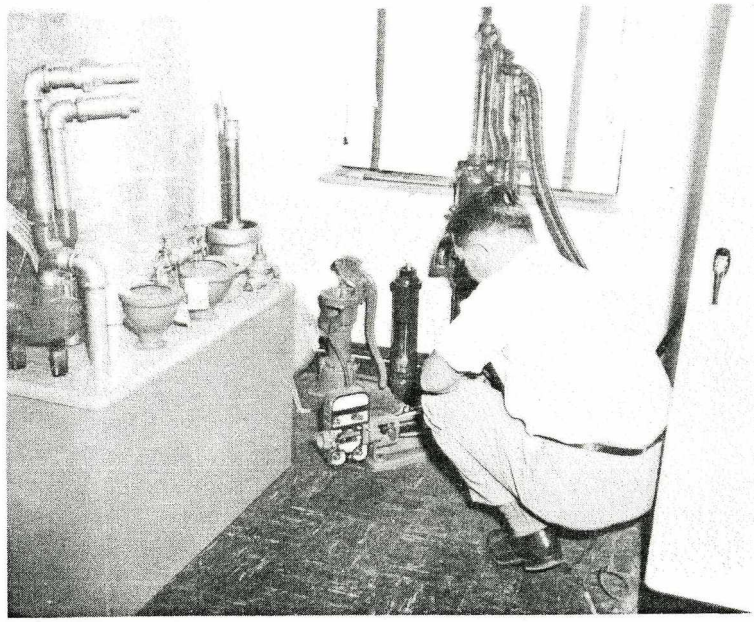
This field training will be arranged for each officer undertaking graduate academic training as a part of his training in the Public Health Service. Upon application for graduate training, each officer should indicate the particular type of duty for which he desires field training. Insofar as practicable and with consideration of the needs of the Service, the officer's desires in regard to field training will be given full consideration. All arrangements for field training will be made jointly by the Division of Commissioned Officers, the Sanitary Engineering Division, and the Communicable Disease Center.

SPECIAL TRAINING PROGRAM IN MUNICIPAL AND RURAL WATER SUPPLY PRACTICES (1.5-4)

TYPE OF TRAINING PROGRAM: Special training program in water supply practices
LOCATION: Topeka Field Training Center, Topeka, Kansas
TIME: To be announced
STAFF: This special training program has been arranged at the request of the U.S.P.H.S. District No. 7 Office and the State Health Departments in this district to meet a special need. The combined staffs of the District Office and the Topeka Field Training Center will participate in giving the instruction.

A. OUTLINE OF TRAINING PROGRAM

This short course in water supply practice is designed to assist the sanitary engineers in the states included in District No. 7 of the Public Health Service. It has been developed in cooperation with the state officials concerned with both municipal and rural water supply practice.



Sanitary engineer studies operation of pumping equipment.

B. ENTRANCE REQUIREMENTS

This field training program is open to sanitary engineers, selected and approved by the State Health Departments in USPHS District No. 7, who have had some training and experience in public water supply practice. *No tuition will be charged, but the trainees are expected to arrange for their own living and traveling expenses.*

C. APPLICATIONS

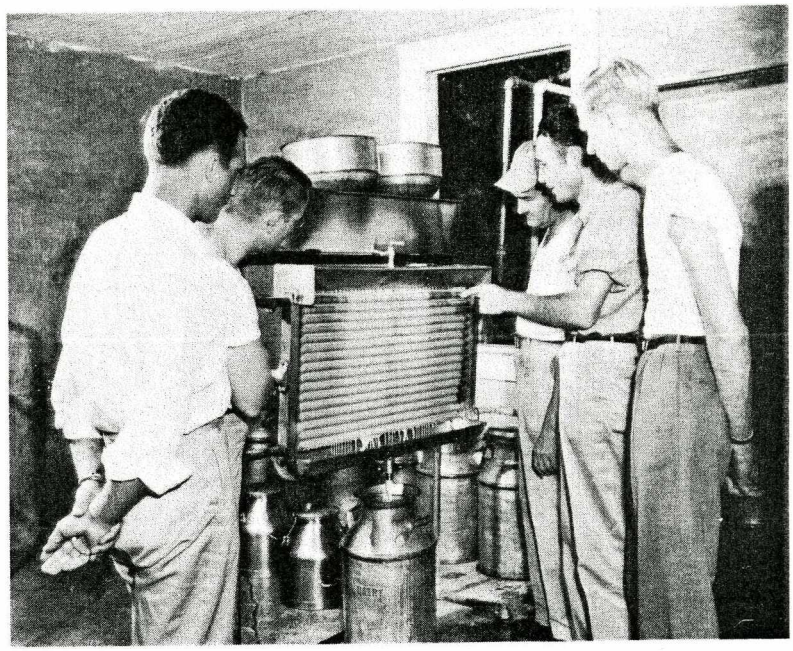
All applications for admission must bear the approval of the State Health Officer concerned. Letters of application should be sent to the U.S.Public Health Service, District No. 7, Kansas City, Missouri, or to the Training Division, Communicable Disease Center, U.S.Public Health Service, 165 Luckie Street, N.W., Atlanta, Georgia.

ENVIRONMENTAL SANITATION FIELD TRAINING (2.1-3)

TYPE OF TRAINING PROGRAM: Practical field training for sanitarians
LOCATION: Public Health Field Training Station, Columbus, Georgia
TIME: February 6 — April 30, 1949
September 17 — December 9, 1949
STAFF: C. D. Spangler, Sanitary Engineer
R. F. Clapp, Sanitarian
and other members of the staff of the Columbus Public Health Training Station, Columbus-Muscogee County Health Department, members of the staffs of the Columbus Water Department, the Albany Field Training Station and the Training Division, CDC

A. OUTLINE OF TRAINING PROGRAM

The program covers a twelve week period, giving field training in all phases of environmental sanitation. The program is designed for sanitarians who will do general sanitation in a city or county health department. This course is intended for new men in the field of public health sanitation and is flexible enough to be valuable for men who have had experience in one or two fields and who now desire to broaden the scope of their activities. This is also an excellent refresher course to bring men up to date in the latest information of the various activities.



Sanitarians receive instruction in the proper cooling of milk.

This program will offer principally a field training experience where the trainee will actually engage in the regular activities of an operating health department. Practical assignments in all of the usual activities of sanitarians in city-county health units will be made and will include field experience in the following:

Urban and rural water supplies
Urban and rural sewage disposal
Garbage collection and disposal
School and recreational area sanitation
Private premise sanitation
Housing and plumbing
Food handling sanitation
Milk sanitation
Bathing area sanitation
Sanitary surveys
Insect and rodent control
Laboratory and field tests and their interpretation
Health education techniques
Record keeping and report writing
Adequate laboratory, construction, and operational equipment, and projection and transportation

facilities are available.

The trainees are divided into groups of 2 or 3 men for field practice assignments. Each group carries out field activities under the general supervision of a field training instructor. More experienced sanitarian trainees are given special field practice assignments to work out on their own initiative. A variety of large and small municipal water and sewage treatment plants are available. More than 200 food handling establishments, approximately 80 producing dairy farms, one holding type pasteurization plant, and one high-temperature short-time pasteurization plant are available for food and milk sanitation field practice. Three sanitary land fills and one incinerator, six swimming pools of various types, and operating programs in insect and rodent control, well drilling, and septic tank and privy construction are also available.

Extensive use will be made of training aids such as film strips, motion pictures, and demonstrations to supplement the field work. The trainee will run laboratory tests connected with the various phases of the training and will be instructed in the theory and interpretation of the tests.

Excellent cooperation is given by the Columbus-Muscogee County Health Department in the conduct of the training program. The sanitation program of the Health Department represents an annual expenditure of approximately $115,500 for an estimated population in Muscogee County of 96,000 including the City of Columbus which has a population of 57,000.

B. ENTRANCE REQUIREMENTS

This program is offered to any person who has or can meet the merit system requirements for some type of sanitation position in the state he represents.

No tuition will be charged, but trainees are expected to arrange for their own living and traveling expenses while in attendance, either through state stipend, their personal resources, or other arrangements with their employers. Rooms for single men are readily available although desirable apartments for families are difficult to obtain.

Trainees should bring field and laboratory work clothes.

C. APPLICATIONS

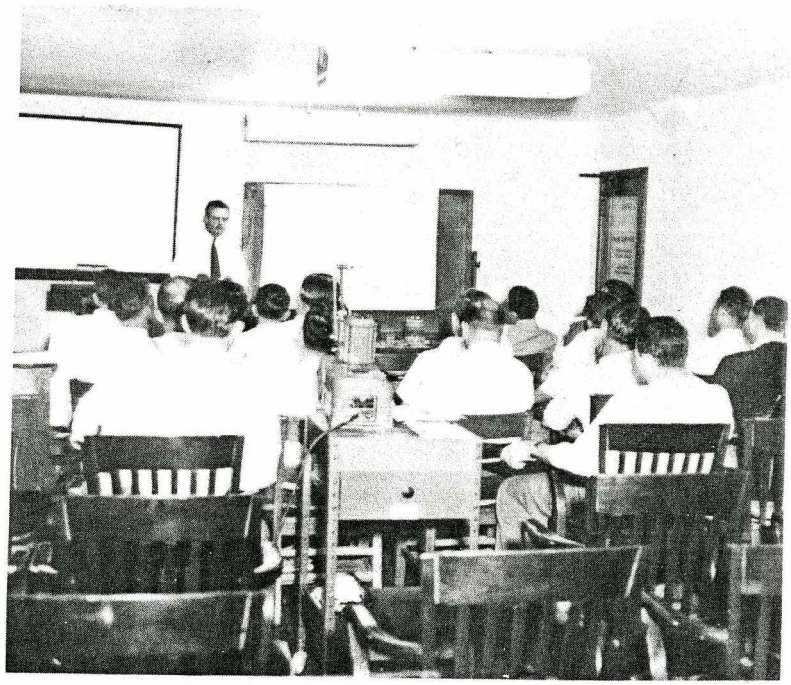
Application for the program will consist of a letter of recommendation from the state health officer to the Training Division, Communicable Disease Center, Atlanta, Georgia, giving the name, education, and a brief outline of the experience of each applicant. City and county health departments desiring to send representatives for training should apply through their state health officer. Due to the physical limitations of space and staff, this office must make final decisions regarding the acceptance of trainees. Facilities are available for training about 16 men. When selections have been made by this office, each trainee will be notified of his acceptance for training through his state health officer.

ENVIRONMENTAL SANITATION
FIELD TRAINING (2.2-4)

TYPE OF TRAINING PROGRAM: Practical field training for sanitarians
LOCATION: Topeka Field Training Station, 603 Topeka Avenue, Topeka, Kansas
TIME: Jan. 10 — April 2, 1949
Aug. 20 — Nov. 19, 1949
STAFF: D. D. Carr, M.D. — Director
Hugh E. Eagan, Sr.-Training Officer
Romaine E. Kious — Training Officer
and other members of the staffs of the Topeka Field Training Station and the Kansas State Board of Health. Also members of the staff of the USPHS District No. 7 Office

A. OUTLINE OF TRAINING PROGRAM

This twelve-week specialized training program in environmental sanitation is designed to equip the trainee with a working knowledge of an over-all program of municipal and county sanitation work. The first four weeks of fundamental background information include public health administration, records, bacteriology, public health nursing, and public health education. The remaining eight weeks include field experience in rural and urban sanitation, rodent and insect control, plumbing, meat sanitation, housing, milk sanitation, and sanitation of eating and drinking establishments. During the entire training program emphasis is placed on the methods used in handling sanitation problems in the midwestern region of the United States.



Visual aids are used in briefing sanitarians before a field trip.

Each trainee is given an opportunity to work alone in solving practical problems with guidance and counsel from the training staff. The planned discussion following each field experience has proven to be a valuable aid in emphasizing fundamental points of public health practice. This work, under close supervision, gives the trainee confidence in himself and an understanding of sanitary practices which fit him to do a better job as a co-worker in a health department.

The Topeka Field Training Station is located in Topeka, Kansas, a midwestern city of 100,272 population. Topeka, the state capitol, is a center of railroad, industrial, and agricultural interests. The area served by the Topeka City-Shawnee County Health Department has a total population of 127,371 and offers many advantages for the study of urban and rural environmental sanitation. The Topeka City-Shawnee County Health Department has developed a progressive, fully-staffed health department with outstanding facilities. Active participation in the training program is also maintained by the Kansas State Board of Health and the District No. 7 Office of the U. S. Public Health Service.

ENVIRONMENTAL SANITATION FIELD TRAINING (2.2-4)

(Cont'd)

B. ENTRANCE REQUIREMENTS AND APPLICATIONS

This program is offered to any person actively engaged in environmental sanitation work. Trainees' applications must be approved by immediate supervisory officer and forwarded to the U. S. Public Health Service, District No. 7, Inter-State Building, Kansas City, Missouri.

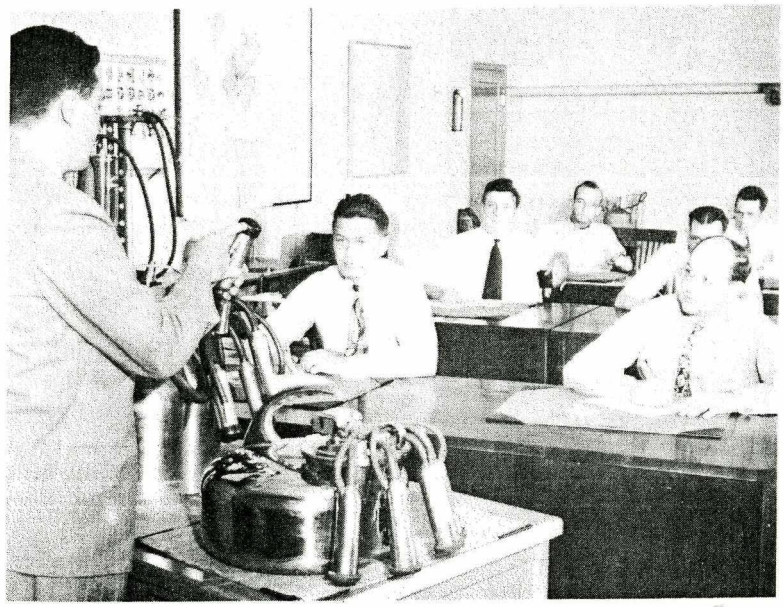
No tuition will be charged, but trainees are to arrange for their own living and traveling expenses either through state stipend, their personal resources, or other arrangements with their employers.

If additional information is required inquiries may be addressed to the U. S. Public Health Service, District No. 7, Inter-State Building, Kansas City, Missouri, or the Communicable Disease Center, Training Division, 605 Volunteer Building, Atlanta, Georgia, or Topeka Field Training Center, 603 Topeka Avenue, Topeka, Kansas.

ENVIRONMENTAL SANITATION FIELD TRAINING (2.3-6)

TYPE OF TRAINING PROGRAM: Practical field training for sanitary inspector personnel
LOCATION: New York State-Rensselaer County Public Health Training Center, Troy, N. Y.
TIME: February 28 — May 20, 1949
June 13 — September 2, 1949
September 19 — December 9, 1949
STAFF: J. F. O'Brien, Sanitarian
H. W. Haas, Engineer
Donald B. Stevens, Sanitary Engineer
and other members of the staff of the New York State-Rensselaer County Public Health Training Center. Also members of the staff of the U. S. Public Health Service District #1 Office

A. OUTLINE OF TRAINING PROGRAM



Representative of New York State Health Department addressing sanitary inspectors in training at Troy, New York.

The twelve-week courses in environmental sanitation are organized to give the trainee a working knowledge of the major elements in municipal and rural sanitation and their relation to sanitary inspectors' work. The first two weeks of fundamental background include elementary bacteriology, communicable diseases, public health organization and administration and public health education. The next two weeks are devoted to discussion and field experience in water and sewage, swimming pool sanitation and school sanitation. The fifth week covers concrete construction and mathematics pertaining to a sanitary inspector's work and to nuisances, garbage collection and disposal, and industrial hygiene. During the sixth week, insect and rodent control is discussed and field demonstrations are participated in by the trainees. The following four weeks (seventh to tenth) are devoted to milk and food sanitation. Food and milk ordinances, restaurants, dairy farms, pasteurization plants, laboratory and field tests of food and milk and their interpretation are discussed during the first week and a half. The trainees are then taken out in small groups accompanied by various instructors to inspect restaurants, farms and dairy plants. During the latter part of the four-week period, the trainees inspect these various activities alone and also collect samples in addition to running field tests and simple laboratory tests on these samples. The students participate in a round table discussion on milk and food for the last two days of this period. During the last two weeks of the course, the trainees make a sanitary survey of a small community and undertake a resort sanitation survey. As this requires a knowledge and use of most of the principles of environmental sanitation, it serves as both a review and a practical application of the subjects.

ENVIRONMENTAL SANITATION FIELD TRAINING (2.3-6)

(Cont'd)

During the course, over twenty guest lecturers, who are among the leaders in their fields, participate in the discussions and demonstrations.

The station uses the laboratory facilities of the Rensselaer County Health Department in the examination of the samples collected during their field inspections.

It is intended that during the periods between the twelve-week courses, short courses of one, two, or three weeks duration will be offered in special fields of sanitation, either at the training station in Troy or in any city in the U.S.Public Health Service District #1 that may be desirous of having such a course. These courses will be offered in the following fields of sanitation: (1) restaurant sanitation, (2) milk sanitation, (3) insect and rodent control, (4) private water supply and sewage disposal. All these courses will include basic subjects, such as bacteriology, communicable disease control and public health organization, besides the detailed discussions on the specialized subjects. About 50% of the time in these short courses is allowed for field work.

In all courses, extensive use is made of audio visual aids and demonstration equipment.

B. ENTRANCE REQUIREMENTS

This program is offered to any person who has, or who can meet, the merit system requirements for some type of sanitary inspector position in the state he represents. The trainee should have at least a high school education and two years of experience in similar health department activities to obtain the maximum benefit from this field training program. College trained applicants will be given preference for this program.

No tuition will be charged, but trainees are expected to arrange for their own living and traveling expenses while in attendance, either through state stipend, their own personal resources, or other arrangements with their employers.

Trainees should bring field and laboratory work clothes.

C. APPLICATIONS

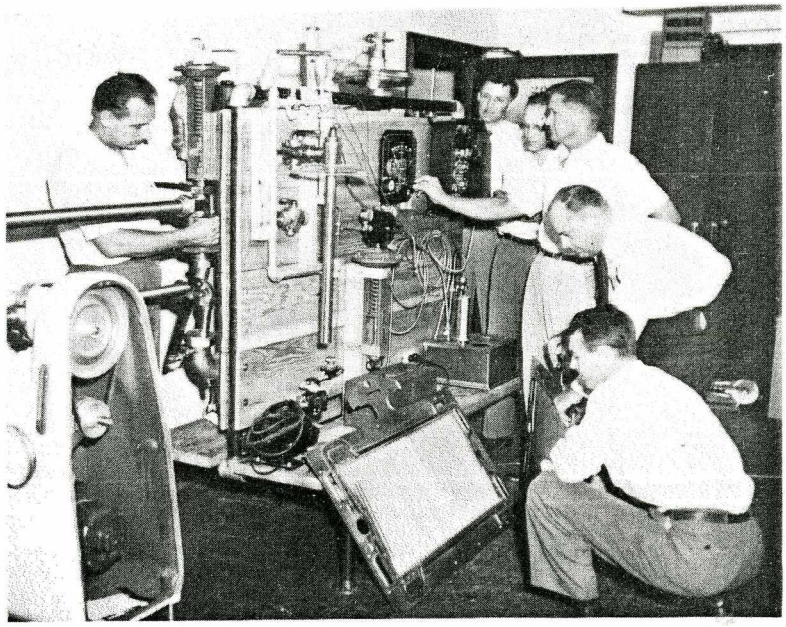
Letters of application should be sent to the U. S. Public Health Service District #1, Sub-Treasury Building, 15 Pine Street, New York 5, New York, or to the Training Division, Communicable Disease Center, U. S. Public Health Service, 165 Luckie Street, N. W., Atlanta, Georgia. Each letter of application should give the name, education, and a brief outline of the experience of each applicant. City and county health departments interested in sending representatives to the regular training program or having a short course presented should apply through their state health officer to one of the above addresses.

SPECIAL TRAINING PROGRAMS IN MILK AND FOOD SANITATION (2.4-4)

TYPE OF TRAINING PROGRAM: Special training program in milk and food sanitation
LOCATION: Topeka Field Training Station, 603 Topeka Avenue, Topeka, Kansas
TIME: Milk Sanitation
April 25 — May 7, 1949
Food Sanitation
June 6 — June 18, 1949
STAFF: D. D. Carr, M. D. — Director
Hugh E. Eagan — Senior Training Officer
Romaine E. Kious — Training Officer
and other members of the staffs of the Topeka Field Training Station and the Kansas State Board of Health. Also members of the staff of the USPHS District No. 7 Office.

A. OUTLINE OF TRAINING PROGRAM

These two-week training periods are designed to assist the personnel of local and state health departments in the technical aspects of milk and food sanitation. Emphasis will be placed on the demonstration of physical and chemical tests and in familiarizing the trainee with the engineering design and operation of dairy, milk plant and restaurant equipment. Active participation by the trainee will be expected in field work as well as in the panel discussions.



Milk sanitarian trainees working with short-time high temperature pasteurization equipment.

Topeka Field Training Station is located in Topeka, Kansas, a midwestern city of 100,272 population, and is the State Capitol. Topeka is a center of railroad, industrial and agricultural interests. The area served by the Topeka City-Shawnee County Health Department has a total population of 127,371 and offers many advantages for the study of urban and rural environmental sanitation. The Topeka City-Shawnee County Health Department has developed a progressive, fully staffed health department with outstanding facilities. Active participation in the training program is maintained by the Kansas State Board of Health and the District Office of the U.S. Public Health Service.

B. ENTRANCE REQUIREMENTS AND APPLICATIONS

This program is offered to any person actively engaged in environmental sanitation work. Trainee's application must be approved by immediate supervisory officer and forwarded to the U.S. Public Health Service, District No. 7, Inter-State Building, Kansas City, Missouri.

No tuition will be charged, but trainees are to arrange for their own living and traveling expenses either through state stipend, their personal resources, or other arrangements with their employers.

SPECIAL TRAINING PROGRAMS IN MILK AND FOOD SANITATION (2.4-4) (Cont'd)

If additional information is required inquiries may be addressed to the U.S. Public Health Service, District No. 7, Inter-State Building, Kansas City, Missouri, or the Communicable Disease Center, Training Division, 605 Volunteer Building or the Topeka Field Training Center, 603 Topeka Avenue, Topeka, Kansas.

FIELD SURVEY AND EVALUATION METHODS IN HOUSING SANITATION (2.5-1)

TYPE OF TRAINING PROGRAM: Field and office training in *Appraisal Method for Measuring the Quality of Housing* for supervisory health department personnel and others interested in the use of this technique

LOCATION: Training Division, Communicable Disease Center, 165 Luckie Street, N.W., Atlanta, Georgia, and the City of Atlanta Health Department

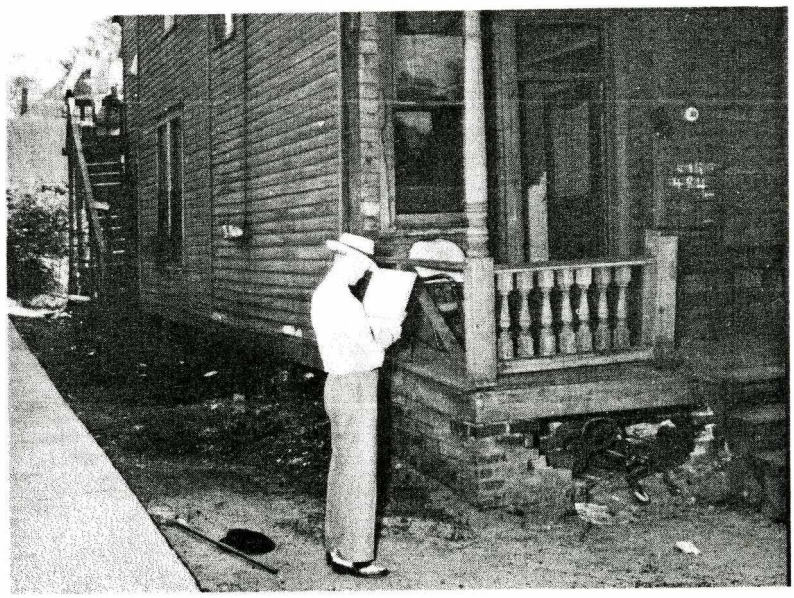
TIME: January 10 — February 11, 1949
March 14 — April 15, 1949
May 16 — June 17, 1949
July 18 — August 19, 1949
September 19 — October 21, 1949
November 14 — December 16, 1949

STAFF: Ross W. Buck, Engineer
Emil A. Teboni, Training Officer
and other members of the staff of the Communicable Disease Center and the Atlanta Health Department

A. OUTLINE OF TRAINING PROGRAM

The program covers a five-week period of intensive field and office training in the Appraisal Method for Measuring the Quality of Housing as developed by the Committee on the Hygiene of Housing, American Public Health Association. The course is designed to cover all parts of the survey such as field inspections, office processing, selection of areas, and environmental survey. The fifth week is spent in analysis interpretation and preparation of reports.

The five-week training period will enable the trainees to establish the survey in their respective localities and to train their local personnel for essential duties.



Sanitary engineer making field inspection of dwelling unit.

B. ENTRANCE REQUIREMENTS

This program is offered for supervisory personnel of state and local health departments and city planning commissions. Candidates need not be engineers, but persons recommended should have a background in environmental sanitation, statistics or city planning. Since part of the training period will be spent considering each trainee's local problem, it is important that only personnel well acquainted with their particular areas be considered for enrollment in this program.

C. APPLICATIONS

Letters of application for this program should be sent to the Training Division, Communicable Disease Center, Public Health Service, Federal Security Agency, 165 Luckie Street, N.W., Atlanta,

Georgia. The letter should give the name and a brief outline of education and experience of each applicant and should bear the appropriate recommendation of his supervisors. Certain basic maps of each trainee's local area will be required. This information will be forwarded to the trainee as soon as he is accepted. Due to the limitation of training personnel only a limited number of candidates will be accepted for this training period. Application should be made as soon as possible.

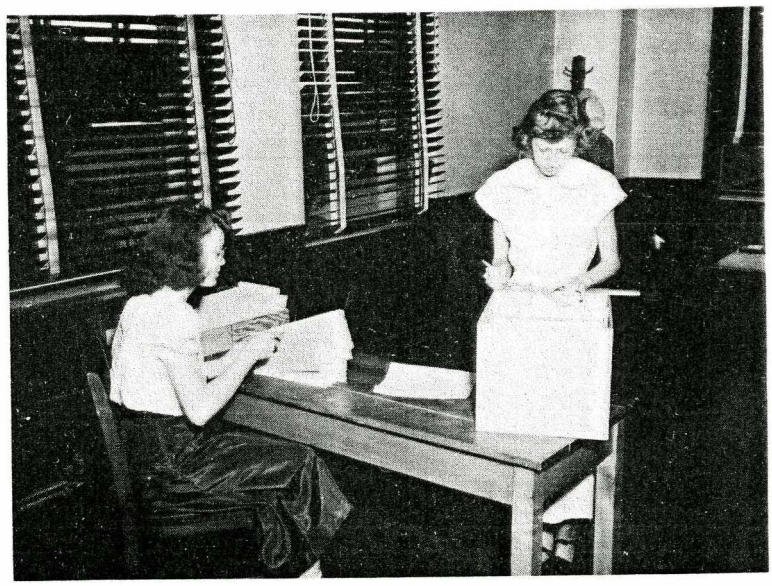
SPECIAL TRAINING PROGRAMS IN HOUSING SANITATION (2.6-1)

TYPE OF TRAINING PROGRAM:	Administration of Housing Program for Health Departments, for selected Public Health Service and State Health Department Personnel
LOCATION:	Training Division, Communicable Disease Center, 165 Luckie Street, N.W., Atlanta, Georgia, and the City of Atlanta Health Department
TIME:	Tentatively scheduled for 5 days. Dates to be announced later.
STAFF:	Ross W. Buck, Engineer Emil A. Teboni, Training Officer and other members of the staff of the Communicable Disease Center and the Atlanta Health Department

A. OUTLINE OF TRAINING PROGRAM

The program covers a demonstration in field and office procedures on the Housing Sanitation Survey as developed by the Committee on the Hygiene of Housing, American Public Health Association. In addition to the demonstration, items such as costs, personnel requirements and production estimates will be discussed in detail.

Basic types of housing and relocation laws will be brought forth to demonstrate the pitfalls of non-specific laws in housing programs. This subject will include a study of all Federal laws governing the rehabilitation of public and private housing.



Clerks assist in the analysis of housing sanitation data.

The relationship of Health Departments and City Planning Commissions emphasizing the importance of their cooperation in solving health problems in the housing fields.

B. ENTRANCE REQUIREMENTS

This program is offered for supervisory personnel of state and local health departments and city planning commissions. Candidates need not be engineers but persons recommended should have a background in environmental sanitation, statistics or city planning.

C. APPLICATIONS

Letters of application for this program should be sent to the Training Division, Communicable Disease Center, Public Health Service, Federal Security Agency, 165 Luckie Street, N.W., Atlanta, Georgia. The letter should give the name and a brief outline of education and experience of each applicant and should bear the appropriate recommendation of his supervisors.

RAT-BORNE DISEASE PREVENTION AND CONTROL (3.1-1)

TYPE OF TRAINING PROGRAM: A comprehensive field training program in rat-borne disease prevention and control

LOCATION: Training Division, Communicable Disease Center, 165 Luckie St., N.W., Atlanta, Ga.

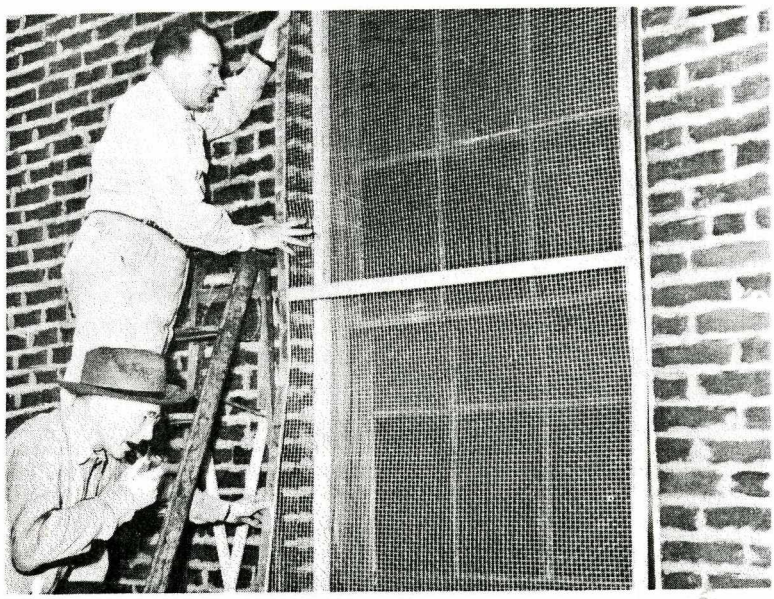
TIME: March 14 — April 8, 1949
September 19 — October 14, 1949

STAFF: C. F. Fehn, Engineer
A. R. Kinney, Jr., Training Officer
R. C. Barnes, Entomologist
C. W. Marshall, Entomologist
H. H. Rogers, Engineer
and other members of the staff of the Communicable Disease Center and the Atlanta Health Department

A. OUTLINE OF TRAINING PROGRAM

This four-week, comprehensive field training program includes extensive supervised field practice in the principal procedures applicable in the prevention and control of rat-borne diseases. The following subjects are included in this program:

- Epidemiology of the various rat-borne diseases
- Rat-borne disease surveys
- Habits and characteristics of the domestic species of rats
- Habits, characteristics and identification of rat ectoparasites
- Environmental sanitation and rat control.
- Techniques of ratproofing existing buildings, including estimating, contracts and bookkeeping
- Procedures and techniques in the control and eradication of rats
- Ratproof construction of new buildings
- Control of rat ectoparasites
- Evaluation of rat ectoparasite control
- Organization of rat-borne disease prevention and control programs



Trainees installing hardware cloth screen on window

This training program develops sound, practical approaches to rat-borne disease problems in accordance with the best current practices. An understanding of the total scope of these problems is provided and their integration with other public health problems is demonstrated. In achieving these objectives, emphasis is placed on actual field work, with class work being based on preparation for field practice and summarization of field work accomplished. A limited amount of rearrangement of the program may be permitted if the background, needs, or interests of the students make such changes desirable.

The field training is obtained on the Typhus Control Program of the Atlanta Department of Health, Atlanta, Georgia, which has been in successful operation for over three years and has

ratproofed and rat-freed the business premises of many blocks in the heart of downtown Atlanta. The use of the facilities and the assistance of the staff and personnel of the Atlanta Department of Health have been made possible by the cooperation of the City Health Officer, and the Director of the Typhus Control Program of the Atlanta Department of Health. Adequate personnel and equipment are available to assure effective typhus control work in Atlanta and to carry out field training in rat-borne disease control methods.

Field work in this training program is supervised by the staff of the Training Division. Lectures and discussions of the problems are carried on by the staff and by authorities in special fields invited to participate in the training program. The class work will be augmented, where practicable, with training films, film strips, models, and other visual aids.

B. ENTRANCE REQUIREMENTS

This program is planned for prospective and currently employed environmental sanitation personnel in health departments. Personnel of other organizations actively engaged in rat control or related fields will also find the program of practical value.

No tuition will be charged, but trainees are expected to arrange for their own living and traveling expenses while participating in the training program, either through financial arrangement with their sponsors or through their personal resources. Accommodations for single men may be obtained at Atlanta hotels and the Atlanta YMCA, which are conveniently located near the offices of the Training Division. Accommodations for families may be secured at local motor courts and tourist homes. Upon request, and after application has been accepted and enrollment confirmed, the Training Division will endeavor to obtain reservations for such housing as may be specifically requested and may be found to be available.

Trainees should bring field and laboratory work clothes.

C. APPLICATIONS

Applications should be made through the sponsoring agency and be addressed to the Chief, Training Division, Communicable Disease Center, Atlanta, Georgia. The name, education, and experience of each person applying for the training should be included. Health department personnel should make application through the state health officer, and personnel of other organizations should apply through the head of the organization concerned.

SPECIAL TRAINING IN INSECT AND RODENT CONTROL (3.2-1)

TYPE OF TRAINING PROGRAM: Practical training in insect and rodent control for public health personnel of the United States and foreign countries

LOCATION: Training Division, Communicable Disease Center, 165 Luckie Street, Atlanta, Ga.

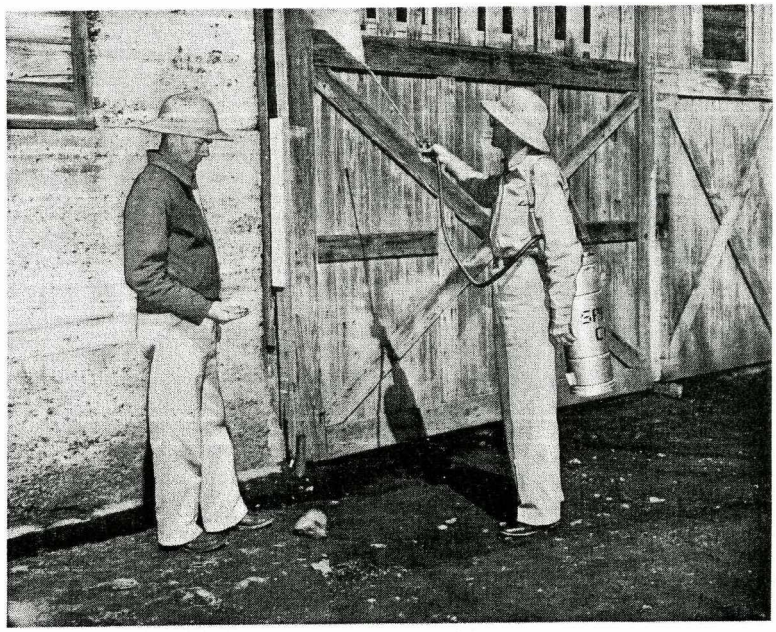
TIME: June 6 — 17, 1949
June 20 — July 1, 1949
July 11 — 22, 1949
July 25 — August 5, 1949
August 15 — 26, 1949

STAFF: R. C. Barnes, Entomologist
C. F. Fehn, Engineer
A. R. Kinney, Jr., Training Officer
C. W. Marshall, Entomologist
and other members of the staffs of the Communicable Disease Center and the Atlanta Department of Health

A. OUTLINE OF TRAINING PROGRAM

This special two-week course on insect and rodent control will be offered five times during the summer of 1949 as indicated above.

The first week of each of these courses will be concerned with the control of insects of public health importance, with the major emphasis on mosquitoes and flies. The second week of each course will be on rodent control and will be particularly concerned with the prevention of murine typhus fever and plague.



Trainee practices application of DDT residual spray.

These courses will consist of classroom and laboratory work together with field observation and participation. Classroom work will be supplemented by appropriate motion picture films, film strips, slides, and bulletins. Field experience will be obtained in Atlanta and vicinity in cooperation with the Atlanta Health Department.

The courses are designed so that persons may enroll for the two week course or, if desired, may enroll for only the first week (insect control) or only the second week (rodent control). It will also be possible to accommodate a limited number of students wishing more extensive field training than that offered during these short courses.

B. ENTRANCE REQUIREMENTS

This program is available to public health personnel of the United States and foreign countries who are concerned with insect and rodent control. Personnel of other organizations who are actively engaged in insect or rodent control will also be accepted if facilities permit.

No tuition will be charged, but trainees are expected to arrange for their own living and traveling expenses.

Trainees should bring field and laboratory work clothes.

C. APPLICATIONS

Application should be made through the sponsoring agency to the Chief, Training Division, Communicable Disease Center, Atlanta, Georgia. Applications should be submitted at least one month in advance of the date on which the course is scheduled to begin.

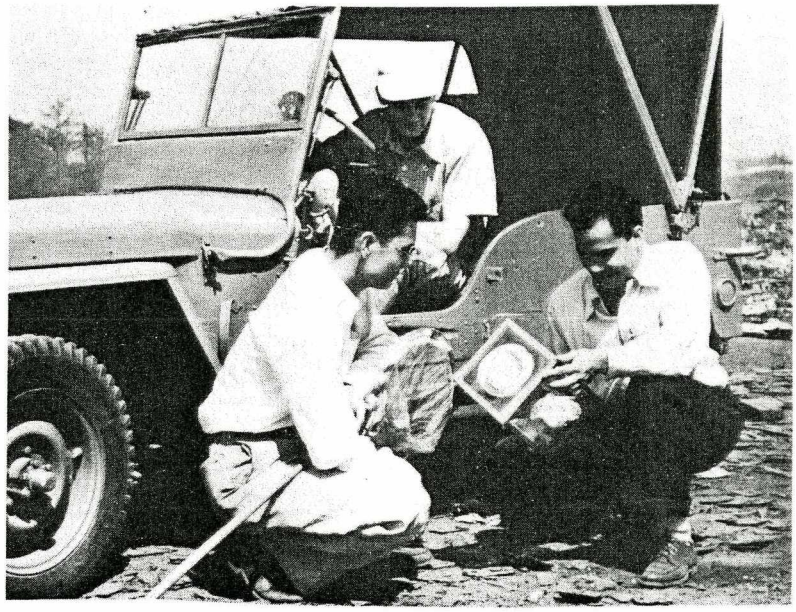
FLY CONTROL (3.3-1)

TYPE OF TRAINING PROGRAM: Practical training in the control of the common flies of public health importance
LOCATION: Training Division, Communicable Disease Center, 165 Luckie Street, Atlanta, Ga.
TIME: To be offered during spring of 1949. Exact dates will be announced later
STAFF: R. C. Barnes, Entomologist
C. F. Fehn, Engineer
C. W. Marshall, Entomologist
and other members of the staff of the Communicable Disease Center

A. OUTLINE OF TRAINING PROGRAM

This one-week training program is designed to acquaint public health workers with the biology, identification, and control of the common flies which occur about homes, restaurants, markets, garbage dumps, etc. The course will include classroom discussions, laboratory exercises, field demonstrations, and supervised experience. The following subjects will be covered:

- Habits and characteristics of domestic flies
- Fly identification
- Relation of flies to public health
- Methods of conducting fly surveys
- Fly control methods
- Community fly control programs
- Evaluation of fly control operations



Students observing effect of DDT spray on flies

B. ENTRANCE REQUIREMENTS

This program is available to Public Health Service personnel, and state and local health department employees. Members of other organizations who are concerned with fly control will also be accepted if available facilities permit.

No tuition will be charged, but trainees are expected to arrange for their own living and traveling expenses.

Trainees should bring field and laboratory work clothes.

C. APPLICATIONS

Application should be made through the State Health Officer or other sponsoring agency to the Chief, Training Division, Communicable Disease Center, Atlanta, Georgia.

DECENTRALIZED TRAINING PROGRAMS IN INSECT AND RODENT CONTROL (3.4-1)

TYPE OF TRAINING PROGRAM: Short training programs on the control of insects and rodents of public health importance — a service to state and local health departments and schools of public health

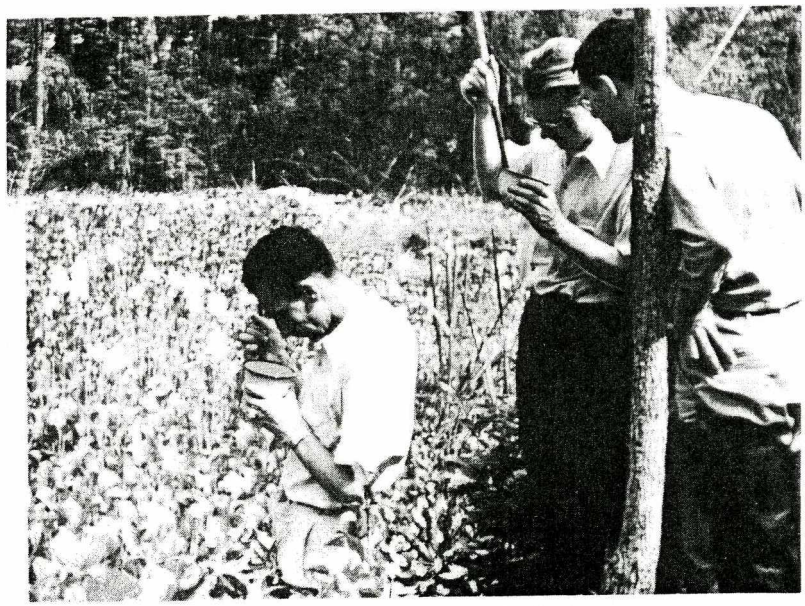
LOCATION: Programs to be given at points designated by state health officers

TIME: To be arranged.

STAFF: R. C. Barnes, Entomologist
C. F. Fehn, Engineer
C. W. Marshall, Entomologist
A. R. Kinney, Jr., Training Officer
and other members of the staff of the Training Division and state and district CDC representatives

A. OUTLINE OF TRAINING PROGRAM

Special program of from one to five days to assist states in training of public health personnel in the latest methods of insect and rodent control. Emphasis will be placed on the control of rodents, mosquitoes, flies, fleas, and ticks. Material will be presented by means of lectures, motion picture films, and demonstrations. Field demonstrations and practice will be arranged in cooperation with existing control programs wherever possible.



Trainees collecting mosquito larvae.

B. ELIGIBILITY

Any state, state-district, or local health department, or non-profit public health organization is eligible to receive this service.

C. APPLICATIONS

Address a letter through the state health officer to the Chief, Training Division, Communicable Disease Center, Atlanta, Georgia, stating the preferred time and place to have the course given. An effort will be made to allot this time; however, all final decisions must be made by this office to prevent conflicts. Please state specifically with whom negotiations should be carried on, and a reply will be given as soon as the schedule can be determined.

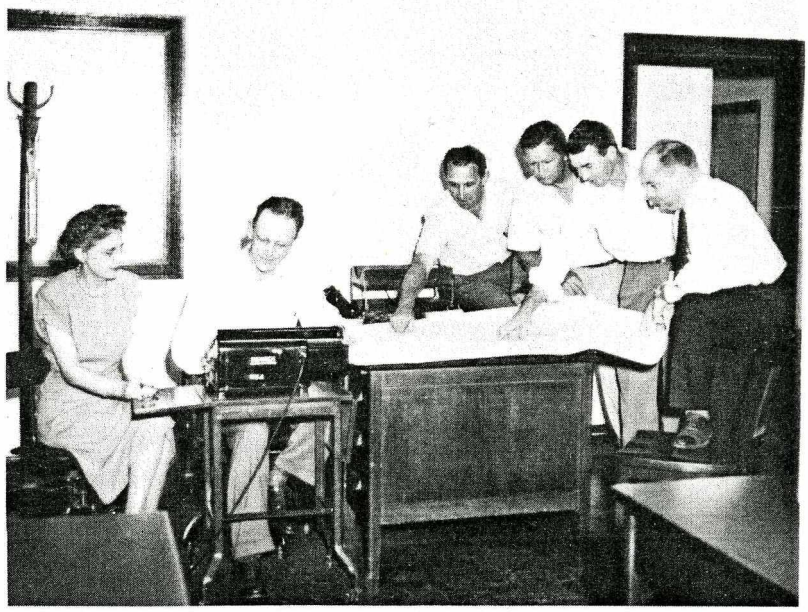
PRACTICAL HEALTH DEPARTMENT RECORDS TRAINING (4.1-4)

TYPE OF TRAINING PROGRAM: Practical training in the purpose and use of public health records and reports
LOCATION: Topeka Field Training Station, 603 Topeka Avenue, Topeka, Kansas
TIME: April 11 — April 23, 1949
August 29 — September 10, 1949
STAFF: D. D. Carr, M.D., Director
Miss Evelyn Ford, Records Consultant
Miss Alpha Kenny, Training Officer
and other members of the staffs of the Topeka Field Training Station, the Kansas State Board of Health, and the U. S. Public Health Service.

A. OUTLINE OF TRAINING PROGRAM

This training program is designed to provide practical training in record keeping and reporting in local and state health departments.

The program offers a discussion of the purpose and functions of records and reports. It emphasizes their value in the administration and operation of a health program. The opportunity is provided for actual participation in record keeping, preparation of reports, and planning office procedures. Field trips are made to the Topeka City-Shawnee County Health Department and to the various divisions of the Kansas State Board of Health to observe the facilities and meet the division directors for discussion periods.



Training Officer discusses use of Health Department Records.

The Topeka Field Training Station is located in Topeka, Kansas, a midwestern city of 100,272 population, and is the State Capitol. Topeka is a center of railroad, industrial, and agricultural interests. The Topeka City– Shawnee County Health Department is a fully staffed department with outstanding facilities. It serves a total population of 127,371. The staffs of the Kansas State Board of Health and the U. S. Public Health Service participate in the training program.

B. ENTRANCE REQUIREMENTS

This two-week training program is planned for secretaries and clerks. It is open to prospective employees approved by the State Board of Health and otherwise eligible under merit system requirements.

No tuition will be charged, but trainees are expected to arrange for their own traveling and living expenses while attending the training program.

If additional information is required, inquiries may be addressed to the U. S. Public Health Service, District No. 7, Inter-State Building, Kansas City, Missouri; Communicable Disease Center,

Training Division, 605 Volunteer Building, Atlanta, Georgia, or the Topeka Field Training Center, 603 Topeka Avenue, Topeka, Kansas.

SPECIAL ANNOUNCEMENT CONCERNING THE FIELD TRAINING OF ANALYSTS AND CONSULTANTS

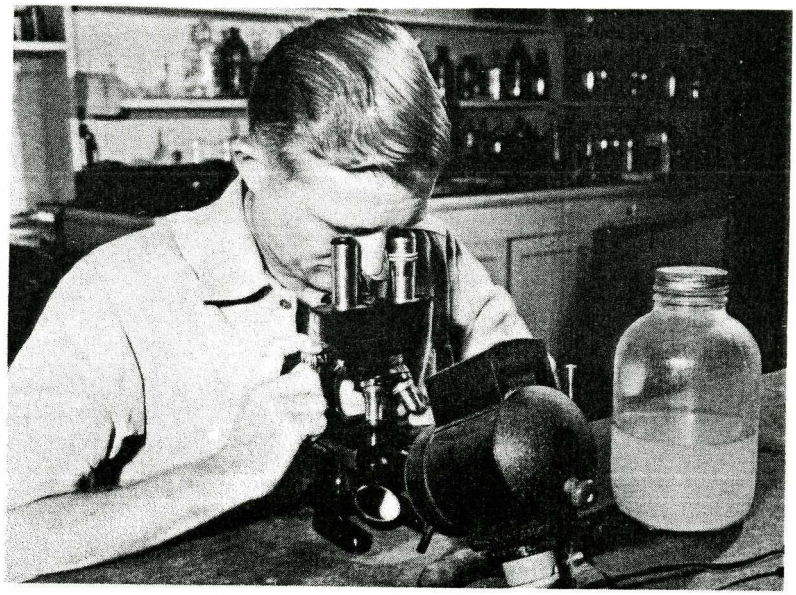
Courses of from two to four weeks duration for record clerks are now being scheduled not only at Topeka, Kansas for Kansas personnel, but also at Columbia, South Carolina for South Carolina clerical personnel. Mr. Charles C. Wilson has been loaned to the State of South Carolina to organize and carry on the record clerk training courses there. At both Topeka, Kansas and Columbia, South Carolina, it will be possible to make special arrangements for the individual training of Record Analysts and Consultants. On such an individual basis, it would be advisable to arrange for the trainees to come to headquarters a week before the clerk training class, participate in the two week clerk training, and remain for three more weeks to work on assigned projects under the close supervision of the training officer. Arrangements for such individual assignments should be worked out with the Chief, Training Division, Communicable Disease Center, Atlanta, Georgia.

ADVANCED LABORATORY TRAINING COURSE IN SEWAGE, STREAM POLLUTION AND INDUSTRIAL WASTE ANALYSES (5.11-7)

TYPE OF TRAINING PROGRAM: Lectures, laboratory demonstrations, laboratory practice and interpretation of analyses for experienced laboratory personnel
LOCATION: Water and Sanitation Investigations Station, Cincinnati, Ohio
TIME: January 10 – January 28, 1949 (tentative)
STAFF: E. P. Dubuque, Engineer
Members of the training staff and personnel of the Water and Sanitation Investigations Station

A OUTLINE OF TRAINING PROGRAM

The program covers a three-week period furnishing training in the analysis and interpretation of results in the fields of water supply, sewage, stream sanitation and industrial wastes. The training course will emphasize the standard methods but will include non-standard methods, together with any variations which may be required to overcome the effect of interfering substances or conditions in the making of chemical, bacteriological and biological tests. The general course will be conducted to emphasize theory, laboratory demonstration, laboratory practice, and interpretation of results of tests encountered in the fields of water supply, sewage, stream sanitation and industrial waste surveys together with ample opportunity for specific discussion relative to test procedures and the interpretation of results.



Biologist examines biological organisms in water sample from stream.

Approximately half of the time will be devoted to lectures, supplemented with visual training aids. Three-fourths of the remaining time will be devoted to laboratory demonstration and practice, and one-fourth to field trips.

Some of the major subjects which will be covered in this intensified training course are:

Effect of interfering substances on BOD and DO
Interpretation of bacteriological and chemical tests and their application to stream sanitation
Water quality standards
Taste and odor problems and breakpoint chlorination
Analytical procedures for the determination of phenols and cyanides
Relative bactericidal efficiency of chlorine and chloramines
Biological examination of stream samples
Methods of establishing permanent and mobile laboratories
Methods of organizing laboratory work schedule

Laboratory demonstrations will be carried out at the Station Training Laboratories.

ADVANCED LABORATORY TRAINING COURSE IN SEWAGE, STREAM POLLUTION AND INDUSTRIAL WASTE ANALYSES (5.11-7) (Cont'd)

B. ENTRANCE REQUIREMENTS

This program is offered for experienced laboratory personnel (chemists, bacteriologists or biologists) who are responsible for directing the activities of stream pollution survey laboratories. Candidates should be either graduate chemists, bacteriologists or biologists and should be recommended for training by the state health officer or an appropriate Federal official. *No tuition will be charged. Trainees are expected to arrange for their own living and traveling expenses while attending the course, either through state stipend or other means.*

C. APPLICATIONS

Letters of application for this program should be sent to the Officer in Charge, Public Health Service, Water and Sanitation Investigations Station, Cincinnati, Ohio. The letter should give the name and a brief outline of the education and experience of each applicant and should bear the appropriate recommendation of his superiors. Only a limited number of candidates can be accepted for this program due to the physical limitation of space. Applications should be made prior to December 15, 1948.

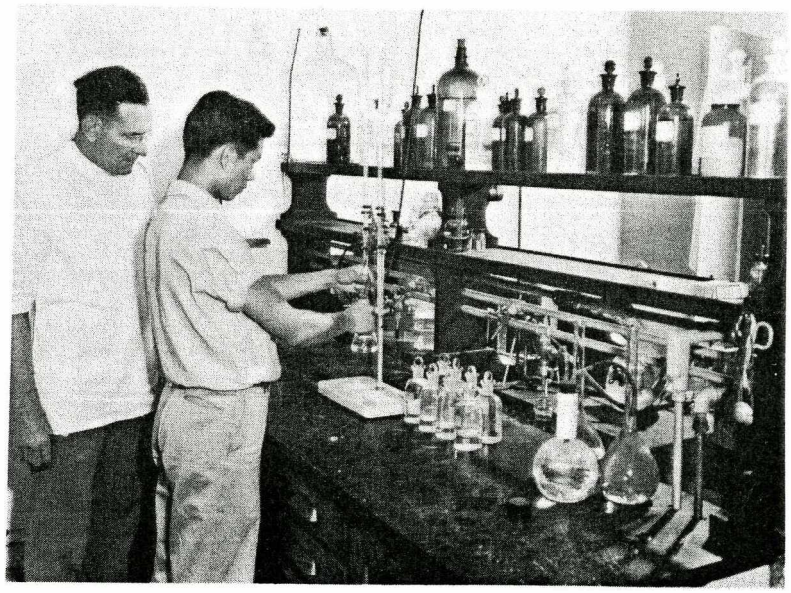
ORIENTATION COURSE for LABORATORY PERSONNEL IN THE EXAMINATION OF SEWAGE, POLLUTED WATERS, and INDUSTRIAL WASTES (5.12-7)

TYPE OF TRAINING PROGRAM: Lectures, methods of sampling, laboratory demonstrations, laboratory practice, and interpretation of results for chemists, bacteriologists or biologists with limited experience in this field.
TIME: April 11 — May 6, 1949 (tentative)
STAFF: E. P. Dubuque, Engineer
Members of the training staff and personnel of the Water and Sanitation Investigations Station.

A. OUTLINE OF TRAINING COURSE

The program covers a four week period providing intensive training in the techniques in the standard and non-standard methods of making chemical, bacteriological, and biological examinations of samples encountered in stream pollution and industrial waste surveys.

The program will emphasize the theory, laboratory demonstration, laboratory practice and interpretation of the tests used in stream pollution and industrial waste surveys. Ample opportunity will be provided for informal discussion of methods and interpretations.



Chemist making chemical examination of sewage sample.

Some of the major subjects which will be covered in this intensified orientation training course are:

Standard methods for determining DO and BOD and the effect of various interfering substances on these determinations
Determination of phenols
Determination of cyanides
Methods of investigating industrial waste problems and latest developments in the removal of substances causing tastes and odors in water supplies
Ammonia, nitrite, and nitrate, and kjeldahl nitrogen, alkalinity, acidity, pH, solids, grease, odor and turbidity determinations
Breakpoint chlorination
Most probable numbers
Significance of the coliform and enterococci groups of bacteria as indicators of pollution
Relative bactericidal efficiency of chlorine and chloramines
Laboratory demonstrations will be carried out at the Station training laboratories.

B. ENTRANCE REQUIREMENTS

This program is offered for graduate chemists, bacteriologists or biologists who have had little or no experience in the field of sanitary chemistry and sanitary bacteriology and is designed

ORIENTATION COURSE FOR LABORATORY PERSONNEL IN THE EXAMINATION OF SEWAGE, POLLUTED WATERS, AND INDUSTRIAL WASTES (5.12-7)

(Cont'd)

especially for those who will be employed on stream pollution and industrial waste survey programs. Candidates should be recommended for training by the state health officer or an appropriate Federal official.

No tuition will be charged. Trainees are expected to arrange for their own living and traveling expenses while attending the course, either through state stipend or other means.

C. APPLICATIONS

Letters of application for this program should be sent to the Officer in Charge, Public Health Service, Water and Sanitation Investigations Station, Cincinnati, Ohio. The letter should give the name and a brief outline of the education and experience of each applicant and should bear the appropriate recommendation of his superiors. Only a limited number of candidates can be accepted for this program due to the physical limitation of space. Applications should be made prior to March 15, 1949.

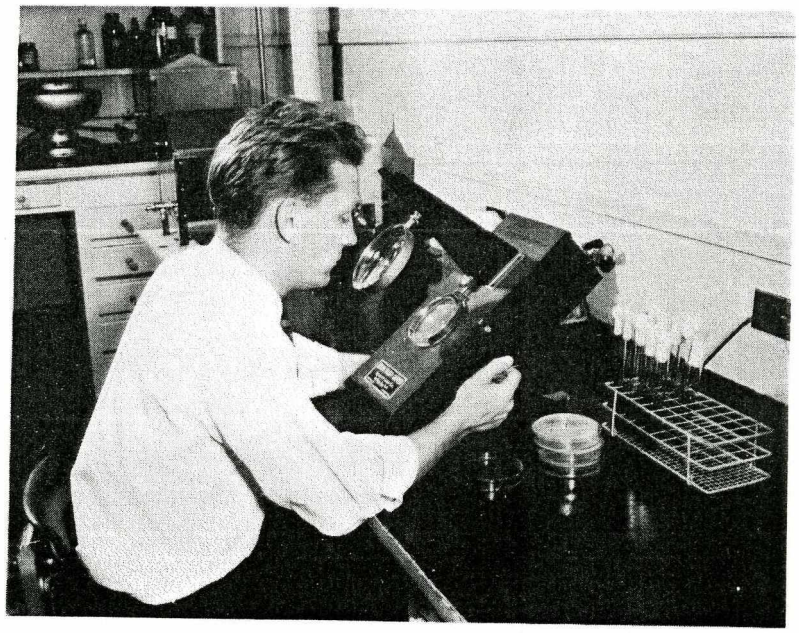
ADVANCED TRAINING COURSE for BACTERIOLOGISTS IN CHARGE OF LABORATORIES FOR WATER and MILK ANALYSES and FOOD UTENSIL EXAMINATIONS (5.13-7)

TYPE OF TRAINING PROGRAM: Lectures, laboratory demonstrations, laboratory practice, field demonstrations, sampling techniques and interpretation of bacteriological results for experienced bacteriologists
LOCATION: Water and Sanitation Investigations Station, Cincinnati, Ohio
TIME: October 17 — November 4, 1949 (tentative)
STAFF: E. P. Dubuque, Engineer
Members of the training staff, personnel of the Water and Sanitation Investigations Station and prominent consultants in specific fields.

A. OUTLINE OF TRAINING COURSE

The program covers a three week period of advanced training in the theory, laboratory techniques and interpretation of results obtained in the field of sanitary bacteriology as they pertain to water and milk analyses together with methods of sampling and bacteriological examination of food utensils. The standard methods and permissible deviations in the performance of the various tests and the interpretation of the results will be stressed.

Approximately half of the period will be devoted to lectures. The rest of the time will be divided between laboratory practice and informal discussions relative to the interpretation of the results.



Bacteriologist makes plate count in studying effect of incubation temperatures.

Some of the major subjects which will be covered in this intensified training course are:

Significance of the coliform and enterococci groups as indicators of pollution
Bacteriological efficiency of chlorine and chloramines
Testing of bactericidal properties of quaternary ammonium compounds
Microscopic counts and new staining methods
Demonstration and significance of thermoduric and thermophilic bacteria
Effect of various incubation temperatures on plate counts
Principles of methylene blue and resazurin reduction tests
Principles of the phosphatase test
Analyses of frozen desserts
Methods of taking swab count samples of food utensils and analyses
Physical and chemical testing of detergents

Laboratory demonstrations will be carried out at the Station Milk and Food Sanitation laboratory and at the Station Training Laboratory.

ADVANCED TRAINING COURSE FOR BACTERIOLOGISTS IN CHARGE OF LABORATORIES FOR WATER AND MILK ANALYSES AND FOOD UTENSIL EXAMINATIONS (5.13-7)

(Cont'd)

B. ENTRANCE REQUIREMENTS

This program is offered for bacteriologists with a wide background in sanitary bacteriology who are in charge of state health department laboratories engaged in water and milk analyses and food utensil examinations. Candidates should be graduate bacteriologists and should be recommended for training by the state health officer or an appropriate Federal official.

No tuition will be charged. Trainees are expected to arrange for their own living and traveling expenses while attending the course, either through state stipend or other means.

C. APPLICATIONS

Letters of application for this program should be sent to the Officer in Charge, Public Health Service, Water and Sanitation Investigations Station, Cincinnati, Ohio. The letter should give the name and a brief outline of the education and experience of each applicant and should bear the appropriate recommendation of his superiors. Only a limited number of candidates can be accepted due to the physical limitation of space. Applications should be made prior to September 19, 1949.

PUBLIC HEALTH EDUCATION FIELD TRAINING (6.1-2)

TYPE OF TRAINING PROGRAM: Health education practical field training for public health educators
PLACE: Savannah Field Training Center, Savannah, Georgia
TIME: March 7--May 28, 1949
June 20 — September 11, 1949
STAFF: Ruth Sumner, Training Officer
Other members of the staff of the Savannah-Chatham County Health Department

A. OUTLINE OF TRAINING PROGRAM

The field training program covers a period of twelve weeks. Some of the phases emphasized are:

1. Problem finding by community groups; community organization for public health; finding and developing community leadership.
2. Observation and participation in in-service training programs with health department and school personnel, community planning, staff conferences and workshops.
3. Instruction in the use of visual training aids, including operation and care of equipment.
4. Experience in preparation of materials, such as annual reports, film strips, news releases, radio spot announcements and scripts.

Health education trainees plan a community health project.

B. ENTRANCE REQUIREMENTS

This program has been designed for graduate students in public health education who have completed at least two quarters of academic training at a recognized school of public health.

The objective of the training is to provide field experience in a normally operated health department. *Trainees are expected to arrange for their own living and traveling expenses during the field training period.*

C. APPLICATION

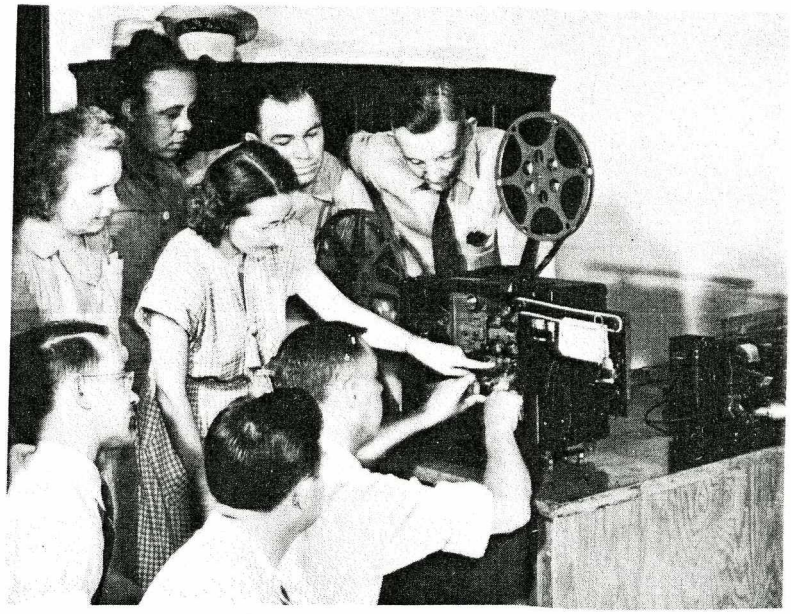
Application for the field training experience will consist of a letter of recommendation from the official of the interested school of public health or from the health officer to the Training Division, Communicable Disease Center, Atlanta, Georgia, giving the name, and a brief outline of the education and experience of the applicant. Accepted applicants should report to the Savannah-Chatham County Health Department, Savannah, Georgia, on the date indicated.

AUDIO-VISUAL TRAINING COURSE (6.2-1)

TYPE OF TRAINING PROGRAM: Audio-visual instruction methods
LOCATION: Headquarters of Production Division, at Veterans Administration Hospital near Atlanta, Georgia
TIME: January 17 — 28, 1949
STAFF: Gale Griswold — Production Division
Merle Wimmer — Utilization and Evaluation
Everett Priest — Utilization
Harry Sherrill — Production Planning
Richard Brown — Film Library-Distribution

A. OUTLINE OF TRAINING PROGRAM

A two-weeks course concerned with audio-visual production, utilization, evaluation, distribution, and equipment operation will be given for CDC personnel and state health personnel whose duties now involve extensive work with these materials or for personnel who will be assigned to such duties upon return to their stations. This course is not the ordinary projectionists' course but is a comprehensive course including all phases of audio-visual instruction of interest to public health personnel.



Trainees receive instruction in use of audio-visual projection equipment.

The following five items indicate the scope of this practical course in the use of audio-visual training aids:

1. Orientation in public health audio-visual program (includes purpose of program, channels through which program operates, and how it operates in other divisions).
2. Production — brief orientation in policies, problems and methods.
3. Distribution
   Booking — shipping; labeling; filing; film storage; care and repair of films; film sources; library records.
4. Utilization — analysis of film subject matter, educational principles as related to audio-visual, publicity of films, utilization materials (guides and catalogues); evaluation of materials.
5. Equipment, operation and care and maintenance — types of equipment, operation of each type, cleaning equipment, minor repairs and parts replacement.

Item 5 will require more time than any of the others. In order to vitalize the course a part of each day will be spent with equipment.

B. ENTRANCE REQUIREMENTS

This program has been designed especially to assist state health department and U. S. Public

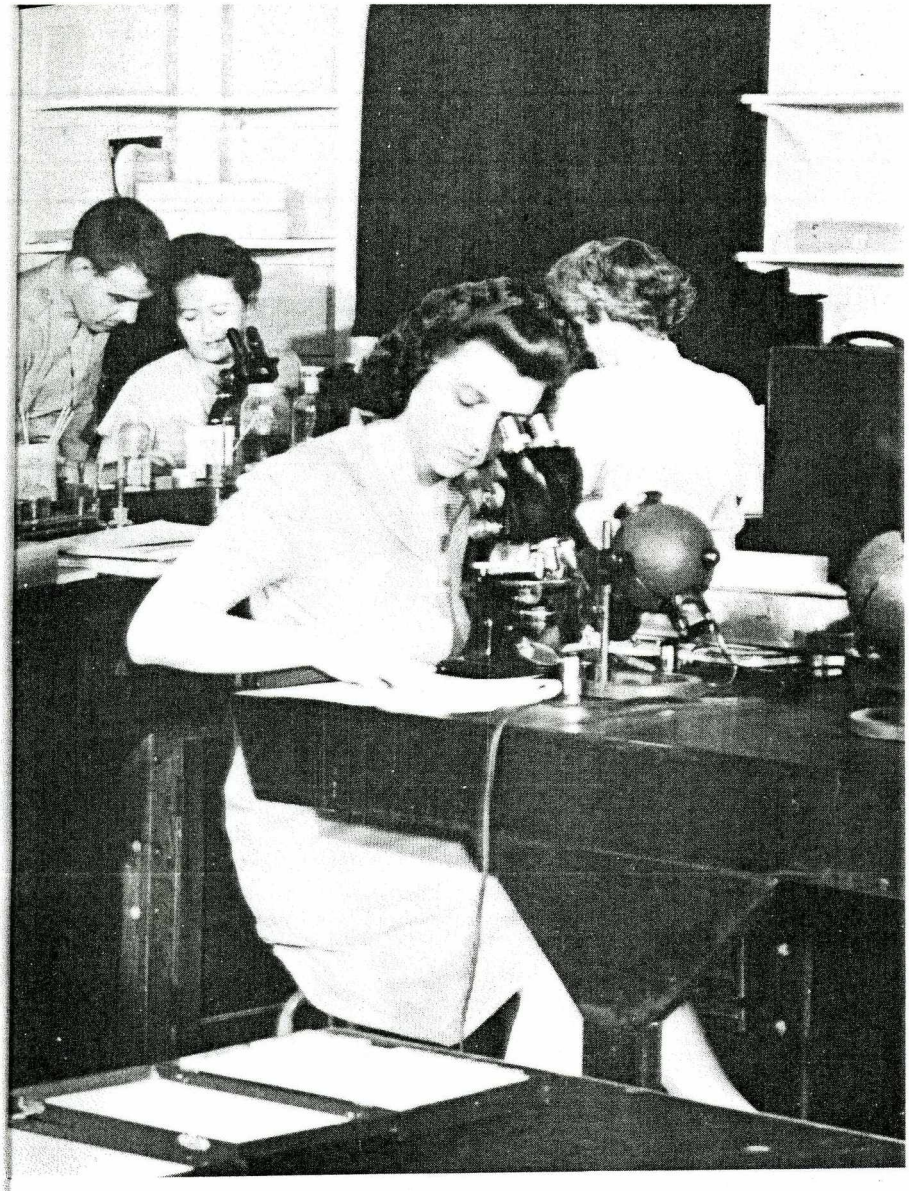
AUDIO-VISUAL TRAINING COURSE (6.2-1)

(Cont'd)

Health Service personnel who wish to become acquainted with all phases of the production and most effective use of audio-visual training aids. *No tuition will be charged but those taking the course should arrange for their own living and traveling expenses.*

C. APPLICATIONS

Application should be made by writing to the Production Division, Communicable Disease Center, 605 Volunteer Building, Atlanta, Georgia. Only a limited number of people can be accepted for this training course.



FEDERAL SECURITY AGENCY
Public Health Service
Communicable Disease Center
Atlanta, Ga.

SCHEDULES FOR

PUBLIC HEALTH LABORATORY COURSES

LIST OF LABORATORY TRAINING COURSES

**Digit left of decimal indicates basic program type.*
Digit to the right of decimal indicates variations within the basic program.
Digit to the right of hyphen indicates principal location of field training.

TRAINING PROGRAM STAFF LABORATORY DIVISION

● **LABORATORY DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA**

Seward E. Miller, Senior Surgeon, Chief, Laboratory Division
R. F. Reider, Senior Surgeon, Assistant Chief, Laboratory Division

Parasitology Training Staff

Marion M. Brooke, Scientist, In Charge, Parasitology Branch
Alan W. Donaldson, Scientist
Harry D. Pratt, Scientist
Wilton M. Fisher, Surgeon (R)
Paul Weinstein, S. A. Sanitarian (R)
Morris Goldman, S. A. Sanitarian (R)
Mae Melvin, Parasitologist
Lois Norman, Parasitologist

Guest Lecturers

Justin M. Andrews, Scientist Director, Deputy Officer in Charge, Communicable Disease Center, Atlanta, Georgia
David S. Ruhe, Surgeon, Communicable Disease Center, Atlanta, Georgia
Aimee Wilcox, Protozoologist, National Institute of Health, Memphis, Tennessee

Parasitology Consultants

William W. Cort, Ph.D., Professor of Parasitology, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Maryland
Ernest C. Faust, Ph.D., Professor of Parasitology, Department of Tropical Medicine, Tulane University, New Orleans, Louisiana
Stanley B. Freeborn, Ph.D., Assistant Dean, College of Agriculture, University of California, Berkeley, California

Bacteriology Training Staff

Martin Frobisher, Jr., Bacteriologist, In Charge, Bacteriology Branch
Elberton J. Tiffany, Bacteriologist
Philip R. Edwards, Bacteriologist
Martin M. Cummings, S. A. Surgeon
George A. Spendlove, S. A. Surgeon
Libero Ajello, Scientist
Elizabeth I. Parsons, Bacteriologist
Joseph H. Schubert, Bacteriologist
William H. Ewing, Bacteriologist
Robert A. Patnode, Bacteriologist
George C. Klein, Bacteriologist
Margaret C. Drummond, Biochemist
Jerrydean H. Robinson, Biochemist

Guest Lecturers

Robert J. Anderson, Senior Surgeon, Assistant Chief, Tuberculosis Control Division, Washington, D.C.
C. W. Emmons, Mycologist, National Institute of Health, Bethesda, Maryland

Bacteriology Consultants

Norman F. Conant, Ph.D., Professor of Mycology, Department of Bacteriology, Duke University School of Medicine, Durham, North Carolina

Herald R. Cox, Sc.D., Director, Viral and Rickettsial Research Lederle Laboratories, American Cyanamid Company, Pearl River, New York

William F. Friedewald, M.D., Chairman, Department of Bacteriology, Emory University School of Medicine, Emory University, Georgia

Russell Y. Gottshall, Ph.D., Assistant Director, Bureau of Laboratories, Michigan State Health Department, Lansing, Michigan

Thomas F. Sellers, M.D., State Health Officer, Georgia State Department of Public Health, Atlanta, Georgia

David T. Smith, M.D., Professor of Bacteriology, Duke University School of Medicine, Durham, North Carolina

William Steenken, Sc.D., Director, Research and Clinical Laboratory, Trudeau Sanatorium, Trudeau, New York

Stuart Willis, M.D., Superintendent, North Carolina State Sanatorium; Secretary, National Tuberculosis Association, McKain, North Carolina

Eugene C. Woodruff, M.D., Director of Laboratories, Maybury Sanatorium, Northville, Michigan

● **VETERINARY PUBLIC HEALTH DIVISION, COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA**

James H. Steele, Veterinarian, Chief, Veterinary Public Health Division

Training Staff

Ernest S. Tierkel, S.A. Veterinarian (R), In Charge, Rabies Control Branch

Martha E. Eidson, Bacteriologist

Consultant

Thomas F. Sellers, M.D., State Health Officer, Georgia State Department of Public Health, Atlanta, Georgia

GENERAL INFORMATION FOR GROUP OF COURSES IN DIAGNOSTIC MICROBIOLOGY OF COMMUNICABLE DISEASES

For Laboratory Personnel

TYPE OF TRAINING PROGRAM: Practical refresher courses in the principles and practice of laboratory methods in the diagnosis of communicable diseases. Emphasis is placed on the practical aspects of diagnostic laboratory procedures involving microbiology.

AIM OF TRAINING: To develop accuracy and dependability in the professional laboratory worker; acquaint him with the best methods and apparatus available for each procedure; and to familiarize him with the basic principles underlying each step.

LOCATION: Laboratory Division, Communicable Disease Center, 291 Peachtree Street, N.E., Atlanta, Georgia

COURSES:

5.1-1 Laboratory Diagnosis of Parasitic Diseases	6 weeks
*5.2-1 Serological Diagnosis of Rickettsial Diseases	1 week
*5.3-1 Laboratory Diagnosis of Mycotic Diseases	4 weeks
*5.4-1 Laboratory Diagnosis of Bacterial Diseases Part 1. Tuberculosis Bacteriology	4 weeks
*5.5-1 Laboratory Diagnosis of Bacterial Diseases Part 2. General Bacteriology	4 weeks
*5.6-1 Laboratory Diagnosis of Bacterial Diseases Part 3. Enteric Bacteriology	4 weeks
5.7-1 Laboratory Diagnosis of Rabies	1 week

Each course is separate and complete in itself. However, an effort has been made to integrate the various courses, as far as possible, so that students may take several courses of related interest in consecutive attendance, if they so desire.

DATES:

5.1-1	March 14 to April 22, 1949
*5.2-1	February 21 to February 25, 1949
*5.3-1	September 12 to October 21, 1949
*5.4-1	February 28 to March 25, 1949
*5.5-1	March 28 to April 22, 1949
*5.6-1	April 25 to May 20, 1949
5.7-1	April 25 to April 29, 1949

STAFF:

Dr. Martin Frobisher, Jr., and Staff	July 25 to July 29, 1949
Dr. Marion M. Brooke, and Staff	August 1 to August 26, 1949
Dr. Joseph H. Schubert and Staff	August 29 to September 23, 1949
Dr. Martin M. Cummings and Staff	September 26 to October 21, 1949
Dr. Philip R. Edwards and Staff	October 24 to November 18, 1949
Dr. Libero Ajello and Staff	October 24 to October 28, 1949
Dr. Ernest Tierkel and Staff	Laboratory Diagnosis of Bacterial Diseases Part 2. General Bacteriology Laboratory Diagnosis of Parasitic Diseases Serological Diagnosis of Rickettsial Diseases Laboratory Diagnosis of Bacterial Diseases Part 1. Tuberculosis Bacteriology Laboratory Diagnosis of Bacterial Diseases Part 3. Enteric Bacteriology Laboratory Diagnosis of Mycotic Diseases Laboratory Diagnosis of Rabies

TYPE OF INSTRUCTION: Laboratory exercises, lectures, demonstrations, motion picture films, and group discussions. A high instructor — student ratio is maintained.

SIZE OF CLASSES: Classes are limited to 20 — 22 students.

FEES: No tuition or laboratory fees are charged.

TRAVEL ARRANGEMENTS AND EXPENSES: To be arranged and paid for by the student or his employer.

LIVING ACCOMMODATIONS: A list of hotels and rooming houses will be sent to applicants at the time of acceptance. It is suggested that trainees obtain reservations for living accommodations at the earliest possible date.

EATING FACILITIES: Restaurants and cafeterias are located near places where classes are held.

TRANSPORTATION TO AND FROM CLASSES: Government bus will provide transportation to and from

*Courses given in the Bacteriology Laboratories of the Communicable Disease Center located at Lawson Hospital, Chamblee, Georgia.

GENERAL INFORMATION FOR GROUP OF COURSES IN DIAGNOSTIC MICROBIOLOGY OF COMMUNICABLE DISEASES

(Cont'd)

For Laboratory Personnel

classes in courses (marked with an asterisk) which are given in the Bacteriology Laboratories of the Communicable Disease Center at Lawson Hospital, Chamblee, Georgia, leaving 291 Peachtree Street at 8:00 A.M. and returning from Lawson at 4:30 P.M.

TIME OF CLASSES: Classes are held Monday through Friday, 8:45 A.M. to 4:45 P.M. Classes at Lawson (see above) are held from 8:30 A.M. to 4:00 P.M. No classes are held on holidays.

LABORATORY EQUIPMENT, SUPPLIES AND BOOKS: All necessary laboratory equipment, including binocular microscopes are loaned to the students for the duration of the course. Fresh and preserved materials and animals are made available. Text books are available for loan. Information sheets and certain manuals are given to students.

LIBRARY FACILITIES: Adequate facilities for reference are made available at the Communicable Disease Center Library at 291 Peachtree Street, Atlanta, at the Bacteriology Branch Laboratories at Lawson Hospital, and at the Emory University Medical Library.

EXAMINATIONS: Practical, oral, and written examinations are given for grading of students in most of the courses.

CERTIFICATES: Certificates suitable for framing and signed by the Surgeon General of the United States Public Health Service are issued to those students who *satisfactorily* complete a course of four weeks duration or longer.

EXTENSION SERVICE: The laboratories from which students come to attend courses are placed on the Extension Service of the Laboratory Division. Two specimens are mailed each month to the laboratory from which they come and become the property of that laboratory. They serve as refresher material for trained employees; as training material for new employees; as test material at the discretion of the laboratory director; as reference material with which to compare unusual specimens; and as demonstration materials at meetings. In addition to the more common specimens, every effort is made to get unusual materials which are not readily available in this country and are infrequently seen by laboratories. The aim of the Extension Service is to have as many people as possible in each laboratory see these materials, and to make them available to other laboratories nearby.

ELIGIBILITY: This training is open to all grades of employed laboratory personnel from non-profit diagnostic laboratories who are approved by their State Health Officers. Each applicant is expected to have had at least one laboratory course in elementary bacteriology, parasitology, mycology, serology, or chemistry at an approved institution, or at least two years' experience in a diagnostic laboratory, involving the handling of living pathogenic organisms. In recommending students for these courses, State Health Officers and laboratory directors are reminded that students with good educational background will profit much more from the courses than poorly prepared students. Laboratory directors and senior laboratory staff members may make application for these courses instead of the shorter ones, if they prefer to do so.

SELECTION OF STUDENTS: First consideration is given to the laboratories of state and local health departments, Federal agencies, and other tax supported institutions. Preference is given to areas where the particular training is most urgently needed and where such services will be of the greatest value to the public. Other factors being equal, the earlier date of application receives first choice.

APPLICATIONS: Application forms should be requested from the Laboratory Division, Communicable Disease Center, 291 Peachtree St., N.E., Atlanta, Georgia, or from the State Health Officer.

Applications for training should be submitted for approval through the State Health Officer concerned, to Senior Surgeon R. F. Reider, Assistant Chief, Laboratory Division, Communicable Disease Center. This should be done as far in advance as possible so that notification of acceptance can be made in sufficient time for the trainee to arrange for living accommodations and for a substitute during his absence from the home laboratory.

Applications from Federal personnel should be submitted for approval through the Chief of the Bureau or Division in which the applicant is employed.

A separate application form should be submitted for each course the applicant wishes to attend. Every effort will be made to allow students who so desire to attend consecutive courses, since it may mean a substantial saving in travel cost in many instances.

LABORATORY DIAGNOSIS OF PARASITIC DISEASES (5.1-1)

DATES: March 14 -- April 22, 1949
September 12 — October 21, 1949

LOCATION: Parasitology Laboratories, Laboratory Division, Communicable Disease Center, 291 Peachtree St., N.E., Atlanta, Georgia

STAFF: Marion M. Brooke, Sc.D. (Parasitology)
Alan W. Donaldson, Sc.D. (Parasitology)
Harry D. Pratt, Ph.D. (Medical Entomology)
Wilton M. Fisher, M.D., Ph.D. (Parasitology)
Paul Weinstein, Parasitologist
Aimee Wilcox, Protozoologist
Guest lecturers, Consultants and other members of the Parasitology Branch of the Laboratory Division, CDC

Laboratory personnel receive intensive practice in determining unknown parasitic specimens.

TRAINING MATERIALS:

Materials for teaching are made available through importation of fresh parasitic materials from tropical countries, as well as from many sources in this country. Preserved materials are also used. Various organisms are maintained in cultures and laboratory animals. The student is made thoroughly familiar with the diagnostic stages of parasites by repeated drilling with "unknowns".

LABORATORY DIAGNOSIS OF PARASITIC DISEASES (5.1-1)
(Cont'd)

Lectures and discussion sessions emphasize the values and limitations of the available diagnostic procedures.

OUTLINE OF COURSE:

FIRST WEEK	LABORATORY DIAGNOSIS OF INTESTINAL PARASITES	DIAGNOSIS OF INTESTINAL PROTOZOA (Amoebae, flagellates, cultivation and concentration techniques)
SECOND WEEK	With special emphasis on: Amebiasis Hookworm	DIAGNOSIS OF INTESTINAL PROTOZOA AND HELMINTHS (Ciliates, coccidia, nematodes, staining and concentration techniques)
THIRD WEEK	Echinococcosis Schistosomiasis	DIAGNOSIS OF INTESTINAL HELMINTHS (Cestodes, trematodes, and concentration techniques)
FOURTH WEEK	LABORATORY DIAGNOSIS OF BLOOD PARASITES	DIAGNOSIS OF HEMOFLAGELLATES, FILARIAL WORMS, ARTHROPODS OF MEDICAL IMPORTANCE (Leishmanias, trypanosomes, filarial worms, arthropod vectors and staining of blood films)
	With special emphasis on:	
FIFTH WEEK	Malaria Filariasis Leishmaniasis Trypanosomiasis	DIAGNOSIS OF MALARIAL PARASITES IN THIN AND THICK BLOOD FILMS (Four species of plasmodia)
SIXTH WEEK		DIAGNOSIS OF MALARIAL PARASITES IN THIN AND THICK BLOOD FILMS (Malarial unknowns and finals)

Other information regarding this course is presented in the General Information for the Group of Courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

SEROLOGICAL DIAGNOSIS OF RICKETTSIAL DISEASES (5.2-1)

DATES:	February 21 — February 25, 1949 July 25 — July 29, 1949
LOCATION:	Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Ga.
STAFF:	Joseph Schubert, Ph.D. (Bacteriology) Elberton J. Tiffany, M.D. Guest lecturers, Consultants, and other members of the Bacteriology Branch of the Laboratory Division, CDC

Preparation of serum dilutions in diagnosis of rickettsial infections by complement fixation.

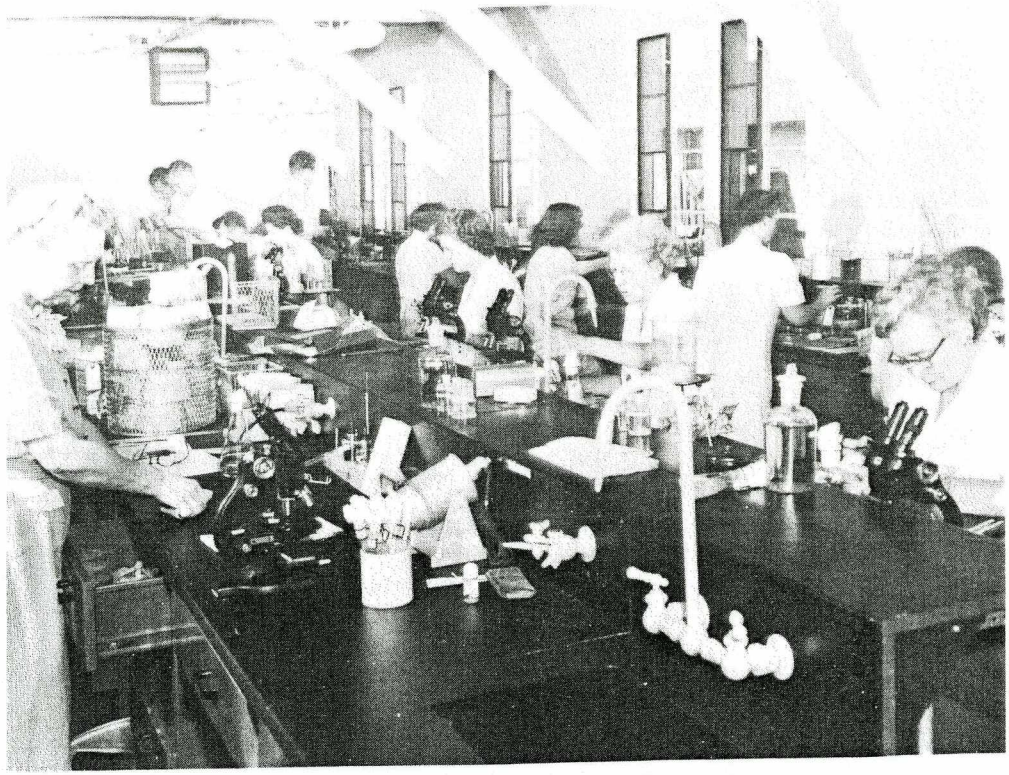
OUTLINE OF COURSE

One week will be devoted to the study and practice of procedures and techniques presently available for the serological diagnosis of rickettsial infections. The Weil-Felix and complement fixation tests will be considered with respect to indications, advantages, techniques, conservation and titration of reagents, and to the limitations inherent in the serological approach to diagnosis. Students will be given practice and experience in all the procedures involved in performing the tests. "Unknown" specimens will be used extensively.

Other information regarding this course is presented in the General Information for the Group of Courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

LABORATORY DIAGNOSIS OF MYCOTIC DISEASES (5.3-1)

DATES:	August 1 — August 26, 1949
LOCATION:	Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Georgia
STAFF:	Libero Ajello, Ph.D. (Mycology) Guest lecturers, consultants and other members of the Bacteriology Branch of the Laboratory Division, CDC.



General view of one of the instruction laboratories showing the first class in mycology (1948).

TYPE OF TRAINING

Stress will be placed on practical laboratory procedures useful for establishing a diagnosis of mycotic infection, including the following:

1. Isolation techniques
2. Preparation and use of special culture media
3. Fermentation reaction tests

LABORATORY DIAGNOSIS OF MYCOTIC DISEASES (5.3-1)

(Cont'd)

4. Vaccine preparation

5. Inoculation of animals

6. Preparation of permanent mounts

7. Slide cultures

OUTLINE OF COURSE

Phases of the program and relative amount of time allotted to each are as follows:

1. IDENTIFICATION OF COMMON SAPROPHYTES — 3 days
   Aspergillus, Penicillium, Cephalosporium, Fusarium, etc.

2. IDENTIFICATION AND CULTURING OF THE DERMATOPHYTES — 5 days
   Trichophyton, Microsporum, Epidermophyton, etc.

3. IDENTIFICATION AND CULTURING OF THE SUB-CUTANEOUS FUNGI — 6 days
   Hormodendron, Phialophora, Sporotrichum, Allescheria, Nocardia, etc.

4. IDENTIFICATION AND CULTURING OF THE SYSTEMIC FUNGI — 6 days
   Coccidioides, Histoplasma, Blastomyces, Cryptococcus, etc.

Other information regarding this course is presented in the General Information for the group of Courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

LABORATORY DIAGNOSIS OF BACTERIAL DISEASES
PART 1. TUBERCULOSIS BACTERIOLOGY (5.4-1)

(OFFERED IN COOPERATION WITH THE TUBERCULOSIS CONTROL DIVISION)

DATES: February 28 — March 25, 1949
August 29 — September 23, 1949

LOCATION: Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Georgia

STAFF: Martin M. Cummings, M.D.
Robert A. Patnode, Bacteriologist
George C. Klein, Bacteriologist
Margaret C. Drummond, Biochemist
Jerrydean H. Robinson, Biochemist
Guest lecturers, Consultants, and other members of the Bacteriology Branch of the Laboratory Division, CDC

Trainees in the class on diagnosis of tuberculosis examine a dead guinea pig.

TYPE OF TRAINING

The course is essentially practical laboratory training, enabling the students to carry out the various procedures themselves to insure proficiency. It is supplemented by lectures and demonstrations.

LABORATORY DIAGNOSIS OF BACTERIAL DISEASES.
PART I. TUBERCULOSIS BACTERIOLOGY (5.4-1)
(cont'd)

OUTLINE OF COURSE

Phases of the program and relative amount of time allotted to each is as follows:

1. PREPARATION OF CULTURE MEDIA — 2 days
   Practice in making the commonly used diagnostic and research media.

2. MICROSCOPIC TECHNIQUES — 2 days
   Training in preparation of smears and stains. Interpretation of findings. Fluorescent microscopy.

3. CULTURE TECHNIQUES — 13 days
   Training in preparation of cultures. Digestion and concentration methods. Particular emphasis on interpretation of findings. Includes training in identification of types of organisms and their colony morphology.

4. ANIMAL EXPERIMENTATION — 3 days
   Training in techniques of inoculation and autopsy of mice, guinea pigs, and rabbits. Tuberculin testing of animals.

TUBERCULIN TEST

It is desirable that students be tuberculin positive. Tuberculin negative individuals coming for the training will assume all responsibility of possible conversion to tuberculin positivity.

APPLICATION

A special application form which provides space for results of tuberculin test should be requested for this course.

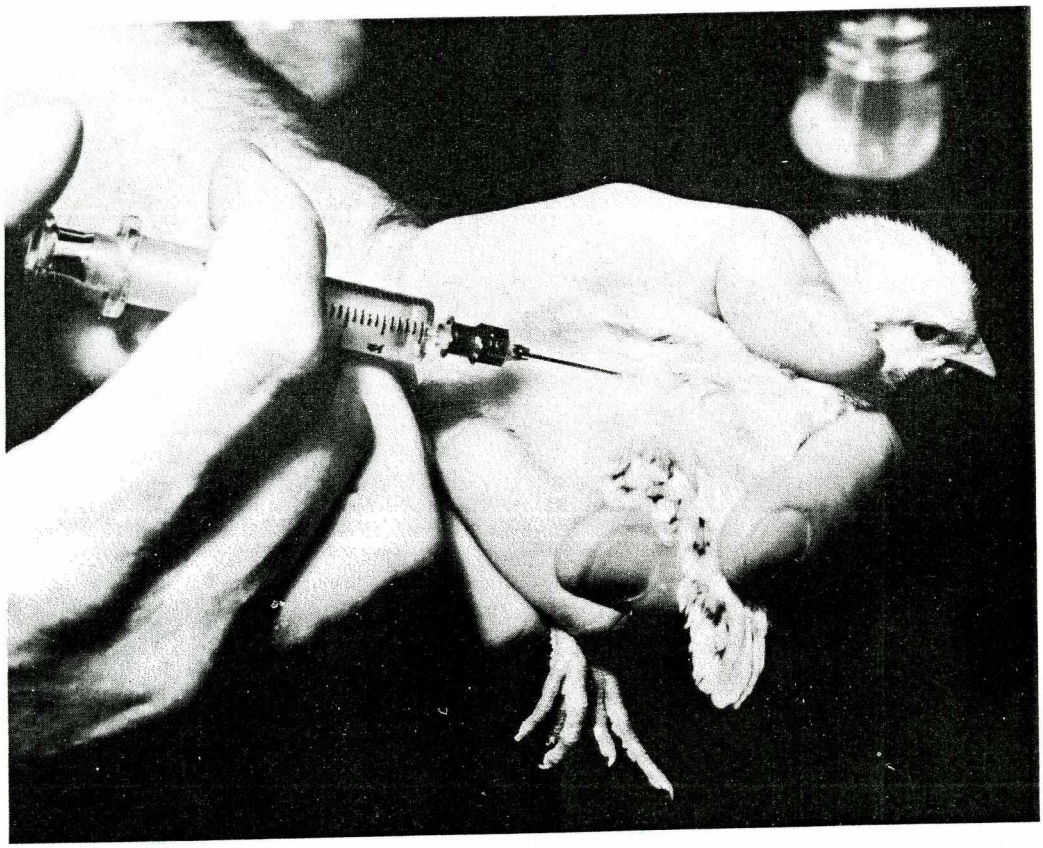
Other information regarding this course is presented in the General Information for the Group of Courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

LABORATORY DIAGNOSIS OF BACTERIAL DISEASES
PART 2. GENERAL BACTERIOLOGY (5.5-1)

DATES: March 28 — April 22, 1949
September 26 — October 21, 1949

LOCATION: Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Georgia

STAFF: Martin Frobisher, Jr., Sc.D. (Bacteriology)
Elberton J. Tiffany, M.D.
Elizabeth J. Parsons, Sc.D. (Bacteriology)
Joseph Schubert, Ph.D. (Bacteriology)
Guest lecturers, Consultants, and other members of the Bacteriology Branch of the Laboratory Division, CDC.



Method of holding and injecting chick for virulence test of *C. diptheriae*. (Frobisher method)

TYPE OF TRAINING

The work on all topics is based on approved and accepted methods and includes essential details such as morphological studies, isolation procedures, virulence and other animal tests, determination of cultural and serological types, etc. Practice on "unknowns" is a constant feature and lectures, demonstrations, quizzes and discussions are sufficiently frequent that the students are constantly oriented in their work.

LABORATORY DIAGNOSIS OF BACTERIAL DISEASES
PART 2. GENERAL BACTERIOLOGY (5.5-1)
(Cont'd)

OUTLINE OF COURSE

The work of the first two weeks will be devoted to the laboratory diagnosis of streptococcal, pneumococcal and spirochetal infections.

In respect to the streptococci and pneumococci, attention will be concentrated upon the techniques and procedures of serological group and type identification, with student participation and liberal use of unknowns as an aid to proficiency. The procedures of primary isolation will be demonstrated and used and the value and practical application of serological methods will be discussed.

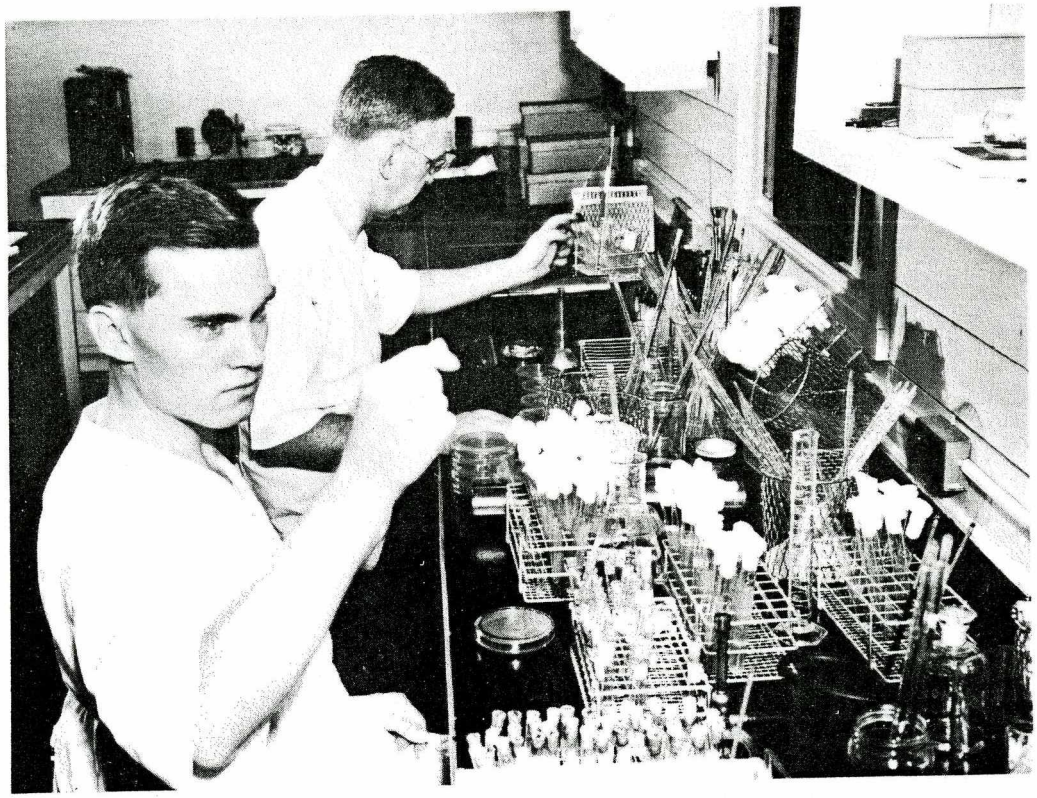
The procedures presently available, microscopic, serological or by animal inoculation, for the laboratory diagnosis of leptospirosis, relapsing fever, rat-bite fever and fusospirochetal disease will be used by the student in appropriate exercises. The microscopic recognition of *Treponema pallidum* will be considered.

The second half of the course in general bacteriology, covering about 2 weeks, is devoted to diagnostic laboratory methods in diphtheriology; the hemophilic group, with special emphasis on *H. influenzae* and *H. pertussis* and some consideration of *H. ducreyi*; the food intoxications (*Staphylococcus* and *Cl. botulinum*); *the Neisseria*, (*N. gonorrhoeae* and *N. meningitidis* and related species which cause confusion in diagnosis); and brucellosis, with instructions in differentiation and identification of species.

Other information regarding this course is presented in the General Information for the Group of Courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

LABORATORY DIAGNOSIS OF BACTERIAL DISEASES
PART 3. ENTERIC BACTERIOLOGY (5.6-1)

DATES:	April 25 — May 20, 1949 October 24 — November 18, 1949
LOCATION:	Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Georgia
STAFF:	Philip R. Edwards, Ph.D. (Bacteriology) William H. Ewing, Ph.D. (Bacteriology) Guest lecturers, Consultants and other members of the Bacteriology Branch of the Laboratory Division, CDC.



Serological procedures in the Salmonella Typing Laboratory.

OUTLINE OF COURSE

The work is divided into four general phases each of which requires about one week. There is, of necessity, considerable overlapping of work from one week to the next.

During the first week attention is given to proper methods for collection of specimens, their preservation, and inoculation into differential, selective, and enrichment media. Students inoculate media with specimens, known and unknown, make isolations, and maintain and identify the isolates. Various biochemical tests used for delineation of members of the several genera of enteric bacteria are also studied at this time.

LABORATORY DIAGNOSIS OF BACTERIAL DISEASES
PART 3. ENTERIC BACTERIOLOGY (5.6-1)
(Cont'd)

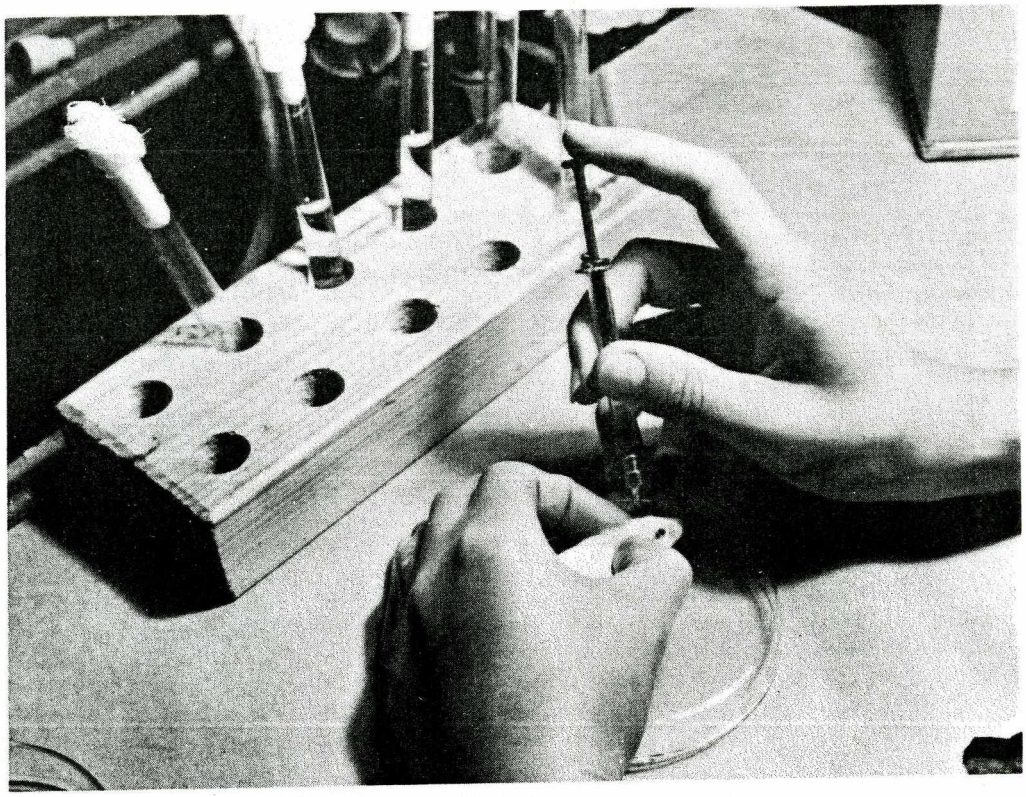
During the second and third weeks of the course, the shigellae and salmonellae, respectively, are studied. Special attention is given to methods of serological identification of members of these genera. This work includes a study of serological identification of the organisms employing unabsorbed and absorbed antisera, as well as methods for the preparation of absorbed typing fluids.

The final week of instruction is devoted to typing *Salmonella typhi* (*E. typhosa*) cultures by lysis with specific bacteriophages.

Other information regarding this course is presented in the General Information for the Group of Courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

LABORATORY DIAGNOSIS OF RABIES
(5.7-1)

DATES:	April 25 — April 29, 1949 October 24 — October 28, 1949
LOCATION:	Laboratory Division, Communicable Disease Center, 291 Peachtree Street, N.E., Atlanta, Ga.
STAFF:	Ernest S. Tierkel, V.M.D., M.P.H. Martha E. Eidson, Bacteriologist and other members and consultants of the Rabies Control Branch and Veterinary Public Health Division, CDC



Intracerebral mouse inoculation for the diagnosis of rabies.

TYPE OF TRAINING

The course is essentially practical laboratory training, enabling the students to carry out the various procedures themselves to insure proficiency. It is supplemented by lectures and demonstrations.

LABORATORY DIAGNOSIS OF RABIES (5.7-1)
(Cont' d)

OUTLINE OF COURSE

Phases of the program and relative amount of time allotted to each is as follows:

1. Discussion, background and orientation 2. Preparation of stains	1 day
3. Techniques for gross brain dissection (dog and other species) Smears and staining	1 day
4. Mouse inoculation and symptomatology 5. Mouse brain smears and staining	1 day
6. Microscopy — the Negri body and differential diagnosis — other inclusion bodies	1 day
7. Cost and materials 8. Review and unknowns	1 day

Other information regarding this course is presented in General Information for the group of courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Personnel in the preceding pages.

GENERAL INFORMATION FOR GROUP OF COURSES IN DIAGNOSIS MICROBIOLOGY OF COMMUNICABLE DISEASES

FOR LABORATORY DIRECTORS, SENIOR LABORATORY STAFF MEMBERS, PHYSICIANS, AND OTHERS OF COMPARABLE PROFESSIONAL STANDING

TYPE OF TRAINING PROGRAM: Practical refresher courses in the principles and practice of laboratory methods in the diagnosis of communicable diseases.

AIM OF TRAINING: To acquaint the students with the best methods and apparatus available for each procedure and to familiarize him with the basic principles underlying each step. To allow for an interchange of ideas and discussion of problems with other students in group seminars.

LOCATION: Laboratory Division, Communicable Disease Center, 291 Peachtree Street, N.E., Atlanta, Georgia.

COURSES:

5.8-1	Laboratory Diagnosis of Parasitic Diseases	2 weeks
*5.9-1	Laboratory Diagnosis of Mycotic Diseases	2 weeks
*5.10-1	Laboratory Diagnosis of Tuberculosis	2 weeks

DATES:

5.8-1	June 20 to July 1, 1949
5.9-1	May 23 to June 3, 1949
5.10-1	June 6 to June 17, 1949

STAFF:

Dr. Marion M. Brooke, and Staff	Laboratory Diagnosis of Parasitic Diseases
Dr. Martin M. Cummings, and Staff	Laboratory Diagnosis of Tuberculosis
Dr. Libero Ajello, and Staff	Laboratory Diagnosis of Mycotic Diseases.

TYPE OF INSTRUCTION: Lectures, demonstrations, group discussions, motion picture films, and laboratory exercises.

SIZE OF CLASSES: Classes are limited to 20 — 22 students.

FEES: No tuition or laboratory fees are charged.

TRAVEL ARRANGEMENTS AND EXPENSES: To be arranged and paid for by the student or his employer.

LIVING ACCOMMODATIONS: A list of hotels and rooming houses will be sent to applicants at the time of acceptance. It is suggested that trainees obtain reservations for living accommodations at the earliest possible date.

EATING FACILITIES: Restaurants and cafeterias are conveniently located near places where classes are held.

TRANSPORTATION TO AND FROM CLASSES: Government bus will provide transportation to and from classes in courses (marked with an asterisk) which are given in the Bacteriology Laboratories of the Communicable Disease Center at Lawson Hospital, Chamblee, Georgia, leaving 291 Peachtree Street at 8:00 A.M. and returning from Lawson at 4:30 P.M.

TIME OF CLASSES: Classes are held daily, Monday through Friday, from 8:45 A.M. to 4:45 P.M. Classes at Lawson (see above) are held from 8:30 A.M. to 4:00 P.M. No classes are held on holidays.

LABORATORY EQUIPMENT, SUPPLIES AND BOOKS: All necessary laboratory equipment, including binocular microscopes are loaned to the students for the duration of the course. Fresh and preserved materials and animals are made available. Text books are available for loan. Information sheets and certain manuals are given to students.

LIBRARY FACILITIES: Adequate facilities for reference are available at the Communicable Disease Center Library at 291 Peachtree Street, Atlanta, at the Bacteriology Branch Laboratories at Lawson Hospital, and at the Emory University Medical Library.

EXAMINATIONS: No examinations are given in these courses.

*Courses given in the Bacteriology Laboratories of the Communicable Disease Center located at Lawson Hospital, Chamblee, Georgia.

GENERAL INFORMATION FOR GROUP OF COURSES IN DIAGNOSTIC MICROBIOLOGY OF COMMUNICABLE DISEASES

For Laboratory Directors, Senior Laboratory Staff Members, Physicians, and Others of Comparable Professional Standing

(Cont'd)

CERTIFICATES: No certificates are issued for these courses.

ELIGIBILITY: Present and prospective laboratory directors, their senior assistants, and physicians interested in these fields.

SELECTION OF STUDENTS: First consideration is given to the laboratories of state and local health departments, Federal agencies, and other tax supported institutions. Preference is given to areas where the particular training is most urgently needed and where such services will be of the greatest value to the public. Other factors being equal, the earlier date of application receives first choice.

APPLICATIONS: Application forms should be requested from the Laboratory Division, Communicable Disease Center, 291 Peachtree Street, N.E., Atlanta, Georgia, or from the State Health Officer.

Applications for training should be submitted through the State Health Officer concerned for approval, to Senior Surgeon R. F. Reider, Assistant Chief, Laboratory Division, Communicable Disease Center, as far in advance as possible, so that notification of acceptance can be made in sufficient time to arrange for living accommodations and a substitute during absence from the laboratory.

Applications from Federal personnel should be submitted through the Chief of the Bureau or Division in which the applicant is employed for approval.

A separate application form should be submitted for each course that applicant wishes to attend. Every effort will be made to allow students who so desire to attend consecutive courses, since it may mean a substantial saving in travel cost in many instances.

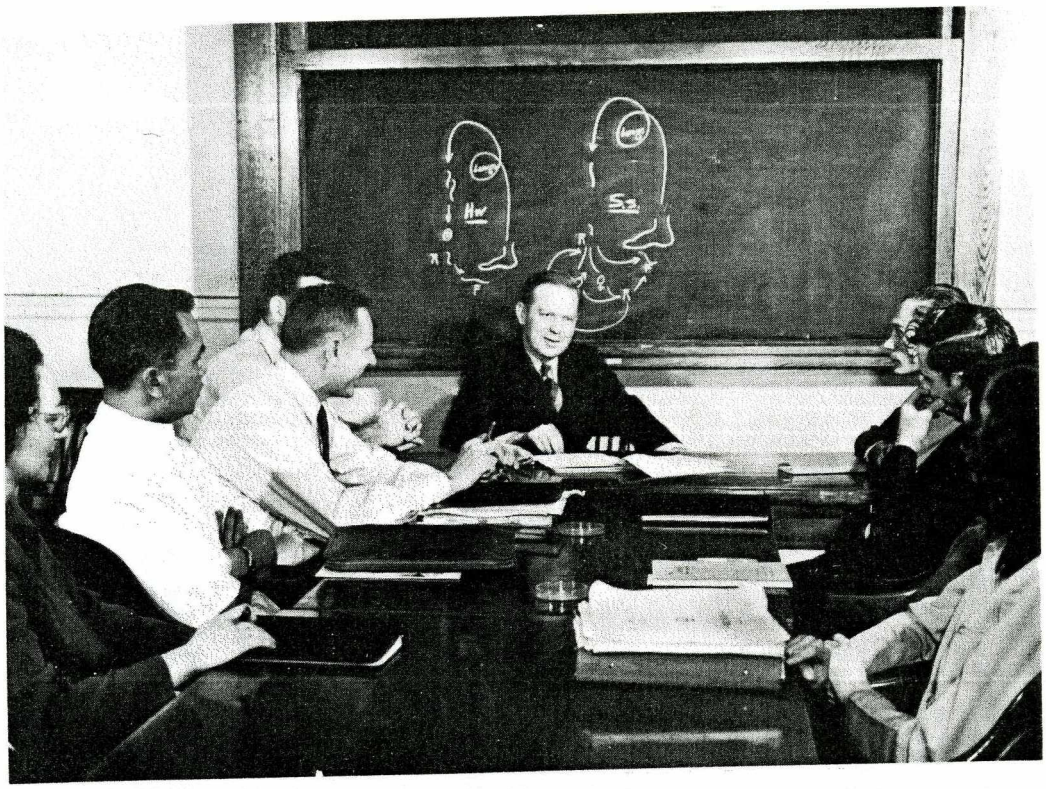
LABORATORY DIAGNOSIS OF PARASITIC DISEASES (5.8-1)

FOR LABORATORY DIRECTORS, SENIOR LABORATORY STAFF MEMBERS, PHYSICIANS, AND OTHERS OF COMPARABLE PROFESSIONAL STANDING

DATES: June 20 — July 1, 1949

LOCATION: Parasitology Laboratories, Laboratory Division, Communicable Disease Center, 291 Peachtree Street, N. E., Atlanta, Georgia

STAFF: Marion M. Brooke, Sc.D. (Parasitology)
Alan W. Donaldson, Sc.D. (Parasitology)
Harry D. Pratt, Ph.D. (Medical Entomology)
Wilton M. Fisher, M.D., Ph.D. (Parasitology)
Guest lecturers, Consultants and other members of the Parasitology Branch of the Laboratory Division, Communicable Disease Center



Round-table discussion on interpretation of diagnostic procedures.

TYPE OF TRAINING

A two-weeks course similar to the six-weeks course, Laboratory Diagnosis of Parasitic Diseases (5.1-1), but concentrated and particularly adapted for laboratory directors, senior laboratory staff members, physicians and others of comparable professional standing. The primary purpose is to familiarize these individuals with the available diagnostic techniques and thus enable them to better evaluate the laboratory results.

LABORATORY DIAGNOSIS OF PARASITIC DISEASES (5.8-1)

(Cont'd)

OUTLINE OF COURSE

	LABORATORY DIAGNOSIS OF INTESTINAL PARASITES * *	DIAGNOSIS OF INTESTINAL PROTOZOA AND HELMINTHS (Amoebae, flagellates, ciliates, nematodes cestodes, trematodes, cultivation, staining, and concentration techniques).
FIRST WEEK	With special emphasis on: Amebiasis Hookworm Echinococcosis Schistosomiasis	
	LABORATORY DIAGNOSIS OF BLOOD PARASITES * *	DIAGNOSIS OF MALARIAL PARASITES, HAEMOFLAGELLATES, FILARIAL WORMS, AND ARTHROPODS OF MEDICAL IMPORTANCE (Three species of *Plasmodium*, leishmanias, trypanosomes, filarial worms; thin and thick blood films, staining, concentration techniques).
SECOND WEEK	With special emphasis on: Malaria Filariasis Leishmaniasis Trypanosomiasis	

Other information regarding this course is presented in the General Information for the group of courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Directors, Senior Laboratory Staff Members, Physicians and others of comparable professional standing in the preceding pages.

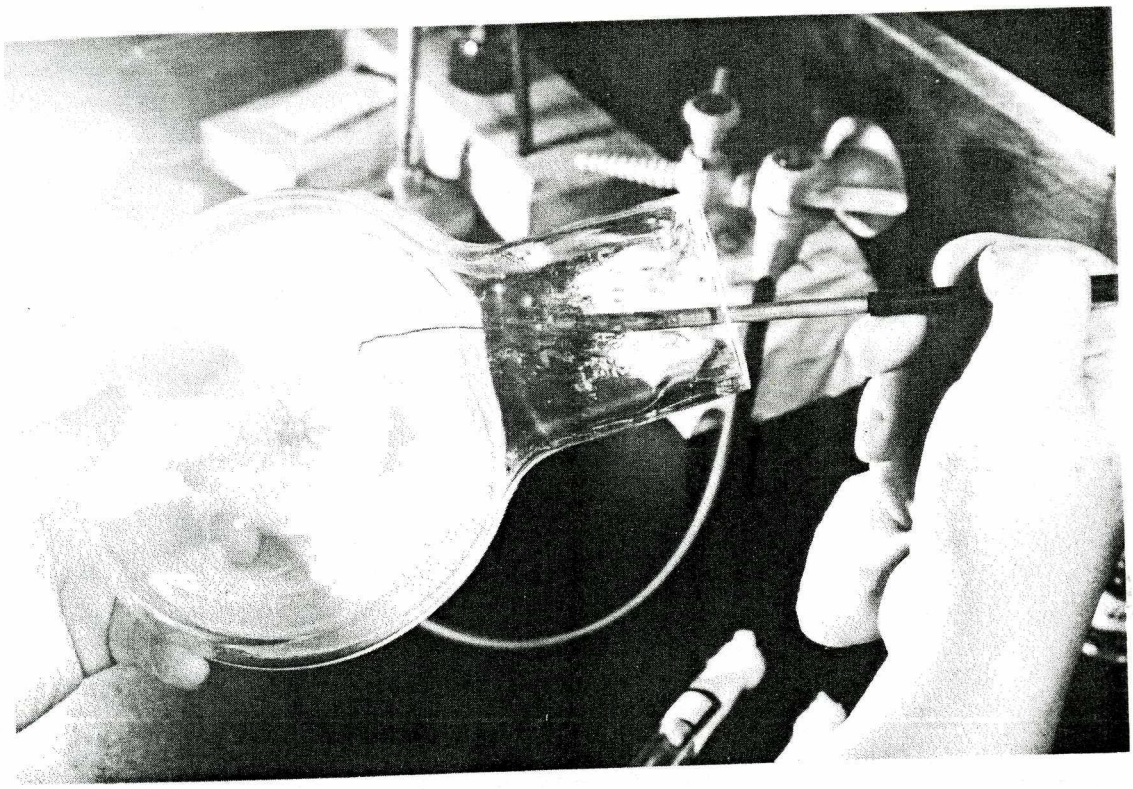
LABORATORY DIAGNOSIS OF MYCOTIC DISEASES (5.9-1)

FOR LABORATORY DIRECTORS, SENIOR LABORATORY STAFF MEMBERS, PHYSICIANS, AND OTHERS OF COMPARABLE PROFESSIONAL STANDING

DATES: May 23 -- June 3, 1949

LOCATION: Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Georgia

STAFF: Libero Ajello, Ph.D. (Mycology)
Guest lecturers, Consultants and other members of the Bacteriology Branch of the Laboratory Division, Communicable Disease Center



Examination of a giant colony of a fungus during the diagnosis of a mycotic infection in man.

TYPE OF TRAINING

A two-weeks course similar to the four-weeks course, Laboratory Diagnosis of Mycotic Diseases (5.3-1), but concentrated and particularly adapted for laboratory directors, senior laboratory staff members, physicians, and others of comparable professional standing. The primary purpose is to enable these individuals to better evaluate diagnostic techniques in this field by giving them training in these procedures.

LABORATORY DIAGNOSIS OF MYCOTIC DISEASES (5.9-1)
(Cont'd)

OUTLINE OF COURSE

Phases of the program and relative amount of time allotted to each is as follows:

1. IDENTIFICATION OF COMMON SAPROPHYTES Aspergillus, Penicillium, Cephalosporium, Fusarium, etc.	1 day
2. IDENTIFICATION AND CULTURING OF THE DERMATOPHYTES Trichophyton, Microsporum, Epidermophyton, etc.	3 days
3. IDENTIFICATION AND CULTURING OF THE SUB-CUTANEOUS FUNGI Hormodendron, Phialophora, Sporotrichum, Allescheria, Nocardia, etc.	3 days
4. IDENTIFICATION AND CULTURING OF THE SYSTEMIC FUNGI Coccidioides, Histoplasma, Blastomyces, Cruptococcus, etc.	3 days

Other information regarding this course is presented in the General Information for the group of courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Directors, Senior Laboratory Staff Members, Physicians and others of comparable professional standing in the preceding pages.

LABORATORY DIAGNOSIS OF TUBERCULOSIS (5.10-1)

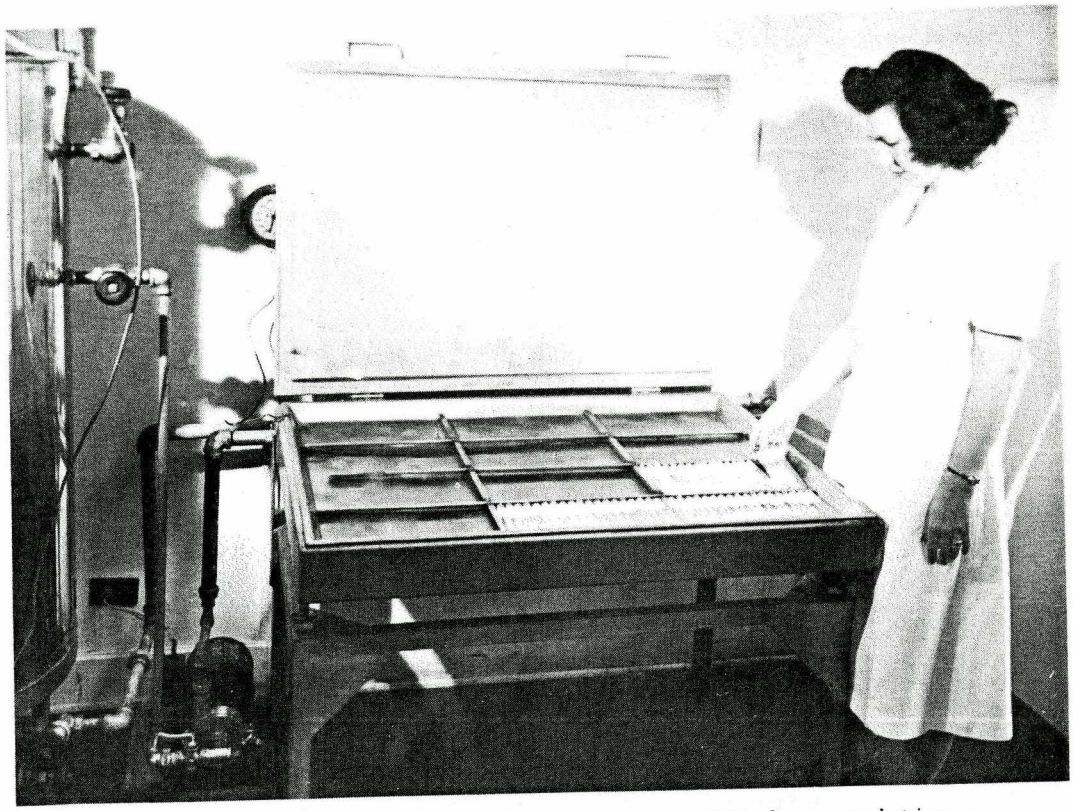
(OFFERED IN COOPERATION WITH TUBERCULOSIS CONTROL DIVISION)

FOR LABORATORY DIRECTORS, SENIOR LABORATORY STAFF MEMBERS, PHYSICIANS, AND OTHERS OF COMPARABLE PROFESSIONAL STANDING

DATES: June 6 -- June 17, 1949

LOCATION: Bacteriology Laboratories, Laboratory Division, Communicable Disease Center, Lawson Hospital, Chamblee, Georgia

STAFF: Martin M. Cummings, M.D.
Robert A. Patnode, Bacteriologist
Guest lecturers, Consultants and other members of the Bacteriology Branch of the Laboratory Division, Communicable Disease Center



A uniform-temperature inspissator, developed in CDC, for coagulation of egg media for cultivation of tubercle bacilli.

TYPE OF TRAINING

A two-weeks course similar to the four-weeks course, Laboratory Diagnosis of Bacterial Diseases, Part I, Tuberculosis Bacteriology (5.4-1), but concentrated and particularly adapted for laboratory directors, senior laboratory staff members, physicians and others of comparable professional standing. The primary purpose is to enable these individuals to better evaluate diagnostic techniques in this field by giving them training in these procedures.

OUTLINE OF COURSE

Phases of the program and relative amount of time allotted to each is as follows:

1. Laboratory personnel protection	2 days
2. Culture media preparation	
3. Microscopy techniques	2 days
4. Interpretation of results and reporting	
5. Culture techniques	2 days
6. Digestion and concentration	
7. Culture diagnosis	2 days
8. Animal inoculation and autopsy	1 day
9. Streptomycin assays	1 day
10. Evaluation studies	

Other information regarding this course is presented in the General Information for the group of courses in Diagnostic Microbiology of Communicable Diseases for Laboratory Directors, Senior Laboratory Staff Members, Physicians and others of comparable professional standing in the preceding pages.