

The History of the Sanitarian Profession

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American Academy of Sanitarians



With Special Thanks To:



Bob Custard

Friend, Colleague, Sanitarian,
NEHA Past President

Environmental Health Manager (Ret.)
Alexandria, VA

**Whose dedication and interest
in environmental health, our
profession and its many
practitioners made this
presentation possible.**

With special gratitude and thanks to the following authors

Grace L. Loye, MSPA

1937 *The Sanitarian and His Duties*

Ben Freedman, MD, MPH

1957 *Sanitarian's Handbook*

George Rosen, MD

1958 *A History of Public Health*

With gratitude and thanks

W.W. Sampson, PhD

1967 *The History of the National Association of Sanitarians*

John Duffy, PhD

1990 *The Sanitarians: A History of American Public Health*

Suellen Hoy, PhD

1995 *Chasing Dirt: The American Pursuit of Cleanliness*

Evolution of the Definition

Sanitarian

1. A non-medical practitioner of sanitation
2. An advocate of sanitary measures; one especially interested or versed in sanitary measures.
3. A person who is trained and experienced in the field of sanitary science and technology and who is authorized to carry out the educational, inspectional and enforcement duties in the field of environmental health services.

Sanitarian - Current Definition

A credentialed practitioner in the environmental, sanitary and public health sciences whose vocational efforts are directed towards the evaluation and management of those factors and mechanisms in our environment which impact upon the reduction of risk of disease and injury as well as the improvement in the quality of life.

PROFESSIONAL EMPHASES

Microbiological
Contamination Control
Risk Evaluation, and,
General Sanitation

Milestones

Polemics, Politics, Science and People

Environmental Health Milestones

c. 3000 B.C.: Mosaic Code of Hygiene - Influences on Christendom.

For over 1,000 years after the fall of the Roman Empire, personal hygiene was considered “worldly” and European living conditions and health, with minor exceptions, were left to the province of an extra rational power.

Environmental Health Milestones

1200's London:

- Smoke abatement law

- Forbidding swine in streets

- Keeping fronts of houses clean

1348: Venice - First Board of Health and
Quarantine.

1350: France - Sanitary Police program.

1388: England - First English Sanitary Act

1415: England - First Nuisance Act

Environmental Health Milestones

1486: England - Regulation of slaughter houses.

1495: England - Statute against contagion by fomites (bedding).

1513: Santa Domingo - First health ordinances in the new world.

1558: Italy - Luigi Cornaro publishes treatise on personal hygiene.

1599: Vienna - Temporary prohibition on the sale of milk products.

First Sanitation Law in Virginia 1610

Soiled laundry water shall not be discarded in the street or within forty-feet from the fort.

Pots and kettles may not be washed within twenty feet from the well.

“Necessities of nature” must be discarded $\frac{1}{4}$ mile from the fort.

Houses must be clean and free of odors.

Streets must be kept clean.

Beds must be three-feet off the floor.

Penalty: answer to a “Marshall Court”.

Environmental Health Milestones

1774: Guatemala - First Board of Health

1774: England - Prison reform*

1783: Berlin - First meat inspection regulations.

1793: Baltimore - First City Board of Health

1798: USPHS established

1799: Germany - Johann Peter Frank published work on public hygiene

1855: Louisiana - First State Board of Health.

1859: Boston - First milk inspector

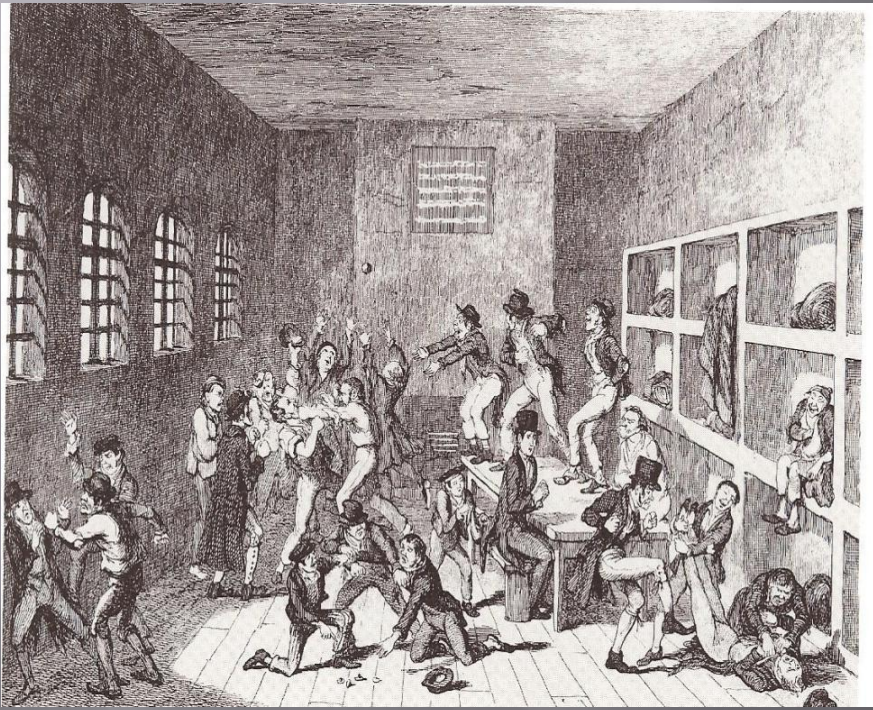
Did you know ... ?

As the first President of Boston's Board of Health, Paul Revere supervised the city's privy inspectors, who made sure that residents properly emptied their privies and did not let them overflow.



POLITICAL
INFLUENCES ON
SANITARY
REFORM

Newgate Prison: The beginning of environmental health reform

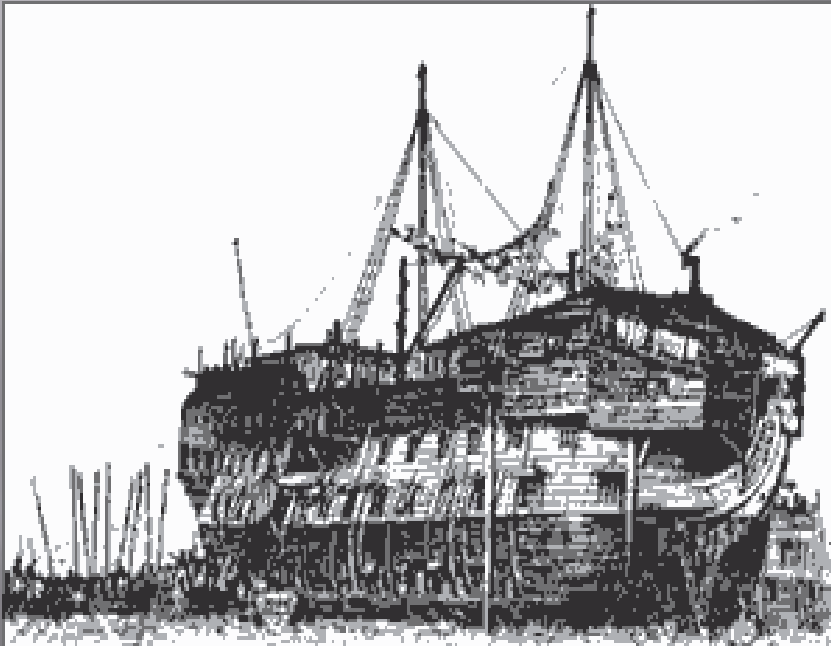


Newgate was notorious for its overcrowding, unhealthy environment (lack of air and water, and epidemics).

Prisons, Newgate included, did not supply their prisoners with bedding and clothing. These things had to be purchased from the keepers. In addition to this cost, prisoners were also expected to pay a fee upon admission. They also needed to continue to pay money if they wanted any of the ordinary comforts of life. Then, when released, they were expected to pay yet another fee before they were allowed to leave.

Prison Ship Reform - 1847

British Shipboard Confinement
1776 to 1857



THE REFORMERS

In March of 1847 Captain William John Williams accepted a charge by the Home Secretary to "inquire diligently" into conditions of confinement on the hulks.

Thomas Duncombe, Member of Parliament, led the inquiry into conditions of confinement and assisted Williams in his work.

BEGINNINGS

EVOLUTION OF THE SANITARY PARADIGM

“Sanitary”

The word “sanitary” finds its way into the English language:

SANITARY : 1842, from Fr. *sanitaire* (1812), from L. *sanitas* "health," from *sanus* "healthy, sane." In ref. to menstrual pads, first attested 1881 (in sanitary towel). Sanitize first recorded 1886; metaphoric sense is from 1934.

SANITATION: 1848, irregularly formed from sanitary. As a euphemism for garbage (e.g. sanitation engineer) first recorded 1939.

The Public Health Reformers

Catharine Beecher - 1841

A Treatise on Domestic Economy, for the Use of Young Ladies at Home and at School

William Alcott - 1830-1859

Wrote 100's of articles on Cleanliness, Health and Virtue. The "Law of Cleanliness"

Sylvester Graham - 1840's - Cholera and Hygiene

John H. Criscom - 1844

The Sanitary Condition of the Laboring Population of New York

THE
FIRST
SANITARIANS

James Tilton (1745 - 1822)

Physician and Surgeon General of the United States Army

During the campaigns of 1775-80 he was successful in providing small well-ventilated log huts capable of holding but six or eight patients each.

In February 1813, he published a small treatise entitled, *Economical Observations on Military Hospitals and the Prevention and Cure of Diseases Incident to an Army*.

His efforts to improve hospital conditions and to rehabilitate the medical and hygienic service of the army resulted in the publication of the *Regulations for the Medical Department* issued in general orders of December 1814.



Edwin Chadwick (1800-1890)

Lawyer and Social Reformer

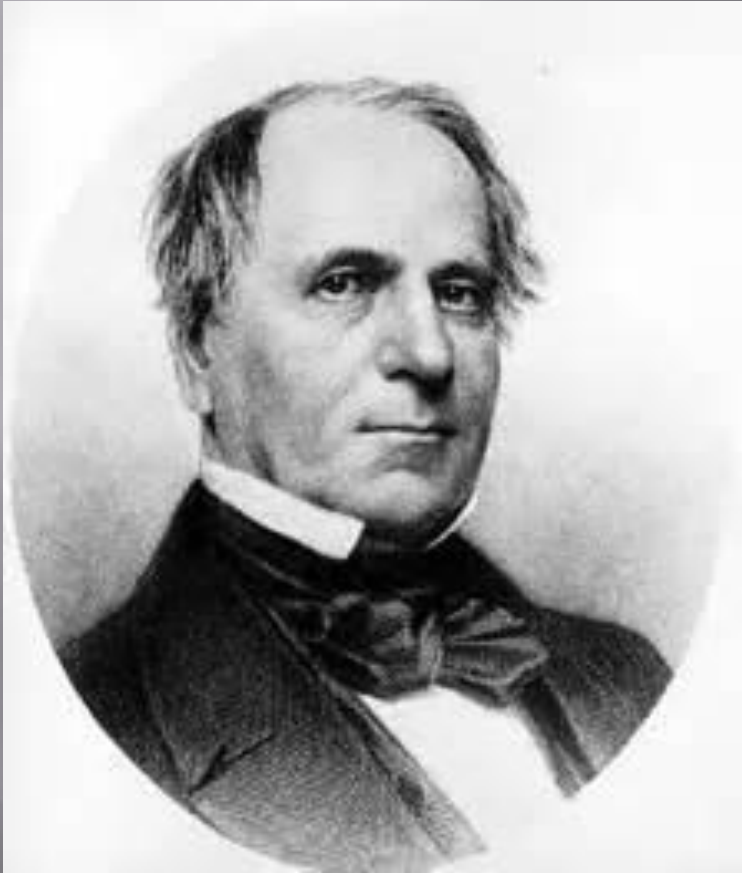


After the influenza and typhoid epidemics in 1837 and 1838, Edwin Chadwick was asked by the government to carry out a new enquiry into sanitation. His report, *The Sanitary Conditions of the Labouring Population* was published in 1842.

Chadwick argued that disease was directly related to living conditions and that there was a desperate need for public health reform.

Lemuel Shattuck (1793-1859)

Merchant and Politician



Reviewed birth, marriage
and death records for
Boston neighborhoods

Concluded that sanitary
conditions affected the
death rate

Editor of the Report on the
Sanitary Condition of
Massachusetts - 1850

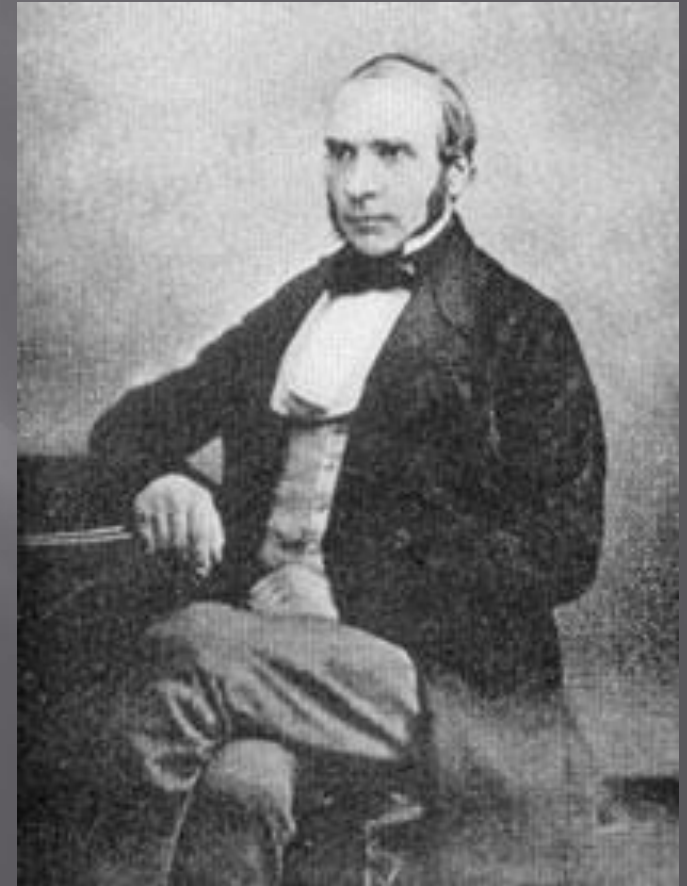
John Snow (1813-1858)

Father of modern Epidemiology and Anestheiolgist

Studied the geographic distribution of cholera deaths in London during the 1854 epidemic.

Concluded that people who drank water from the Soho District Broad Street pump were more likely to get cholera.

Removed the pump handle and stopped the epidemic. Contamination came from a "Dolphin" located downstream of a sewer outfall.



Florence Nightengale (1820-1910)

“The Apostle of Cleanliness”

Studied death rate from communicable diseases (principally cholera and typhus) among wounded British soldiers during the Crimean War (1855).

Human health is first linked to environmental conditions.

Statistically proved that improvements in sanitation at hospitals led to a decrease in the death rate.

“Notes on Matters Affecting the Health, Efficiency and Hospital Administration of the British Army”



Ann Maria Jarvis (1832-1905)

Social Activist and Community Organizer



She noted the exceptionally high infant mortality rate in Taylor County, WV; seven of her eleven children died of communicable disease.

She organized Mothers Day Work Clubs through churches in five local towns to provide medicine for the indigent, inspection of milk for wholesomeness, and care for children of tubercular mothers.

She asked area physicians to help her set up procedures for sanitation inspections.

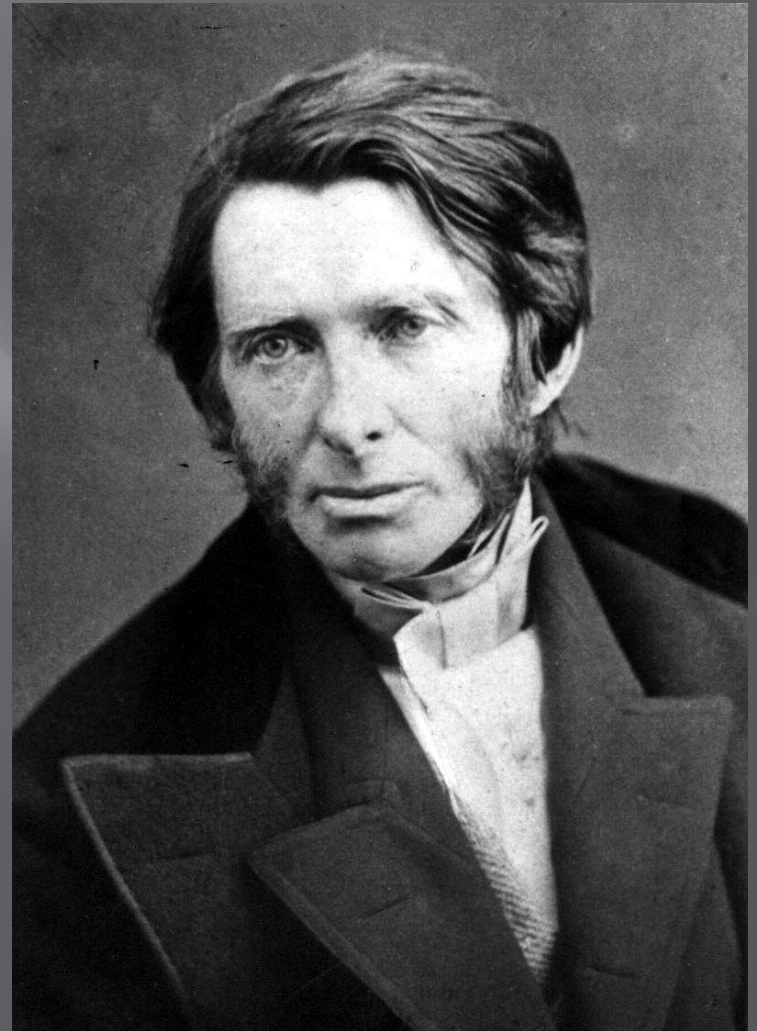
During the Civil War, her women's clubs assisted soldiers ill with typhoid and measles on both the Union and Confederate sides.

John Ruskin (1819-1910)

Art Critic and Writer

English critic of art, architecture, and society. He was a gifted painter, a distinctive prose stylist, and an important example of the Victorian Sage: a writer of polemical prose who seeks to cause cultural and social change.

“That country is the richest which nourishes the greatest numbers of noble and happy human beings.”



The American Civil War

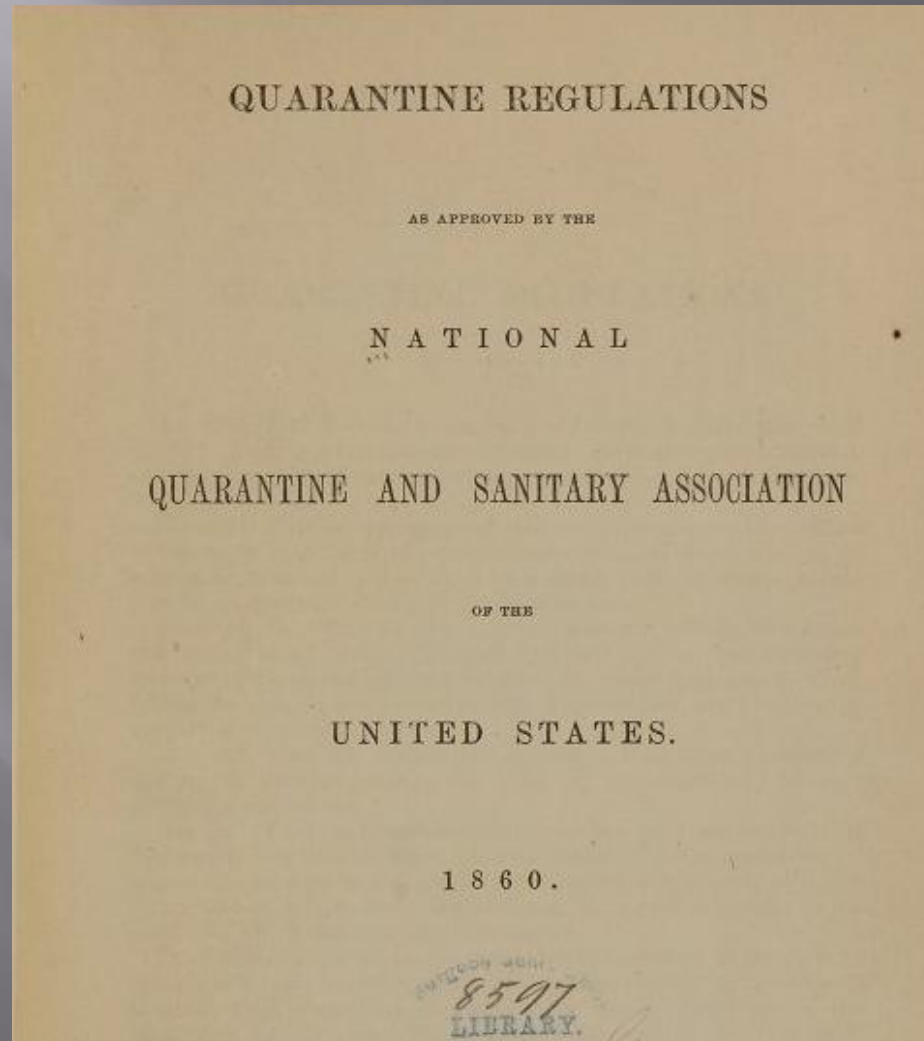
Sanitarian Beginnings

At the dawning of the Civil War
we enter into ...

The Age of Enlightenment

and the influences that established
our profession and gave it its'
name.

Introduction of Quarantine Regulations - 1860



Sanitary Commission

First women volunteers and establishment of the Sanitary Commission on June 19, 1861.

Dr. Henry W. Bellows (Clergyman) was driving force; Frederick Law Olmsted (Architect) appointed CEO

Began inspection of Union camps with emphasis on sanitation and other environmental health conditions.

Emphasis of prevention over cure

United States Sanitary Commission

Mission: To consider the location of the camp, its drainage, ventilation of tents or quarters, the quality of the rations, the methods of cooking, latrines, the general cleanliness of the camp and of the men ...

... they were instructed to suggest tactfully the points of deficiency to the commanding officers.

George Templeton Strong, Treasurer, raised nearly \$5 Million for the Commission during the war.



U.S. Sanitary Commission

First USSC office and field
hospital - 1861



USSC Doctors and Nurses
Fredericksburg 1864



Sanitary Commission

Provided most medical and sanitary supplies until the battle of Chancellorsville in 1863

“The Woman’s War” 20,000 women served on both sides.

The title “Nurse” carried cache!

“Whitewash and women were the best disinfectants”

The lessons of cleanliness were brought home from the war; which started rural and urban public health initiatives.

William Alexander Hammond

(1828-1900)



A leading neurologist.
Appointed Surgeon
General of the Army
in 1862.

Developed the modern
ambulance.

*“A Treatise on Hygiene:
With Special Reference
to the Military Service”
- 1863*

Joseph K. Barnes

12th Surgeon General of the Army

On September 3, 1863, Barnes was empowered by a special order of the War Department "To take charge of the bureau of the Medical Department of the Army".

For the remainder of his 18-year term of office he exhibited the greatest interest in the health and hygienic conditions of the army, in the comfort and welfare of the sick and wounded.



Standardized field sanitation

Civil War and the Sanitarian

Societal values became popularized ... in
civil and military life;

It brought home the idea of the value and
economy of health and lives, and,

Made available to the public, the wide
extent to which the knowledge and
principles of hygiene influence personal
and public health.

*New and emerging
science for our
profession*

Post War Advances in Public Health

Public health laboratories

Identification of the Tuberculosis bacillus

Milk pasteurization

Identification of mosquito and tick borne diseases

Identification of parasitic diseases

Garbage reduction

Post War Advances in Public Health

Water treatment and disinfection

Mosquito control

Identification of fecal borne diseases
and control

Septic and sewage systems

Recognition of rural sanitation

Notable Individuals who Shaped our Profession

Robert Koch (1843-1910)



Known for his work on tuberculosis, for which he was awarded a Nobel Prize.

Established *Koch's Postulates* that provide the basis for establishing if an organism is the cause of a disease.

He pioneered the use of microbiologic techniques still used today – agar growth media, Petri dishes; bacterial purification and staining techniques.

Louis Pasteur (1822-1895)



Established the “Germ Theory” in 1888.

Pasteurization process for beer and milk – 1877.

Discovered anaerobic life, microbial utilization of oxygen, filterable viruses.

Defined fermentation, and developed rabies and anthrax vaccines and the basis for aseptic surgery.

Sergei Winogradsky (1856-1953)

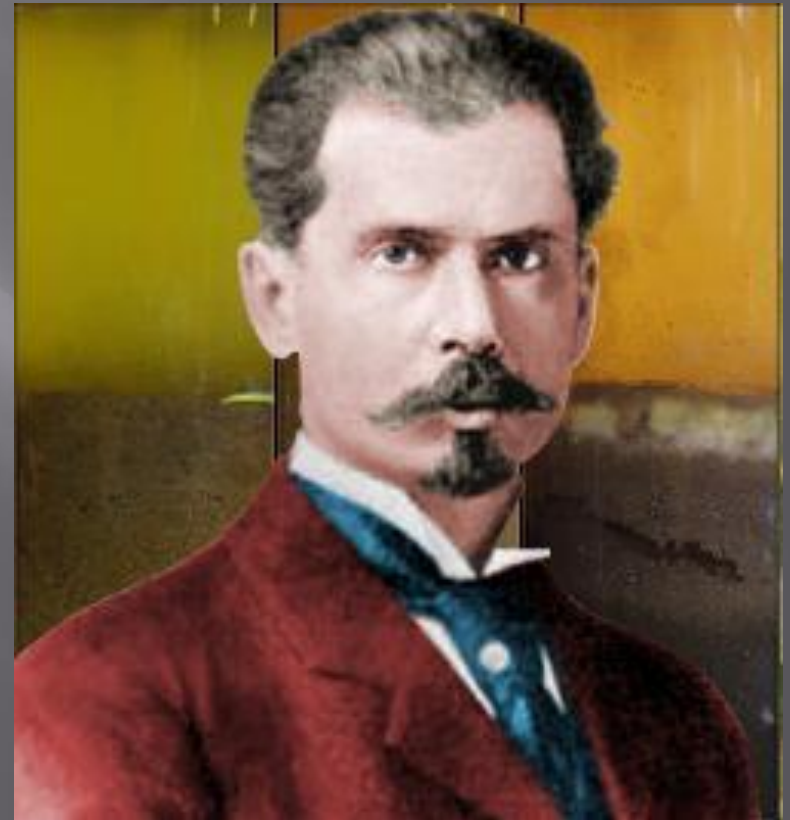
Father of modern
environmental
microbiology.

Defined Microbial Ecology
and the Biogeochemical
Cycle

Winogradsky Column

Established the concept of
autotrophy in 1887.

Discovered the organisms
responsible for
nitrification in soil.



Walter Reed, MD (1851-1902)

Reed's research on Yellow Fever was the seminal work on vectorborne disease transmission.

In October 1900, Major Reed was able to announce to the annual meeting of the American Public Health Association that "the mosquito serves as the intermediate host for the parasite of yellow fever."



Cleaning of the City and Farm: the emergence of the modern Sanitarian

1872: APHA was founded

First Journal called "*The Sanitarian*"

1875: Alabama - first rural public health

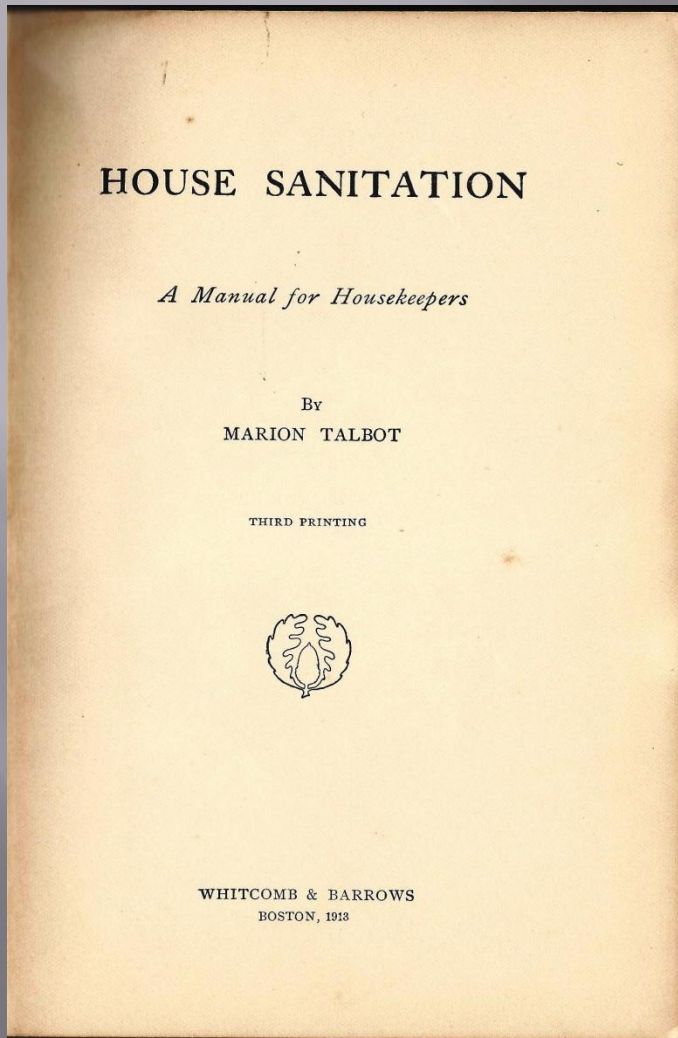
1879: National Board of Health created

Discontinued in 1893

1881: New York - first effective food control laws in the U.S.

1882: Newark - first dairy inspections

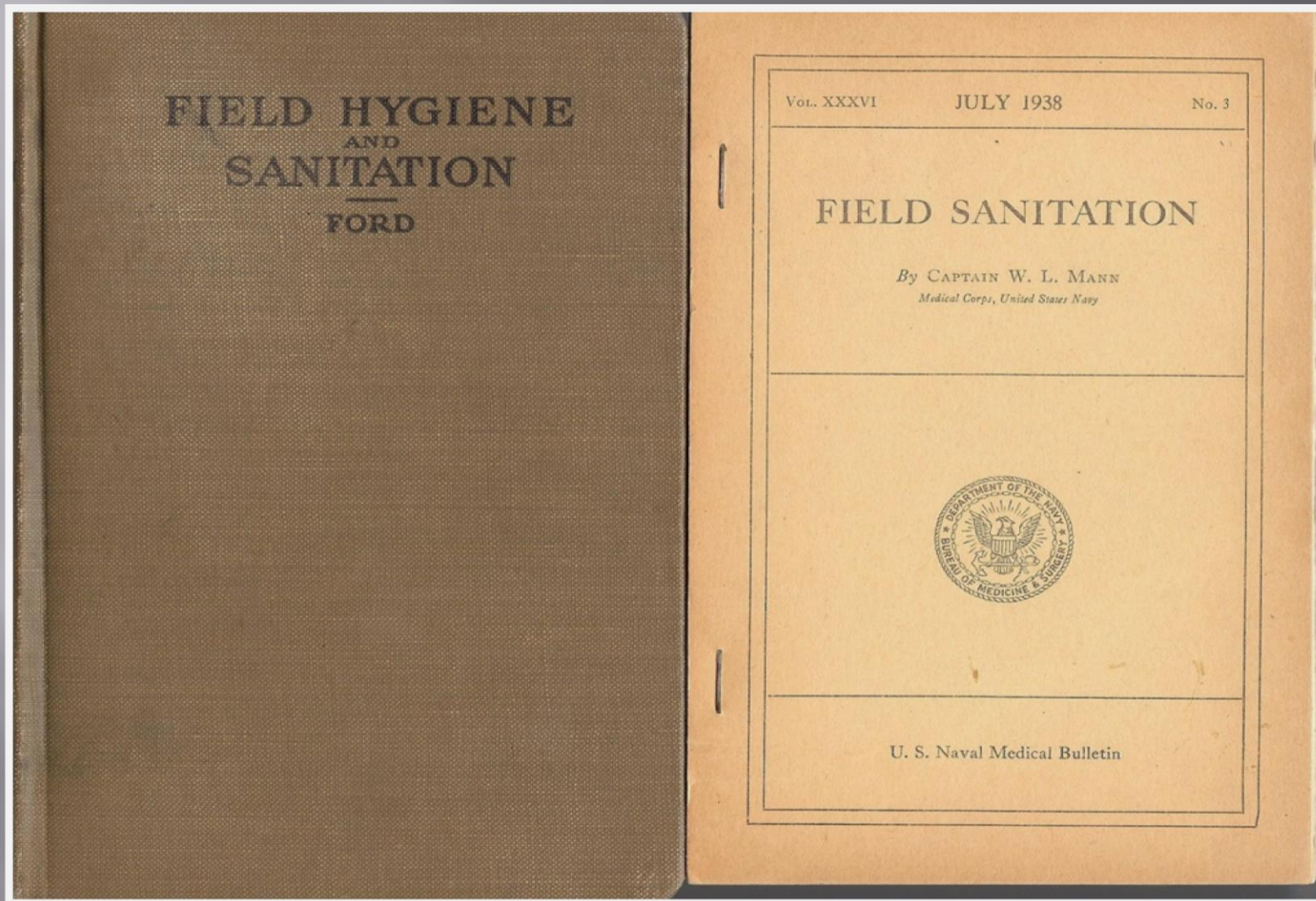
Emerging attitudes towards the Sanitarian Profession



1913

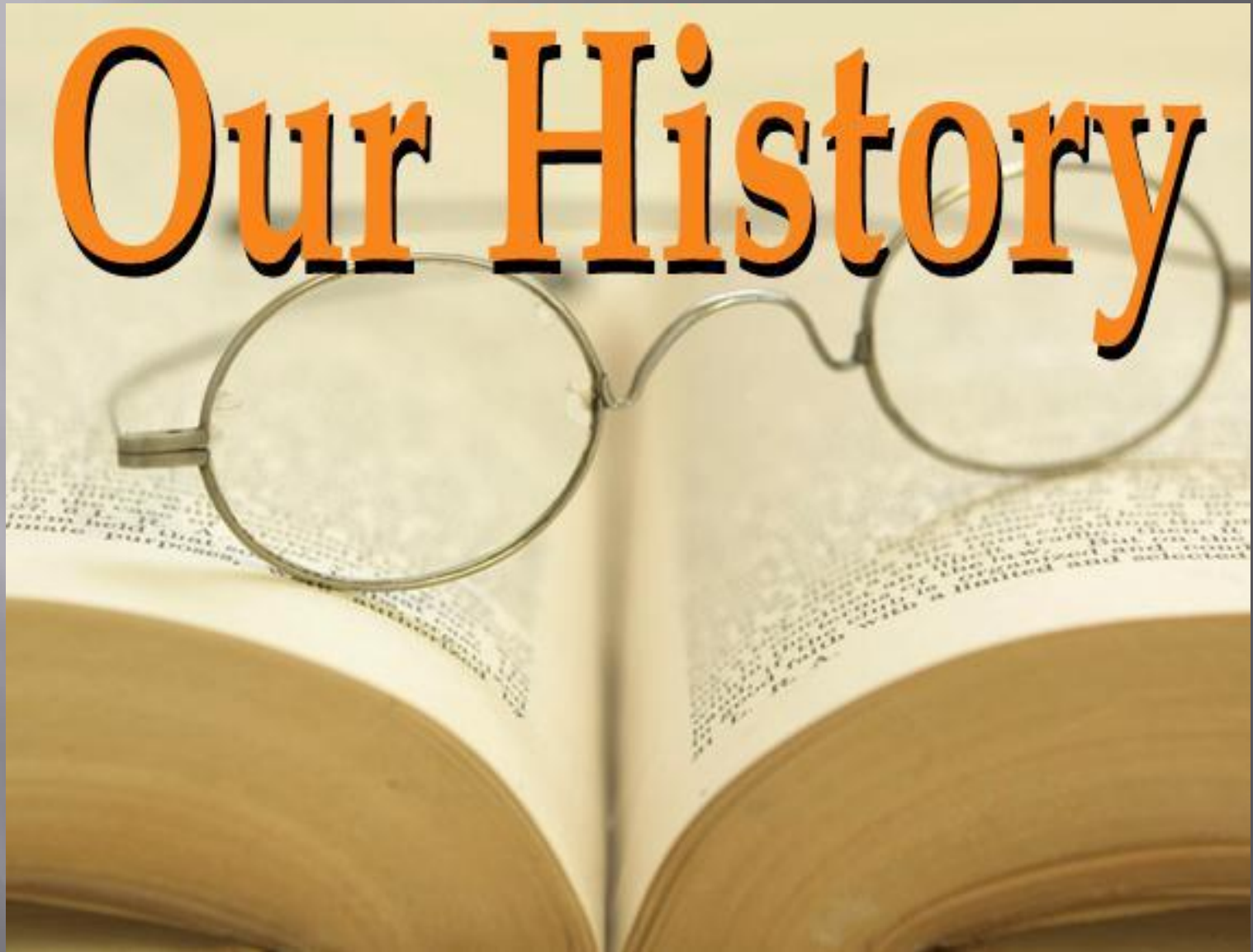
“... the old-style sanitary inspector usually condemned everything in sight, from the garbage pail at the back door to the plumbing in the bathroom. But what availed it that the garbage pail was emptied every day or a vent pipe placed on the bath water waste pipe, if the milkman delivered scarlet-fever infected milk or an unrecognized case of measles sat next the children at school” Dr. H.W. Hill

Modern sanitarians are urging that public funds appropriated for sanitary measures should be expended in such a way as to prevent the spread of disease. The mistaken idea should be abandoned that everything which tends toward comfort, beauty, good order, and even indirectly toward health, such as street cleaning, garbage disposal, and smoke prevention, belongs to the health department.



Field Sanitation Manuals: 1918 and 1938

Our History



A NEW PROFESSION

and events that made it significant

Meanwhile in England ... the emergence of the modern Sanitarian

1877: The Royal Sanitary Institute established a simple examination to qualify sanitary inspectors.

1884: Sir Edwin Chadwick became the founding president of the Association of Public Sanitary Inspectors.

1956: “Public health inspector” was changed to Environmental Health Officer.

1983: Professional practices standardized.

Milestones

- 1900-1910: Several states enact mandatory licensing.
- 1906: Food and Drug Administration created and Federal Food Laws promulgated.
- 1930: The term “Sanitarian” replaces sanitary inspector; first journal published.
- 1937: Formation of the National Association of Sanitarians.

Milestones

- 1946: Communicable Disease Center was created in Atlanta, Georgia.
- 1966: Establishment of the AIACS (American Academy of Sanitarians).
- 1967: The National Accreditation Council For Environmental Health Curricula.
- 1970: The NAS became the National Environmental Health Association.

Sanitarian

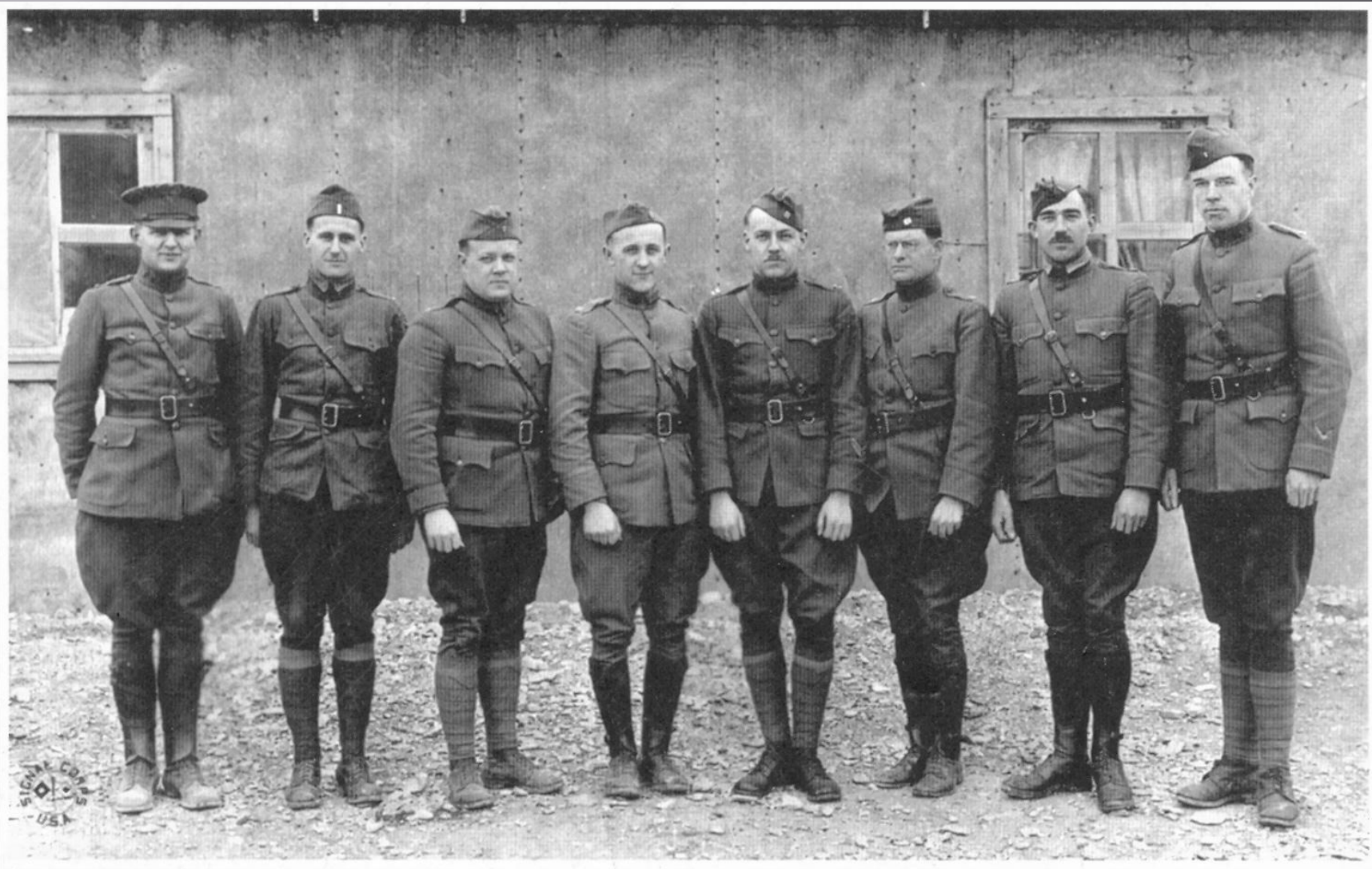
Officially becomes a Profession

2000 -

Standard Occupational
Classification

19-2041

*Making the
Modern
Sanitarian*



Sanitary Corps officers in Is-sur-Tille, France, February 1919

Stephen Smith, M.D. (1823-1922)



Editor of the American Medical Times (1860 - 1864) and first president of the American Public Health Association.

“The vocabulary of sanitary knowledge and the elementary facts of hygiene had become familiar to every household.”

Samuel J. Crumbine, MD

(1862-1954)

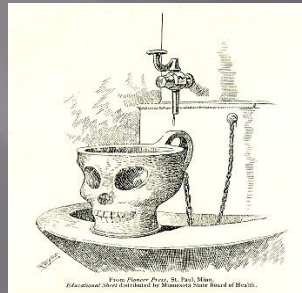
“Don't spit on the sidewalk”

“Ban the public drinking cup”

“Out with the common roller towel”

“Swat the fly, Bat the rat”

“Save the baby”



Charles Frederick Chandler

(1836 – 1925)

As member of the New York Metropolitan Board of Health, he
Stopped the sale of watered-down milk;
Championed the “Tenement House Act”;
Prevented 1883 cholera epidemic, and,
Reduced fatal kerosene related accidents.



Charles-Edward Amory Winslow

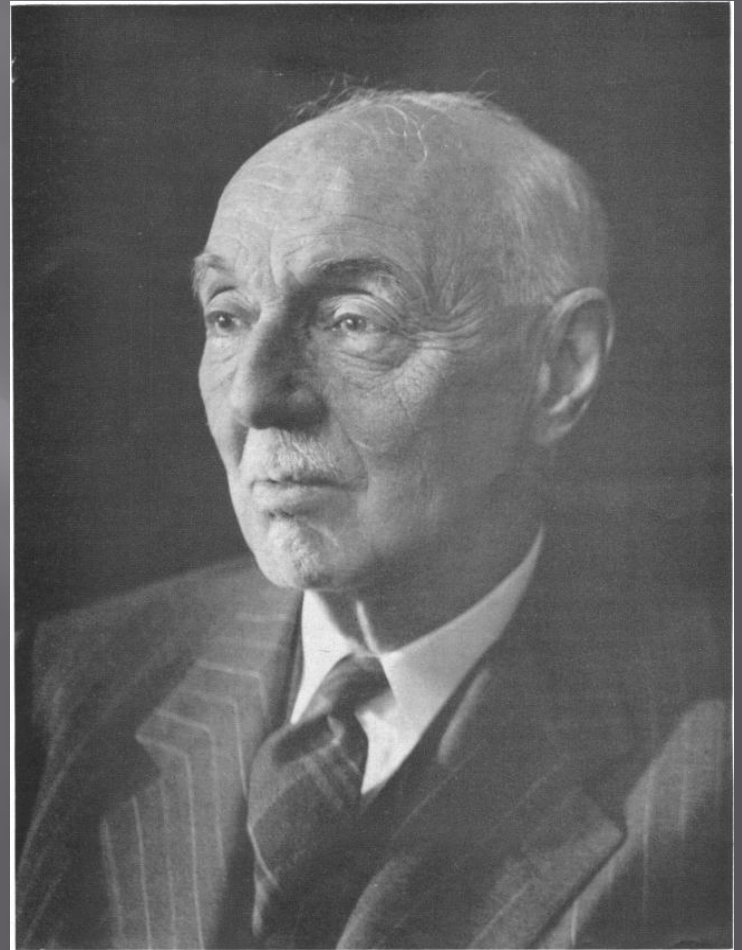
(1877-1957)

Founded the Yale School of Public Health – 1915.

Pioneered modern sewage disposal; housing and urban renewal.

1932-1947 - Senior Sanitarian, United States Public Health Service (Reserve).

Most widely quoted and influential public health pioneer.



Walter Smith Mangold (1895-1978)



Sanitarian and Educator

Defined the Knowledge,
Skills and Attributes of
the sanitarian profession.

Established the National
Association of Sanitarians
and was its' first Journal
Editor.

Walter S. Mangold Award –
Established in 1955.

Slogan and Symbol

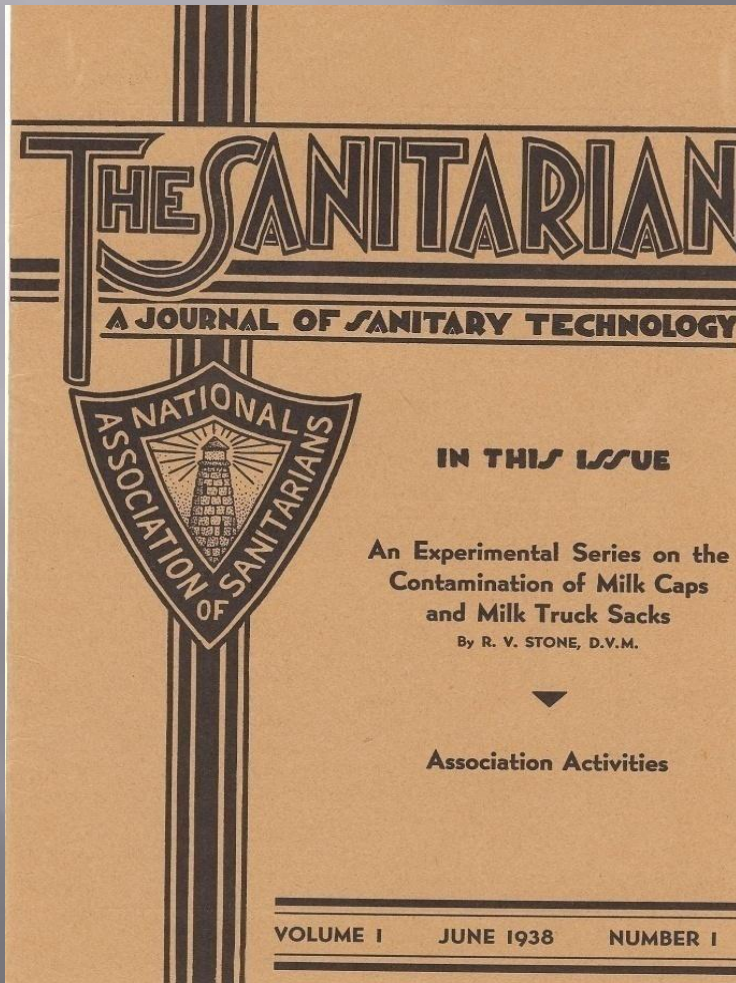


The slogan,

**“Sanitation – the Beacon
Light of Public
Health,”**

was adopted in 1932,
and the emblem was
adopted December 11,
1937 at the first
annual meeting of the
NAS in San Luis
Obispo

The Sanitarian - June 1938 (Volume 1, Number 1)



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THE SANITARIAN

THE PURPOSE OF THE

NATIONAL ASSOCIATION OF SANITARIANS, INC.

The objective of the National Association of Sanitarians is: to promote the welfare of sanitarians engaged in public health inspection or in allied occupations and to professionalize their status; to foster and promote high standards of attainment in their work and of qualification for engaging therein; to strive for their recognition as a scientific group by public and official sources, rendering a governmental service for the general welfare of the public; to bring about harmonious and cooperative effort for better understanding and more efficient rendering of their duties and responsibilities; to bring about standardization in methods of law enforcement and general public health practices in their respective fields; to encourage the establishment of courses of instruction and schools of training for the purpose of increasing the knowledge and efficiency of its members for their usefulness in public health work; to encourage reciprocal cooperation of the various branches and departments of government in activities directed towards the improvement of public health; to cultivate social intercourse among its members; and to establish a central point of reference for its members.

HERBERT A. JEWETT, *Chairman*
Membership Committee.

APPLICATION FOR MEMBERSHIP

I wish to apply for membership in the National Association of Sanitarians.

Name.....
(Print Name in full)

Street and City..... State.....
(For Correspondence and THE SANITARIAN)

Present public health occupation.....

REQUIREMENTS: Any Sanitarian permanently employed by a whole-time health service in the United States or its Territories is eligible for election as a member of the Association.

DUES: Dues of Active Members are \$5.00 per year, which includes an annual subscription to THE SANITARIAN.

NATIONAL ASSOCIATION OF SANITARIANS, INC.

678 South Ferris Avenue
Los Angeles, California

NSF International

In 1944, NSF International is an independent organization that tests and certifies products and writes standards for food, water and consumer goods to minimize adverse health effects and protect the environment.

Founded in Ann Arbor, Michigan in 1944, the National Sanitation Foundation used a transparent, consensus-based process to develop its' first standards for the sanitation of soda fountain and luncheonette equipment.

Sanitarians were involved in crafting these standards.

The Council of Public Health Consultants, made up mostly of sanitarians, evaluates and approves NSF public health and environmental health standards.

NSF was instrumental in supporting and training Sanitarians in the basics of environmental health and safety and in the use of its' standards.



American Intersociety Academy for Certification of Sanitarians - 1966

Founder Diplomates:

Harold S. Adams

A. Harry Bliss

Emil T. Chanlett

E. E. Diddams

B. Russell Franklin

Larry J. Gordon

William V. Hickey

William C. Miller, Jr.

A. Faegin Parrish

Verne C. Reiersen

Edwin L. Ruppert

Darold W. Taylor

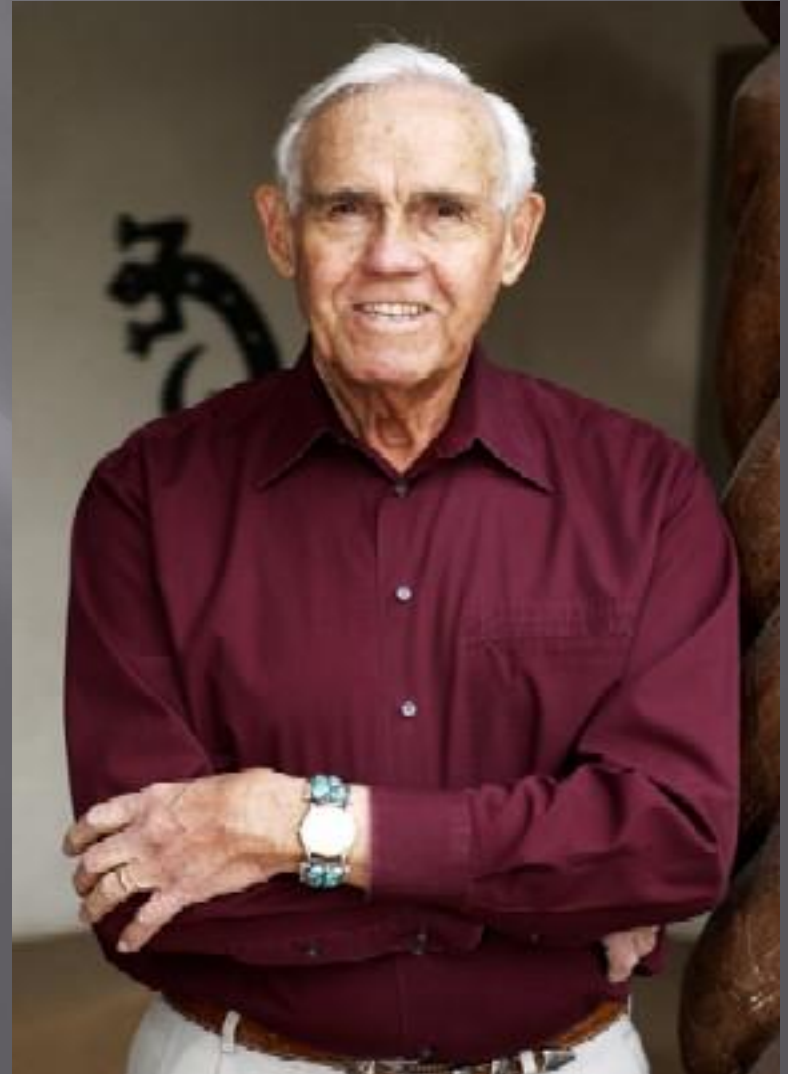


Larry J. Gordon (1926-)

Administrator, teacher,
mentor, writer, visionary
and Sanitarian

Author of the original Food
Code and the first
sanitarian to hold a State
cabinet position.

He is a Founder Diplomate
and Diplomate Laureate in
the American Academy of
Sanitarians.



American Academy of Sanitarians



The Academy is dedicated to improving the practice, elevating the standards, and advancing the profession of environmental health through mentoring and scholarship.

Epilog

It is the mark of a profession to grow with problems and responsibilities of the times.

The horizon of our profession can no longer be limited to the local or even the national community but must extend to the international community.

We must continuously strive to advance our science, enhance our craft, and, pass on the noble legacy that has come down to us.

And, may the outcome be healthy, safe and productive!

The State of



New Jersey

Department of Health

This Certifies That

ROBERT W. POWITZ

Has passed a satisfactory examination to determine his qualifications and is hereby licensed, pursuant to Chapter 177, Section 38 of the Public Laws of 1947, and amendments thereto, as

Sanitary Inspector, First Grade

Type of License

No. B-489
Trenton, New Jersey
June 2, 1967



In Witness Whereof, I have hereunto set my hand and caused the Seal of the State Department of Health of New Jersey to be affixed.

Roscoe Hande
State Commissioner of Health

