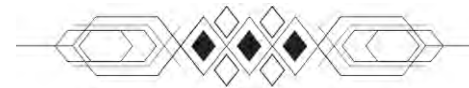


ONE CODE, ONE INSPECTOR, ONE STAMP, ONE HUNDRED YEARS  
THE HISTORY OF THE NATIONAL BOARD



Paul Brennan

Director of Public Affairs, Retired

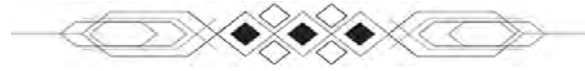
The National Board of Boiler and Pressure Vessel Inspectors



S.F. Harrison



# Technology 1860-1899



Slant-tube water tube boiler introduced

Bent-tube (Stirling) boiler developed

First Babcock and Wilcox boiler patented

First U.S. central electric generation station opened

Butted-plate drum construction introduced

Steel plates for boiler drums replace wrought iron

First specifications for steel and iron boilers issued



1866

Hartford Steam Boiler Inspection and Insurance Company (HSB) born

1880

ASME FOUNDED

1888

Hartford Standards developed

1889

Hartford Standards adopted by American Boiler Manufacturers Association  
under the name Uniform Steam Boiler Specifications



1884

ASME creates *Code for the Conduct of Trials of Steam Boilers*

1911

ASME Boiler Code Committee created

1915

ASME publishes *Rules for the Construction of Stationary Boilers and for Allowable Working Pressures*



THE AMERICAN SOCIETY OF MECHANICAL  
ENGINEERS

REPORT  
OF THE COMMITTEE  
TO FORMULATE STANDARD SPECIFICATIONS  
FOR THE  
CONSTRUCTION OF STEAM BOILERS AND OTHER  
PRESSURE VESSELS AND FOR THEIR  
CARE IN SERVICE

KNOWN AS  
THE BOILER CODE COMMITTEE



RULES FOR THE  
CONSTRUCTION OF STATIONARY BOILERS AND  
FOR ALLOWABLE WORKING PRESSURES

Edition of 1914 with Index

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THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS



# BOILER CODE COMMITTEE



COMMITTEE CHAIRMAN John A. Stevens

INSURANCE ENGINEER William H. Boehm

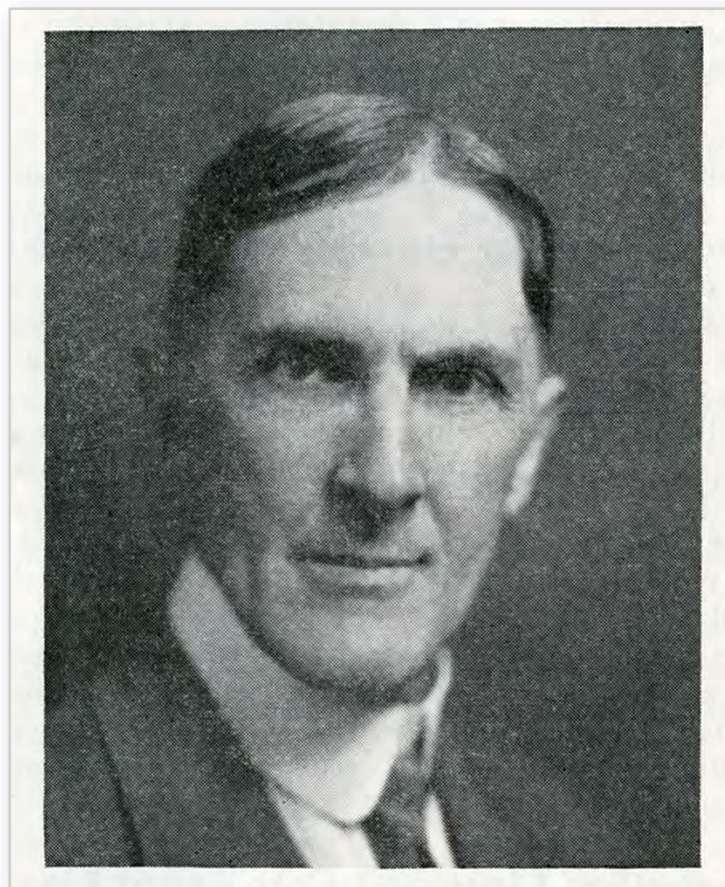
PROFESSORS Edward F. Miller and Rolla C. Carpenter

IRON and STEEL PRODUCER Charles L. Huston

BOILER MANUFACTURERS H. C. Meinholz and Richard Hammond

MECHANICAL ENGINEER C.W. Obert





C.W. Obert





# Technology 1900-1919



Seamless steel boiler first used

Low-pressure air-atomizing oil burners introduced

Single-retort underfeed stokers developed

First steam turbine electric plant placed in service in 1903

High-performance blowoff valves and multiple-retort stokers introduced

Variable-speed, rotary-overthrow spreader stokers developed

Steam-atomizing oil burners first introduced

First rotary-cut pol burner manufactured

Weir-type feedwater flow meter introduced

Economizers first used





C.O. Myers





“ Generally speaking, the National Board is the states consolidated into one body, which may be termed the enforcement body of the ASME Boiler Code Committee, and we have three primary objects in view, which are:  
one code, one inspector, and one stamp.”







Joseph Scott



# OBJECTIVES



*“promoting greater safety to life and property by securing concerted action and maintaining uniformity in the construction, installation and inspection of steam boilers and other pressure vessels and their appurtenances, and to secure interchangeability between political subdivisions of the United States.”*





C.O. Myers



ORIGINAL BOILER FILING FEE STRUCTURE  
(10 SQ. FT. OF HEATING SURFACE PER HORSEPOWER)



From 1 to 5 H.P.....	\$ 0.25
From 6 to 50 H.P.....	0.50
From 51 to 200 H.P.....	1.00
From 201 to 500 H.P....	2.00
From 501 H.P. up.....	3.00





# 1924



20,000 Boilers Stamped with National Board Designation

75 Boiler Manufacturers Authorized to Register

338 Inspectors Holding National Board Commissions







Comstock Building





THE NATIONAL BOARD OF BOILER  
PRESSURE VESSEL INSPECTORS,  
ANNUAL CONVENTION, HOTEL PATTEN,  
CHATTANOOGA, TENN, JUNE 17-18-19 1920



# Technology 1930-1939



First use of spreader stokers on coal-fired steamships

First welded power boiler drum

First X-ray examination of fusion-welded boiler drums

Chemical recovery boilers introduced

First boiler to operate at 1800 psi

First code-certified fusion-welded boiler drum

First portable water tube boiler

First use of spreader stoker on stationary boiler

Packaged firetube boilers introduced

Reliable flame safety controls introduced

First long retractable soot blower



# Technology 1940-1949



Circular register burners for pulverized coal firing developed

Turbine-type gas burners developed

Forced draft register-type burners developed

Ribbed tubes for high-pressure boilers developed

First controlled-circulation boiler put into operation

First television use of monitoring boiler water gages

Packaged water tube boilers developed

Cyclone furnace coal firing introduced



# National Board BULLETIN

Official Publication of the National Board of Boiler and Pressure Vessel Inspectors

C. O. Myers, Secretary-Treasurer, 145 North High St., Columbus, Ohio

Vol. 1

July 1943

No. 1

## THE NEW ORLEANS MEETING

The Fourteenth Meeting of the National Board of Boiler and Pressure Vessel Inspectors which was held in New Orleans with that city and the State of Louisiana as joint hosts, will go down in the records as one of the most enjoyable in its history. It was something of an innovation to venture so far away from the urban and industrial centers visited in previous meetings, but the experiment was highly successful. The weather was warm but pleasant throughout the entire week and the members enjoyed the many attractions of this very interesting city with great enthusiasm.

While the Meeting sessions were not scheduled to start until Tuesday, May 18th, quite a number of members, due to the war time travel conditions, arrived late Sunday, the 16th, or on Monday, the 17th, and spent the day Monday visiting and renewing acquaintances in the secretary's headquarters room on the third floor of the Roosevelt Hotel. Late in the afternoon on Monday our genial hosts, Messrs. James E. Leddy and A. L. Colby, surprised the guests with an impromptu sightseeing trip out through the city and suburbs. A group of about a dozen automobiles drove the party first across the Huey P. Long bridge across the Mississippi River and proceeded thence through the suburbs of Westwego, Gretna, and Algiers, back across the Algiers ferry, out Gentilly Boulevard to Lake Pontchartrain. The trip ended at Swanson's restaurant where a delicious crab, crawfish, and shrimp dinner was enjoyed and the guests gained valuable experience in the art of dissecting crustaceans for food. The party then returned to the headquarters room at the Hotel to greet new arrivals.

The Convention was called to order at 10 A.M. on Tuesday morning with an attendance of about 100. Chairman Book opened the session with a comprehensive message to the members and then Dr. Frank R. Gomila, Commissioner of Public Safety of New Orleans, gave an address of welcome to the assembly. Dr. D. S. Jacobus, Honorary Chairman of the Boiler Code Committee, next gave the members an interesting account of the





Headquarters Building at 1155 North High Street







C.O. Myers





E.O. Peterson



# Technology 1960-1969



Annular inerttube gas burners become available

Spiral-fin economizers make appearance

Clean Air Act passed by U.S. Congress

Nuclear power causes major impact on utility industry

Clean Air Act amended

First trailer-mounted rental boiler introduced





S.F. Harrison



# Technology 1970-1979



Improved flame detectors become available

Excess air burners introduced

Clean Air Act again amended

Radial multi-spud low-excess air gas burners introduced

Axial-flow variable-pitch fans developed

Electronic measurement and control equipment become available

Oxygen-trim systems applied to firetube boilers

National Energy Act was passed by U.S. Congress

Oil embargo causes major energy shift





# Technology 1980-1989



Boiler companies consolidate

Foreign manufacturers expand to U.S. market

Microprocessor-based controls attain popularity

Spiral-tube furnaces introduced

Water-gage viewing using fiber optics developed

Atmospheric fluidized bed boilers added for cogeneration





S.F. Harrison







D.J. McDonald



# Technology 1990-1999



Condensing boilers introduced

Control and construction codes upgraded reflecting new materials and equipment

Increased emphasis on computer-controlled operating systems

New designs of low-NO<sub>x</sub> burners appear

Controls and ancillary equipment emphasize energy conservation

Cogeneration plants increase in popularity



1992

SPECIAL EDITION

NATIONAL BOARD  
**BULLETIN**



An Official Publication of The National Board of Boiler and Pressure Vessel Inspectors

SPECIAL  
REPORT:

THE CHINESE FLANGE  
INVESTIGATION

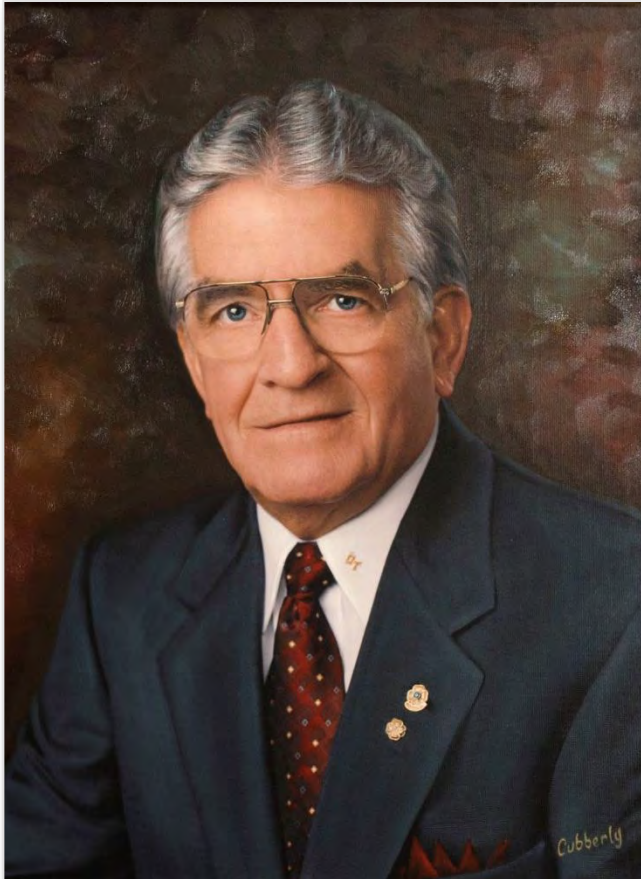






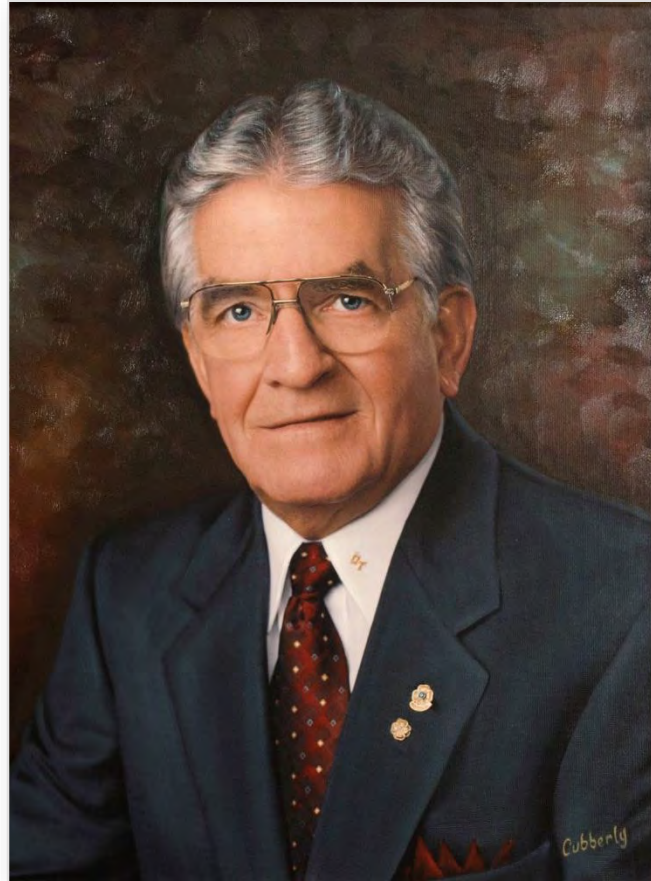
Albert J. Justin





Donald Tanner





Donald Tanner



George Bynog





David Douin





*National Board*  
**INSPECTION CODE**

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Preliminary Printing

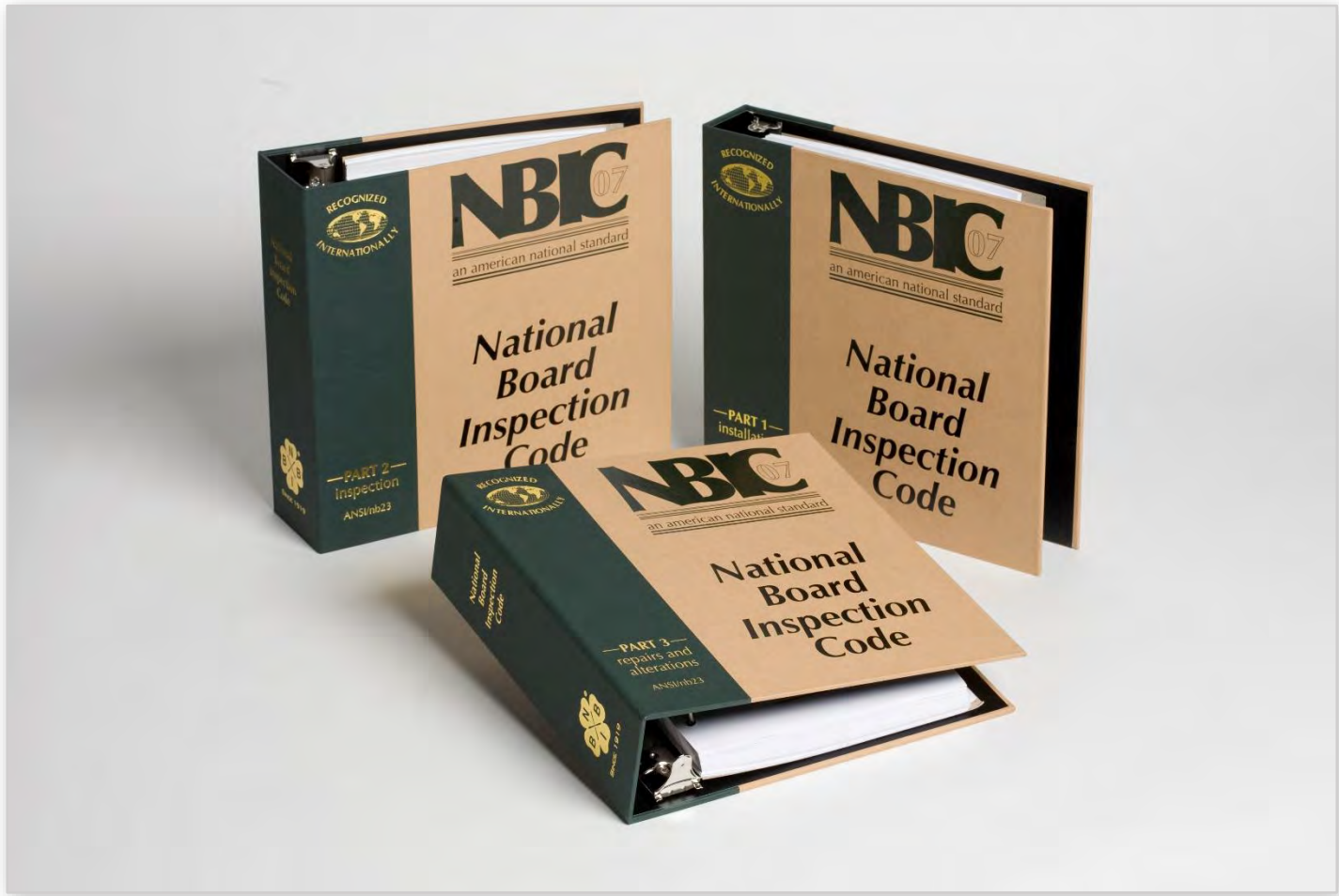
CHAPTER I

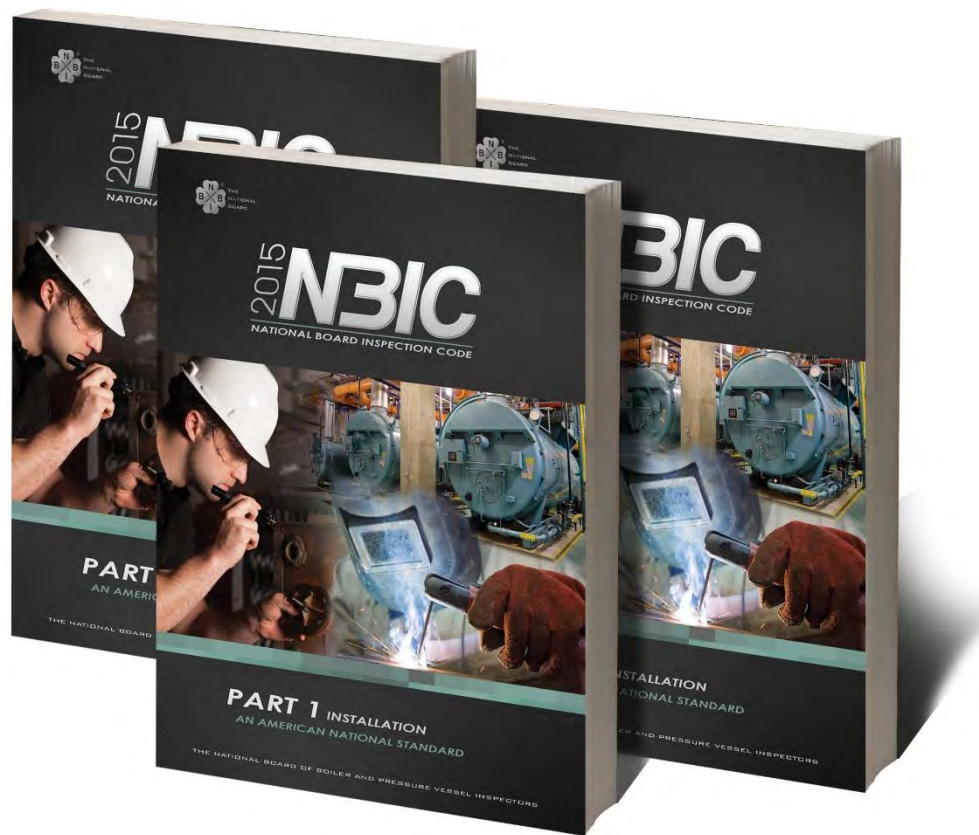
1945

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*Published by*  
National Board of Boiler and Pressure  
Vessel Inspectors  
145 North High St.  
Columbus 15, Ohio







# REGISTRATION TO DATE



59 million data reports filed since inception

1.8 million items registered each year

90 percent of equipment manufactured in North America registered (estimate)

average of 34,000 reports sent out annually







New Construction Commission/Authorized Inspector (A) Course  
National Board of Boiler and Pressure Vessel Inspectors  
March 31, 2011

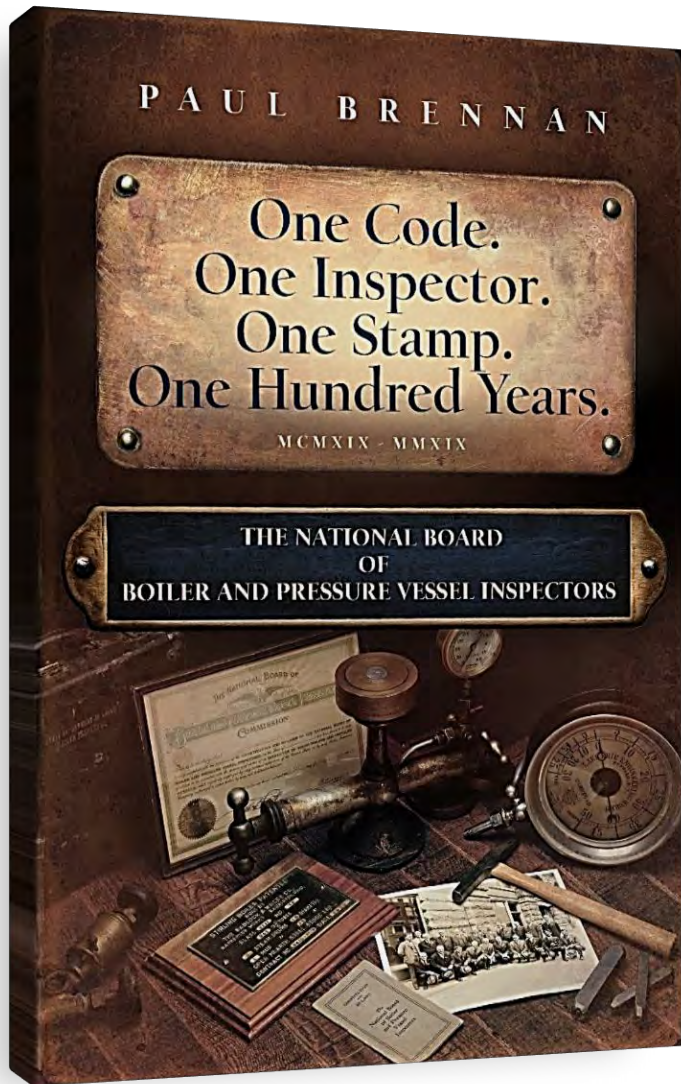


INSERVICE COMMISSION (IC) COURSE  
National Board of Boiler and Pressure Vessel Inspectors  
November 19, 2015



REPAIR OF PRESSURE RELIEF VALVES (VR) SEMINAR  
National Board of Boiler and Pressure Vessel Inspectors  
January 29, 2019





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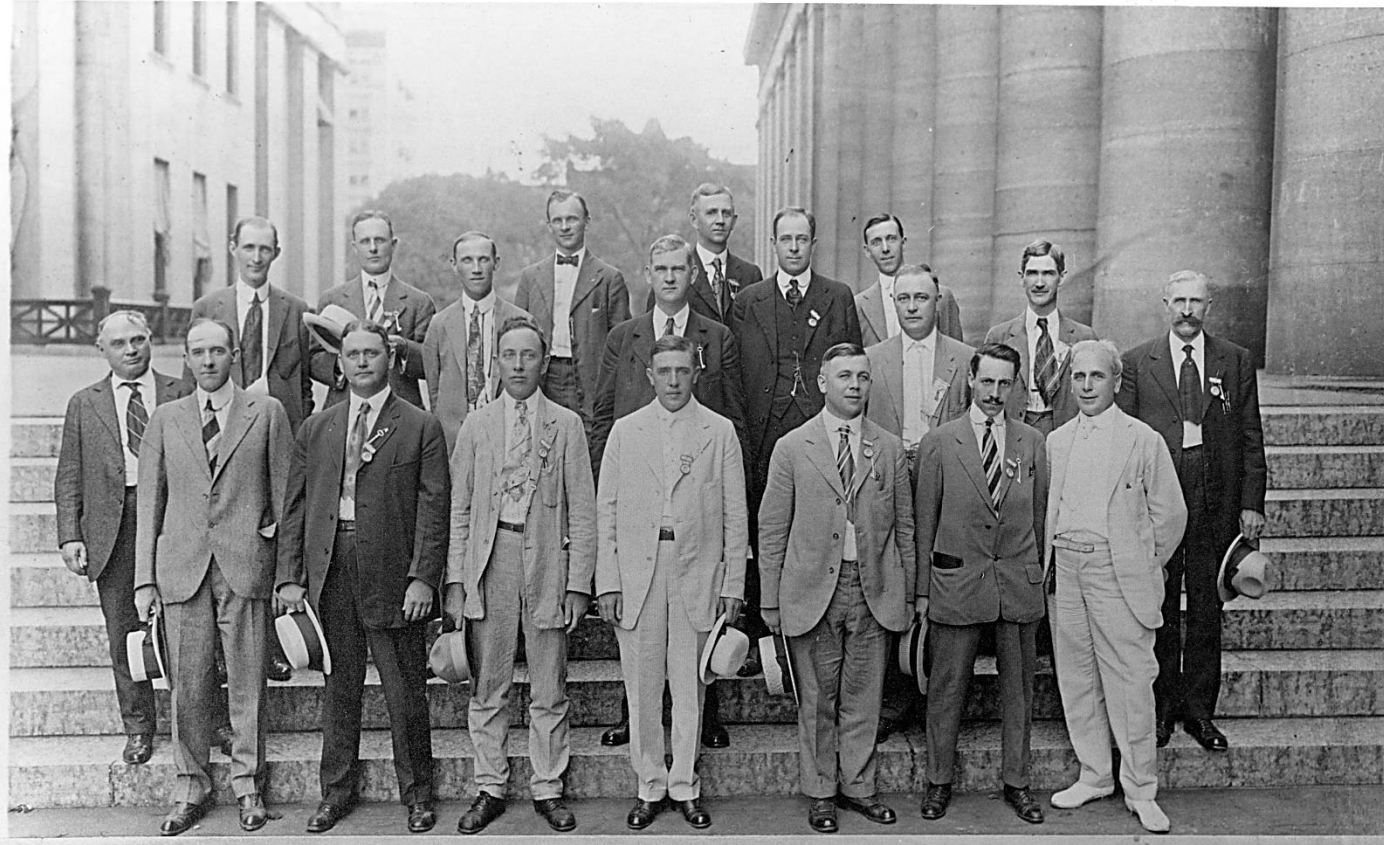
Paul Brennan

Director of Public Affairs, Retired

The National Board of Boiler and Pressure Vessel Inspectors







First Meeting of Ohio Boiler Inspection Officials in Columbus





“This meeting has been called with two objectives in view. First, that those of us who are charged with the safety of boilers may become better acquainted, and secondly for educational purposes.”

*- First National Board Chairman Joseph Scott*

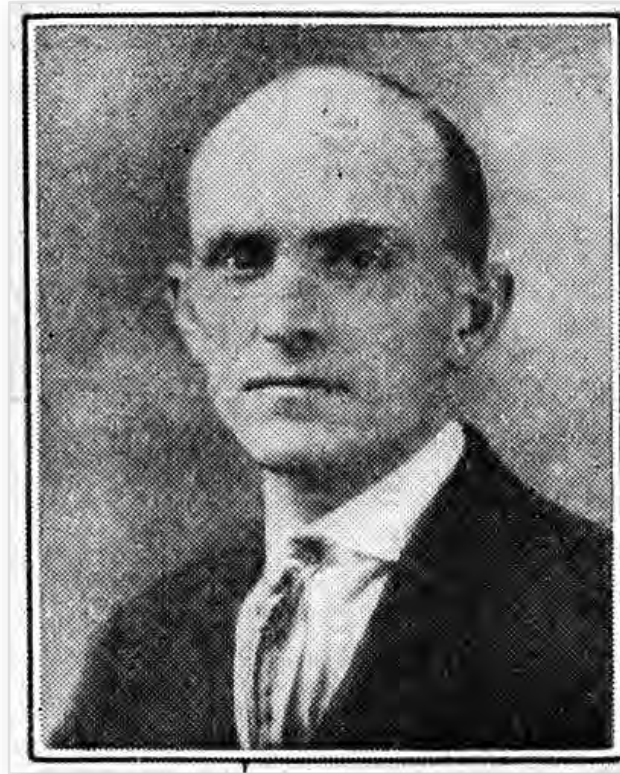




“I had the pleasure of seeing a boiler with twenty-two stamps. Had every state standard, wherever there is a boiler law, and if it was necessary to put on two more, they would have had to build an extension on the boiler in order to hold the stamps.”

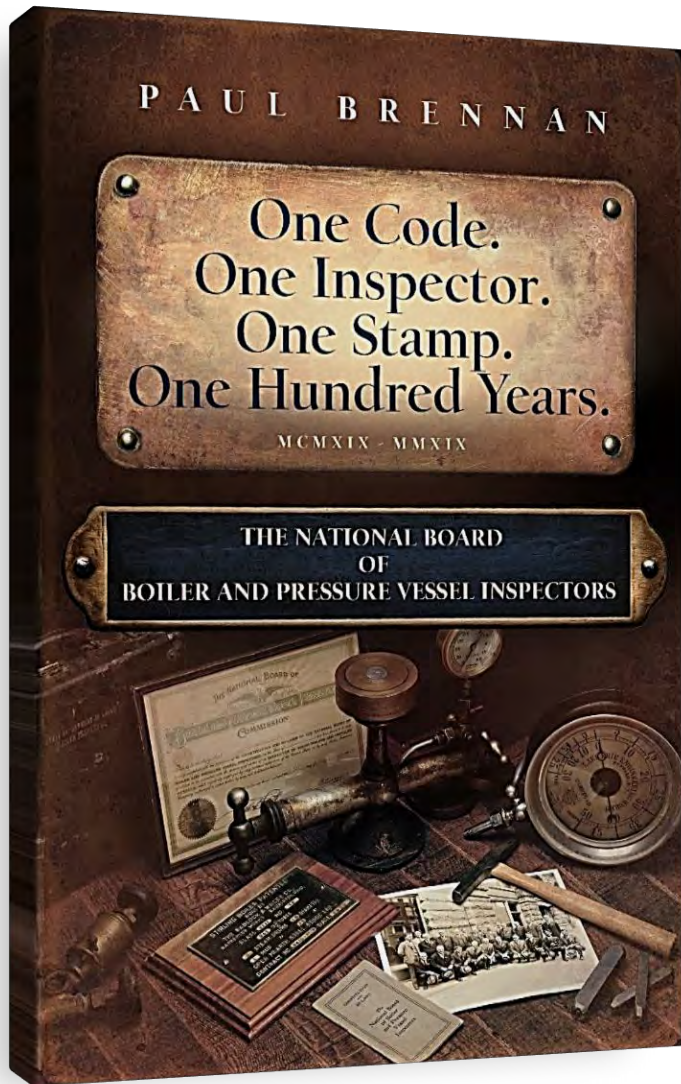
- *American Uniform Boiler Law Society Chairman C.E. Gorton*





James Newcomb





ONE CODE, ONE INSPECTOR, ONE STAMP, ONE HUNDRED YEARS  
THE HISTORY OF THE NATIONAL BOARD



Paul Brennan

Director of Public Affairs, Retired

The National Board of Boiler and Pressure Vessel Inspectors

1919 — 2019



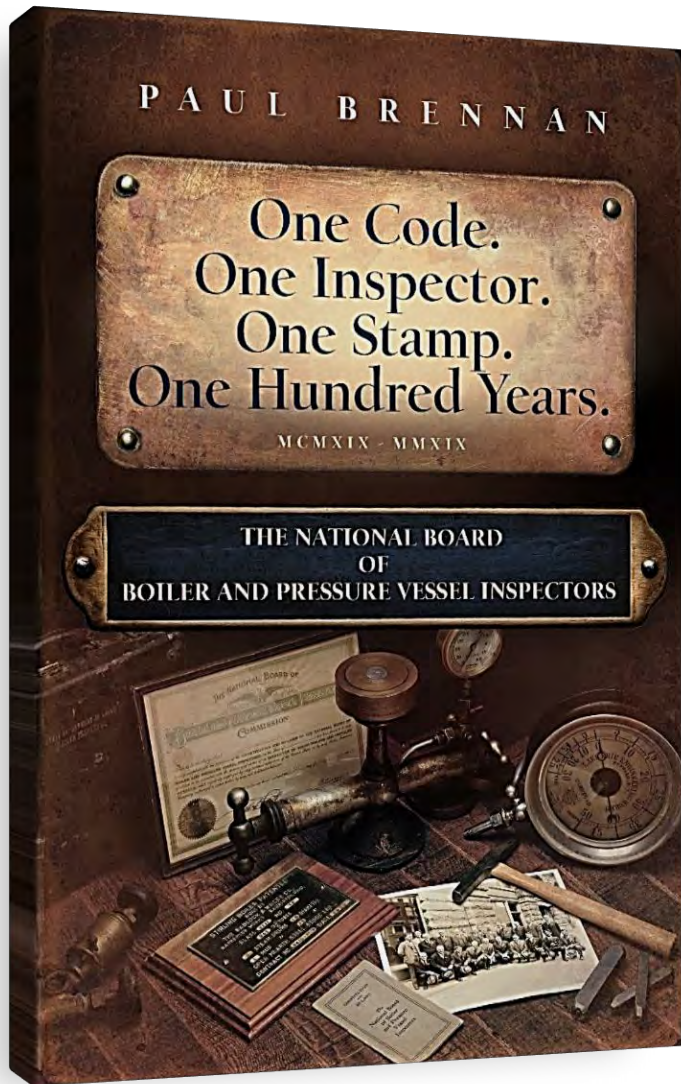
1919 — 2019  
100 Years



ONE CODE.  
ONE INSPECTOR.  
ONE STAMP.







ONE CODE, ONE INSPECTOR, ONE STAMP, ONE HUNDRED YEARS  
THE HISTORY OF THE NATIONAL BOARD



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