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*National Museum of American History Kenneth E. Behring Center*

## Guide to the Peter J. Bier Papers

NMAH.AC.0973

Sara Wheeler

2017

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## Collection Overview

<b>Repository:</b>	Archives Center, National Museum of American History
<b>Title:</b>	Peter J. Bier Papers
<b>Date:</b>	1915-1970 (bulk 1934-1959)
<b>Identifier:</b>	NMAH.AC.0973
<b>Creator:</b>	Bier, Peter J.
<b>Source:</b>	National Museum of American History (U.S.). Division of Work and Industry National Museum of American History (U.S.). Division of Mechanical and Civil Engineering
<b>Extent:</b>	3.3 Cubic feet (7 boxes)
<b>Language:</b>	Collection is in English. Some materials in Spanish.
<b>Summary:</b>	Peter J. Bier, born in Hungary, immigrated to the United States in 1904. Bier worked as an engineer for the Bureau of Reclamation in the Department of the Interior from 1923-1954, and continued to work as a consultant in the field after retirement. The collection includes materials related to his work with the Bureau of Reclamation, including project materials, drawings, designs, and inspection reports and data, along with materials documenting his time as an engineering consultant.

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## Administrative Information

### Acquisition Information

Immediate source of acquisition unknown.

### Provenance

Original provenance unknown, collected by the Division of Work and Industry (then called the Division of Mechanical and Civil Engineering), transferred to the Archives Center in 2007.

### Processing Information

Processed by Sara Wheeler, intern, August 2017; supervised by Alison Oswald, archivist.

### Preferred Citation

Peter J. Bier Papers, 1915-1970, Archives Center, National Museum of American History.

### Restrictions

Collection is open for research but is stored off-site and special arrangements must be made to work with it. Contact the Archives Center for information at [archivescenter@si.edu](mailto:archivescenter@si.edu) or 202-633-3270.

## Conditions Governing Use

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## Biographical / Historical

Peter J. Bier was born on April 22, 1884 in Ujnely, Hungary. He completed his college education at the State Technical School at Timisoara, Hungary. In 1904, Bier moved to the United States and in 1906 he started a job at Babcock and Wilcox Boiler Company. He worked for a series of companies as a draftsman and designer, and in 1923 he began working as an engineer for the Bureau of Reclamation in the Department of the Interior in Denver, Colorado. Bier specialized in steel pipes and penstocks, which are pipes that deliver water to hydraulic turbines, for various dams.

Over the course of Bier's career, he was involved with project planning for irrigation and power developments, hydraulic structures and equipment, and inspections of equipment. He later supervised the design, specifications, and inspections for penstocks and related equipment. Bier wrote inspection manuals, monographs, and articles related to penstock and pipe design. Upon his retirement from the Bureaus of Reclamation in 1954, he remained active in the field and traveled as an engineering consultant.

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## Scope and Contents

The collection documents Bier's work with the Bureau of Reclamation on dams and power stations in the Pacific Northwest and Southwest regions of the United States and his contract work in the United States and Mexico. It includes project files, reports, correspondence, notes, blueprints, and technical drawings.

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## Arrangement

This collection is arranged into four series.

**Series 1: Biographical, 1918-1965**

**Series 2: Articles, Manuals, and Research Materials, 1923-1970**

**Series 3: Bureau of Reclamation, 1915-1970**

Subseries 3.1: Projects, 1934-1958

Subseries 3.2: Inspections and Testing, 1915-1954

Subseries 3.3: Technical Drawings and Designs, 1923-1970

Subseries 3.4: Employee Related Documents, 1950-1954

**Series 4: Contract Work, 1954-1967**

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## Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Dams -- Colorado

Dams -- Mexico  
Engineers  
Hydraulic engineering -- 1920-1960  
Pipelines  
Power stations -- Colorado

Types of Materials:

Black-and-white photographs  
Blueprints  
Correspondence -- 20th century  
Memorandums -- 20th century  
Monographs  
Technical drawings  
Technical manuals -- 20th century

Names:

National Museum of American History (U.S.). Division of Mechanical and Civil Engineering  
National Museum of American History (U.S.). Division of Work and Industry  
United States. Bureau of Reclamation

Places:

Denver (Colo.)

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## Container Listing

### Series 1: Biographical, 1918 - 1965

Scope and Contents: Series 1 contains photographs of Peter J. Bier, awards, personal correspondence, and materials related to Bier's retirement.

Box 1, Folder 1	Photos of Peter J. Bier, circa 1918-1955
Box 1, Folder 2	Application for admission to American Society of Mechanical Engineers, 1926
Box 1, Folder 3	Awards and accolades, 1947 - 1954
Box 1, Folder 4	Retirement party guest list and letters, 1954
Box 1, Folder 5	Record of experience, 1954
Box 1, Folder 6	Letters and greeting cards, 1961
Box 1, Folder 7	Insurance claims and personal expenses, 1961 - 1964
Box 1, Folder 8	Letters in regards to publishing articles, 1962 - 1965
Box 1, Folder 9	Letters and greeting cards, 1962 - 1965
Box 1, Folder 10	Engineering Consultants Incorporated profile, undated

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## Series 2: Articles, Manuals, and Research Materials, 1923 - 1970

Scope and Contents: Series 2 contains articles and manuals collected by Bier about penstocks, welded pipes, and dams. It also contains articles written by Bier.

Box 1, Folder 11	Engineering-related bulletins, 1923 - 1941
Box 1, Folder 12	Published articles by Bier, 1927 - 1944
Box 1, Folder 13	Water hammer and surge tank articles, 1927 - 1958
Box 1, Folder 14	Collected articles and notes about water service pipe lines, 1931 - 1953
Box 1, Folder 15	Penstocks and welding problems, 1934 - 1964
Box 1, Folder 16	Inspection articles, 1936 - 1952
Box 1, Folder 17	Reprinted journal articles, 1936 - 1953
Box 2, Folder 1	Papers on features of dams, 1940
Box 2, Folder 2	Papers on features of dams, 1940
Box 2, Folder 3	Welding and research data-stress relieving, 1942 - 1956
Box 2, Folder 4	Instructions for hydrostatic pressure test, 1943
Box 2, Folder 5	Notes on inspection methods, gamma rays, and radiographic techniques, 1943 - 1953
Box 2, Folder 6	Articles by Peter J. Bier related to welding and pressure, 1943 - 1953
Box 2, Folder 7	Advertisements and brochures for new inspection equipment, circa 1945-1953
Box 2, Folder 8	Manual on Industrial Radiography with radium, 1948
Box 2, Folder 9	Reports on features of dams, 1950 - 1952
Box 2, Folder 10	Collected articles about cylinder or arch shells for design, 1950 - 1956
Box 2, Folder 11	Fundamentals of pipeline x-ray, 1951
Box 2, Folder 12	Reports on early steel water pipe lines, 1951
Box 3, Folder 1	Collected articles on radiography and pressure tests, 1951 - 1960
Box 3, Folder 2	Outline of codes for pressure vessels, 1952

Box 3, Folder 3	A copy of a survey of brittle failure in steel structures, 1953
Box 3, Folder 4	Collected articles authored by Bier, 1953 - 1960
Box 3, Folder 5	Articles by Peter J. Bier on penstocks, 1954 - 1958
Box 3, Folder 6	Articles by Peter J. Bier about hydroelectric and penstock projects, 1954 - 1959
Box 3, Folder 7	General rules for the design, construction, and inspection of large welded steel pipe, 1958
Box 3, Folder 8	Rules for construction of steel pressure pipelines for hydroelectric power plants, 1958
Box 3, Folder 9	Welded Steel Water Pipe manual, 1970
Box 3, Folder 10	Draft of "Function Problems and Welding Controls of Large Steel Pipe Lines", undated

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## Series 3: Bureau of Reclamation, 1915 - 1970

**Scope and Contents:** Series 3 contains materials related to Bier's work for the Bureau of Reclamation, including photographs, bids, and related materials to various penstock projects. It also includes materials created for or during the inspection or testing process, technical drawings and data, as well as organizational charts, employee status, and government pay scales.

### Subseries 3.1: Projects, 1934 - 1958

Box 3, Folder 11	Bids for Owyhee and Deschutes projects in Oregon, 1934 - 1947
Box 3, Folder 12	Photographs of Estes penstocks, circa 1940-1950
Box 3, Folder 13	Memorandums related to penstock projects, 1940 - 1950
Box 3, Folder 14	Photographs of various river siphon projects, circa 1945-1949
Box 3, Folder 15	Davis Dam project in Arizona and Nevada, 1948
Box 4, Folder 1	Photographs of Bridge River penstocks, 1949
Box 4, Folder 2	Invitation, bid, award, and schedule for Central Valley Project, 1951
Box 4, Folder 3	Missouri River Basin Project, 1954
Box 4, Folder 4	List of projects with data, 1951 - 1958
Box 4, Folder 5	List of projects, undated
Box 4, Folder 6	Photographs of various penstock repairs, undated

### Subseries 3.2: Inspections and Testing, 1915 - 1954

Box 4, Folder 7	Experimental data cards, numbers 1-43, 1915 - 1923
Box 4, Folder 8	A.S.M.E negatives displaying acceptable or unacceptable inspection standards, 1937
Box 4, Folder 9	Radiography instruction and hydrostatic pressure tests instructions, 1939 - 1950
Box 4, Folder 11	Field reports for Salt Lake Aqueduct and Bully Creek and Little Valley siphons, 1946 - 1949
Box 4, Folder 12	Field trip report from Bridge River Power Plant, 1949 November 9
Box 4, Folder 13	Correspondence about survey of brittle fractures, 1954

Box 4, Folder 14          Anderson Ranch Dam failure photographs, undated

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### Subseries 3.3: Technical Drawings and Designs, 1923 - 1970

Box 4, Folder 15          Designs, calculations, and drawings for various rivers, 1923 - 1927

Box 4, Folder 16          Penstock designs, 1932 - 1952

Box 4, Folder 17          Surge tank computations and drawings, 1933 - 1934

Box 4, Folder 18          Drawings of ideas and patents, 1933 - 1951

Box 4, Folder 19          Assorted drawings and calculations, 1934 - 1950

Box 4, Folder 20          Steel pipe designs, 1936 - 1954

Box 4, Folder 21          Pipe design data, 1942 - 1946

Box 5, Folder 1          Joint expansion data, 1944

Box 5, Folder 2          Design manual, 1946

Box 5, Folder 3          Black and white photographs and diagrams of water supply systems, circa 1948-1954

Box 5, Folder 4          Monograph and data for welded steel penstocks, 1949

Box 5, Folder 5          Drawings of pipe coupling, 1951 - 1954

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### Subseries 3.4: Employment Related Documents, 1950 - 1954

Box 5, Folder 7          Retirement and leave data, 1954

Box 5, Folder 6          Ratings, organizational chart, pay charts, and brochure, 1950 - 1953

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## Series 4: Contract Work, 1954 - 1967

Scope and Contents: Series 4 contains project plans, memorandums, correspondence, drawings, and photographs related to Bier's work as an engineering consultant.

Box 5, Folder 8	Boulder Canyon Project invitation, bid, award, schedule, and drawings, 1954
Box 5, Folder 9	Garrison Dam reports and related patent notes, 1954
Box 5, Folder 10	Design of Wye Branch pipes review, 1954
Box 5, Folder 11	Record of installed penstocks and pipe liners, 1954 - 1959
Box 6, Folder 1	Comision Federal de Electricidad guide, 1956
Box 6, Folder 2	Photographs of Mexico projects, 1957 - 1959
Box 6, Folder 3	Plans for the Temaxcal plant, 1955 - 1956
Box 6, Folder 4	Temaxcal Project reports and drawings, 1956 - 1958
Box 6, Folder 5	Temaxcal Project penstock plans, research, and drawings, 1956 - 1958
Box 6, Folder 6	Photographs of Temaxcal penstocks, power plant, and dam, 1959
Box 6, Folder 7	Mazatepec Project plans and drawings, 1955 - 1958
Box 6, Folder 8	Mazatepec memorandums and correspondence, 1957
Box 6, Folder 9	Mazatepec data and reports, 1957 - 1958
Box 6, Folder 10	Correspondence for Mazatepec Project, 1957 - 1959
Box 6, Folder 11	Mazatepec drawings and designs, 1957 - 1958
Box 7, Folder 1	Maps and drawings of Mexico, 1957
Box 7, Folder 2	Mazatepec Project general records, 1958
Box 7, Folder 3	El Fuerte memorandums, design, data sheets, and correspondence, 1957 - 1958
Box 7, Folder 4	General rules for inspecting large welded steel pipe, 1958
Box 7, Folder 5	Correspondence about proof testing, 1959
Box 7, Folder 6	Rules for design, construction, and inspection of welded steel pipe, 1959

Box 7, Folder 8	Correspondence about potential bids and projects, 1959 - 1964
Box 7, Folder 9	Sweetwater penstocks, 1960 - 1961
Box 7, Folder 10	Correspondence and drawings for Karadj Project, 1961 - 1967
Box 7, Folder 11	Boulder Canyon final reports, 1968
Box 7, Folder 12	Professional correspondence, 1967 - 1969
Box 7, Folder 13	Australian photographs of pipe lines, undated

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