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Collection Overview

Repository: Archives Center, National Museum of American History
Title: Everett H. Bickley Collection
Identifier: NMAH.AC.0683
Date: 1919-1980
(bulk 1919-1965)
Extent: 5 Cubic feet (17 boxes)
Creator: Bickley, Everett H., 1888-1972
Language: English
Summary: The Everett H. Bickley Collection, 1919-1980, documents the inventions of Everett Huckel Bickley, most known for his electric sorting machine used to automate the process of sorting beans by use of a photoelectric cell. The collection consists of patents, drawings, photographs, correspondence, and artifacts designed by Bickley. The collection spans a considerable portion of the twentieth century and is of value to those researchers interested in product development, the patent application process, product marketing and promotion, World War II innovation, and the daily operation of a small, privately-owned industry.

Administrative Information

Acquisition Information
Audrey Bickely Beyer, Everett Bickley's daughter, donated the collection to the Archives Center, National Museum of American History, in March of 1999.

Related Materials
Materials at the National Museum of American History
The machine that Bickley used to demonstrate his bean-sorting process is held by Division of Work and Industry.

Processing Information
Processed by Tom Eisinger, July 8, 1999; revised by Erin Molloy (volunteer) and Alison Oswald, 2012.

Preferred Citation
Restrictions

The collection is open for research use.

Conditions Governing Use

Collection items available for reproduction, but the Archives Center makes no guarantees concerning intellectual property rights. Archives Center cost-recovery and use fees may apply when requesting reproductions. Copyright status of items varies.

Biographical / Historical

Everett Huckel Bickley (1888-1972) was an active inventor and entrepreneur. His inventing career began while a student at the Carnegie Institute of Technology, where he invented a number of items, including a variable speed governor with which he won the Senior Design Competition in 1910, the year he graduated.

In 1911, Bickley developed and marketed his first commercial invention, the "motograph," which was an electric sign which spelled out moving messages with light bulbs. The first motograph was erected over the Columbian Theatre in Detroit, but others were eventually seen in cities throughout the world. Unfortunately, he sold his interests too soon and made little money from this idea.

Only a few years later, while he was watching lines of women sorting navy pea beans in his job as chief engineer for the H. J. Heinz Company, Bickley came up with the idea to develop an electric sorting machine to automate the process. By the early 1930s he had developed, patented, and begun to market a machine that could, by use of a photoelectric cell, sort the good beans from the bad. The first company to lease a bean sorter from him was the H. J. Heinz Company. Bickley continued to improve the sorter for the next thirty years, eventually adapting it to sort rice, peanuts, and ball bearings.

The sorter was the only invention from which Bickley ever made any considerable money, but it never dulled his enthusiasm for developing new ideas. At times he had up to nine active patent applications in the works. Examples include a nutcracker, snow shovel, slide mount, faucet, and photographic exposure meter.

Bickley was also active during World War II as a $1.00 A Year Man and member of the National Inventors Council, which reviewed war related invention ideas. In addition, he contributed over fifty ideas of his own to the National Inventors Council. During the war, his company was able to produce little of its own products due to wartime material restrictions and having most of its workers drafted. Consequently, Bickley spent several fruitless years after the war trying to get his patent rights extended to cover time lost during the war.

Early on, Bickley realized the need to form a company to help develop and promote his many inventions, and formed the Bickley Manufacturing Company shortly after his graduation for just this purpose. When he married in 1913, his new wife, Mary, became an active partner in the company. Later, their daughter Audrey joined the company, producing the photoelectric cells for the sorter, going on sales trips, and working as one of her father's most reliable troubleshooters when the sorters broke down.

Bickley died in 1972 at the age of 84. Always a believer that hard work was necessary for success, he left behind a legacy of inventions, including one that helped to revolutionize the agricultural processing industry.
Scope and Contents

The collection spans a considerable portion of the twentieth century and is of value to those researchers interested in product development, the patent application process, product marketing and promotion, World War II innovation, and the daily operation of a small, privately-owned industry.

The collection consists of general correspondence, patents and patent correspondence, drawings, manuals, trade literature, and photographs. In addition, there are several artifacts designed by Bickley in the collection. These include a photographic exposure meter (Fotimer), a prototype slide mount (Color Tight Slide Mount), dance charts, and even a clipboard (Deskette).

Series 1: Everett H. Bickley Personal Papers, 1920-1999

This series consists of personal information about Everett H. Bickley. It includes his will, a company biography written by Bickley and edited by his daughter, and the story of the motograph, also written by Bickley.

Series 2: Bickley Manufacturing Company, 1933-1980

In this series is information directly related to the day-to-day operations of the company, including a checks-received ledger, office instructions, shop instructions, and employment information.

Series 3: Sorter Information, 1928-1965

This series consists of information about the various sorters that Bickley developed. Included are drawings related to the development of the sorters, engineering part drawings, equipment histories for plants where leased sorters were located (arranged alphabetically by location, though H-M is missing), patents, and patent correspondence related to specific sorter improvements. The patent correspondence in this series is sorted by starting date of the correspondence for each individual patent. If the starting dates were the same, they were then arranged alphabetically within the starting date. This was done to make it easier to trace the development of the sorter. The actual patents are also arranged alphabetically.

Series 4: Other Inventions, 1919-1958

This series documents Bickley's non-sorter related inventions. Included are the development drawings, patents, patent correspondence, and marketing material. In addition, the artifacts that are part of the collection can be found in this series.

Series 5: World War Two Related Activities, 1939-1950

The material in this series pertains to Bickley's work in World War II. It includes correspondence, information on the various ideas he submitted to the National Inventor's Council, and his attempts to get patent protection extended for the years during the war when he could not exploit his inventions. Information on sorter-related activities during the war is in Series III.

Arrangement

The collection is divided into five series.

Series 1, Everett Bickley Personal Papers, 1920-1999

Subseries 1, General Information, 1920-1999
Subseries 2, Publication Material, 1933-1998

**Series 2: The Bickley Manufacturing Company, 1933-1980**
Subseries 1, General Information, 1949-1980
Subseries 2, Company Operations, 1933-1972

**Series 3, Sorter Information, 1928-1965**
Subseries 1, Sorter Specific Information, 1933-1965
Subseries 2, General Information, 1928-1965

**Series 4, Other Inventions, 1919-1958**
Subseries 1, General Information, 1919-1951
Subseries 2, Inventions, 1920-1958

**Series 5, World War Two Related Activities, 1939-1950**
Subseries 1, General Information, 1939-1950
Subseries 2, Ideas Submitted, 1941-1943

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**Physical Characteristics and Technical Requirements**

Gloves must be worn when handling unprotected photographs and negatives.

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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:**
- Advertising, Outdoor
- Agriculture -- Quality control
- Bean sorters
- Dance notation
- Fotimer (exposure meter)
- Industry
- Insect pests -- Control
- Inventions
- Inventors -- 20th century -- United States
- Military -- Art and science -- 1930-1950
- Patent practice
- Photography -- Apparatus and supplies
- Photography -- Exposure
- Research, Industrial
- Slide mounts
- Sorting devices
World War, 1939-1945

Types of Materials:
Correspondence -- 1930-1950
Dance charts
Drawings -- 20th century
Patents
Photographs -- 20th century

Names:
Bickley Manufacturing Company
H. J. Heinz Company
# Container Listing

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**Subseries 1.1: General Information , 1920 - 1999**

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<td>Portraits of Everett Bickley (photocopies), undated</td>
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**Subseries 1.2: Publication Material, 1933 - 1998**

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Subseries 2.2: Company Operations, 1933 - 1972

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Box 1, Folder 10  Information and reference data, 1933 - 1964
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Box 1, Folder 13  Instructions, shop, c. 1940, 1961-1964
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