

MS-447: Ermal C. Frazee, Dayton Reliable Tool Company Records

Collection Number: MS-447

Title: Ermal C. Frazee, Dayton Reliable Tool Company Records

Dates: 1949-2006

Creator: Frazee, Ermal C., 1913-1989

Summary/Abstract:

Ermal C. Frazee was the owner of Dayton Reliable Tool Company and the inventor of the early versions of Pull-Tabs and Pop-Tops. This collection includes newspaper clippings, magazine articles, scrapbooks, correspondences, photographs and personal items. Most of the collection pertains to the Dayton Reliable Tool Company. A few items deal with the Frazee Pavilion, a 4300-seat outdoor amphitheater in Kettering, Ohio, named after Ermal C. Frazee.

Quantity/Physical Description: 6 linear feet

Language(s): English

Repository:

Special Collections and Archives, University Libraries, Wright State University, Dayton, OH 45435-001, (937) 775-2092

Restrictions on Access: There are no restrictions on accessing material in this collection.

Restrictions on Use:

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Preferred Citation:

[Box #, Folder #], MS-447, Ermal C. Frazee, Dayton Reliable Tool Company Records, Special Collections and Archives, University Libraries, Wright State University, Dayton, Ohio

Acquisition:

The Ermal C. Frazee, Dayton Reliable Tool Co. Records were donated to Wright State University's Special Collections and Archives by Terry M. Frazee, Ermal Frazee's son, in October 2010.

Related Material:

MS-314: Dayton Philharmonic Orchestra Records

MS-420: Engineer's Club of Dayton Records

Additional Sources:

DRT Mfg. Company website: <http://www.drtusa.com/>

Processing Information:

A binder type scrapbook of information about the opening of the Frazee Pavilion was disassembled and put into folders.

Processed by: Elizabeth Morgan, March 2012

Arrangement:

The collection is arranged into seven series and two subseries:

Series I: Dayton Reliable Tool (DRT) Company

Series II: Personal Papers

Series III: Pull-Tabs and Pop-Tops

Series IV: Frazee Pavilion

Series V: Publications

Series VI: Memorabilia

Series VII: Photographs and Scrapbooks

 Subseries VIIA: Photographs

 Subseries VIIB: Scrapbooks

Biographical/Historical Note:

Ermal “Ernie” C. Frazee was born in Indiana in 1913 and later moved to Ohio. During the 1940s, Frazee embarked on a career as a machine tool operator. In 1949, with a small loan from his wife Martha, Frazee formed the Dayton Reliable Tool Company (DRT), his own machine tool business in Dayton. The company manufactured tools and machinery for various industries, including the National Aeronautics and Space Administration, General Electric, Ford, and Chrysler.

During a picnic in 1959, Frazee had forgotten his “Church-Key” to open beverage cans, which forced him to use his car bumper to open drinks for himself and his family. Frazee thought there had to be a better way to open cans, so he developed a can top known as the “Pull-Top”. This mechanism could be opened by pulling the removable tab to access the drink. Surprisingly, Frazee did not receive a patent for his pull-top until 1967 and, eventually more than seventy-five percent of beer brewers in the United States had adopted Frazee’s design.

In 1977, Frazee modified his original invention by patenting the first push-in and fold-back tab, known as the “Pop-Top”, in part because of the increase of litter and potential for injury. This particular tab remained on the can, and it is still the principle design used on canned beverages today. In the 1980s, the new design and machinery to manufacture the can brought great success to the Dayton Reliable Tool and Manufacturing Company, Inc.

In 1989, Ermal C. Frazee passed away at the age of 79 from a brain tumor. The company was sold to the business managers of the company. Dayton Reliable Tool and Manufacturing Company, Inc. is still in operation today, known as DRT Mfg. Co. and, while famous for developing and

perfecting the technology that revolutionized beverage packaging, the company has expanded into a precision component manufacturer and systems integrator.

Scope and Content:

The Ermal C. Frazee, Dayton Reliable Tool Records includes important information from Ermal C. Frazee, the invention of the Pull-Tab and Pop-Tops, Dayton Reliable Tool company information, and details about the Frazee Pavilion. This collection is arranged into seven series and two subseries:

Series I, Dayton Reliable Tool (DRT) Company, contains many important papers which pertain to the company, including the history of DRT, Union Labor paperwork, machinery blueprints, and a few newspaper articles.

Series II, Personal Papers, contains papers of the Frazee Family. Within this series there are correspondences, handwritten and typed notes, awards, DRT personal faxes and letters, organization details and banquets, along with newspaper and magazine articles. A few of the folders contain information on the death of Ermal C. Frazee in 1989. These folders hold his death certificate, funeral information, and there are also articles in Newsweek, the New York Times and other major newspapers and magazines reporting on Ermal C. Frazee's death.

Series III, Pull-Tabs and Pop-Tops, pertains to the invention and creation of Pull-Tabs and Pop-Tops. Most of this series contains newspaper and magazine clippings advertising the importance and growth of the inventions. In box 3 folder 15, there are examples of the Pop-Tops and lids created for cans by the Dayton Reliable Tool Company. Also included is a bench schematic pertaining to the Pop-Top.

Series IV, Frazee Pavilion, pertains to the building of the Pavilion, the Pavilion concert seasons from 1991 to 2001, and newspaper clippings detailing the construction and the impact the Pavilion had on the city of Kettering, Ohio. The first part of the series contains information about the ground breaking and grand opening which the Frazee family attended. Included are examples of Frazee Pavilion logos, which were previewed and approved by Terry Frazee. One folder contains the biographies of performers who performed at the Frazee Pavilion.

Series V, Publications, contains the many publications dealing with either the companies using the Pull-Tabs and Pop-Tops or machine information Ermal C. Frazee used to manage the Dayton Reliable Tool Company. *The Can Maker* gives information from 1991 to 2000 to publicize the accomplishments of the company and the Pop-Top.

Series VI, Memorabilia, contains personal items from the Frazee Family and the Dayton Reliable Tool Company. The first part of the series has two flat Rolodex address books and a check paper weight from Ermal C. Frazee and his son Terry Frazee. There is also a Frazee Pavilion apron and two ticket key chains. In the two oversized sections there are Dayton Reliable Tool metal signs and a poster pertaining to Ohio Inventors.

Series VII, Photographs and Scrapbooks, is separated into two subseries. The first subseries contains photographs of Dayton Reliable Tool machinery, early factory photographs, Pull-Tabs

and Pop-Tops, an Open House of the factory from 1985 and a few personal photographs from Ermal C. Frazee. There are also a few negatives and slides included. The second subseries is a Frazee Family Scrapbook, separated into two sections.

Subject Terms

Persons/Families

Frazee, Ermal C., 1913-1989
Frazee, Terry M., 1957-
Frazee Family

Organizations/Corporate Names

Dayton Reliable Tool Company

Places

Dayton (Ohio)

Subjects (General)

Aluminum cans - - design
Food service equipment industry - - United States
Kitchen appliances industry
Outdoor concert facilities Ohio
Amphitheaters Ohio

Material Types

Correspondences
Newspapers
Magazines
Photographs
Scrapbooks
Blueprints

Collection Inventory

Series I: Dayton Reliable Tool (DRT) Company

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
1	1	History of DRT Mfg. Co.	1949-2006
	2	Newsletters	1963
	3	National Labor Relations Act	1978
	4	Union Labor Paperwork	1966, 1970, 1976
	5	Union Labor Paperwork	1981, 1984-1985
	6	Union Labor Paperwork	1985-1986, 1989
	7	Art for Training Manuals	Mid 1980s

8	Easy Open Can End, Minster Press, Tab Die Assembly Dwg., Section AA	Oct 1964
9	Easy Open End, Minster Press, Piece Punches & Pilots	Oct 1964
10	#211B Easy Open End, Minster Press, Tab Form STA. DETS. (Tab #63-STK-115)	Jan 1965
11	211 B Easy Open Can End-Minster Press, Super "U" Tab, Tab Nest Insert- for Super "U" Tab	Mar 1965
12	Easy Open Can End, Minster Press, Tab Die Detail, Blank Thru Die Insert	May 1965
13	Easy Open End Machine, Super "U" Tab Die	May 1965
14	211 "B" Easy Open Can End, Minster Press, Tab Die Detail	Oct 1965
15	208 Dia. Triple Fold	1972
16	Ferguson Paradromic Indexing	1974
17	Relationship of Product and Tools with RAM Press in closed Position – Blank and Form Station - 30° Gullwing Form	Apr 1983
18	Shell Blank & Form Station Assembly	Jun 1983
19	Die Curl & Panel Form Station Assembly	Aug 1983
20	206 Dia. End Shell, 1 st Operation Blank and Form Station, .344 Unit Height	Jan 1984
21	End Shell System	1985
22	Video Script: PM3-100 Training	1985
23	DRT: PM3-100 Master List	1985
2	1 Vision III Video Promo	1995
	2 End and Shell System Folder, DRT's 1995 Open House	1995
	3 Primary Bubble Optimization	1997
	4 1-Out and 3-Out Conversion System	1998
	5 DRT's Reliable Report	Nov 1999
	6 DRT Company Booklet	Undated
	7 Horvis Precision Products	Undated
	8 Originator of the Easy-Open End	Undated
	9 "A Valid Idea"	Undated
	10 Minster Condensed Catalog	Undated
	11 Blank Course Completion Certificate	Undated
	12 DRT Video Logs: Twin-T System	Undated
	13 DRT Video Logs: Twin-T System	Undated
	14 DRT Video Logs: Twin-T System	Undated
	15 DRT Video Logs: Twin-T System	Undated
	16 DRT Video Logs: Twin-T System	Undated

Series II: Personal

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
2	17	Postcards and Cards	Circa 1960s
	18	Handwritten and Printed Notes	Circa 1980s
	19	1980 Alcoa Easy Open: Golf	1980
	20	The Newcomen Society of the United States	1984, 1987
	21	The Engineers Club of Dayton Foundation	1986/1987,1994
	22	Company Visit Agendas	1987,1988
	23	DRT Video Message Originals	1988
	24	304 Dinner for Big Brothers/Big Sisters of Dayton	1988
	25	The Annual Dayton Graduate Alumni Banquet	1988
	26	Certification of Death	Oct 1989
27	Ermal C. Frazee Funeral	Nov 1989	
3	1	Death Information	1989
	2	"Just The Facts"	1993
	3	DRT Personal Faxes	1999
	4	Awards	1963-1985
	5	Correspondences	1963-2006
	6	Newspaper/Magazine Articles	1960s-2000s
	7	This is Where it all Started	1966
	8	Bob Hope Chrysler Classic	1988/1990
	9	Dayton Reliable Tool & Mfg. "A Very Special Evening"	April 1991
	10	Candid Shots	Sept 1991
	11	DRT 50 th Anniversary Celebration	1999
	12	"Ernie" Frazee's Address Book	Undated

Series III: Pull-Tabs and Pop-Tops

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
3	13	"The Huntley-Brinkley Report" Booklets	1976-1968
	14	German Beer Ad	1967-1968
	15	Ends and Tabs, Parts from in Line	Feb 1970
	16	Articles/Newspaper Clippings	1961-1962
	17	Articles/Newspaper Clippings	1963
	18	Articles/Newspaper Clippings	1964
	19	Articles/Newspaper Clippings	1965-1966
	20	Articles/Newspaper Clippings	1967
	21	Articles/Newspaper Clippings	1968
	22	Articles/Newspaper Clippings	1969-1970
4	1	Articles/Newspaper Clippings	1971-1972

2	Articles/Newspaper Clippings	1973-1979
3	Articles/Newspaper Clippings	1980-1982
4	Articles/Newspaper Clippings	1983-1984
5	Articles/Newspaper Clippings	1985-1986
6	Articles/Newspaper Clippings	1987-1988
7	Articles/Newspaper Clippings	1992-2006
8	Articles/Newspaper Clippings	Undated
9	Easy-Open Can from the first Six-Pack from Iron City Brewing	1963
10	Easy Lift with Finger Dent	Nov 1988
11	Pop-Top Invention Station Isometric	1999-2000

Series IV: Frazee Pavilion

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>	
4	12	Frazee Ground Breaking Photographs	1990	
	13	Frazee Ground Breaking News clippings	1990	
	14	Frazee Ground Breaking Information Packet	1990	
	15	Frazee Grand Opening Correspondence	1991	
	16	Frazee Grand Opening Photographs	1992	
	17	Frazee Grand Opening Programs	1992	
	18	Frazee Grand Opening News Clippings	1992	
	19	Correspondences pertaining to Frazee Pavilion	1991-1997, Undated	
	20	1991 Season	1991	
	21	1992 Season	1992	
	22	1993 Season	1993	
	23	1994 Season	1994	
	5	1	1995 Season	1995
		2	1996 Season	1996
		3	1997 Season	1997
		4	1998 Season	1998
		5	1999 Season	1999
		6	2000 Season	2000
		7	2001 Season	2001
8		Newspaper Clippings	1990-1992	
9		Newspaper Clippings	1993, 1996-1999	
10		Newspaper Clippings	2001, Undated	
11		Lincoln Park	1999	
12		Frazee Performers Biographies	Undated	
13		Frazee Pavilion Logos	Undated	
14		Post Cards and Cards	Undated	
15		Frazee Founders Booklets	Undated	

Series V: Publications

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
5	16	Condensed Practical Aids: For the Experienced Die Engineer, Die Designer and Die Maker	1949
	17	The Carnation Milk Farms	Circa 1972
6	1	Carnation: The First 75 Years, Weaver, John D.	1974
	2	Carnation Research Farm	1983
	3	Metal Box: A History, Reader, W. J.	1976
	4	Book on Gears, Foote Bros.	Undated
	5	The Can Maker	Mar, Sept 1991
	6	The Can Maker	Feb, May 1992
	7	The Can Maker	Jul 1998
7	1	The Can Maker	Jul 1999
	2	The Can Maker	Jul 2000
	3	Modern Metals	Apr 1993
	4	Minster 100 Year Anniversary	1996

Series VI: Memorabilia

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
7	5	Flat Address Rolodex	Undated
	6	Flat Address Rolodex	Undated
	7	Check Paper Weight	Undated
	8	Fraze Pavilion Apron	Undated
	9	Fraze Pavilion Ticket Key chains	Undated
	10	Dayton Reliable Tool Patch	Undated
		Oversized Location 53	
	11	Dayton Reliable Tooling System Metal Signs	Undated
	12	Poster: Ohioans, 20 th Anniversary Wright State University, by Pat Whipp	1964-1984

Series VII: Photographs and Scrapbooks

Subseries VIIA: Photographs

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
7	11	DRT Machinery Color Transparencies	Undated
	12	5' x 4" Wide Out Shell Press Color Transparencies	Undated
	13	The Metal Box Co. Ltd.	1968

8	1	Ernie Frazee Portrait and Photographs of T.V. Appearance	1963
	2	Early Photographs of Machinery	1950s
	3	Ironing Press: Aluminum Container	1965
	4	Bliss Press	1966
	5	Press being delivered to Metal Box in Alperton, England	1972
	6	1985 Open House	1985
	7	Personal Photographs	1965
	8	Dayton Reliable Tool Factory	1967
	9	D.R.T. Factory & Machinery	1967
	10	D.R.T. Machinery	1969
	11	D.R.T. Booth at the International Exposition for Food Processors	1993
	12	D.R.T. Painting in Entrance	1996
	13	The Can Maker: 50 th Anniversary of D.R.T.	1999
	14	D.R.T. Factory Negatives	Undated
	15	D.R.T. Factory Slides	Undated
	16	D.R.T. Shipment of Machinery	Undated
9	1	D.R.T. Rotary Minster Press	Undated
	2	D.R.T. Twin T-Plus System	Undated
	3	D.R.T. 2-Out Easy Opening in Line System with Tab Die	Undated
	4	D.R.T. Factory & Machinery	Undated
	5	Cupping Press (for Carnation)	Undated
	6	Minster Piece-Maker	Undated
	7	Twin-T: Glamour-Guard Down, Rear-Horizontal & Vertical, Plumbing	Undated
	8	S.A.I.-Twin-T: Glamour Control Panel, Guards	Undated
	9	Twin-T: Front-Side-Tab Die out loop, Plumbing	Undated
	10	Twin-T: Upstackers-W.A., Plumbing Drivers	Undated
	11	Twin-T: Glamour-Rear of Press, Guards Up & Norm & Rose	Undated
	12	Color Transparencies: Twin-T, Food	Undated
	13	3 ½ x 5 Prints of Transparencies	Undated
	14	Pull-Tabs and Pop-Tops	Undated
	15	25 Year Dinner Slides	Undated

Subseries VIIB: Scrapbooks

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
10		Fraze Family Scrapbook (Part 1 of 2)	Undated
11		Fraze Family Scrapbook (Part 2 of 2)	Undated