

MS-405 Vincent G. Apple Papers

Collection Number: MS-405

Title: Vincent G. Apple Papers

Dates: 1892-1977 (Bulk 1898-1940s)

Summary/Abstract:

The Vincent G. Apple Papers is a collection of work and administrative records for Vincent G. Apple, a Dayton inventor. The collection contains numerous patents, patent applications, engineering drawings, journals, legal agreements and correspondence, business records and correspondence, and the Ford Trial records.

Creator: Vincent G. Apple

Quantity/Physical Description: 19.13 linear ft

Language(s): English, Cyrillic, German, French, Swedish

Repository:

Special Collections and Archives, Paul Laurence Dunbar Library, Wright State University, Dayton, OH 45435-001, (937) 775-2092

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

Restrictions on Use:

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Preferred Citation:

(Box Number, Folder Number), MS-405, Vincent G. Apple Papers, Special Collections and Archives, University Libraries, Wright State University, Dayton, Ohio

Acquisition:

The Vincent G. Apple Papers were donated to Wright State University Special Collections and Archives by Glen Hoskinson, Vincent Apple's great grandson, in July 2009.

Custodial History:

Originally owned by Vincent G. Apple, the documents remained on the family farm until the death of Apple's daughter, Edith Apple Darroch. At that time, the collection was transferred to Glen Hoskinson, Apple's great-grandson.

Other Finding Aid:

Glen Hoskinson, the great-grandson of Apple, compiled an Excel spreadsheet listing 238 patents granted to Vincent G. Apple (or his assigns) between 1917 and 1941, in which 156 were granted between 1917 and Mr. Apple's death in 1932. A paper copy of the spreadsheet is available through Wright State University Special Collections and Archives.

Processed by: Christopher Bills and Melissa Dalton, Winter 2010

Arrangement:

The Vincent G. Apple Papers are arranged into 6 series and subseries:

- Series I: Personal Papers
- Series II: Corporate Records
 - Subseries IIA: Business Records
 - Subseries IIB: Agreements and Contracts
 - Subseries IIC: Lab Notes/Diaries
 - Subseries IID: Product Guides, Samples and Journals
 - Subseries IIE: Engineering Projects
- Series III: Corporate Correspondence
- Series IV: Legal Correspondence
 - Subseries IVA: General Correspondence
 - Subseries IVB: Interference Records
 - Subseries IVC: Ford Trial
- Series V: Photographs
- Series VI: Patents
 - Subseries VIA: Patent Groups
 - Subseries VIB: Other Patents
 - Subseries VIC: Patent Article and Method Files
 - Subseries VID: Patent Improvements and Lists
 - Subseries VIE: Patent File Wrappers and Issued Patents
 - Subseries VIF: Patents Filed

Biographical/Historical Note:

Vincent G. Apple was Dayton's most prolific inventor and rivaled Thomas Edison's accomplishments. Apple was born on January 26, 1874 in Miamisburg, Ohio. At the young age of 18, Apple founded his first company, Franklin Electric Company, which would become the Dayton Electric and Manufacturing Company. Apple continued his business ventures and founded two other companies, the Apple Electric Company and Apple Laboratories, both of which were based in Dayton, Ohio.

In 1902, Apple introduced what is thought to be the first electric self-starter for an automobile. In 1903, he built a magneto ignition system which was used by the Wright Brothers in the "Wright Flyer." He was a pioneer in automobile electric lighting systems, introducing his tungsten bulbs in 1907. He served as chairman of the SAE, Society of Automotive Engineers, Dayton Section, from 1923-1924.

Apple died in 1932 at the most productive period of his life, with more than 350 patents issued in his name. He had another 130 patents pending at the Patent Office and was working on 265 other inventions. This would leave a total of 745 possible patents at the age of 58. It is believed that if he would have patented all his inventions, Apple would have had some 1500 patents to his name. (taken from "Patents and Trademarks at the Libraries")

Scope and Content:

The Vincent G. Apple Papers document the work of a great inventor and entrepreneur of Dayton. Through these papers, researchers may learn about the various inventions and innovations Apple made during his lifetime and their lasting impression on the automotive field.

Series I, Personal Papers, contain personal correspondence between Apple and various family members and friends. This series also contains mortgages and financial records, along with the deed to the Pinnacle Farm, Apple's home in Miamisburg. The researcher will also find miscellaneous memorabilia of Apple's including a Free Mason Yearbook, a World's Fair book, Apple's diploma from Miami Commercial College and a magazine highlighting his work.

Series II, Corporate Records, is separated into five subseries. Subseries IIA, Business Records, contains mostly corporate records for the Dayton Electrical and Manufacturing Company, Apple Electric Company and Apple Laboratories. Subseries IIB, Agreements and Contracts, contains agreements with other corporations for use of patents. Subseries IIC, Lab Notes/Diaries, consists of lab notes which Apple called "diaries," for testing and manufacturing inventions. Subseries IID, Product Guides, Samples and Journals, contains guides of the products that utilize these patents. Subseries IIE, Engineering Projects, consists of notes and blueprints of research for inventions.

Series III, Corporate Correspondence, contains correspondence regarding the use of patents and inventions, along with receipts, statements and other general communication. This series is arranged both chronologically and alphabetically in accordance with the original order of the papers. From 1892 through 1920, the correspondence is arranged chronologically. From 1920 on, it is arranged alphabetically.

Series IV, Legal Correspondence, is separated into three subseries. Subseries IVA, General Correspondence, contains correspondence to and from patent lawyers. Subseries IVB, Interference Records, contains documentation of litigation regarding patent infractions. Subseries IVC, Ford Trial, includes transcripts of the trial and correspondence to and from lawyers and the Ford Motor Company.

Series V, Photographs, contains mostly photographs and cyanotypes of his inventions and factory workers. Most are unidentified in terms of date and subject.

Series VI, Patents, is separated into six subseries. Subseries VIA, Patent Groups, contains groupings of related patents. Subseries VIB, Other Patents, includes patents not held by Apple, but used for research or infringement cases. Subseries VIC, Patent Article and Method Files, contains a grouping system devised by the laboratory. Subseries VID, Patent Improvements and Lists, contains proposed improvements for patents and an inventory of issued and filed patents

for Apple. Subseries VIE, Patent File Wrappers and Issued Patents, contains the complete patent application and if available, issued patent certificate. The patent wrapper term is “Patent No” and the issued patent term is “Issued Patent No.” Subseries VIF, Patents Filed, includes patent applications that were filed, but do not have a corresponding patent number assigned to the invention.

Subject Terms:

Persons/Families

Apple, Vincent G. (1874-1932)

Organizations/Corporate Names

Dayton Electrical and Manufacturing Company
 Apple Electric Company
 Apple Laboratories

Places

Dayton (Ohio)

Subjects (General)

Patents
 Automobiles

Material Types

Correspondence
 Photographs

Collection Inventory:

Series I Personal Papers

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
1	1	Warranty Deeds	1900, 1911
	2	Waiver of Priority	1900
	3	Payment Booklet, Receipts, Mortgages	1899-1903, 1908, 1916
	4	Records pertaining to farming at Pinnacle Farm	1921
	5	Lease Agreements for Apple-Pinnacle Farm	1923, 1928-1932
	6	Apple Farm Plat Records, Real Estate Contracts	1922, 1948-1951
	7	Apple Farm Plat Records, Real Estate Contracts	1952
	8	Apple Farm Plat Records, Real Estate Contracts	1953-1955
	9	Apple Farm Plat Records, Real Estate Contracts	1952-1955
	10	Tax Records for Estate of Vincent G. Apple	1933, 1935, 1936
	11	Tax Records for Bessie Apple	1932-1943
	12	Tax Records for Gourley & Edith A. Darroch	1935-1943
	13	Estate Assignment after Apple’s Death (1 of 6)	1927-1932

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
1	14	Estate Assignment after Apple's Death (2 of 6)	1933
	15	Estate Assignment after Apple's Death (3 of 6)	1934-1935
	16	Estate Assignment after Apple's Death (4 of 6)	1937
	17	Estate Assignment after Apple's Death (5 of 6)	1938-1942
	18	Estate Assignment after Apple's Death (6 of 6)	1933-1942, undated
	19	Membership form for Old Timer's Club	1921
	20	Memorabilia (see OS 64, File 1)	1904, 1907, 1977

Series II Corporate Records

Subseries IIA Business Records

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
1	21	History of Company	1895-1934, undated
	22	Apple Electrical Manufacturing Company Corporate Records	1909-1933
	23	Booklet of Part Numbers for Apple Laboratories	undated
	24	Tax Records for Vincent G. Apple Laboratories	1932-1941, undated
	25	Witness of Disclosure Records	1928
	26	Witness of Disclosure Records	1929
	27	Witness of Disclosure Records	1930-1931
	28	Witness of Disclosure Records Signature List	1928-1931
	29	Corporate Stocks and Bonds	1899-1905, 1920-1924, 1932-1933, undated
	30	Miscellaneous Corporate Records	1905-1908, undated
	31	Miscellaneous Receipts and Statements	1914-1915
	32	Manufacturing Orders	1914-1915
	33	Directors/Stockholder Records and Meeting Minutes	1901-1915
	34	Directors/Stockholder Records and Meeting Minutes	1916-1921, undated
	35	Sale of Property Records	1920
	36	Apple Electric Company Trial Balance	1909-1911
	37	Trial Balances and Balance Sheets	1912
	38	Trial Balances and Balance Sheets	1913
	39	Apple Electric Company General Reports and Trial Balances	1914
	40	Apple Electric Company Year-End Inventory	1914
	41	Franklin Electric Company Bank Ledger	1896-1897
	42	Check Stubs	1895-1897

Subseries IIB Agreements and Contracts

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
1	43	Agreements and Contracts	1900
	44	Agreements and Contracts	1901
	45	Agreements and Contracts	1905
	46	Agreements and Contracts	1906
2	1	Agreements and Contracts	1907
	2	Agreements and Contracts	1908
	3	Agreements and Contracts	1912
	4	Agreements and Contracts	1914
	5	Agreements and Contracts	1915
	6	Agreements and Contracts	1916
	7	Agreements and Contracts	1917
	8	Agreements and Contracts	1918
	9	Agreements and Contracts	1919
	10	Agreements and Contracts	1920
	11	Agreements and Contracts	1921
	12	Agreements and Contracts	1924
	13	Agreements and Contracts	1926
	14	Agreements and Contracts	1927
	15	Agreements and Contracts	1928
	16	Agreements and Contracts	1929
	17	Agreements and Contracts	1930
	18	Agreements and Contracts	1931
	19	Agreements and Contracts	1932
	20	Agreements and Contracts	1933
	21	Agreements and Contracts	1935
	22	Agreements and Contracts	1936
	23	Agreements and Contracts	1937
	24	Agreements and Contracts	1938
	25	Agreements and Contracts	1939
	26	Agreements and Contracts	1940
	27	Agreements and Contracts	1942
	28	Sample Forms	undated

Subseries IIC Lab Notes/Diaries

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
2	29	Vincent Apple Business Diary #1	1916-1920
	30	Vincent Apple Business Diary #2	1922-1924
	31	Airplane Devices #1	1921, 1927
	32	Auto Bodies, Tires and Frames #2	1914-1927, undated

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
2	33	Storage Batteries #5	1915-1916, 1925-1928, undated
	34	Brakes #6	1926-1930
	35	Brakes– Blueprints #6	1928-1930
	36	Die Insulation #7	1917, 1926-1931
	37	Heaters #8	1915-1925
	38	Improved Auto Electric Systems #9	1915-1930
	39	Lamination Dies and Molds #10	1919-1923, undated
	40	Liquid Fuel and AC #11	1927
	41	Inventions Miscellaneous #13	1899-1929, undated
	42	Motor Applications #14	1915, 1920-1930, undated
	43	Motor Development #15	1915-1930, undated
	44	Oil Electric Automobile #16	1913-1930, undated
	45	Oil Electric Data #17	1915-1928
	46	Plastic Die Molds #20	1915-1932
	47	Power Stations #21 – Activated Sludge	1915-1916, 1921-1928
	48	Radio Development #22	1919-1931, undated
	49	Refrigeration #23	1915-1931
	50	Welding #24	1920, undated
	51	Photograph Motor	Jan 26, 1919 - [?] 1919
	52	Notes on Fractional Motor Design	Nov 28, 1919
	53	Notes on Radio Receiving Sets and Diesel Engine Design	Dec 1, 1919
	54	Notes on Starting and Lighting Units	Dec 18, 1919
	55	Windings for Small Motors	1922, 1924
	56	Gear Calculations	Nov 1, 1916
	57	Calculations for Armature Pin Binding Machine - Unit 5	Mar 1, 1917
	58	Notes on Unit 2 ½	Mar 10, 1917, undated
	59	Calculations for Armature Slot Spacing	1916, 1924, 1928
	60	Fleming Notes No. 1 and No. 23	Dec 1916 – July 1917
	61	Notes regarding General Motors Search	1929

Subseries IID Product Guides, Samples and Journals

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
3	1	Business Journal	1903
	2	Business Journal	1924
	3	Product Guides	undated
	4	Product Guides	undated

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
3	5	Product Guides	undated
	6	Product Guides	undated
4	1	Product Guides	undated
	2	Product Guides	undated
	3	Product Guides	undated
	4	Product Guides	undated
	5	Product Guides	undated
	6	Product Guides	undated
	7	Product Guides	undated
	8	Product Guides	undated
	9	Product Guides	undated
	10	Product Guides	undated
	11	Product Guides	undated
	12	Copies of Magazines Articles and Books relating to Products	1899-1903, undated
	13	Product Samples	undated

Subseries IIE Engineering Projects

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
4	14	Mold for Inv - File 294	1928
	15	AC Electric Pump without stuffing boxes File 296	1927
	16	Ignition Distribution Motor Coil – File 297	1915
	17	Combined Vinsulated motor and fans - File 298	1927
	18	Windshield wiper with Vinsulated Motor File 299	1927
	19	Vinsulated Motor in Hair Clipper Handle File 300	1927
	20	Permanent Magnet Field, Series Bar Winding File 303	1928-1930
	21	Vinsulated Motor with Methods for reversing File 309	1928, 1930
	22	Method of Making Commutator for Drawn Bar Lugs – File 312	1926
	23	Insulated Air Jacketed Motor – File 315	1928
	24	Ventilated vinsulated motor with bearing head, air space jacket, and handle supports in one casting – File 316	1928
	25	Ventilated vinsulated compressor with half of Impeller casting – File 317	1928

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
4	26	Method of Making Condenser of armature or field laminae and other types of condenser motor File 320	1917, 1928
	27	Method of Ventilating vinsulated motors – File 375	1928-1929
	28	Process of treating enameled wires – File 376	1927-1929
	29	Switch for Brush B Motor – File 377	1928
	30	Sewing Machine Motor for Singer – File 378	1923,1927, 1929
	31	Laminated pole piece for compound machine, Bar wound series – File 381	1928
	32	Motor with reduction and drive for small Washing machine lid – File 382	1928
	33	Molded refrigerator cabinet – File 383	1925
	34	AC Phonographic Motor – File 385	1917, 1928
	35	Vinsulated Motor on Vacuum Cleaner – File 387	1926
	36	Single unit with high gear starting system File 388	1915
	37	Rear Automotive Signal System – File 389	1927
	38	Lubrication for various purposes – File 399	1926
	39	One dollar list vinsulated motors – File 400	1927
	40	Vacuum Tube headlight – File 401	1927
	41	Single Unit Starting, Lighting and Ignition using 2 LGS spring clutches – File 406	1928
	42	AC Winding in Field – File 408	1916
	43	Regulation System for Automotive Dynamos File 420	1927
	44	Automatic Winding Machine for inserting loops File 421	1927
	45	Redesign of Ford Front Engine Starter – File 456	1917
	46	Sylphon Compressor and Condenser – File 457	1927
	47	Electric Motor Operated Valve – File 459	1926-1928
	48	Starting Motor with molded armature screw on shaft – File 460	1928, 1931
	49	2 ½ inch B Motor Toy RY. Truck – File 461	1928
	50	2 ½ B ¾ inch Motor for cord – File 462	1928
	51	Starting Motor embodying binocular drive File 465	1931
	52	Direct motor driver for Brunner Vertical Company File 467	1928
	53	Induction motor wheel for auto drive – File 483	1928
	54	Engine muffler and boiler – File 489	1928
	55	Vinsulated ignition system – File 492	1928
5	1	Single Unit field construction for front end of Engine – File 493	1928

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
5	2	Combined Dynamo and Radial Engine – File 494	1928
	3	Voltage Regulators made as lid to Dynamo - File 495	1928
	4	Molded in Mercury Tube Switch Bulb – File 496	1927
	5	Mold for Stator Heads – File 497	1926-1928
	6	Power Charging generator combined voltage regulation – File 500	1927
	7	Magneto revolving “V” Permanent Magnet - File 504	1929
	8	Automobile Headlight - File 511	1927
	9	Laminated Steering column for electrical controls - File 512	1915
	10	Condenser – File 514	1926
	11	Electric Radiator – File 516	1922
	12	Carbon Disc Rheostat – File 518	1927
	13	Turbine construction – File 527	1927
	14	Turbo Generator – File 531	1927
	15	Sewing Machine motor – File 538	1926, 1929
	16	Process and Machine for cutting and forming set of loops, winding and then bending leads - File 544	1929
	17	Method of ventilating vinsulated motor – File 549	1929-1930
	18	Vinsulated typewriter motor – File 556	1927
	19	Pumping System – File 557	1919
	20	Vinsulated motor for lawn mower – File 563	1927
	21	Fly catcher with vinsulated AC motor and Reduction to 1 RPM – File 565	1922
	22	Vinsulated Motor operated switch – File 567	1927
	23	Vinsulated motor and drink mixer – File 568	1927
	24	Vinsulated motor and meat grinder – File 572	1927
	25	Vinsulated motor and orange juice extractor - File 576	1929
	26	Motor driven fruit press and grinder – File 578	1923, 1928
	27	Motor driven mill for Howe cereal Grinding - File 579	1923
	28	Motor driven coffee mill – File 580	1923
	29	Motor driven tube and jar filling machine - File 581	1923
	30	Vinsulated Motor and fan for ventilation – File 591	1928-1930
	31	Motor and Gothan Knitbac machine – File 594	1928
	32	Motor for cash register – File 596	1928
	33	Motor and furnace draft blower – File 598	1927
	34	Motor with hollow shaft vibrator for massage - File 604	1922

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
5	35	Di-insulated motor with die cast aluminum arms for 1920 insulation fans – File 607	
	36	Spark plug – File 619	1927
	37	Ignition system – 621	1927
	38	Process of counting electric sheets for continuous pump press operator – File 623	1916-1917
	39	Vinsulated motor and hoist – File 624	1929
	40	Combined armature commutator without shaft – File 629	1921
	41	Vinsulated electro magnet – File 636	1927-1928
	42	Mold – File 637	1927-1929
	43	Processing for contracting coils – File 639	1929
	44	Insulated deep well pump – File 640	1931
	45	Method of molding coil and diaphragm – File 645	1932
	46	Waste rubberized fabric disintegrator – File 647	1932
	47	Rubber molding powder – File 648	1932
	48	Dynamo built on automotive wheels – File 650	1929
	49	Remote Control starting motor – File 652	1929
	50	Spinner and ring gear for airplane propellers - File 654	1929
	51	Combined Commutator – File 655	1929
	52	Engines for airplanes – File 657	1929
	53	Electric controlled clutch – File 664	1929
	54	Automotive Ignition switch – File 674	1929
	55	Closed winding loop – File 675	1929
	56	Double bar mound armature – File 676	1929
	57	Photograph motor mounting plate – File 677	1929
	58	Motor massage device – File 680	1929
	59	Method of ventilating insulated motors – File 681	1929
	60	Pump reduction gear with automatic control - File 682	1929
	61	Motor projects – File 684	1929
	62	Motor food mixer – File 686	1929
	63	Brake drum – File 733	1930
	64	Chrome plated brake shoes – File 734	1930
	65	Refrigerative power braking system – File 735	1930
	66	Induction brake for trucks and busses – File 736	1930
	67	Booster brake control – File 738	1932
	68	Pump motor reductor - File 811	1925-1927
	69	AC Fan 2 Pole – File 815	1928-1930
	70	AC motor operating fan – File 817	1930
	71	Magnetic controlled brush lifter - File 818	1930
	72	Insulated motor for rotary polisher – File 819	1930
	73	Method of weighing pedestals or bases – File 828	1929

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
5	74	Insulating body containing glass – File 831	1930
	75	Combined motor and rotary compressor – File 832	1930
	76	Weatherproof coil with insulated screw terminal – File 838	1928-1929
	77	Combined gear pump and motor – File 839	1930
	78	Combined multiple cylinder pump – File 842	1930
	79	Air cooled condenser – File 845	1930
	80	Motor drive for overhead door opener – File 854	1931
	81	Toy Airplane – File 856	1931
	82	Motor compressor – File 858	1931
	83	Liquid petrif. development – File 868	1931
	84	Hair dryer development – File 869	1931
	85	Home cooling and heating system – File 870	1926
	86	Process of molding enameled wire coil – File 874	1931
	87	Coil motor – File 877	1926
	88	Electrolux motor – File 881	1931
	89	Method for making insulation encased starter with glass lining – File 882	1932
	90	Tools for making insulation encase starter with glass lining – File 883	1932
	91	Bearing structure – File 889	1931
	92	Constant mesh starter – File 891	1930-1931
	93	Molding MCL – File 892	1931
94	Ediphone motor development – File 893	1931	
95	¼ H.P. Motor – File 894	1931	
96	High cycle field and rotor for Buckeye Portable Tool Co. – File 900	1932	
97	Typewriting motor – File 907	1932	

Series III Corporate Correspondence

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
6	1	Corporate Correspondence	1892
	2	Corporate Correspondence	1893
	3	Corporate Correspondence	1894
	4	Corporate Correspondence	1895
	5	Corporate Correspondence	1896
	6	Corporate Correspondence	1897
	7	Corporate Correspondence	1897
	8	Corporate Correspondence	1897
	9	Corporate Correspondence	1898
	10	Corporate Correspondence	1898
	11	Corporate Correspondence	1898

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>	
6	12	Corporate Correspondence	1898	
	13	Corporate Correspondence	1898	
	14	Corporate Correspondence	1898	
	15	Corporate Correspondence	1898	
	16	Corporate Correspondence	1898	
	17	Corporate Correspondence	1898	
	18	Corporate Correspondence	1898	
	19	Corporate Correspondence	1898	
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	25	Corporate Correspondence	1900	
	26	Corporate Correspondence	1901	
	27	Corporate Correspondence	1901	
	28	Corporate Correspondence	1902	
	29	Corporate Correspondence	1902	
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	37	Corporate Correspondence	1905	
	38	Corporate Correspondence	1905	
	39	Corporate Correspondence	1905	
	40	Corporate Correspondence	1905	
	41	Corporate Correspondence	1906	
	42	Corporate Correspondence	1906	
	7	1	Corporate Correspondence	1906
		2	Corporate Correspondence	1906
3		Corporate Correspondence	1906	
4		Corporate Correspondence	1906	
5		Corporate Correspondence	1906	
6		Corporate Correspondence	1906	
7		Corporate Correspondence	1907	
8		Corporate Correspondence	1907	
9		Corporate Correspondence	1907	
10		Corporate Correspondence	1907	
11		Corporate Correspondence	1907	
12		Corporate Correspondence	1907	

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>	
7	13	Corporate Correspondence	1907	
	14	Corporate Correspondence	1908	
	15	Corporate Correspondence	1909	
	16	Corporate Correspondence	1910	
	17	Corporate Correspondence	1911	
	18	Corporate Correspondence	1912	
	19	Corporate Correspondence	1913	
	20	Corporate Correspondence	1914-1915	
	21	Corporate Correspondence	1914-1915	
	22	Corporate Correspondence	1914-1915	
	23	Corporate Correspondence	1914-1915	
	24	Corporate Correspondence	1914-1915	
	25	Corporate Correspondence	1914-1915	
	26	Corporate Correspondence	1914-1915	
	27	Corporate Correspondence	1914-1915	
	28	Corporate Correspondence	1914-1915	
	29	Corporate Correspondence	1914-1915	
	30	Corporate Correspondence	1914-1915	
	31	Corporate Correspondence	1912-1916	
	32	Corporate Correspondence	1913-1916	
	33	Corporate Correspondence	1913-1916	
	34	Corporate Correspondence	1912-1913	
	35	Corporate Correspondence	1913-1916	
	36	Corporate Correspondence	1913-1914	
	37	Corporate Correspondence	1903-1914	
	38	Corporate Correspondence	1903-1914	
	39	Corporate Correspondence	1895-1902	
	40	Corporate Correspondence	1933	
	41	Corporate Correspondence	1933-1934	
	42	Corporate Correspondence	1934-1942	
	8	1	Edward Apple	1929
		2	Edward Apple	1930
3		Edward Apple	1931	
4		"B"	1932-1940, undated	
5		Bendix Products Division	1943-1946	
6		Birch Equipment and Machine Co.	1929-1944	
7		"C"	1933-1943	
8		"D"	1933-1941	
9		D. A. Strauss	1936-1942	
10		"E"	1929-1939	
11		Electric Auto Lite Co.	1932-1939	
12		Electric Auto Lite Co.	1939-1943	
13		Excel Auto Radiator Co.	1934-1946	

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>	
8	14	Nevins Focht	1931-1938	
	15	General Industries Co.	1929-1935	
	16	General Motors	1925-1929	
	17	General Motors	1931-1941	
	18	"H"	1936-1941	
	19	Haight, Goldstein and Hobbs	1937-1938	
	20	Homer Commutator Co.	1930-1936	
	21	Homer Commutator Co.	1937-1939	
	22	Homer Commutator Co.	1940-1943	
	23	Hoover Co.	1937-1942	
	24	"I"	1930-1937	
	25	"K"	1928-1936	
	26	J. A. Kendell	1932-1933	
	27	"M"	1927-1942	
	28	M. A. Marrietta	1940-1944	
	29	Midwest Molding and Manufacturing Co.	1935-1936	
	30	National Steel Production Co.	1929-1933	
	31	"O"	1934-1940	
	32	Ohio Association for Welfare of Mentally Sick	1926-1927	
	33	Ohio Association for Welfare of Mentally Sick	1928-1931	
	34	Owen-Dyneto Corporation	1931-1939	
	35	"P"	1934-1942	
	36	John. O. Prescott	1933-1941	
	37	"Q"	1933-1939	
	38	"R"	1915-1916	
	39	"R"	1932-1942	
	40	L. T. Rainey	1932-1933	
	41	C. F. Raven	1932-1934	
	42	A. G. Remond Co.	1930-1935	
	43	A. G. Remond Co.	1934-1940	
	44	A. G. Remond Co.	1941-1943	
	45	Reliance Electric and Engineering Co.	1937-1938	
	46	"S"	1933-1935	
	47	"S"	1932-1934	
	48	R. L. Smith	1940-1944	
	49	Social Security Division	1937-1940	
	50	Social Security Division	1941-1945	
	51	Sparks-Withington Co.	1926-1937	
	9	1	Stewart-Warren Co.	1929-1939
		2	"T"	1935-1943
		3	Toledo Commutator Co.	1927-1930
		4	Third National	1939-1941
		5	Third National	1939-1942

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
9	6	“U”	1933-1940
	7	“V”	1933-1938
	8	“W”	1933-1942
	9	Warbirds	1943
	10	Warren Gear Co.	1934-1941
	11	Winters National Bank	1930-1939
	12	Winters National Bank	1930-1939
	13	Winters National Bank	1930-1939
	14	“XYZ”	1933-1944
	15	Young Radiator Co.	1932-1935

Series IV Legal Correspondence

Subseries IVA General Correspondence

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
10	1	Delancey Nicoll Law Office	1930-1934
	2	Delancey Nicoll Law Office	1930
	3	Delancey Nicoll Law Office	1930
	4	Delancey Nicoll Law Office	1928-1940
	5	Forée Bain Law Office	1900-1901
	6	Forée Bain Law Office	1902
	7	Forée Bain Law Office	1903
	8	Forée Bain Law Office	1904
	9	Forée Bain Law Office	1905
	10	Forée Bain Law Office	1906
	11	Forée Bain Law Office	1907
	12	Forée Bain Law Office	1908
	13	Forée Bain Law Office	1909
	14	Forée Bain Law Office	1910
	15	Forée Bain Law Office	1911
	16	Forée Bain Law Office	Jan – Jul 1912
	17	Forée Bain Law Office	Aug – Oct 1912
	18	Forée Bain Law Office	Nov – Dec 1912
	19	Forée Bain Law Office	Jan – Jul 1913
	20	Forée Bain Law Office	Aug – Dec 1913
	21	Forée Bain Law Office	1914
	22	Forée Bain Law Office	1915
	23	Forée Bain Law Office	1916
	24	Forée Bain Law Office	1917
	25	Forée Bain Law Office	1918
	26	Forée Bain Law Office	1919
	27	Forée Bain Law Office	1920

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
10	28	Forée Bain Law Office	1921
	29	Forée Bain Law Office	1922
	30	Forée Bain Law Office	1923
	31	Forée Bain Law Office	1924
	32	Forée Bain Law Office	1925
	33	Forée Bain Law Office	1926
	34	Forée Bain Law Office	1927
	35	Forée Bain Law Office	1928

Subseries IVB Interference Records

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
10	36	Interference Patent No. 1167038	1917-1918
	37	Interference Patent No. 1116970 Apple vs. Gray	1911, 1914-1916
	38	Interference Patent No. 21378 Brief, argument, and testimony transcript	1901-1902
11	1	Legal documents and records regarding Splittdorf Electrical Co.	1918-1920
	2	Legal documents and records regarding Podlesak - Interference No. 22939	1903
	3	Legal documents regarding Mostinger Device Manufacturing Co.	1902-1903
	4	Legal correspondence and records regarding Dayton Electrical Manufacturing Co.	1899, 1908, 1912

Subseries IVC Ford Trial

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
12	1	Ford Trial Transcript	September 23, 1930
13	1	Legal Correspondence regarding Ford Trial (1 of 4)	1938
	2	Legal Correspondence regarding Ford Trial (2 of 4)	1939-1940
	3	Legal Correspondence regarding Ford Trial (3 of 4)	1941
	4	Legal Correspondence regarding Ford Trial (4 of 4)	1942-1943
	5	Documents and records regarding Ford Trial (1 of 4)	1916-1923, undated

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
13	6	Documents and records regarding Ford Trial (2 of 4)	1923, undated
	7	Documents and records regarding Ford Trial (3 of 4)	1923-1927, 1934, undated
	8	Documents and records regarding Ford Trial (4 of 4)	1931-1938, undated

Series V Photographs

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
13	9	Cyanotypes	1902
	10	Cyanotype booklet	1907-1911
	11	Unidentified photographs	undated
	12	Photographs	1899-1901
	13	Photographs	1899-1903, 1910

Series VI Patents

Subseries VIA Patent Groups

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
14	1	Patent Group Inventory List	1917-1938
	2	Group 1 Di-insulated field and station elements	1923-1933
	3	Group 1 Di-insulated field and station	1923-1933
	4	Group 2 Di-insulated motors and generators	1923-1933
	5	Group 3 Di-insulated armatures	1927-1935
	6	Group 3 ½ Di-insulated armatures	1931-1933
	7	Group 4 Commutators	1926-1936
	8	Group 5 Di-insulated coil structures	1926, 1931-1938
	9	Group 6 Di-insulated end enclosing heads	1932-1933
	10	Group 7 Core brush and bearings	1924, 1932-1938
	11	Group 8 Bar windings-endwise entry-separate commutator	1917-1929, 1937, 1942
	12	Group 9 Baring windings and commutator integral	1920, 1927-1933
	13	Group 10 Armature-bar wound-commutator integral	1927-1933
	14	Group 11 Armature-bar wound-open slot commutator integral	1929-1933
	15	Group 12 Bar wound elements (large)	1917-1919, 1930-1932
	16	Group 13 Starting motors (single and double unit)	1917-1919, 1929-1932
	17	Group 14 Charging generators, regulators and Cutouts	1919-1923, 1931

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
14	18	Group 15 Electrically propelled axels and wheels	1918, 1930-1933
	19	Group 16 Motor washing machines	1925, 1930-1935
	20	Group 17 Small motor applications	1919-1923, 1929-1931
	21	Group 18 Radio condenser and vacuum tube socket	1931-1932
	22	Group 19 Miscellaneous structures	1917-1947
	23	Group 20 Automatic automotive transmission	1938-1841
	24	Group 20 Automatic automotive transmission	1933-1940, 1940s

Subseries VIB Other Patents

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
14	25	Patents relating to automatic transmission mechanisms	1933-1939
	26	Patents relating to automatic transmission mechanisms	1933-1939
	27	Patent for drafting equipment	October 29, 1940
	28	Blueprints for Fly Trap	1939, 1941
	29	Other patents for background research	1882-1930
	30	Other patents for background research	1907, 1911-1922
	31	Other patents for background research	1924-1933
	32	Patents cited against Apple Patent 1578793	1890-1891, 1900, 1914-1926

Subseries VIC Patent Article and Method Files

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
14	33	Article file 2400 Wire wound armatures	1930-1933
	34	Article file 2600 Wire wound armatures	1931-1933
	35	Article file 2700 Wire wound armatures	1930-1933
	36	Method file-Bar wound armatures 900-1975	1930-1932
	37	Tools for making wire wound armatures	1930-1933
	38	Article file 1300 Dynamo electric machine fields	1931-1933
	39	Article file 2000 Bar wound armatures and rotors p. 2005-2165	1930-1932
	40	Article file 2000 Bar wound armatures and rotors p. 2170-A-2379	1930-1932
	41	Tools for making Dynamo machine fields – 1 p. 1-T-29	1930-1932
	42	Tools for making Dynamo machine fields – 1 p. 30-50	1930-1932
	43	Article file 3300 Coils	1913, 1931-1933
	44	Method file-Wire wound armatures - 2000-2300	1930-1933
	45	Method file-Wire wound armatures – 2400-2600	1930-1933

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
15	1	Article file 1000 Dynamo electric machine fields and stators p.1005-1145	1930-1933
	2	Article file 1000 Dynamo electric machine fields and stators p. 1150-A-1242	1930-1933
	3	Article file 3200 Miscellaneous magnetic structures	1930-1932, 1970
	4	Method Claims Miscellaneous magnetic structures	1930-1932
	5	Article file 500-650 Dynamo electric machine fields	1931
	6	Article file 800-900 Dynamo electric machine fields	1930-1931
	7	Article file Dynamo electric machine fields – 350	1930-1931
	8	Method file Dynamo electric machine fields - 1-400	1930-1931
	9	Method file Dynamo electric machine fields - 500-800	1930-1931
	10	Tools for making miscellaneous molded products - 500	1930-1932
	11	Method claim 4800 Impregnating fibrous materials	1931-1932
	12	Method claim Insulating coils – 3800 p. 3805-3915	1904, 1930-1933
	13	Method claim Insulating coils – 3800 p. 3920-4090	1904, 1930-1933
	14	Tools for making coils – 400	1930, 1932
	15	Tools for making commutators – 300	1930, 1932, 1933
	16	Tools for insulating a wire – 600	1931-1932
	17	Method claim insulating a wire – 4700	1931-1932
	18	Tools for miscellaneous magnetic structures – 700	1931
16	1	Article file Commutators – 3000	1930-1932
	2	Method file Molding miscellaneous products – 4200-4300	undated
	3	Method file Molding miscellaneous products – 4400	undated
	4	Method file Molding miscellaneous products – 4500-4600	1930-1932
	5	Article file Dynamo electric machines – 4000	1930-1933
	6	Article file Dynamo electric machines – 4150	1930-1932
	7	Article file Dynamo electric machines – 4300-4400	1930-1933
	8	Article file Dynamo electric machines – 4600	1930-1933
	9	Method file Commutators – 3000-3100	1930-1932
	10	Method file Commutators – 3200-3300	1931-1932
	11	Method file Commutators – 3400-3500	1930-1932
	12	Article file 3400 Miscellaneous molded products	1929-1932
	13	Tools for making bar wound armatures and rotors - 100	undated

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
17	1	Report on the insulation properties of di-insulated coils	August 18, 1931
	2	Report on No. 161234 – Insulation resistance and di-electric breakdown tests, sections 1-7	1927-1931
	3	Report on No. 161234 – Insulation resistance and di-electric breakdown tests, sections 8-16	1928-1932
	4	Report on No. 161234 – Insulation resistance and di-electric breakdown tests, sections 17-21	1920, 1928-1933
	5	Report on No. 161234 – Insulation resistance and di-electric breakdown tests, sections 22-29	1929-1933
18	1	Automotive Transmission (see OS 64, File 1)	undated

Subseries VID Patent Improvements and Lists

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
18	2	Patent Improvements	1931-1934
	3	Patent Improvements	1935-1937
	4	Patent Improvements	1938-1841
	5	Patent Inventory List	1928-1838
	6	Patents Lists	1917, 1928-1936

Subseries VIE Patent File Wrappers and Issued Patents

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
19	1	Patent No. 1070657 – Controller Switches	1912-1913
	2	Patent No. 1167038 – Curcuit controller switch and casing (endwise entry method patent)	1914-1917
	3	Issued Patent No. 1116970 – Power transmitting mechanism	1914
	4	Patent No. 1224518 – Armature construction	1914, 1916, 1917
	5	Patent No. 1231982 – Engine starters	1915-1917
	6	Patent No. 1231983 – Automobile engine starting and current generating apparatus	1916-1917
	7	Patent No. 1232004 – Gearing	1916-1917
	8	Patent No. 1238959 – Terminal bonding tool for armature	1916-1917
	9	Patent No. 1240806 – Method of building commutators for armatures	1917
	10	Patent No. 1242985 – Gas Engine	1917

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
19	11	Patent No. 1243795 – Method of building commutators for armatures for Dynamo electric machines	1917
	12	Patent No. 1258735 - Method of building commutators for armatures for Dynamo electric machines	1917-1918
	13	Patent No. 1264748 – Systems of power transmission	1914, 1917-1918
	14	Patent No. 1264749 – Method of building armatures	1917-1918
	15	Patent No. 1275195 – Armature construction for Dynamo electric machine	1917-1918
	16	Patent No. 1276855 – Speed reducing gearing	1917-1918
	17	Patent No. 1276856 – Method of making commutators	1918
	18	Patent No. 1276857 – The art of armature construction	1918
	19	Patent No. 1279659 – Gearing	1916, 1918
	20	Patent No. 1284551 – Manually operable and separable crank starter for automobile engines	1918
	21	Patent No. 1284552 – Insulating covering or jackets for armature conductors	1918
	22	Patent No. 1284553 – Molds	1918
	23	Patent No. 1302622 – Contract members for Vibrating circuit controlling regulators	1918-1919
	24	Patent No. 1312295 – License plate brackets for automobiles	1918-1919
	25	Patent No. 1312296 – Shaft coupling	1918-1919
	26	Patent No. 1315936 – Method of constructing armatures and the like for Dynamo electric machines	1916-1919
	27	Patent No. 1316552 – Photograph motor control	1917-1919
	28	Patent No. 1332154 – Machine for binding armature terminals	1918-1920
	29	Patent No. 1332155 – Method of molding	1919-1920
	30	Patent No. 1348198 – Method of building inductor elements for Dynamo electric machines	1918-1920
	31	Patent No. 1354713 – Improvements for current regulators for Dynamos	1918-1920
	32	Patent No. 1390242 – Laminated structures and method of making same	1920-1921
	33	Patent No. 1393878 – Method of building commutators for Dynamo electric machines	1919, 1921
	34	Patent No. 1396004 – Starting and lighting apparatus	1917, 1921

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
19	35	Patent No. 1396947 – Dynamo electric machines	1921
	36	Patent No. 1402705 – Molding processes	1920, 1922
	37	Patent No. 1407508 – Improvements in electric motors	1919-1922
	38	Patent No. 1409148 – Method of making self lubricating bearings	1920-1922
	39	Patent No. 1438422 – Method of making armatures	1918, 1922
	40	Patent No. 1438423 – Method of making armatures	1918, 1922
	41	Patent No. 1440951 – Improvements in armature Construction	1918, 1922, 1923
	42	Patent No. 1440952 – Dynamo electric machines and the method of building them	1920, 1922, 1923
	43	Patent No. 1449370 – Current controlling devices	1919, 1922, 1923
	44	Patent No. 1449371 – Method of constructing armatures for Dynamo electric machines	1919, 1922, 1923
	45	Patent No. 1453118 – Tools for forming insulators	1921-1923
	46	Patent No. 1474134 – Improvements in bearings	1921, 1923
	47	Patent No. 1507566 – Commutator brushes and method of making them	1920, 1924
	48	Patent No. 1526656 – Nut cracker	1922, 1924, 1925
	49	Patent No. 1536279 – Dynamo electric machine	1920, 1924, 1925
	50	Patent No. 1540237 – Electric power plant system	1924-1925
	51	Patent No. 1544623 – Machine for pressing into place and bending armature conductors	1922, 1924-1925
52	Patent No. 1552661 – Combined electric lighting and water system	1919, 1925	
53	Patent No. 1555931 – Method of building armatures	1920-1925	
20	1	Patent No. 1563945 – Improvements in electric motors	1920, 1925
	2	Patent No. 1578793 – Commutators and the method of making them	1920, 1926
	3	Patent No. 1584502 – Improvements in Dynamo electric machines	1920, 1926
	4	Patent No. 1606393 – Method of insulating electric coils	1920, 1926
	5	Patent No. 1631186 – Method of building Dynamo electric machine armature and windings for same	1924, 1927
	6	Patent No. 1694464 - Method of making an armature	1927-1928
	7	Patent No. 1697897 – Improvement in automotive electric systems	1927-1928

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
20	8	Patent No. 1728224 – Combined motor reduction gear	1925-1929
	9	Patent No. 1738166 – Method of making armatures	1928-1929
	10	Patent No. 1742190 – Method of building armatures	1920, 1927-1930
	11	Patent No. 1752224 – Combined electric starter, battery recharger and engine super charger	1928, 1930
	12	Patent No. 1756501 – Dynamo electric machines	1927-1930
	13	Patent No. 1757106 – Power washing machines	1923-1924, 1928-1930
	14	Patent No. 1763549 – Electric starting device for an internal combustion engine	1924, 1928-1930
	15	Patent No. 1768654 – Method of making a commutator	1922, 1928-1930
	16	Patent No. 1772851 – Method of winding an armature	1922, 1928-1930
	17	Patent No. 1775633 – Dynamo electric machine	1922, 1924, 1927-1930
	18	Patent No. 1775634 – Bar windings of Dynamo electric machine elements	1922, 1925-1930
	19	Patent No. 1780455 – Friction devices	1922, 1928-1930
	20	Patent No. 1780456 – Method of winding Dynamo electric machine elements	1922, 1928-1930
	21	Patent No. 1783269 – Direct drive electric railway trucks	1922, 1925-1930
	22	Patent No. 1784815 – Dynamo electric machine elements	1922, 1928-1930
	23	Patent No. 1789128 – Bar winding	1922, 1927-1931
	24	Patent No. 1789129 – Bar winding	1922, 1927-1931
	25	Patent No. 1792524 – Dynamo electric machine armature	1927-1931
	26	Patent No. 1792525 – Electric motor automotive wheel	1925-1931
	27	Patent No. 1792526 – Dynamo electric machines	1922, 1924, 1928-1931
	28	Patent No. 1793986 – Dynamo electric machine armatures	1922-1924, 1928-1931
	29	Patent No. 1796421 – Hand electrical devices and method of making them	1926-1931
	30	Patent No. 1796422 – Dynamo electric machine elements	1922, 1928-1931
	31	Patent No. 1796423 – Method of making armature loops	1922, 1928-1931
	32	Patent No. 1796424 – Method of making armature coils	1922, 1928-1931
	33	Patent No. 1799346 – Vacuum tube sockets	1925, 1928-1931
	34	Patent No. 1799347 – Armature	1927, 1929-1931
	35	Patent No. 1799348 – Geared motors	1920, 1930-1931

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>	
20	36	Patent No. 1803829 – Electric starting devices	1924, 1927-1931	
	37	Patent No. 1808746 – Electric starting motors	1922, 1927-1931	
	38	Patent No. 1808747 – Dynamo electric mechanisms	1922-1924, 1928-1931	
	39	Patent No. 1808748 – Electric motor automotive axels	1921, 1926-1931	
	40	Patent No. 1808749 – Bar wound armature	1927-1931	
	41	Patent No. 1808750 – Commutator	1929-1931	
	42	Patent No. 1808751 – Dynamo electric machine with improved cooling system	1930-1931	
	43	Patent No. 1818799 – Oscillating motor	1929-1931	
	44	Patent No. 1822261 – Bar wound field elements	1924, 1927-1931	
	45	Patent No. 1822262 – Power driven hair cutting devices	1921-1922, 1928-1931	
	46	Patent No. 1822263 – Dynamo electric mechanisms	1922-1924, 1928-1931	
	47	Patent No. 1822264 – Dynamo electric mechanisms	1924, 1929, 1931	
	48	Patent No. 1826295 – Dynamo machine elements	1923, 1929-1931	
	49	Patent No. 1826296 – Dynamo electric machine members	1922, 1928-1931	
	50	Patent No. 1826297 – Method of making electric coils	1927-1931	
	21	1	Patent No. 1830310 – Electric drives for juvenile automobiles	1921, 1926-1931
		2	Patent No. 1830456 – Armatures	1927-1931
		3	Patent No. 1830457 – Dynamo electric machine with improved cooling system	1928-1931
		4	Patent No. 1830458 (Reissued as Re-19106) Stator with insulated enclosed winding	1928-1934
5		Patent No. 1834923 – Dynamo electric machine armature	1922, 1927-1931	
6		Patent No. 1834924 – Power close wringer	1923-1924, 1928-1931, 1935-1938	
7		Patent No. 1834925 – Method of working armature coils	1922, 1928-1931	
8		Patent No. 1834926 – Method of making winding loop for bar wound armature	1922, 1930-1931	
9		Patent No. 1839857 – Washing machines	1923-1924, 1928-1932	
10		Patent No. 1839858 – Armature and method of making it	1927-1931	
11		Patent No. 1839859 – Commutators	1928-1932	
12		Patent No. 1843589 – Dynamo electric machine elements	1922, 1928-1932	
13		Patent No. 1843590 – Method of making armature coils	1922, 1928-1932	

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
21	14	Patent No. 1843591 – Armature Dynamo electric machines	1922, 1928-1932
	15	Patent No. 1843592 – Machine for assembling and heating Dynamo electric machine elements	1922, 1930-1932
	16	Patent No. 1845114 – Commutator	1927-1932
	17	Patent No. 1845115 – Commutator	1929-1932
	18	Patent No. 1845116 – Method of insulating coils	1927-1932
	19	Patent No. 1849215 – Dynamo electric machine winding	1923-1924, 1928-1932
	20	Patent No. 1849263 – Dynamo electric field elements and method of making them	1928-1932
	21	Patent No. 1853168 – Motor driven blower	1920, 1930-1932
	22	Patent No. 1853516 – Method of making an armature	1922-1924, 1930-1932
	23	Patent No. 1857175 – Armature	1928-1932
	24	Patent No. 1857176 – Tool for making armatures	1927-1932
	25	Patent No. 1858871 – Dynamo electric machine with improving cooling means	1920-1932
	26	Patent No. 1860977 – Method of making armature coils	1922, 1928-1932
	27	Patent No. 1860978 – Armature	1930-1932
	28	Patent No. 1866339 – Geared motor	1921, 1929-1932
	29	Patent No. 1870084 – Variable condensers	1925, 1928-1932
	30	Patent No. 1870085 – Laminated core	1928-1932
	31	Patent No. 1875203 – Self ventilating armature	1927-1932
	32	Patent No. 1875204 – Commutators and methods of making them	1928-1932
	33	Patent No. 1875205 – Dynamo electric machine	1921, 1929-1932
	34	Patent No. 1875206 – Insulation encased stator with glass lining	1920-1932
	35	Patent No. 1875207 – Alternating current motor	1929-1932
	36	Patent No. 1881341 – Armature	1929-1932
	37	Patent No. 1881342 – Lamp socket motor	1928-1932
	38	Patent No. 1881343 – Dynamo electric machine with improved cooling means	1928-1932
	39	Patent No. 1881344 – Motor compressor	1930-1932
	40	Patent No. 1883736 – Method of making commutators	1928-1932
	41	Patent No. 1887005 – Apparatus for insulating coils	1927-1932
	42	Patent No. 1888211 – Mold for insulating an armature	1921, 1929-1932
	43	Patent No. 1888613 – Apparatus for impregnating and molding a porous structure	1921, 1929-1932

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
21	44	Patent No. 1890802 – Automatic molding method in machine	1929-1932
	45	Patent No. 1891076 – Dynamo electric machine	1924, 1927-1932
	46	Patent No. 1893261 – Motor for driving flexible shafts	1921-1922, 1929-1933
	47	Patent No. 1893262 – Reinforced electrical coil	1928-1933
	48	Patent No. 1894723 – Armature	1929-1933
	49	Patent No. 1894724 – Stator with built in condenser	1930-1933
	50	Patent No. 1897544 – Armature	1922, 1928-1933
	51	Patent No. 1897784 – Motor driven pump	1921, 1930-1933
	52	Patent No. 1898929 – Commutators and method of making them	1929-1933
	53	Patent No. 1908101 – Ventilated motor	1930-1933
	54	Patent No. 1911128 – Motor pump	1930-1932
22	1	Patent No. 1911340 – Compost commutator segment and winding element of bar armature	1922-1924, 1930-1932
	2	Patent No. 1911341 – Dynamo electric machine element	1920-1932
	3	Patent No. 1911342 – Electric motor control for Juvenile auto vehicles	1925-1932
	4	Patent No. 1913138 – Ventilated electromagnetic structure	1929-1932
	5	Patent No. 1917482 – Armature coil	1928-1932
	6	Patent No. 1917501 – Automatic free wheeling transmission mechanism	1930-1933
	7	Patent No. 1921111 – Dynamo electric machine starter with noncorrosive lining	1930-1932
	8	Patent No. 1921112 – Wire wound armature	1921, 1930-1933
	9	Patent No. 1925891 – Armature	1929-1933
	10	Patent No. 1925892 – Dynamo electric machine element	1930-1933
	11	Patent No. 1928325 – Mold for making commutators	1929-1932
	12	Patent No. 1932291 – Mold for making armatures	1930-1933
	13	Patent No. 1934903 – Dynamo electric machine and method of making it	1916, 1930-1933
	14	Patent No. 1939615 – Armature	1929-1933
	15	Patent No. 1944869 – Method and apparatus for making commutators	1927-1934
	16	Patent No. 1944870 – Apparatus for making an electrical coil	1928-1934
	17	Patent No. 1950163 – Accelerator controlled automotive transmission	1933-1934

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
22	18	Patent No. 1950164 – Toy Airplane	1931-1934
	19	Patent No. 1954341 – Welding wire leads to commutator segments	1915, 1920, 1930-1934
	20	Patent No. 1965330 – Apparatus for making coils	1928-1934
	21	Patent No. 1974406 – Dynamo electric machine core slot lining	1929-1934
	22	Patent No. 1978834 – Automatic speed changing mechanism	1930-1934
	23	Patent No. 1978835 – Lubricating mechanism	1933-1934
	24	Patent No. 1981823 – Motor vehicle transmission gearing	1933-1934
	25	Patent No. 1988440 – Automatic automotive transmission gearing	1933
	26	Issued Patent No. 1988440 – Automatic automotive transmission gearing	1935
	27	Patent No. 1993966 – Commutators	1931-1934
	28	Issued Patent No. 1993966 – Method of making commutators	1935
	29	Patent No. 1995912 – Washing machine	1924-1932
	30	Patent No. 2002562 – Tool for making Dynamo electric machine elements	1933-1934
	31	Issued Patent No. 2002562 – Tool for making Dynamo electric machine elements	1935
	32	Patent No. 2007701 – Refrigerating system	1928-1934
	33	Issued Patent No. 2007701 – Refrigerating system	1935
	34	Patent No. 2014445 – Improvement of oil clarifiers	1935
	35	Patent No. 2018480 - Dynamo electric machine elements	1928-1934
	36	Issued Patent No. 2018480 – Molds for Dynamo machine elements	1935
	37	Patent No. 2018488 – Automatic transmission gearing	1934
	38	Issued Patent No. 2018488 – Automatic transmission gearing	1935
	39	Patent No. 2019064 – Armature	1929-1934
	40	Issued Patent No. 2019064 – Armature molds	1935
	41	Patent No. 2019065 – Dynamo electric machine Brush	1931-1934
	42	Issued Patent No. 2019065 – Dynamo electric Machine brushes with integral shunts	1935
	43	Patent No. 2021645 – Automatic clutch and transmission mechanism	1934

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
22	44	Issued Patent No. 2021645 – Automatic clutches and transmission mechanism	1935
	45	Patent No. 2030132 – Mold for making commutators	1929-1936
	46	Issued Patent No. 2030132 – Mold for making commutators	1936
	47	Patent No. 2032050 – Automotive transmission braking mechanism	19323-1934
	48	Patent No. 2032050 – Automotive transmission braking mechanism	1936
	49	Patent No. 2035519 – Oil sealed bearing	1929-1934
	50	Issued Patent No. 2035519 – Oil sealed bearing	1936
	51	Patent No. 2038419 – Making Commutators	1932-1936
	52	Issued Patent No. 2038419 – Making Commutators	1936
	23	1	Patent No. 2046664 – Nasal filter
2		Patent No. 2055855 – Nasal respirator	1935
3		Issued Patent No. 2058938 – Plastic molding	1936
4		Patent No. 2060209 – Fuel pump for aircraft Engines	1936
5		Patent No. 2061220 – Over running clutches	1935-1936
6		Issued Patent No. 2061220 – Over running clutches	1936
7		Patent No. 2061662 – Pulp refining apparatus	1936
8		Patent No. 2061821 – Commutator and process	1928-1931
9		Issued Patent No. 2061821 – Commutators	1936
10		Patent No. 2061832 – Power transmission mechanism	1934-1936
11		Issued Patent No.2061832 – Power transmission mechanism	1936
12		Patent No. 2069818 – Automotive clutch control clutch mechanism	1933, 1936-1937
13		Issued Patent No. 2069818 – Automotive clutch control mechanism	1937
14		Patent No. 2089640 – Pendulum valves	1933-1934
15		Issued Patent No. 2089640 – Pendulum valves	1937
16		Patent No. 2095705 – Method of enclosing coil structures	1930-1937
17		Issued Patent No. 2095705 – Method of enclosing coil structures	1937
18		Patent No. 2104188 – Ball bearing structure	1931-1938
19		Issued Patent No. 2104188 – Seals for ball bearing structures	1938
20		Patent No. 2104189 – Method of molding thermoplastics	1932, 1935-1938

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
23	21	Issued Patent No. 2104189 – Method of molding thermoplastics	1938
	22	Patent No. 2108105 – Automatic automotive transmission mechanism	1933-1934, 1937-1938
	23	Issued Patent No. 2108105 – Automatic automotive transmission mechanism	1938
	24	Patent No. 2116234 – Automatic overdrive gearing	1936-1938
	25	Issued Patent No. 2116234 – Automatic overdrive gearing	1938
	26	Patent No. 2120831 – Planetary transmission mechanism	1935, 1937, 1938
	27	Issued Patent No. 2120831 – Planetary transmission mechanism	1938
	28	Patent No. 2120832 – Planetary transmission mechanism	1936-1938
	29	Issued Patent No. 2120832 – Planetary transmission mechanism	1938
	30	Patent No. 2123933 – Motor construction	1937-1938
	31	Issued Patent No. 2123933 – Motor construction	1938
	32	Patent No. 2126264 – Machine for refining paper Stock	1936
	33	Patent No. 2134398 – Hydromechanical transmission for motor vehicle	1937-1938
	34	Issued Patent No. 2134398 – Hydromechanical transmission for motor vehicle	1938
	35	Patent No. 2140609 – Automatic planetary automotive transmission	1935-1936, 1938
	36	Issued Patent No. 2140609 – Automatic planetary Automotive transmission	1938
	37	Patent No. 2142866 – Planetary automotive transmission gearing	1935, 1938
	38	Patent No. 2144795 – Hydromechanical transmission for motor vehicles	1937, 1939
	39	Issued Patent No. 2144795 – Hydromechanical Transmission for motor vehicles	1939
	40	Patent No. 2146795 – Overdrive gearing	1936, 1939
24	1	Issued Patent No. 2146795 – Overdrive gearing	1939
	2	Patent No. 2154419 – Automatic planetary automotive transmission	1937, 1939
	3	Issued Patent No. 2154419 – Automatic planetary automotive transmission	1939
	4	Patent No. 2157230 – Hydromechanical power transmission mechanism	1937-1939

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
24	5	Issued Patent No. 2157230 – Hydromechanical power transmission mechanism	1939
	6	Patent No. 2163192 – Vehicle transmission gearing	1937, 1939
	7	Issued Patent No. 2163192 – Vehicle transmission gearing	1939
	8	Patent No. 2171782 – Hydromechanical transmission for motor vehicles	1938-1939
	9	Patent No. 2189578 – Method and apparatus for reclaiming sheet metal	1938
	10	Patent No. 2192588 – Drive and seal for pumps	1938
	11	Patent No. 2195289 – Radio program timing clock	1938-1940
	12	Patent No. 2198869 – Tractor plow	1939-1940
	13	Patent No. 2201848 – Transmission gearing	1936
	14	Issued Patent No. 2201848 – Transmission gearing	1940
	15	Patent No. 2201849 – Safety tile section	1940
	16	Issued Patent No. 2201849 – Safety tile section	1940
	17	Patent No. 2211979 – Commutators	1938-1940
	18	Patent No. 2215528 – Apparatus for extracting gelatin and glue	1938-1940
	19	Patent No. 2218813 – Transmission gearing	1940
	20	Issued Patent No. 2218813 – Transmission gearing	1940
	21	Patent No. 2219766 – Drafting equipment	1940
	22	Issued Patent No. 2219766 – Drafting equipment	1940
	23	Patent No. 2221180 – Automatic transmission gear with no back	1940
	24	Issued Patent No. 2221180 – Automatic transmission with no back	1940
	25	Patent No. 2224241 – Rotary extractor	1938-1940
	26	Patent No. 2237025 – Centrifugally controlled automatic transmission gear	1941
	27	Issued Patent No. 2237025 – Centrifugally controlled automatic transmission gear	1941
	28	Patent No. 2246954 – Extractor for hose couplings	1938-1941
	29	Patent No. 2248492 – Vehicle transmission gearing	1940-1941
	30	Issued Patent No. 2248492 – Vehicle transmission gearing	1941
	31	Patent No. 2250889 – Transmission gearing	1940-1941
	32	Issued Patent No. 2250889 – Transmission gearing	1941
	33	Patent No. 2253017 – Fly Trap (see OS 64, File 1)	1939-1941
	34	Issued Patent No. 2253017 – Fly Trap	1941
25	1	Patent No. 2257333 – Automatic clutch and transmission gearing	1941

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
25	2	Issued Patent No. 2257333 – Automatic clutch and transmission gearing	1941
	3	Patent No. 2261106 – Automatic 4 speed transmission gear	1941
	4	Issued Patent No. 2261106 – Automatic 4 speed transmission gear	1941
	5	Patent No. 2266740 – Vacuum controlled automotive transmission gear	1941
	6	Issued Patent No. 2266740 – Vacuum controlled automotive transmission gear	1941
	7	Patent No. Re 16-823 – Machine for pressing conductors on cores of dynamo electric machines then bending them	1927
	8	Patent No. Re 16-889 – Machine for bending armature terminals	1927-1928
	9	Patent No. Re 17-353 – Method of building armatures	1927-1929
	10	Patent No. Re 17-455 – Methods of building armatures	1927-1929
	11	Patent No. Re 19-106 – Stator with insulation enclosed windings	1931, 1933, 1934
	12	Patent No. Re 21-244 – Accelerated controlled automotive transmission	1937-1939
	13	Patent No. Re 21-385 – Hydromechanical transmission for motor vehicles	1939-1940
	14	Issued Patent No. Re 21-385 – Hydromechanical transmission for motor vehicles	1940
	15	Patent No. Re 21-418 – Planetary automotive transmission gearing	1940
	16	Issued Patent No. Re 21-418 – Planetary automotive transmission gearing	1940

Subseries VIF Patents Filed

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
25	17	File # 473 – Apparatus for molding plastic insulations	1926-1930
	18	File # 633 – Mold for shaping and hardening electrical windings	1929-1932
	19	File # 671 – Dynamo electric machine elements	1928-1932
	20	File # 823 – Improved method of making molding compounds	1927-1931
	21	File # 847 – Electromagnetic structure	1930-1931

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
25	22	File # 849 – Rotator with protective coating	1930-1932
	23	File # 853 – Electric motor compressor and condenser system	1931
	24	File # 855 – Metal armored Dynamo electric machine element	1931-1932
	25	File # 857 – Motor compressor Unit	1930-1931
	26	File # 859 – Varnish and method of making same	1930-1931
	27	File # 861 – Method of insulating electrical connections	1931
	28	File # 863 – Processing fibrous materials and forming them into board or other molded articles	1930-1931
	29	File # 864 – Starting motor and device	1931
	30	File # 865 – Method of winding a Dynamo electric machine element	1931
	31	File # 875 – Veneering process and product	1931
	32	File # 876 – Nut cracker	1928, 1931
	33	File # 878 – Dynamo electric machine	1931
	34	File # 884 – Brush mechanism for Dynamo electric machine	1929, 1931
	35	File # 885 – Ball bearing mounting	1931
	36	File # 888 – Motor pump	1931
	37	File # 890 – Method of making a commutator	1931
	38	File # 895 – Mold for Dynamo electric machine element	1930, 1932
	39	File # 898 – Motor compressor sealed in nonmetallic compound	1928, 1930, 1932
	40	File # 902 – Method of insulating winding magnetic structures	1932
	41	File # 904 – Insulation encased Dynamo electric machine element with reinforced surface	1932
	42	File # 908 – Electric portable tool	1932
	43	File # unknown – Combined towel paper holder and ashtray	1940
		Oversized Materials	
OS		Location 64 File 1	
	1	Miami Commercial College Diploma	
	2	Automotive Transmission Blueprints (6 blueprints)	
	3	Fly Trap Blueprints (4 blueprints)	