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Robert B. Ariail Archive, 1815-2011
Collection: Mss. 2011:1

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Descriptive Summary

Title: Robert B. Ariail Archive, 1815-2011

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Scope and Contents Note

Robert B. Ariail was an insurance agent who was an avid amateur astronomer. This collection contains items related to his interest in astronomy.

As an astronomer, one of Ariail's primary endeavors was to purchase and restore antique telescopes. To this end he collected old telescope catalogs that would allow him to see how the telescopes first appeared. He also corresponded with many other amateur astronomers with whom he swapped photocopies of research material useful for learning restoration techniques and the histories of the objects he was restoring.

In his research, he came in contact with Deborah Jean Warner, a researcher with the Smithsonian, with whom he wrote a book on the Alvan Clark & Sons company. Ariail became renowned as an expert in Alvan Clark & Sons equipment. His knowledge of

the company and their equipment allowed him to solve the fifteen-year-old theft of an Alvan Clark & Sons eyepiece.

This collection includes Ariail's correspondence, research material, manuscripts, and catalogs used in the manners listed above.

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Container List

Series I: Biographical

Box 1

AAVSO Certificate, April 13, 1996

"Amateur Astronomers," October 1989

Antique Telescope Society, September 15, 1992 - October 24, 2004, no date

Antique Telescope Society members listing, no date

“Appraisal of Astronomical Instruments and Equipment,” no date

Astronomical League certificate, November 6, 1984

Certificate of Appreciation from American Association of Variable Star Observers,
1986

Davidson College sesquicentennial year donor certificate, 1987

“The Fitz Telescope,” no date

Henry Fitz telescope presentation program, April 27, 1984

Herschel Certificate of Provenance, no date

Ilford 8 x 10 photographic paper, no date

Kodak 8 x 10 photographic paper, no date

Kodak 5 x 7 photographic paper, no date

Lowe Observatory pamphlet, no date

News clippings, April 29, 1984 - June 29, 1984

Office of Public Information news release, June 22, 1983

Receipt for cancelled order, July 11, 1992

“Rough Inventory of the Robert B. Ariail Astronomical Post Card Collection,” no date

Royal Astronomical Society, April 1, 1999 - November 2005

SC State Museum documents and notes on loan of telescopes, September 26, 1996 -
October 11, 1996

SC State Museum meeting agenda and notes, January 14, 1997 - January 15, 1997

South Carolina State Museum Foundation 1996-97 Board of Directors, July 1, 1996

Speed Reading Program certificate, April 5, 1984

Stamps - First Day Covers, September 29, 1967 - August 25, 1981, no date

Stamps - Unused stamps of nebulae and galaxies, no date

State Museum special event news release, December 17, 1996

Statement of Contributions, September 30, 1992

Strom Thurmond Monument Commission certificate, no date

Tablet of Kreko carbon paper, no date

Takahashi certificates of inspection (three), no date

Yerkes Observatory pamphlets, no date

Zeiss Historica Society, January 1, 1994 - March 2000

Zeiss lifetime guarantee certificate, no date

1990 MAC membership list, December 18, 1990

Subseries A: Conventions and Meetings

AAVSO, May 13, 1977 - April 27, 2003

ALCON, July 27, 1988 - August 5, 2006

Antique Telescope Society, October 16, 1992 - September 17, 2001, no date

Antique Telescope Society exhibit pictures and notes, October 28, 1995

Apollo Rendezvous and Telescope Fair, June 11, 1993 - June 10, 1995

Astrocon, August 5, 1986 - 1996

Astronomical Society of the Pacific, June 13, 1983 - July 7, 1999

ATS Conference CD-R, 2007

ATS Conference DVD+R, 2007

Bland Family Reunion, June 14, 1997

Charlotte Amateur Astronomers Club, September 1991 - April 1992, no date

Chiefland Star Party, March 22, 1990 - February 21, 1999

First Anniversary Gala of the South Carolina State Museum, September 30, 1989

Induction ceremony program, September 28, 1999

Regional Meeting of Amateur Astronomers, January 29, 1994 - January 25, 1997

Scientific Instrument Society, March 20, 1985 - July 3, 1996, no date

Southern Star, April 22, 1988 - April 30, 2006

Stellafane, August 6, 1983 - August 6, 1994

Texas Star Party, May 26, 1982 - May 2, 1992

Tours planned around astronomical events, November 18, 1984 - 1999

U. S. Naval Observatory Colloquium, May 2, 1988 - March 10, 1995

Various conventions, July 7, 1980 - May 17, 2008, no date

Various meetings, December 3, 1983 - September 24, 2002, no date

Winter Star Party, February 3, 1997 - February 1, 1998, no date

Series II: Correspondence

Robert B. Ariail corresponded with fellow astronomy enthusiasts for many years. He kept copies of his own letters as well as the letters sent to him. This series has been put into folders based on the decade the letters were written, then organized in chronological order within the decade. There are some letters that were not dated and

did not contain context clues as to when the letter was written. These letters are included in the “undated” folder at the end of the series.

Box 2

Correspondence prior to the sixties, May 27, 1903 - November 30, 1956

Correspondence from the sixties, October 13, 1967 - December 31, 1969

Correspondence from the seventies, March 5, 1970 - December 29, 1979 (4 folders)

Correspondence from the eighties, January 2, 1980 - December 29, 1989 (1-5 of 12 folders)

Box 3

Correspondence from the eighties, January 2, 1980 - December 29, 1989 (6-12 of 12 folders)

Correspondence from the nineties, January 3, 1990 - December 31, 1999 (1-4 of 9 folders)

Box 4

Correspondence from the nineties, January 3, 1990 - December 31, 1999 (5-9 of 9 folders)

Correspondence from the aughts, January 7, 2000 - January 10, 2010 (3 folders)

Undated correspondence, no date (1-2 of 4 folders)

Box 5

Undated correspondence, no date (3-4 of 4 folders)

Series III: Photographs and Images

This series includes photographs taken by Robert Ariail and his fellow astronomy enthusiasts as well as images collected by Ariail. Ariail was an acknowledged expert in antique telescopes and he was often sent photographs of telescopes so that he could identify the origin of the telescope in question. Photographs that are not individually identifiable are sorted into the following categories: photos that feature Robert Ariail, photos of other people and places, photos of telescopes and telescope accessories, and photos of astronomical events. Other images, such as drawings and postcards, are also included in this series.

Astrographic unit made by Robert B. Ariail, April 1970

Astronomical negatives, no date

Color print of the Yerkes Telescope, no date

Comet photograph, no date

Copy of old photograph of astronomers with telescopes, no date

Copy of old photograph of building, no date

Copy of photograph of Dr. John A. Brashear, no date

Copy of photograph signed "ever your friend," no date

Drawing of telescope (black and white and color), no date

Drawings of Chesure eyepiece, no date

Drawings of Jupiter by John Pons, August 11, 1989 - August 13, 1989, no date

DVD of photos sent by Dan, May 13, 2008

Ed Wolf refurbished 3" Secretan #323 owned by Yeier, February 6, 2002

General negatives, no date

Henry Fitz negatives, no date

Henry Fitz photographs, no date

Image of Alvan Clark, no date

Image of Mars given by John Brashear to a friend, October 23, 1908

Images from Optical Design Service in Tucson, Arizona, no date

Information card for Warner & Swasey telescope, no date

Kodak photography guides, no date

Large negatives of an eclipse, July 11, 1991

Negatives, no date

One-handed astronomer with telescope, no date

Page from photo album, no date

Photograph of observatory at Berlin University in Babelsberg, Germany, no date

Photograph of Robert Ariail and Ron in front of space shuttle Ambassador, April 15, 1992

Photograph and pencil-rubbings sent by Ed Wolf, no date

Photograph sent by "Billy Ray," no date

Photographs of Alvan Clark telescope at National Museum of Science and Industry in London, September 27, 1993

Photographs of celestial objects, January 5, 1986 - March 30, 1997, no date

Photographs of Fitz and Byrne telescopes sent by O'Neill, no date

Photographs of people and places, no date

Photographs of Robert Ariail, no date

Photographs of sunspots, July 3, 1974 - July 4, 1974

Photographs of telescopes donated to South Carolina State Museum, October 2, 2007

Photographs of 3 5/8" Secretan 2306 owned by Ed Wolf, February 6, 2002

Photographs sent by Christopher Ray, March 8, 1999

Photographs sent by Christopher Ray, November 29, 1999

Photographs sent by Dr. Garry Tous, January 19, 2007

Photographs sent by Ed Wolf, November 30, 2001

Photographs sent by Gayle Riggsbee, March 21, 2005

Photographs sent by Jon Slaton, August 30, 2002

Photographs sent by Ken Launie, March 8, 1999, no date

Photographs sent by Kevin Kuhne, no date

Photographs sent by R. B. Trotter, July 17, 1985

Photographs sent by Steve Slayton, no date

Photographs sent by Sue G. from the SC State Museum, September 24, 2002

Photographs sent by Terry Atwood, June 9, 1997

Photographs sent from the Smithsonian, no date

Photographs taken at Daniels Observatory, no date

Photographs taken by Robert Ariail to sell items on eBay, November 19, 1996

Plate of the Cambridge U. S. Equatorial telescope, no date

Polaroids from Edinburgh, no date

Portrait of Ormsby McKnight Mitchel, no date

Portrait of René Descartes, no date

Prints of telescopes in French observatories, no date

A Selection of Photographs by Helen and High Covington, no date

Slides, February 11, 1998, no date

Box 6

Telescopes and parts, no date (4 folders)

Telescopes and parts: large prints, May 23, 1997, no date

Visit of Albert Einstein and party to Yerkes Observatory on May 6, 1921, no date

Subseries A: Postcards

Celestial objects, no date

General postcards, no date

Postcards of various observatories, no date

Yerkes Observatory, no date

Series IV: Manuscripts

“Alvan Clark - Lens Maker Extraordinaire” presentation typescript, no date

“Alvan Clark 7-Refractor” Typescript draft, no date

“Alvin Clark and Sons” typescript draft with edit notes, August 26, 1996

Article on Clark & Sons theft typescript draft, no date

“The Artistry of Restoration” typescript draft, no date

“Book Review for: *Victorian Telescope Makers*” typescript draft, no date

Book review of *A Creation of His Own: Tappan's Detroit Observatory* (photocopy)

with typescript draft, no date

“Carl Zeiss Binocular Telescope” typescript draft with image attached, no date

“Clark: Commentary, Contradictions, and Questions” typescript draft with supporting material, no date

“Collimation of the Telescope” typescript draft, April 1987

“Great Observations” typescript draft, January 18, 1992

“A Great Telescope Moves South” typescript draft, October 1997

Hand-written notes, no date

“The Loomis and Clark Connection” typescript draft, February 14, 2001

“Notes on Dudley Adams (1760 - 1826)” typescript draft, no date

“Observatory Use” typescript draft, December 16, 1996

“On the Location and Restoration of an 1849 Henry Fitz Telescope” typescript with hand-written note pages and information on donation of telescope, September 9 - 19, 1985, no date

“Paper on Clark Letters” typescript draft, no date

Recommendation for ATS meeting typescript draft, no date

Robert Ariail's translation of a French catalog of binoculars, no date

Robert Ariail's written statement typescript draft with supplemental material, May 27, 1999 - November 13, 1999, no date

“Sigma ‘My Telescope’ 26 June 1855” typescript draft, no date

Speech typescript draft, no date

“Stellafane 1983” typescript draft, no date

“Telescopes and Astronomy of Five Centuries” typescript draft, October 7, 1996

Typescript draft on restoration of Henry Fitz telescope (photocopy), no date

“The 9.4-Inch Refracting Telescope at Johns Hopkins University” typescript draft, no date

Subseries A: Alvan Clark & Sons - Artists in Optics

This is a book written by Deborah Jean Warner with assistance from Robert Ariail. This subseries includes editing copies, typescript drafts, and correspondence.

“Alvan Clark Revision Details,” no date

Correspondence, March 25, 1988 - August 1, 1996 (4 folders)

Box 7

“Descriptive Notes on Clark & Perkin-Elmer Ads,” no date

Edit draft with hand-written notes, no date

Edit draft with hand-written notes (photocopy and original), no date

Edit draft (“near final”) with hand-written notes, November 28, 1995

Galley pages of glossary and images (photocopy), no date

Index and images with hand-written notes (photocopy), no date

Information on locations of Alvan Clark & Sons telescopes, no date

Revision notes and suggestions, September 19, 1995

“Summary Sheet for Clark Firm Advertisements,” no date

Series V: Research Material

“B (Shelburne Wesley Burnham),” April 1921

“A. G. Ingalls, R. W. Porter and the Amateur Telescope Making Movement”

(photocopy), no date

Account of work performed to restore Yankton 7” telescope, no date

The Achromatic Telescope, and Its Various Mountings, Especially the Equatorial,

1980

“Achromatism and the Making of Refracting Telescopes,” no date

Adams Telescope Works, April 1, 1921 - October 1, 1923, no date

Adjustment and Care of Type C Telescope, no date

Advaita Vedanta and Modern Science, 1983

“Agnes Clerke’s Work as a Scientific Biographer” (photocopy), no date

“Agnes Mary Clerke” (photocopy), no date

“Alexis-Marie Rochon, Jean-Baptiste Grateloup, and the Earliest Cemented Lens”

(photocopy), no date

Altazimuth Telescopes for Astronomical and Terrestrial Observations (photocopy), no

date

“Alvan Clark: Commentary, Contradictions, and Questions” (photocopy), no date

“The Amateur Astronomer’s Field Guide to Deep Sky Observing,” November 27,

1957

“Amateur Telescope Makers” with note, 1926, no date

“An American Amateur Astronomer” (photocopy), no date

“The Ancient History of the New Plymouth 6 Inch Refractor” (photocopy), no date

“Another Amateur Astronomer’s Accomplishments,” no date

Ansconian number III, 1961

“On Aperture Corrections for Comet Magnitude Estimates,” no date

Articles by H. Dennis Taylor (photocopies), no date

Articles from *Philosophical Transactions* (photocopy), no date

“Asterisms: the Forgotten Star Patterns” by Nancy L. Thomas (photocopy), no date

“Asteroid Names,” May 1941

Astro Filters for Observation and Astrophotography, 1964

“The Astrolabe” by Nancy L. Thomas (photocopy), no date

Astronomical and Terrestrial Telescopes (photocopy), no date

Astronomical Instruments and Accessories (photocopy), no date

Astronomical Observatories in the United States Prior to 1848, no date

The Astronomical Significance of Stonehenge, 1972

“Astronomical Society of London” February 9, 1827 (photocopy), no date

“Astronomical Telescopes” (photocopy), no date

Astronomische Nachrichten (photocopy), no date

Astronomy, March 1995 - March 2005

Astronomy Book Club, April 2000 - October 2000

“Astronomy’s 1991 Activity Guide” (photocopy), no date

At the Sign of the Orrery, no date

Atlas Celeste Introduction (photocopy), no date

Baader Planetarium information (photocopies), no date

Bausch & Lomb Telescopes for Day and Night Use (photocopy), no date

The Beginner's Telescope, 1975

“Beobachter Berichten,” 1987

“Bericht über die in den Jahren 1929/1930,” 1929-1930

Better Invest in the Finest and You Will Buy British Instruments for Ever (photocopy),
no date

“Bibliography,” no date

Binoculars and How to Choose Them, January 30, 1957

Binoculars and How to Choose Them, no date

“Biographical Index to *Sky and Telescope*,” February 29, 1996

Biographical Memoir of Edwin Brant Frost 1866 - 1935, 1938

Biographical Memoir of George Cary Comstock 1855 - 1934, 1938

Biographical Memoir of George Ellery Hale 1868 - 1938, 1940

“Biological Collecting with the U. S. Naval Observatory Eclipse Expedition to the
Philippine Islands,” no date

“The Birth of Space Art,” no date

The Bologna Astronomical Museum (photocopy), no date

Burton Binocular Guide, no date

“The California-Wisconsin Axis in American Astronomy,” December 1976

“Camille and Gabrielle Flammarion” by Nancy L. Thomas (photocopy), no date

Box 8

Card catalog of Robert Ariail’s book collection (two metal boxes), no date

Box 9

Carl Zeiss binoculars instruction booklet, no date

Cassegrain Notes by Kenneth Novak (photocopy), no date

Catalogue of Astronomical and Surveying Instruments (photocopy), no date

Catalogue of Astronomical Instruments and Observatory Equipment (photocopy), no date

A Catalogue of Surviving Early Scientific Instruments of Yale College, no date

“Celestial Coordinates,” no date

“The Celestron Micro Guide Eyepiece,” no date

The Celestron Schmidt Camera, no date

Celestron Techniques Vol. 1, No. 2, October 1971

“Centralizing Navigational Technology in America: the U. S. Navy’s Depot of Charts and Instruments, 1830 - 1842,” 1992

“The challenges and frustrations of a veteran astronomical optician: Robert Lundin, 1880-1962,” 1998

“Charles Augustus Young,” December 1909

Charles H. Townes Center, South Carolina State Museum, no date

Charter and Bye-Laws of the Royal Astronomical Society, 1957

“Chicago’s Dearborn Observatory: a study in survival,” 2000

“Clark telescopes owned by Gary Walker as of Sept. 1998,” no date

Clave Paris components for astronomical instruments (photocopy), no date

Clock Drive and Controlling Mechanism for a New Large Telescope, no date

“The Coal Sack,” no date

Collector’s Choice: A Selection of Books and Manuscripts Given by Harrison D.

Horblit to the Harvard College Library, 1983

“Comments for Alvan Clark Objective Dedication San Diego State University, March 22, 1991” (photocopy), no date

“Comet” from *Newsweek* May 24, 1997 (photocopy), no date

“A Compendium of Small Brashear Telescopes and Instruments,” September 11, 1992

“Contributions from the Mount Wilson Observatory,” no date

“Contributions from the Mount Wilson Solar Observatory,” no date

Construction of a Maksutov Telescope, 1961

Course of Lectures on Astronomy, no date

“The Cover Design” (photocopy), no date

“A Creation of His Own: Tappan’s Detroit Observatory,” no date

Das Turmteleskop der Gottinger Sternwarte, 1951

“David Todd 1855-1939” (photocopy), no date

“Description of the Four Feet Telescope,” no date

Descriptive Catalogue of Telescopes by E. Engberts (photocopy), no date

Details of the Parsec by Epoch Instruments, no date

Die Sternbilder der Alten Aegypter, July 1931

The Dominion Astrophysical Observatory Victoria, B.C., 1951

“Double Star Observers Extraordinaire” (photocopy), Fall 2006

Driving and Controlling Mechanism of the 36-Inch Reflecting Telescope of the Royal Observatory, Edinburgh, no date

E-160 Instruction Manual, no date

Early American Scientific Instruments and Their Makers, 1964

“Early Observations of the Elliptical Disks of Jupiter’s Satellites,” no date

The Early Telescope Works of Warner and Swasey (photocopy), no date

The Edmund Sky Guide, 1977

“Edward Charles Pickering,” March 1919

An Exhibition of Works by Galileo Galilei, 1980

Extraterrestrial Life and Our World View at the Turn of the Millenium, May 2, 2000

“Field Glass Rarities from the Optical Museum of Jena” (photocopy), no date

Field Glasses, Binoculars, Telescopes, Opera Glasses (photocopy), no date

“Field-Piercers: Field Glasses in the Course of Time” (photocopy), no date

The First Big American Telescope Mirror, no date

“The First Important Star Atlas,” no date

First Saw Saturn (photocopy), no date

“FIU Arizona Observatory Library Books Wanted List,” no date

Forest Ray Moulton 1872-1952, 1970

Franklin & His Friends, 1999

“From Early Sadness to Happy Old Age” (photocopy), no date

“From Russia with Love,” April 1997

“From the Past: Reverend Thomas William Webb” (photocopy), no date

“From the Past: Richard Anthony Parker” (photocopy), no date

“Gemini Takes the Lead in High Angular Resolution Astronomy” (photocopy), no date

German articles (photocopy), no date

A Girdle Round about the Earth, 1974

“Good Seeing,” 1902

Graphical Ray Tracing, no date

The Great Solar Eclipse October 19-25, 1995, December 15, 1994

Guida - Catalogo della Mostra Didattica di Astronomia, 1986

The Handbook of the British Astronomical Association 1975, October 1974

The Handbook of the British Astronomical Association 1981, August 1980

Harvard College Observatory the First Century, 1946

Hensoldt Binoculars (photocopy), no date

Hensoldt Prism Binoculars (photocopy), no date

The Herschel Dynasty with dedicatory from author, no date

“The Herschellian Telescope” (photocopy), no date

“Historical Account” (photocopy), no date

The Historical Development of Celestial Co-Ordinate Systems, April 1942

A History of Bausch & Lomb by Jack Forrest (photocopy), no date

A History of Lunar Studies, 1960 - 1961

“History of Planetary Cartography” (photocopy), no date

“History of the British Optical Industry, 1720 - 1970” (photocopy), no date

“The Hydrogen Alpha Tool Box” (photocopy), no date

Box 10

Identification Charts for 42 Variable Stars Discovered at Harvard, October 1958

“The Idiotic Mars Hoax,” August 30, 2008

An Index to the Mathematical Practitioners of Hanoverian England 1714-1840, 1980

“Illuminating incidents in Antipodean astronomy: H. C. Russell and the origin of the Palomar-type mounting,” no date

“In the Footsteps of Galileo,” no date

Information on gardening, December 3, 1990, no date

Innovation, August 1996 - October 1997

“Isaac Newton: From Celestial Mechanics to Psychodynamics,” no date

Jahresbericht der Privat-Sternwarte von M. Beyer in Hamburg fur 1938, 1939

“James E. Keeler pioneer astrophysicist” (signed by author), June 13, 2000

James Short and His Telescopes (photocopy), no date

“James Short, F.R.S., and His Contribution to the Construction of Reflecting Telescopes” (photocopy), no date

Jesuit Science in the Age of Galileo, 1986

Journal for the History of Astronomy (photocopy), no date

Journal of the British Astronomical Association General Index (photocopy), no date

The Journal of the British Astronomical Association General Index (photocopy), no date

Kershaw Binoculars (photocopy), no date

Kodak Carousel instruction manual, no date

Kodak Ektachrome processing instructions, no date

L’Astronomie no. 11 (photocopy), no date

La Strumentazione nella Storia dell’Osservatorio Astronomico di Brera, 1989

“The Large German Binoculars of World War II” (photocopy), no date

“Last Minute Announcements,” no date

“A Lasting Impression,” June-July 1999

“Leviathan Reborn” (photocopy), no date

Lick Observatory University of California, 1942

List of books by topic, no date

List of Fellows, Junior Members, and Associates of the Royal Astronomical Society,
September 1, 1976

List of locations of Alvan Clark & Sons telescopes (photocopy), no date

List of the origins of names of celestial objects, December 1, 1982

Lists of astronomy books, no date

The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science

(photocopy), no date

“The Long and Short of It: Telescopes of the Seventeenth Century” (photocopy), no

date

L'Osservatorio Ximeniano di Firenze, 1993

“The Lost Legend of Carl Elias,” 1996

M. Hensoldt & Sohne Optische Werk A G, no date

Maria Mitchell's Famous Students and Comets Over Nantucket, 1983

“Maria Mitchell's Reminiscences of the Herschels” (photocopy), no date

Marine Binocular Telescope Maintenance Documentation, August 1994

Master list of astronomical works, Fall 1994 - February 11, 2004, no date

Material from NASA exhibit at Marshall Space Flight Center, no date

The Messier Catalogue, 1981

Method for Determining the Resolving Power of Photographic Lenses, June 1973

The Mirror of Mt. Palomar, 1953

Model ST-4 Star Tracker Imaging Camera Operating Manual, no date

The Moon with a Description of Its Surface Formations (photocopy), no date

“Much Ado about Nothing by an Old Flat” (photocopy), no date

“The Names of the Minor Planets,” no date

Nature Aims and Methods, 1973

“A New Method for Making Comet Magnitude Estimates” (photocopy), no date

New Perspectives on Newtonian Collimation: Principles and Procedures, April 2,
1998

Nikon Binoculars (photocopy), no date

“Nineteenth-century longitude determinations in the Great Lakes region,” 2000

Norman Lockyer Observatory pamphlet, 2007

Observation notebook (photocopy), no date (2 folders)

“Observatories and Instrument Makers in the Eighteenth Century,” 1960

“Octave Leon Petitdidier: Precision Optician” (photocopy), no date

“Of Orreries and Planetariums” by Nancy L. Thomas (photocopy), no date

“On Supposed Effects of Strain in Telescope Objectives,” December 7, 2002

“On the Color Correction of Achromatic Telescopes: *A Reply to Prof. Chas. S.*
Hastings,” February 10, 1923

On the Main Line - Amateur Contributions to Astronomy from Philadelphia,
Pennsylvania (photocopy), no date

“Origins of the USNO Flagstaff Station and the 61-Inch Telescope,” no date

Out of This World: the Golden Age of the Celestial Atlas (photocopy), no date

Box 11

Pages from *Secrets of the Universe*, no date

“Pages from the History of Optics” (photocopy), no date

Pamphlet from Environmental Science Center, no date

Pamphlets on Sproul Observatory at Swarthmore College (photocopies), no date

Part II: a Descriptive Catalog of All Known Clark Instruments (photocopy), no date

The Perkins Observatory of Ohio Wesleyan University and Ohio State University,
1939

Perspectives on Collimation Principles and Procedures, February 6, 1988

Photocopies of articles from *The Journal of the Optical Society of America*, no date

Photocopies of articles on John A. Brashear, no date

Photocopies of catalogs and ads from late 1800s / early 1900s, no date

Photocopy of article on eclipse, July 1991

“Photographic Determination of the Colors of Some of the Stars in the Cluster M 13
(Hercules),” September 1914

“Photographic Observations of Comet ζ 1908 (Morehouse),” December 1908

“Photographic Observations of Comet 1911 ζ (Brooks),” July 1912

“Photospheric Convective Network as a Determining Factor in Sunspot and Group
Development and Stabilization” reprint, no date

A Plea for Reflectors (photocopy), no date

Polaris Reference Circle, no date

Preis-Verzeichniss der Versilberten Glasspiegel fur Reflectoren (photocopy), no date

Preisliste Uber Instrumente fur Astronomie und Physik (photocopy), no date

“A Preliminary Account of the Solar Eclipse of May 28, 1900, as Observed by the Smithsonian Expedition,” no date

“Preliminary Note on Observations of the Total Solar Eclipse of 1901, May 18, Made at Pamplémousses, Mauritius,” no date

Presidential Address Kansas Academy of Science, 1944

Price List of Optical Parts (photocopy), no date

The Principles and Practice of Dipping, Burnishing, Lacquering and Bronzing Brass Ware by William Norman Brown (photocopy), no date

“Proceedings of the American Association for the Advancement of Science”
(photocopy), no date

Projects in Metal Vol. 5, No. 1, February 1992

The Pulkovo Observatory, 1958

Questar Instruction Book, 1987

Questar long-distance microscope manuals, no date

“Recent Experiments in the Construction of Telescope Objectives” (photocopy), no date

“Recent Progress in Astronomical Photography,” 1954

“Restoration of the Yankton 7” April 1991,” no date

Resultados del Observatorio Nacional Argentino vol. 25 (photocopy), no date

A Representation of the Sunspot Cycle, 1947

“Revision of Elements of Third Catalogue of Variable Stars,” and “Ephemerides of Long-Period Variables, 1903-1910,” no date

Rittenhouse vol. 6, no. 1 (photocopy), November 1991

Rittenhouse vol. 19, no. 2, 2006

“Robert Van Arsdale (1807 - 1873) Seeker of Comets” (photocopy), no date

Rochester History Vol. IX, No. 1, January 1947

“Role of the large refracting telescope in Australian amateur astronomy: an historical perspective,” no date

Ross Binoculars (photocopy), no date

Ross' New Model Stereo Prism Binoculars (photocopy), no date

“Royal Institution of Great Britain Weekly Evening Meeting” (photocopy), no date

“Samuel Pierpont Langley - His Early Academic Years at the Western University of Pennsylvania” (photocopy), 1978

Scan the Skies with this Powerful Telescope, no date

Scanning the Skies with Sky Publications, July 1985

Science Vol. 91, No. 2352, January 26, 1940

Science on the Great Plains, 1992

The Scientific American vol. 4, no. 14 (photocopy), no date

“Scientific astronomy in antiquity,” 1974

Scientific text chapters in German (photocopy), no date

Secretan Paris Astronomie (photocopy), no date

“Self-Made Cosmologist: the Education of Edwin Hubble,” no date

Selsi-E. Vion Astronomical Telescopes (photocopy), no date

“Seventeenth Century Italian Compound Microscopes” (photocopy), no date

“Shelburne Wesley Burnham, 1838-1921,” July 1921

“A Short History of Pulkovo Observatory” (photocopy), no date

“Sir John Herschel’s Description of His 20-Foot Reflector” (photocopy), no date

Sky & Telescope Vol. 108, No. 6, December 2004

Skylines Spring/Summer 1978 (photocopy), no date

“‘So much for fame!’: The Story of Lewis Swift,” May 7, 1996

“Solar Globe,” “A Cross-Hair Alignment Instrument,” and “Solar Photography with a Ninety-Cent Camera,” no date

Solar Telescope at Oxford University Observatory, May 31, 1939

“Some Thoughts on Solar Viewing with a Herschel Wedge,” no date

Sonne 87 (photocopy), October 1998

Sotheby’s valuations, April 1985 - January 1986

“Southern View of the Universe,” no date

Specifications for Cleaning Historic Optics (photocopy), no date

“The Starsplitter Compact,” 1996

“The Stereo Binocular Viewer (#94122),” no date

“The Story of the 1876 5-inch Clark Transit of Venus,” no date

The Story of the Hertzsprung-Russell Diagram, October 31, 1956

“Successful Astrophotos,” no date

“The Sundial” by Nancy L. Thomas (photocopy), no date

Takahashi Fluorite Apochromat Refractor FS Series Instruction Material, no date

Takahashi instruction manuals (photocopies), no date

The Telescope, July 1956

“‘Telescope’ by David Gill (Encyclopaedia Britannica),” no date

“A Telescope for ‘Star Gazing,’” no date

“Telescope Mountings for Amateur Builders,” no date

“Telescopes and Eyepieces,” no date

“Telescopes and Houses for Them” (photocopy), no date

Telescopes and Observatories, 1961

Telescopes and Observatories, 1972

The Telescopes of Bardou & Son (photocopy), no date

“Telescopes in Education” pamphlet, no date

El Telescopio Moderno (photocopy), no date

“Three Late-Seventeenth Century Italian Telescopes, Two Signed by Paolo Belletti of Bologna” (photocopy), no date

“Thunderstones and Shooting Stars,” 1987

“The Tube of Long Vision” (photocopy), no date

Twin Visual and Photographic Refractor for Stockholm Observatory, 1931

Box 12

“Über die Fehler Einer Astronomischen Objektive und Spiegel” (photocopy), no date

United States Naval Observatory, 1976

United States Naval Observatory pamphlet, no date

The University Libraries in the 21st Century: Building on Our Strengths, no date

Variable Star Notes from the American Association of Variable Star Observers, 1943

- 1952, no date

“The Variable Stars,” 1912

Various Indices (photocopies), no date

Various short articles (photocopies), no date

The Warner & Swasey Company 1880-1920 (photocopy), no date

Weiss Alpine Binoculars (photocopy), no date

William Herschel Astronomer and Musician, 1991

“William Stukeley and the Early History of the Orrery” (photocopy), no date

“William Stukeley: new facts and an old forgery,” 1986

Windows to New Worlds, South Carolina State Museum, no date

“The Work of Sir William Huggins,” April 1913

World Famous Mount Lowe California, circa 1913

“The Yerkes Observatory” by Edwin Brant Frost (photocopy), no date

“Your humble servant, John Flamsteed,” no date

“Zeiss Historica Society Publications,” no date

Zeiss Objectives, 1990

Zeiss Telescopes (photocopy), no date

7-Metre Solar-Spectrograph for Pulkovo Observatory, 1931

18-Inch Coelostat for Canberra Observatory, February 18, 1928

36-In. Reflecting Telescope for Edinburgh Observatory, 1929

36 In. Reflecting Telescope of the Royal Observatory, Greenwich, no date

40-Ft. Revolving Dome for Stockholm Observatory, 1931

100 Years M. Hendsoldt & Soehne Optical Works A. G. 1852-1952, 2002

The "1911" Zeiss Hinged Stereo Telescope (photocopy), no date

Subseries A: Alvan Clark & Sons

Alvan Clark & Sons material (photocopies), no date

Alvan Clark catalogue material (photocopies), no date

Alvan Clark material (photocopies), no date

"The Alvan Clark & Sons Refractor of the University of the South Sewanee,
Tennessee," no date

Biographical entries drafts with notes, no date

Clark genealogy (photocopies), no date

Clark legal documents (photocopies), no date

Compilation of research material sent to Deb Warner, no date

"The Contribution of the Clarks to Astronomy" (photocopy), no date

"Five Inch Equatorial Refractors made by Alvan Clark & Sons" (photocopy), no date

Hand-written notes on Alvan Clark & Sons, no date

Image of moon taken by Alvan Clark (copy), no date

Image of mounting, no date

Invitation to dedication of Clark Building, May 31, 1989

Letter from F. J. O'Reilly to R. D. Hutchins, September 11, 1982

Letter from Frances Merritt Cordell, Sr., July 31, 1990

Letter to H. E. Melzar from the Alvan Clark & Sons Corporation, February 16, 1920

Letters from Jan Suda, August 3, 1982 - December 27, 1982

Material sent by Don Yeier, August 18, 2000

Material sent by Ian R. Bartky, September 24, 2004

Material sent by Ken Launie, April 10, 2004

"New Double Stars Discovered by Mr. Alvan Clark, Boston, U. S., with Remarks,"

January 1858

"Phone Search for Alvan Clark Refracting Telescopes," November 1981

Price List of Astronomical Telescopes, no date

Telescopes and Mounts, no date

Three copies of "Part III: A List of Clark Instruments Arranged by Size and Date,"

November 6, 1995, no date

Subseries B: Harry B. Rumrill Material

Astronomical Memoranda, 1907

Observation report pages, January 1, 1908 - December 24, 1909

Scrapbook assembled by Rumrill, September 1889 - March 12, 1915

Uranography: a Guide to the Constellations, 1936

Series VI: Newsletters

The newsletters included in this series have been organized by the name of the newsletter and placed in the folders in chronological order.

AAVSO Alert Notice, November 6, 1974 - May 9, 1998 (2 folders)

AAVSO Annual Meeting notices, October 15, 1976 - October 15, 2005

Box 13

AAVSO Circular, November 1970 - December 1997 (3 folders)

AAVSO Newsletter, December 1987 - December 2006

Amateur Astronomy, Winter 1997

Amateur -und Präzisionoptik- Mechanik, no date

The American Association of Variable Star Observers Bulletin, January 25, 1978 -
1997

American Astronomical Society Newsletter (photocopy), 1999

Astronomical League, January 10, 1987 - July 1, 1991, no date

Astronomical Observatories of the Carolinas Bulletin, January 13, 1990 - March 5,
1990

The Atlanta Observer's Notebook, March 1973

The C-VII Journal, April 1987 - May 1988

Campus Chronicle, Winter 1990

Carolina Astronomical Consortium Bulletin, December 30, 1989

Carolina NGC, Fall/Winter 1989-90

Carolina Skygazers Gaze-a-teer, February 1995 - January 1998

Celestial Handbook Newsletter, Autumn 1967 - January 1972

The Charlotte Amateur Astronomers Club, January 16, 1997 - February 13, 2003

Comet News Service, October 24, 1975 - October 22, 1987, no date

The Dipper, February 1998 - December 2001

Fulcrum, May 1991

Griffith Observer, May 1978 - October 2005

Hastings Historian, Winter 1992

The ICHA Newsletter, June 2001 - June 2003

Images, Winter 1986

The International Comet Quarterly, October 13, 1980 - January 1992

International Union of the History and Philosophy of Science Newsletter, December 1986

Leland S. Barnes *Professional Bulletin* with letter to Mr. du Von, November 14, 1938,
no date

A Matter of Facts, September 18, 1992 - Spring 1995

Midlands Astronomy Club, July 31, 1989 - March 1998, no date

New Horizons, Spring 1994 - September 1998

Newsletter of Optics (photocopies), no date

North Hollywood Gym Newsletter, Summer 1996

Observations, Spring 1992

Observing the Past, Fall/Winter 2000 - Fall/Winter 2005

Occultation Newsletter, August 1987 - March 1989

Occultation total lunar eclipse supplement, August 1989

The Reflector, February 1976 - February 1996

Royal Astronomical Society, 199 - 2010, no date

Scientific Instrument Society searchable PDF catalogue 2 CD set, no date

The Sidereal Messenger (photocopy), no date

Skylights, November 1991

Skywatch, April/May 1987

South Carolina State Museum Images, Winter 2003 - Spring 2004

Southern Cross Coal Sack, December 1981

Space Fanatics News, 1992

The Spectrum, January 1989 - July 2000

Box 14

Star Dust, March 1988

The Starry Messenger, August 1991

Stellafane, August 1, 1992 - July 29, 1995

The Strolling Astronomer, March 1, 1947 - December 1, 1950 (3 folders)

The Strolling Astronomer, Summer 2003

Through the Telescope, May 1994 - February 1996

Tonight's Asteroids, December 1974 - Autumn 1991 (2 folders)

The Trumpet, Fall 1988 - Spring/Summer 2005

UFO Investigator, October/November 1978

U.S. Naval Observatory Newsgram, March 1988

Wait-a-Bit News, October 1981

The Young Astronomers Newsletter, April 1996 - June 1996

Zeiss Historica Society, October 1999

Series VII: Catalogs

A. S. Aloe Co., no date

Abbreviated Telescope & Accessory Price List, September 1, 1987

Adams Telescope Works, no date

Adams Telescope Works ad sheets, no date

Alvan Clark & Sons Alvan Clark Portable Telescope Type T, no date

Alvan Clark & Sons Price List of Astronomical Telescopes No. 5 - 20, no date

The Antiquarian Scientist Hand-List for Web Catalogue No. 37, no date

Antique Scientific Instruments, 1991, no date

Antique Scientific Investments, no date

Antiques of Science & Technology, 1994

Astro-Physics, no date

Astro-Tech, no date

Astronomical and Astrophysical Instruments by Wm. Gaertner & Company, no date

Astronomical Instruments Catalog no. 356, J. W. Fecker, Inc., no date

Astronomical Telescopes Manufactured by W. & D. Mogeey, no date

Astronomy Books, October 25, 1982 - July 25, 2009 (2 folders)

Astronomy Books for Sale, no date

Aus Jena Binoculars, March 1988

Aus Jena individual instrument pages, no date

Aus Jena School and Amateur Instruments, no date

Aus Jena School and Amateur Telescopes, no date

B. Crist Miniatures, no date

Baader Planetarium pages, no date

Baldor catalogs, no date

Bausch & Lomb Binoculars, July 1940

Bausch & Lomb Telescopes, no date

Binoculars from Jena, no date

Broadhurst, Clarkson & Co. Special Optical Bargain List, no date

Broadhurst, Clarkson & Co. Telescopes Astronomical, no date

C. P. Goerz ad sheet, no date

C. P. Goerz Trieder-Binoculars, circa 1900

Carl Zeiss, Jena Altazimuth Telescopes and Comet Finders, Astro 31, Reprint, no date

Carl Zeiss, Jena Amateur Astronomie, Astro 92, no date

Carl Zeiss, Jena Astro 28, no date

Carl Zeiss, Jena Astro 60, no date

Carl Zeiss, Jena Astronomical Instruments Astro 8, 1930

Carl Zeiss, Jena Astronomical Instruments Astro 31, no date

Carl Zeiss, Jena Astronomical Telescopes 3rd Edition, Astro 8, 1906

Carl Zeiss, Jena Observatory Domes, Rising Floors, Observation Ladders, Astro 35,
1920

Catalogue of Astronomical Telescopes and Guide to the Heavens, 1934

Catalogue of John Byrne's Telescopes, no date

Catalogue of Takahashi instruments (photocopy), no date

CD-ROM price lists, no date

Celestron listings, no date

"Come Up to Brandon!" flyer, no date

DayStar Filters, no date

Deutsche Optik catalogs, Summer 2004 - Fall 2005

Box 15

F. Davidson & Co. Manufacturing Opticians, no date

Fiberglass Observatory Dome, 1995

Geneva Optical Co., no date

Geo. Wace & Co. Price List No. 1, no date

Goerz Trieder-Binoculars, no date

Grubb Parsons Astronomical Instruments, no date

Harriet Wynter Ltd., no date

Horne & Thornthwaite Illustrated Catalogue of Astronomical Instruments, no date

Index, no date

J. W. Fecker, Inc. price list, no date

James Lancaster & Son, Opticians Catalogue, no date

Jeff Weber Rare Books, no date

Jeff Weber Rare Books No. 164, 2011

Jena Instruments for Schools and Amateur Astronomers, no date

John M. Pierce Price List, no date

John Scheidig & Co. Trieder Binoculars, no date

Librairie Scientifique Uranie, no date

The Lookout, Henderson Brothers, no date

Lumicon, March 8, 1990

M. Chalfin Astronomical Instruments and Supplies, no date

Marine Binoculars from Carl Zeiss, no date

Optical, Physical, Astrophysical and Astronomical Instruments, 1906

Optical Development Corp, no date

Optical Instruments of Recent Design, no date

Photocopies of Bausch & Lomb catalogs, no date

Pockescope ad slip, no date

The Precision Optical Co., no date

Precision Optical Supply Company, no date

Price List, no date

Pricelist II, July 1, 1994

Pro-Jex Telescope Ad Page, no date

Questar Instruments and Accessories Price List, July 1992

Questar Telescopes and Accessories, no date

Rare & Out-of-Print Books for Sale, no date

Rex's Astro Stuff, no date

Safari Telescopes, no date

The Scientific Shop Catalogue D: Optical Parts, 1907

Scope City, no date

Secondhand Bargain List of Astronomical & Lookout Telescopes, no date

Secretan Paris Astronomie, 1948, no date

Small ads from *American Legion Magazine*, 1926

Sotheby & Co. Catalogue of Valuable Printed BBooks, Autograph Letters, Historical Documents, etc., 1958

Special Catalogue of Opera Glasses, Field Glasses and Telescopes, Imported by A. S.

Aloe Co. (photocopy), no date

Stan Kiser book lists, November 1980 - Summer 1984, no date

Star-Liner Co., no date

T. Cooke & Sons Illustrated Catalogue of Astronomical Instruments, Etc., 1900 -
October 22, 1904

Takahashi catalogs, no date

Telescope Making Cumulative Contents and Guide to Back Issues, no date

University Optics, Inc., no date

Untitled price lists of books, no date

Various price lists, November 13, 1978 - October 10, 1998, no date

Various small brochures, no date

Variscope, no date

Versandbuchhandlung, no date

W. Ottway & Co. Catalogue of Astronomical Telescopes and Instruments, no date

W. Wray, Optician, no date

Warren Blake Books Astronomy Collectibles, no date

Warren Blake Books Astronomy Collectibles (photocopy), no date

Willmann-Bell, Inc. Astronomy Books, no date

Zeiss Abbe Eyepieces product information, July 1994

Zeiss APQ Refractors, no date

Zeiss Binoculars Pamphlet, no date

Zeiss Binoculars - World Renowned, no date

Zeiss Historica Publications, no date

Zeiss Microscopes (reprint of 1937 catalog), 1990

Zeiss Objectives, no date

Zeiss Professional Telescopes for Amateur Astronomers and Nature Lovers, no date

Zeiss Telescopes Astro 94 (cover only), no date

Zeiss Telescopes for Astronomy and Nature Observation Astro 95, October 1994

Zeiss 1931 Field Glasses Reprint, 1990

Zeiss/Ikon Catalog Numbers 1926-1972, 1991

130 mm Refraktor Von Carl Zeiss/ 3 m Sternwartenkuppel Von Carl Zeiss, no date

Series VIII: Star Charts

AAVSO star charts, May 1972 - July 1986

AAVSO table - from *IAU Astronomer's Handbook*, no date

National Geographic Map of the Heavens, 1970

Nineteen-twenties, 1929

Nineteen-thirties, 1930 - 1938

Nineteen-forties, 1940 - 1946

Nineteen-fifties, 1950 - 1952

Nineteen-sixties, 1965 - December 16, 1969

Nineteen-seventies, 1970 - April 11, 1979

Nineteen-eighties, 1980 - February 15, 1989

Nineteen-nineties, March 1991 - February 1999

Rand McNally Official Map of the Moon, no date

Sarna Deep Sky Atlas second edition, 1984

Undated star charts, no date

Variable star index, no date

Subseries A: Star Finders

The Handy Star Finder, 1944

Star and Satellite Path Finder, 1966

Series IX: Observation Reports

Box 16

AAVSO observations, November 1970 - April 4, 1991, no date (2 folders)

Asteroid Research Project, May 11, 1983 - April 1986, no date

Hardcover notebook for observations, no date

Observations profile for Robert B. Ariail pages 265 - 276, no date

Predictions for Robert B. Ariail, July 12, 1988 - December 31, 1988

Reports on observations of individual variable stars, October 2, 1983 - December 26, 1986, no date

Reports on observations of the Sun, the Moon, planets, and comets, February 14, 1965 - January 29, 1989 (2 folders)

Reports on observations of variable stars, February 20, 1965 - December 6, 1987 (5 folders)

U.S. Naval Observatory total occultation predictions for 1989, 1989

“USNO Occultation Predictions Format,” September 1974

Series X: Restricted

Box 16

Series XI: Oversize

The materials collected in this series have been organized following the same order as those stored in the regular-sized boxes of the collection.

Box 17

Subseries A: Correspondence

Lawson, S., the Warner & Swasey Co., to Conrad Kussner (with blueprints), March 18, 1971

Subseries B: Photographs and Images (2 oversize folders)

Oversize folder 1

Robert B. Ariail Collection of Historical Astronomy scrapbook, December 7, 2011

Scrapbook in white “Photographs” cover, no date

Box 18

Oversize folder 2

Abraham Rees Cyclopaedia of Arts & Sciences plates, circa 1815

Color portrait of Laplace, no date

Darby Erd drawing of Telescope (photocopy), no date

Harvard College Collection plates set 1 of 10, July 7, 1981

Photographs of John Pons' telescope (photocopies), 1976, no date

Portrait of Gulielmus Herschel, no date

Thank you notes and drawings from students, January 17, 1995

Subseries C: Research Material

Bausch & Lomb Stereo-Prism Binoculars (photocopy), no date

Information on building telescopes, no date

Information on Hale-Bopp comet, March 28, 1997 - April 4, 1997

Secrétan Instruments d'Astronomie (photocopy), no date

"Théodolites d'Observatoire" (photocopy), no date

"USNO-A2.0," 1998

Subseries D: Star Charts

Griffith Observatory Astrorama, 1977

The Handy Star Finder, no date