
Guide to the Papers of John A. Anderson, 1914-1951

Collection number: Consult repository

Archives

California Institute of Technology
Pasadena, California

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Descriptive Summary

Title: John A. Anderson papers,

Date (inclusive): 1914-1951

Collection number: Consult repository

Creator: Anderson, John Augustus, 1876-1959

Extent: 3.5 linear feet

Repository: California Institute of Technology. Archives.

Pasadena, California 91125

Abstract: These papers document the career of astronomer John A. Anderson. The bulk of the documentation is in the form of correspondence, calculations, drawings, and photos. They relate chiefly to Palomar Observatory and Anderson's work on the instrument and optical design of the telescope.

Language: English

Access

Collection is open for research.

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Preferred Citation

[Identification of item, box and file number], John A. Anderson Papers. Archives, California Institute of Technology.

Acquisition Information

Donated by Astronomy Department, California Institute of Technology.

Biography

John August Anderson was born on August 7, 1876, in Rollag, Minnesota, the sixth son of Norwegian immigrants. He earned a bachelor's degree from Valparaiso College in Indiana in 1900. After a brief period of teaching, he began graduate study at Johns Hopkins University and received his PhD in 1907. His thesis was a study of the emission and absorption spectra of the oxides of the metals neodymium and erbium.

Anderson was appointed professor of astronomy at Hopkins in 1908. At that time he was requested to take charge of the ruling engine constructed by Henry Rowland, the great American pioneer in spectroscopy. Anderson refined Rowland's machine to produce gratings of even finer resolving power. In 1912, Anderson was called upon by George Ellery Hale to assist in the construction of a new ruling engine for the Mount Wilson solar observatory in Pasadena, California. In 1916 Anderson relocated to California to become a permanent member of the Mount Wilson staff within the physical laboratory set up there by Hale. During his years with Mount Wilson, Anderson conducted major experimental work in solar observation and spectroscopy and became an expert in optics. With Harry O. Wood of the Carnegie Institution's Seismological Laboratory, he developed a new torsion seismometer for the measurement of local earthquake shocks.

In 1928, the California Institute of Technology received funds for the building of the 200-inch Palomar telescope, then the largest optical telescope in the world. Anderson was asked by Hale to serve as executive officer of the newly formed Observatory Council, whose charge was to oversee all aspects of the telescope project. Over the next twenty years, Anderson directed and participated in site selection, design and testing of the 200-inch mirror, the establishment and operation of an on-site optical shop, and the design and testing of the telescope structure and, especially, its instrumentation. Anderson remained head of the Observatory Council up to the time of the telescope's dedication, in June 1948.

Anderson had maintained a part-time connection with Mount Wilson, from which he retired in 1943. He was a member of several learned societies, including the American Astronomical Society and the American Physical Society. He was elected to the National Academy of Sciences in 1928. John Anderson died in Pasadena on December 2, 1959.

Scope and Content of Collection

The John A. Anderson Papers were transferred to the Caltech Archives by the Astronomy Department in 1974. They comprise the working papers of Anderson and, to some degree, of the Observatory Council. Included is correspondence, much of it connected with technical matters relating to the Palomar telescope. Major correspondents are: George Ellery Hale (1928-1936, director); Clyde McDowell (1935-1938, engineer); Russell Porter (1929-1932, designer and architect). Other types of material include drawings, blueprints, photos; calculations and technical data; reports; reprints; and documents relating to solar observation and spectroscopy.

Indexing Terms

The following terms have been used to index the description of this collection.

People

Hale, George Ellery, 1868-1938

Corporations

California Institute of Technology
International Education Board
Palomar Observatory--Administration
Rockefeller Foundation

Subjects

Astronomers--Correspondence
Astronomical instruments--Design
Astronomical observatories--Administration
Optical instruments--Design
Telescopes, reflecting--Design

Genres and Forms of Materials

Calculations
Drawings
Photographs

Related Collections

Astronomy Department Records
Astrophysics Archive
George Ellery Hale Papers
Bruce Rule Papers

Box 1, Folder 1 **Biographical information**

Correspondence

Box 1, Folder 2 **California Institute of Technology 1940-1948**
Box 1, Folder 3 **Committee on Bolometric Apparatus 1929-1939**
Box 1, Folder 4 **Fund for Astrophysical Research 1937-1946**
Hale, George E.
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Box 1, Folder 6 **1930-1933**
Box 1, Folder 7 **1934-1936**
Box 1, Folder 8 **Hill, Bryon 1937-1941**
Box 1, Folder 9 **McDowell, Clyde S. 1935-1938**
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Concerning Brown, W.
Curtis, H.L.
Dawson, V.E.
Diamond, D.
Dodge, H.
Elston, T.S.
Evenson, F.F.
Fletcher, C.
Frost, E.B.
Gibbs, R.C.
Gray, G.W.
Hall, J.S.
Harrison, G.R.
Hazard, R.E.
Heck, W.H.
Heaney, N.S.
Hoepfner, W.L.
Holmes, W.H.
Hubble, E.P.
King, H.C.

Box 1, Folder 13	Miscellaneous II Leibhardt, E. Macelwane, J.B. Main, V.E. McCabe, C.F. Morgan, T.H. Meinel, A. Melton, B.S. Morin, H.E. Myers, E.H. O'Laughlin, H. Puckett, A.E. Perry, J. Porter, R.W.
Box 1, Folder 14	Miscellaneous III Rieber, F. Robinson, H.M. Rusk, C.B. Ryerson, K. Schmid, A. Skilling, W.T. Tauchmann (?) G.T. Teale, E.W. Trent, F.P. Virden, R.J. Watson, R.S. Wilson, M. Slater, B.B. Suverkrop, L. Wormser, F.E. Wright, F.
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Box 1, Folder 21	Strong, John 1946-1947
Box 1, Folder 22	Thorkelson, H.J. 1929-1948
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Box 2, Folder 1	Warner and Swasey Company 1928-1936
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Box 2, Folder 3	1928-February 1932
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The Observatories

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Box 2, Folder 15	Catalogs
Box 2, Folder 16	Data for corrector plate for 200 inch mirror
Box 2, Folder 17	Date re: Telescope - miscellaneous
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Box 3, Folder 2	Dome of Palomar, miscellany 1931-50
Box 3, Folder 3	Drawings of an optical spherometer by R.W. Porter
Box 3, Folder 4	Equipment for completion - lists, memoirs, etc. 1947 Graphs - lenses, mirrors, etc.

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Box 3, Folder 6	II
	Lenses - Correspondence, Ross, Frank E.
Box 3, Folder 7	1928-1929
Box 3, Folder 8	1930-1937
	Lenses - Correcting, calculations of Ross
Box 3, Folder 9	I 1935-1949
Box 3, Folder 10	II 1935-1949
Box 3, Folder 11	Lenses - Correcting orders 1935-1941
Box 3, Folder 12	Lenses - Spencer Lens Co. weekly reports 1942-1944
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	Design
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	General Electric Correspondence
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Box 4, Folder 10	Pasadena to Palomar 1947
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	Address book
	Drafts for an exhibit
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	Palomar reprints list
	Drawings of a telescope by R. Edgar
Box 4, Folder 12	Monthly Reports re: Construction 1946-1948
Box 4, Folder 13	Mount Wilson "Seeing" Record 1918-1933
Box 4, Folder 14	Photographs I
Box 5, Folder 1	Photographs II
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Schmidt telescope

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Box 5, Folder 14 **Data I**
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Tube and mounting

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Box 7, Folder 4 **Correspondence with Westinghouse Electric and Mfg. Company 1936-1940**
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Box 7, Folder 6 **Memoranda 1936**
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Papers and reprints and reports

Box 7, Folder s 8-10 **Papers by J. Anderson; See folder for list (3 folders)**
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Box 7, Folder 12 **Reports II**
Box 7, Folder 13 **Reports III**
Box 7, Folder 14 **Reprints I**
Box 7, Folder 15 **Reprints II**
Box 7, Folder 16 **Reprints correspondence 1933-1938**