

William S. Buttles Papers, 1931-1940

Finding Aid

Adler Planetarium & Astronomy Museum

**Webster Institute for the History of Astronomy
Chicago, Illinois
2007**

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Descriptive Summary of the Collection

Title: William S. Buttles Papers

Creator: William S. Buttles and Lois I. Buttles

Dates: 1931-1940 (bulk of collection; also includes research files dating 1905-1955)

Extent: 4 linear feet (6 boxes including 1 oversize box and 1 folder in a large document drawer)

Languages: Materials are predominantly in English, one document in German

Repository: Webster Institute for the History of Astronomy, Adler Planetarium and Astronomy Museum, Chicago

Abstract: William S. Buttles, an amateur astronomer from Chicago, designed and developed the Polar Bowl telescope, lens, and portable observatory. This collection covers these endeavors as well as his involvement in the local astronomy society, Astrolab, and other related interests.

Administrative Information

Cite as: William S. Buttles Papers, Adler Planetarium and Astronomy Museum, Chicago

Provenance: Paul and Ellen Fudacz, purchasers of the Buttles' house. Materials were found in the house and received in this repository in December 1991.

Processed by: Margie Kollbocker, 2006.

Access: Obtained by completing a Research Request Form. Contact the Webster Institute for the History of Astronomy as (312) 322-0594 or astrohistory@adlerplanetarium.org.

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Historical Background

William S. Buttles was an amateur astronomer who was active in a local Chicago astronomy society, Astrolab, in the 1930s. He also participated in Amateur Telescope Makers of Chicago (A.T.M.O.C.), as evidenced by an article in the March issue of Popular Astronomy from 1932 (Vol. XL, No. 3, page 437). Buttles designed and developed a portable telescope called the Polar Bowl, which incorporated a uniquely designed lens and mounting. Utilizing several prototypes of these telescopes William Buttles organized a “Portable Observatory” to demonstrate the science of astronomy to various schools, community groups and interested organizations.

William S. Buttles was born on March 7, 1898. He died September 2, 1940 at the age of 42. He worked as a metallurgist in the steel industry. His wife Lois, a home economics teacher, actively participated in Astrolab and served as editor of the group’s newsletter. She also periodically submitted announcements to Popular Astronomy for the ‘Notes from Amateurs’ section, (e.g. Vol. XLI, 1933, page 219). Following William Buttles’ death, Lois applied for a patent for the ‘mounting’ he designed for his telescopes. The patent was granted on October 17, 1944 and was given number 2,360,757. Their home address of 10728 S. Artesian Ave, Chicago also served as the contact address for Astrolab.

Scope and Content of the Collection

The papers in this collection cover the activities and interests of amateur astronomer William Buttles and Astrolab, an astronomical society in Chicago during the 1930s. This collection consists of blueprints, newsletters, articles, pamphlets, photographs, correspondence, and scrapbooks.

The William S. Buttles Papers fill 6 boxes. The bulk of the collection spans the years 1931-1940. Research files and other documentation range from 1905-1955. Each series is organized chronologically (earliest to most recent), followed by the undated materials (designated "n.d."), and then any oversized items. The materials are organized in the following groupings:

- Series 1 Astrolab, 1931-1940
- Series 2 Polar Bowl Telescopes, 1930s
- Series 3 Scrapbooks, 1935-1940
- Series 4 Research Files, 1905-1955
- Series 5 Defense, 1939-1940
- Series 6 Metallurgy Service Steel, n.d.
- Series 7 Photos, negatives, transparencies, n.d.

Container List

Series 1: Astrolab, 1931-1940

This series contains information pertaining to Astrolab. Astrolab was an amateur astronomers' society in Chicago. William Buttles served as director of this group for an unspecified period of time during the 1930s. The newsletters of Astrolab from 1931-1938 are included. Lois Buttles, William Buttles' wife, edited these publications.

| <u>Box</u> | <u>Folder</u> |
|-------------------|---|
| 1 | 1 Administrative, n.d. |
| | 2 Astroscope Newsletter, 1931 |
| | 3 Astroscope Newsletter, 1932 |
| | 4 Astroscope Newsletter, 1933 |
| | 5 Astroscope Newsletter- Leonid issue, 1933 |
| | 6 Astroscope Newsletter, 1934 |
| | 7 Astroscope Newsletter, 1938 |

Series 2: Polar Bowl Telescopes, 1931-1941

This series contains blueprints and descriptions of the Polar Bowl telescopes and the Portable Observatory. William Buttles designed and created these telescopes to be portable in order to bring astronomy to local schools and interested organizations. Included are the presentation materials used for these educational programs.

William S. Buttles Papers Finding Aid

| <u>Box</u> | <u>Folder</u> |
|-------------------|---|
| 1 | 8 Correspondence- optics, 1935-1936 |
| | 9 Correspondence, 1936-1937 |
| | 10 Portable Observatory, 1939 |
| | 11 Photography notes, 1939 |
| | 12 Observing party, 1939-1940 |
| | 13 Correspondence, 1940, 1941 |
| | 14 Presentation resources, 1941 |
| | 15 Polar Bowl Telescope, n.d. |
| | 16 Polar Bowl Telescope, n.d. |
| | 17 Polar Bowl Lens, n.d. |
| Oversized | 18 Correspondence, 1938-1940 |
| | 19 Polar Bowl Telescope and portable observatory, 1939 |
| | 20 Observing party, 1939 |
| | 21 Astronomy education notes, 1940 |
| | 22 Schematics- telescopes and portable observatory, n.d. |
| | 23 Presentation aids, n.d. |

Series 3 Scrapbooks, 1935-1940

Both William Buttles and his wife, Lois, enthusiastically collected and arranged materials related to his work in astronomy. They created multiple scrapbooks documenting the Polar Bowl telescopes and the Portable Observatory.

| <u>Box</u> | <u>Folder</u> |
|-------------------|--|
| 1 | 24 Astrolab scrapbook, 1935 |
| | 25 Polar Bowl, portable observatory scrapbook, 1938 |
| 2 | 26 Log of the Sun, n.d. |
| | 27 Scrapbook fragments, n.d. |
| Oversized | 28 Polar Bowl- observing party scrapbook, 1938 |
| | 29 Polar Bowl & portable observatory- observing party scrapbook, 1939 |

Series 4 Research Files, 1905-1940

This series includes articles, pamphlets, booklets, and newspaper clippings collected by William Buttles on various topics related to his interest in astronomy. Several items date after William Buttles' death but were found and received with his papers, so remain in the collection.

| <u>Box</u> | <u>Folder</u> |
|-------------------|---|
| 2 | 30 Untersuchungen zur geometrischen Optik II, 1905 |
| | 31 Guides for observing variable stars, 1918 |
| | 32 Popular Astronomy article reprint, 1925 |
| | 33 The Moon by Oliver Farrington, 1927 |
| | 34 Catalogues of Astronomical Photographs- U of Chicago, 1931,1937 |
| | 35 Meteors and Meteoric Iron in India by Mohr Khan, 1934 |

William S. Buttles Papers Finding Aid

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|------------------|----|--|
| | 36 | Nova Hercules, 1935 |
| | 37 | Lectures, annals from Northwestern University, 1935, 1940 |
| | 38 | Newspaper clippings- astronomy, 1935-1940 |
| | 39 | Bulletin of the State University of Iowa Science courses, 1937 |
| | 40 | State of Illinois Division of Forestry Newsletter, 1938 |
| | 41 | New Zealand Astronomical Society booklets, 1939-1945 |
| | 42 | The Telescope, 1940 |
| | 43 | The Chicago Astronomer, 1954-1955 |
| | 44 | Researches in Geometrical Optics, n.d. |
| Document | 45 | Star charts, n.d. |
| Drawer 1 | 46 | Star maps, n.d. |
| | 47 | Lab experiments- Pasadena Junior College, n.d. |
| | 48 | Correspondence re: blown asphalt, n.d. |
| | 49 | The Telescope of Newton and the Aplanatic Telescope, n.d. |
| | 50 | Correspondence re: Pogson's Rule, n.d. |
| Oversized | 51 | Article reprints- Astronomy, 1922, 1935 |
| | 52 | Fire Fighting Advantages of the 7-inch Telescope, n.d. |

Series 5: Defense, 1939-1940

This series includes newspaper clippings relevant to national defense and correspondence to and from William Buttles concerning defense training. Buttles advocated astronomy education and navigational training for members of the armed services.

| <u>Box</u> | <u>Folder</u> |
|-------------------|-----------------------------------|
| 2 | 53 Newspaper clippings, 1939-1940 |
| | 54 Correspondence, 1940 |
| Oversized | 55 Correspondence, 1940 |

Series 6: Metallurgical Service, n.d.

William Buttles worked in metallurgical services. This series includes his business cards, receipts, and a technical article written by William Buttles. See Series 7 for related photographs.

| <u>Box</u> | <u>Folder</u> |
|-------------------|---|
| 2 | 56 Metallurgical Service, n.d. |
| | 57 "Technical Improvements" by W. Buttles, n.d. |

Series 7: Photographs, n.d.

This series consists of photographs, transparencies and negatives. The photographed subjects include family and places, unidentified persons and places, astronomical phenomena, telescopes, and metallurgical materials. These are stored in 2 boxes: a 5x7 photo box and a half Hollinger box for the larger sized items. The majority of these items

William S. Buttles Papers Finding Aid

are not dated.

| <u>Box</u> | <u>Folder</u> |
|-------------------|---|
| 3 | 58 Polar Bowl telescope & lenses |
| | 59 William Buttles |
| | 60 Negatives & transparencies- People & telescope & moon |
| | 61 Negatives & transparencies- Telescope and astronomical images |
| | 62 Transparencies & print- astronomical phenomena |
| | 63 Negatives & transparencies- People & telescope & astronomy images |
| | 64 Astronomical images |
| 4 | 65 Chapel and Washington Conservatory, 1929 |
| | 66 Framed Transparency- observatory |
| | 67 Metallurgical images |
| | 68 Telescopes & lenses |
| | 69 William Buttles and others |
| 5 | 70 People- unidentified |
| | 71 Astronomical subjects |
| | 72 Places & subjects- most unidentified |
| | 73 Postcards |
| | 74 Miscellaneous |

***Addendum:**

There are several 3D items (specifically telescope parts) related to, but not processed into, this collection. Please ask the curator or archivist about these items.

There remains a box of materials that include nutritional notes, botany related notes, education-related notes, vacation slides, and newspaper clippings. These items appear to be linked to Mrs. Lois Buttles and her career as a home economics teacher and have not been processed into this collection.