

CHEMICAL HERITAGE FOUNDATION

ROY G. NEVILLE

The Bolton Society
Oral History Program

Transcript of Interviews
Conducted by

James J. Bohning

at

Pebble Beach, California

on

20 and 21 June 2005

(With Subsequent Corrections and Additions)



Roy G. Neville

ACKNOWLEDGMENT

This oral history is one in a series initiated by the Bolton Society, an Organization of Chemical Bibliophiles at the Chemical Heritage Foundation. The Bolton Society will, from time to time, record and publish the oral histories of collectors of works in chemistry and the molecular sciences including the various aspects of these disciplines: engineering, technology, history, biography, bibliography, philately, et cetera. The person or persons selected for such an oral history need not be a member of the society. The series documents the spirit and enthusiasm of the individual's collecting interests, rather than emphasize biographical details.



CHEMICAL HERITAGE FOUNDATION
Oral History Program
FINAL RELEASE FORM

This document contains my understanding and agreement with Chemical Heritage Foundation with respect to my participation in a recorded interview conducted by

James J. Bohning on 20 June 2005

I have read the transcript supplied by Chemical Heritage Foundation.

1. The audio recording, corrected transcript, photographs, and memorabilia (collectively called the "Work") will be maintained by Chemical Heritage Foundation and made available in accordance with general policies for research and other scholarly purposes.
2. I hereby grant, assign, and transfer to Chemical Heritage Foundation all right, title, and interest in the Work, including the literary rights and the copyright, except that I shall retain the right to copy, use, and publish the Work in part or in full until my death.
3. The manuscript may be read and the audio recording(s) heard by scholars approved by Chemical Heritage Foundation subject to the restrictions listed below. The scholar pledges not to quote from, cite, or reproduce by any means this material except with the written permission of Chemical Heritage Foundation.
4. I wish to place the conditions that I have checked below upon the use of this interview. I understand that Chemical Heritage Foundation will enforce my wishes until the time of my death, when any restrictions will be removed.

Please check one:

a. _____

No restrictions for access.

NOTE: Users citing this interview for purposes of publication are obliged under the terms of the Chemical Heritage Foundation Oral History Program to obtain permission from Chemical Heritage Foundation, Philadelphia, Pennsylvania.

b. _____

Semi-restricted access. (May view the Work. My permission required to quote, cite, or reproduce.)

c. _____

Restricted access. (My permission required to view the Work, quote, cite, or reproduce.)

This constitutes my entire and complete understanding.

(Signature) _____

Roy G. Neville

Roy G. Neville

(Date) _____

10/8/2006

Upon Roy G. Neville's death in 2007, this oral history was designated **Free Access**.

One may view, quote from, cite, or reproduce the oral history with the permission of CHF.

Please note: Users citing this interview for purposes of publication are obliged under the terms of the Chemical Heritage Foundation (CHF) Oral History Program to notify CHF of publication and credit CHF using the format below:

Roy G. Neville, interview by James J. Bohning at Pebble Beach, California, 20 and 21 June 2005 (Philadelphia: Chemical Heritage Foundation, Oral History Transcript # 0317).



Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
Philadelphia, Pennsylvania 19106



The Chemical Heritage Foundation (CHF) serves the community of the chemical and molecular sciences, and the wider public, by treasuring the past, educating the present, and inspiring the future. CHF maintains a world-class collection of materials that document the history and heritage of the chemical and molecular sciences, technologies, and industries; encourages research in CHF collections; and carries out a program of outreach and interpretation in order to advance an understanding of the role of the chemical and molecular sciences, technologies, and industries in shaping society.

ROY G. NEVILLE

1926 Born in Bournemouth, Dorset, England on 15 October
2007 Died in Pebble Beach, California on 26 November

Education

1951 B.Sc. honours, University of London
1952 M.Sc., University of Oregon
1954 Ph.D., physical organic chemistry, University of Oregon

Professional Experience

1955-1957 Monsanto Chemical Company
Senior Research Chemist

1957-1958 Boeing Airplane Company
Senior Chemical Engineer

1958-1961 Lockheed Missiles & Space Company
Research Scientist

1961-1963 Aerospace Corporation
Member, Technical Staff and Polymer Chemist

1963-1967 North American Aviation, Inc.
Principal Scientist

1967-1969 Boeing Science Research Labs
Head, Polymer Research Lab

1969-1973 Bechtel Corporation
Senior Scientist Specialist, Science Development Department

1973-2007 Engineering & Technical Consultants, Inc.
President and Consultant

Honors

1951	Fulbright scholarship
1951-1952	Fellow, U.S. Public Health Service
1953-1954	Fellow, Research Corporation
1963	Fellow, Royal Institute of Chemistry, London
1973	D.Sc. (hon.), Royal Institute of Chemistry, London
2004	Founding of the Roy G. Neville Historical Chemical Library at the Chemical Heritage Foundation
2004	Lifetime Achievement Award, Chemical Heritage Foundation
2004	Establishment of the Roy G. Neville Fellowship, Chemical Heritage Foundation
2006	Establishment of the Roy G. Neville Prize in Bibliography or Biography, Chemical Heritage Foundation

ABSTRACT

Roy G. Neville begins the interview by tracing his family history back to the year 700. He discusses his immediate family and his childhood in Bournemouth, England. Neville admits that he was not very impressed with his first chemistry lesson, but was intrigued by doing chemistry experiments in his makeshift home laboratory. He excelled academically and was accepted at Balliol College, University of Oxford. However, Neville was drafted into an industry of “national importance” and was unable to attend Balliol. After a brief stint at Signals Research and Development Establishment, Neville met Professor Neil Kensington Adam, who allowed him to attend the University College Southampton part-time. Neville continued to excel and was invited to do graduate research in the U.S. at the University of Oregon. While at Oregon, Neville received his master’s degree and Ph.D. and met his future wife, Jeanne.

Neville goes on to describe his employment at various companies and the problem of being a chemist in industry. To combat this problem, he established Engineering and Technical Consultants, Inc. Being an entrepreneur allowed Neville to spend more of his time and money on collecting rare books. He details the start and growth of his rare book collection and his near decision to sell the collection in 1965. He discusses his competitors, how he obtained many of his rare treasures, and the start of The Roy G. Neville Historical Chemical Library at the Chemical Heritage Foundation. Finally, Neville concludes the interviews with reflections of his childhood in Bournemouth during the start of World War II.

INTERVIEWER

James J. Bohning is professor of chemistry emeritus at Wilkes University, where he was a faculty member from 1959 to 1990. He served there as chemistry department chair from 1970 to 1986 and environmental science department chair from 1987 to 1990. Bohning was chair of the American Chemical Society’s Division of the History of Chemistry in 1986; he received the division’s Outstanding Paper Award in 1989 and has presented more than forty papers at national meetings of the society. Bohning was on the advisory committee of the society’s National Historic Chemical Landmarks Program from its inception in 1992 through 2001 and is currently a consultant to the committee. He developed the oral history program of the Chemical Heritage Foundation, and he was the foundation’s director of oral history from 1990 to 1995. From 1995 to 1998, Bohning was a science writer for the News Service group of the American Chemical Society. He is currently a visiting research scientist and CESAR Fellow at Lehigh University. In May 2005, he received the Joseph Priestley Service Award from the Susquehanna Valley Section of the American Chemical Society.

TABLE OF CONTENTS

- 1 Childhood and Education
Family history. Problematic birth. Pyloric stenosis. Experiences at Winton and Moordown School in Bournemouth. First chemistry lesson. Using his home chemistry lab to make a bomb. Academic prowess. Acceptance into Balliol College, University of Oxford and the start of World War II. An industry of national importance. Signals Research and Development Establishment. Professor Neil Kensington Adam. University College Southampton. Work at the British Gas Board. Kenneth Edward Hayes and Professor Robert B. Dean.
- 11 Graduate Research at the University of Oregon
Traveling to the United States. The language barrier. Eugene, Oregon and the Deans. Master's degree. Biochemistry and meeting the future Mrs. Neville. Courtship and marriage of Jeanne and Roy. George Gorin and coordination compounds. Ph.D. work.
- 23 Early Employment
American-Marietta Company. Peter Gordon Howe. Monsanto Chemical Company. Becoming a U.S. citizen. Entrepreneurial work with Joe Majnarich. Boeing Airplane Company. Lockheed Missiles & Space Company. Money issues. Aerospace Corporation. Tom Dudek. Sol Skolnik. Marion Thomas O'Shaughnessy. North American Aviation Inc. HC3. Bechtel Corporation.
- 35 Life as a Consultant
Work with Krebs Engineers. Founding of Engineering and Technical Consultants, Inc. Homestake Mining Company. Kerr Magee Corporation. Investing in Montana 8, Texas 9, and Texas 10.
- 42 Health Problems
Chest pains during a trip to Bournemouth. Baby aspirin and an operation. Angioplasty. Having a quintuple bypass. Diagnosed with Paget's disease and prostate cancer. An important call to Phillip J. Pirages Fine Books and Manuscripts from his hospital bed.
- 50 The Rare Book Collector
Start of collection. *Book Collecting as a Hobby in a Series of Letters to Everyman*. Elsevier Press. Robert Boyle. Jeanne's interest in and support of collecting. *The Sceptical Chymist*. Decision to sell collection in 1965. Dealing with rare book dealers. Franz Sondheimer. Macquer's *Dictionnaire de Chymie*. William A. Cole. Sondheimer's visit to Neville's

private library. Arnold Thackray. Sondheimer's suicide. Competition with other rare book collectors. Denis Duveen.

- 70 The Roy G. Neville Historical Chemical Library
 Cataloguing the collection. Growth rate of collection. Theft. Linda Hall Library. Selling the collection to the Chemical Heritage Foundation. Gordon E. Moore.
- 87 Conclusion
 Interest in engravings and art. Alchemical paintings. Daughters, Laura and Janet. Reflections of childhood experiences in Bournemouth during World War II.
- 98 Notes
- 105 Index

NOTES

1. R. G. Neville, "The Adsorption of Anesthetic Vapors on Monolayers" (M.Sc. thesis, University of Oregon, 1952).
2. O. Isler, W. Huber, A. Ronco, and M. Kofler, *Helv. Chim. Acta.* 30 (1947): 1911-1921.
3. R. G. Neville, "Complexes of Cobalt and Iron Involved in the Catalytic Oxidation of Cysteine" (Ph.D. thesis, University of Oregon, 1954).
4. a. R. G. Neville and G. Gorin, "Cysteine Complexes with the Cobalt (III) Ion. I. The Mononucleate Structure of Cobalt (III) Bis-cysteinate," *J. Amer. Chem. Soc.* 78 (1956): 4891-4893.
b. ———, "Cysteine Complexes with the Cobalt (III) Ion. II. Spectrophotometric Study of the Nature of Coordination in the Complexes of Cysteine with the Cobalt (III) Ion," *J. Amer. Chem. Soc.* 78 (1956): 4893-4896.
c. R. G. Neville, "Cysteine Complexes with the Cobalt (III) Ion. III. The Role of Gaseous Oxygen in the Formation of Cysteine Complexes of Cobalt (III) from Cobalt (II) Ion and Cysteine," *J. Amer. Chem. Soc.* 78 (1956): 5511-5512.
d. ———, "Cysteine Complexes with the Cobalt (III) Ion. IV. Structure and Interrelationship of the Bis- and Tris-cysteinate of Cobalt (II) and Cobalt (III)," *J. Amer. Chem. Soc.* 79 (1957): 518-519.
e. ———, "The Oxidation of Cysteine by Iron and Hydrogen Peroxide," *J. Amer. Chem. Soc.* 79 (1957): 2456-2457.
5. a. R. E. D. Clark and R. G. Neville, "Toluene-3,4-dithiol and its Derivatives as Analytical Reagents," *J. Chem. Education* 36 (1959): 390-393.
b. ———, "Zinc Complexes of toluene-3,4-dithiol as a Reagent for Ketose Sugars," *J. Organic Chem.* 24 (1959): 110-111.
6. For a complete list of Roy G. Neville's journal publications, patents, and company reports, see Chemical Heritage Foundation oral history research file # 0317.
7. R. B. Dean, K. E. Hayes, and R. G. Neville, "The Sorption of Vapors on Monolayers. VII. The Effect of Anesthetic Vapors on Some Monolayers of Biological Interest," *J. Colloid Sci.* 8 (1953): 377-384.
8. a. R. G. Neville, "Tetracarbamyl Derivatives of 1,2-Bis(2-aminoethyl)ethylenediamine," *J. Organic Chem.* 23 (1958): 296-297.

- b. ———, “Reaction of Isocyanates with Tris(hydroxymethyl)aminomethane,” *J. Organic Chem.* 23 (1958): 750-751.
- c. ———, “Reaction of Alkyl and Aryl Silicon Isocyanates with Amines,” *J. Organic Chem.* 23 (1958): 937-938.
- d. ———, “Formation of 1,3-Dimethyl-5,5-diphenylhydantoin and Related Reactions,” *J. Organic Chem.* 23 (1958): 1588-1589.
9. ———, “Production of N-substituted-N’-(hydroxyalkyl)methylureas and Thioureas,” U.S. Patent # 3,135,790. Issued 2 June 1964.
10. a. ———, “Synthesis of 4-Acetylphenylmethylsilanes using 2-(4-Bromophenyl)-2-methyl-1,3-dioxalane,” *J. Organic Chem.* 24 (1959): 111-112.
- b. ———, “Beckmann Rearrangement of 4-Trimethylsilylacetophenone Oxime,” *J. Organic Chem.* 24 (1959): 870-871.
- c. A. E. Senear, J. Wirth, and R. G. Neville, “Synthesis of Monomeric Silanes,” *J. Organic Chem.* 25 (1960): 807-809.
- d. R. G. Neville, “Synthesis of 4-(2,3-Epoxypropoxy)phenyltrimethylsilanes,” *J. Organic Chem.* 25 (1960): 1063-1064.
- e. ———, “4-Hydroxyphenyltriphenylsilane and its Glycidyl Ether,” *J. Organic Chem.* 26 (1961): 3031-3032.
- f. ———, “Functionally-Substituted Aromatic Silanes,” *J. Chem. Education* 39 (1962): 276-281.
11. J. W. Mahoney, R. G. Neville, and K. R. MacDowall, “Improved High Temperature Epoxy Polymeric Protective Coatings,” Technical Report, U.S. Air Force Materials Laboratory, TR-66-301 (1966).
12. C. J. Hoffman and R. G. Neville, “Nitrogen Fluorides and Their Organic Derivatives,” *Chemical Reviews* 62 (1962): 1-18.
13. Herbert S. Eleuterio and Robert W. Meschke, “Fluorocarbon Epoxides,” U.S. Patent # 3,358,003. Issued 12 December 1967.
14. Roy G. Neville, “Stable Resistant Diepoxy Polyaryl Monomers and Polymers and Method for Making Same,” U.S. Patent # 3,506,612. Issued 14 April 1970.
15. a. ———, “Bis[1-alkyl(or aryl)vinyl]p-Phenylene Oxide Monomers,” U.S.

- Patent # 3,663,625. Issued 16 May 1972.
- b. ———, “Thermally Stable Polyindanyl Polymers Derived from Phenylene Oxides and Process for Making Same,” U.S. Patent # 3,725,346. Issued 3 April 1973.
16. a. ———, “Process for Removal of Oxides of Nitrogen and Sulfur Dioxide from Waste Gases,” South African Patent # 74/4312. Issued 4 July 1974.
b. ———, “Removal of Harmful Gases from Industrial Waste Gases,” German Patent # 2,431,894. Issued 30 January 1975.
 17. R. G. Neville, “Procédé de Traitement de Fumées pour en Éliminer les Polluants gazeux, notamment les Oxydes d’Azote et l’Anhydride sulfureux,” Belgian Patent # 817,335. Issued 5 July 1975.
 18. William Y-Worth, *The New and True Art of Brewing* (London, 1692).
 19. Percy H. Muir, *Book Collecting as a Hobby in a Series of Letters to Everyman* (London & Chesham: Gramol Publications LTD., 1944).
 20. Andrea Calmo, *Cherebizzi* (Venetia: I. Leoncini, 1572).
 21. Edmund Deane, *Spadacrene Anglica: or, the English Spa* (York: Broad, 1649).
 22. Laurence Sterne, *The Life and Opinions of Tristram Shandy, Gentlemen*, (London: Beckett and De Hondt, 9 vol., 1759-1767).
 23. Sébastien Matte La Faveur, *Practique de Chymie: divisée en quatre parties*, (Montpellier: Par de Pech, 1671).
 24. Samuel Johnson, *History of Rasselas, Prince of Abissinia* (London: Printed for R. and J. Dodsley: W. Johnston, 1759).
 25. *The Spectator* was a London periodical begun in 1711 by Joseph Addison and Richard Steele.
 26. Richard Baker, *A Chronicle of the Kings of England: From the Times of the Roman, unto the Death of King James* (London: George Sawbridge, 1679).
 27. Robert Boyle, *New Experiments Physico-Mechanical Touching the Air*, 3rd. ed. (London: Printed by Miles Flesher for Richard Davis in Oxford, 1682).
 28. Hermann Boerhaave, *A New Method of Chemistry* (London: J. Osborn and T. Longman, 1727).

29. Isaac Newton, *Opticks* (London: Printed for W. and J. Innys, 1718).
30. Robert Boyle, *The Sceptical Chymist* (London, Printed by J. Cadwell for J. Crooke, 1661).
31. Robert Boyle, *The Sceptical Chymist* (Oxford : Printed by Henry Hall for Ric. Davis and B. Took at the ship in St. Pauls Church.Yard, 1680).
32.
 - a. R. G. Neville, "Was Boyle the First to Use Spot-Test Analysis?," *Isis* 49 (1958): 438-439.
 - b. ———, "The Sceptical Chymist, 1661. A Tercentenary Tribute" *J. Chemical Education* 38 (1961): 106-109.
 - c. ———, "The Discovery of Boyle's Law, 1661-1662" *J. Chemical Education* 39 (1962): 356-359.
33. Robert Boyle, *Experiments and Considerations Touching Colours* (London: Printed for Henry Herringman, 1664).
34. Edward Tyson, *Orang-outang, sive homo sylvestris, or, The anatomy of a pygmie compared with that of a monkey, an ape, and a man* (London: Printed for Thomas Bennet and Daniel Brown, 1699).
35. Athanasius Kircher, *Mundus Subterraneus* (Amstelodami: J. Janssonium & E. Weyerstraten, 1665).
36. Thomas Young, *A Course of Lectures on Natural Philosophy and the Mechanical Arts* (London: Johnson, 1807).
37. Piemontese Alessio, *The Secrets of Alexis: Containing Many Excellent Remedies Against Divers Diseases, Wounds, and Other Accidents* (London: Printed by William Stansby for Richard Meighen and Thomas Iones, 1615).
38. R. G. Neville, "Macquer and the First Chemical Dictionary, 1766. A Bicentennial Tribute," *J. Chemical Education* 43 (1966): 486-490.
39. Pierre Joseph Macquer, *Dictionnaire de Chymie* (Paris: T. Barrois, 1778).
40. R. G. Neville and W. A. Smeaton, "Macquer's *Dictionnaire de Chymie*: A Bibliographical Study," *Annals of Science* 38 (1981): 613-662.
41. James J. Bohning, "Falling off the Cutting Edge: Suicides in Science and Technology," American Chemical Society, 195th National Meeting, Toronto, 1988; Abstract HIST 013.

42. a. William Gilbert, *De Magnete* (Sedini: Typis Gotzianis, 1633).
- b. Fabrizio Padovani, *Tractatus duo alter de ventis alter perbrevis de terraemotu, adiecto indice copiosissimo* (Bononiae: Apud Ioannem Baptistam Bellagambam, 1601).
43. Georg Agricola, *Bermannus, sive, De re metallica* (Basileae: Per Hieronymum Frobenium et Nic. Episcopium, MDXLVI).
44. Herbert Clark Hoover and Lou Henry Hoover, *Georgius Agricola De re metallica; tr. from the 1st Latin ed. of 1556, with biographical introduction, annotations and appendices upon the development of mining methods, metallurgical processes, geology, mineralogy & mining law, from the earliest times to the 16th century* (London: The Mining Magazine, 1912).
45. George Englehard von Löhneyss, *Bericht, vom Bergkwerck* (Zellerfeld: the author, 1617).
46. Lazarus Ercker, *Beschreibung allerfürnemisten mineralischen Ertzt unnd Bergkwercks Arten* (Frankfurt am Mayn: [Joannem Schmidt in Verlegung Sigmundt Feyerabends], 1580).
47. Christoph Andreas Schlüter, *Gründlicher Unterricht von Hütte-Werke* (Braunschweig: F.W. Meyer, 1738).
48. Konrad Gesner, *The New Jewell of Health* (London: by Henry Durham, 1576).
49. Thomas Thomson, *Outlines of Mineralogy, Geology, and Mineral Analysis* (London: Baldwin and Cradock, 1836).
50. F. W. Aston, *Isotopes*, 2nd. ed. (New York: Longmans, Green & Co, 1924).
51. Julius B. Cohen, *Practical Organic Chemistry* (London: Macmillian, 1908).
52. Aaron J. Ihde, *A Quarter Century of Dexter Awards, 1956-1981* (Washington, D.C.: Division of the History of Chemistry, ACS, 1981).
53. John Gerard, *The Herball* (London: printed by Adam Islip, Joice Norton and Richard Whitakers, 1633).
54. Denis Duveen and Herbert S. Klickstein, *A Bibliography of the Works of Antoine Laurent Lavoisier, 1743-1749* (London: Dawson & Weil, 1954).

55. Denis Duveen, *A Bibliography of the Works of Antoine Laurent Lavoisier, 1743-1794, Supplement* (London: Dawson, 1965).
56. W. M., *The Queens Closet Opened: Incomparable Secrets in Physick, Chyrurgery, Preserving, Candyng, and Cookery; As They Were Presented to the Queen* (London: Printed by J.W. for N. Brooke, 1668).
57. Geber, *Geberi philosophi ac alchymistae maximi de alchimia libri tres : eiusdem liber investigationis perfecti magisterij, artis alchymicae. Iis additus liber trium verborum. Epistola item Alexandri imperatoris, qui primus regnauit in Graecia, persarum quoque extitit imperator: super eadem re* (Argentoragi [sic] [Strasbourg]: Iohannis Grieninger, 1531).
58. Andreas Libavius, *D.O.M.A. Alchemia Andreae Libavii ... Operâ e dispersis passim optimorum auctorum, veterum & recentium exemplis potissimum ... : in integrum corpus redacta : accesserunt tractatus nonnulli physici chymici ...* (Francofurti: Excudebat Iohannes Saurius, impensis Petri Kopffij, 1597).
59. Andreas Libavius, *D.O.M.A. Commentationum metallicarum libri quatuor de natura metallorum, mercurio philosophorum, azotho, et lapide sue tinctura physicorum conficienda / e rerum natura experientia et auctorum praestantium fide studio & labore Andreae Libavii* (Francofurti ad Moenum: In officina typographica Iohannis Saurij, impensis Petri Kopffij, 1597).
60. Oswald Croll, *Basilica chymica : continens philosophicam propriâ laborum experientiâ confirmatum descriptionem et usum remediorum chymicorum selectissimorum é lumine gratiae et naturae desumptorum : in fine libri additus est ejusdem auctoris tractatus novus de signaturis rerum internis* (Francofurti: Apud Claudium Marnium et heredes Joannis Aubrii, 1609).
61. R. G. Neville, review of *Chemical Literature, 1700-1860: A Bibliography with Annotations, Detailed Descriptions, Comparisons, and Locations*, by William A. Cole, *Isis* 81 (1990): 156-157.
62. Peter Shaw, *The Philosophical Works of the Honourable Robert Boyle* (London: W. & J. Innys & J. Osborn & T. Longman, 1725).
63. Thomas Birch, *The Life of the Honourable Robert Boyle* (London: A. Millar, 1744).
64. John F. Fulton, *Bibliography of the Honourable Robert Boyle, Fellow of the Royal Society* (Oxford: Printed at the University Press by J. Johnson, 1932).
65. Christophe Glaser, *The Compleat Chymist* (London: Printed for John Starkey, 1677).

66. Robert Fludd, *Utriusque cosmi maioris scilicet et minoris metaphysica, physica atque technica historia* (Oppenheim: Aere J.T. de Bry, typ. H. Galleri, 1617-1618).
67. Joseph Black, "Lectures on chemistry" (lectures, Edinburgh, 1778). For a copy of these lectures, see Chemical Heritage Foundation Othmer Library of Chemical History's The Roy G. Neville Historical Chemical Library.
68. Joseph Black, "Lectures on chemistry" (lectures, 1827-1828). For a copy of these lectures, see Chemical Heritage Foundation Othmer Library of Chemical History's The Roy G. Neville Historical Chemical Library.
69. John Dalton, *A New System of Chemical Philosophy* (Manchester: Printed by S. Russell for R. Bickerstaff, London, 1808-27).
70. John Dalton to Dr. Bostock, 21 June 1808. For a copy of this letter, see Chemical Heritage Foundation Othmer Library of Chemical History's The Roy G. Neville Historical Chemical Library.
71. R. G. Neville, "Unrecorded Daltoniana: Two Letters to John Bostock, and a Prospectus to the 'New System,' 1808," *Ambix* 8 (1960): 42-45.
72. John Dalton, *A New System of Chemical Philosophy* (London: Printed by the executors of S. Russell for G. Wilson, 1827).
73.
 - a. Isaac Newton, *Principia Philosophiæ* (Londini: Apud Guil. & Joh. Innys, 1726).
 - b. Antoine Laurent Lavoisier, *Traité élémentaire de chimie: présenté dans un ordre nouveau et d'après les découvertes modernes* (Paris: Chez Cuchet, libraire, rue et hôtel Serpente, 1789).

INDEX

A

Acres of Books, 67
ACS. *See* American Chemical Society
Acurex Environment Corporation, 37
Adam, Neil Kensington, 8-11, 15, 21
Aerospace Corporation, 29, 34
Agricola, Georg, 63
 Bermannus, sive, De re Metallica, 63
Alchemia, 71
Alessio, Piemontese, 59
Ambix, 56, 78-79
American Chemical Society [ACS], 22, 31, 58, 67, 86
American Electric Power, 36
American-Marietta Company, 23, 25
Arapaho Chemical Company, 32
Aston, F. W., 67
 Isotopes, 67
Atson, Elsa, 68

B

Baker, Sir Richard, 51
 Chronicle of the Kings of England, A, 51
Balliol College, University of Oxford, 6, 9-10
Basilica Chymica, 72
Battle of Hastings, 1
Battle of the Boyne, 29
Bay Area Air Pollution Control District, 36
Bechtel Corporation, 34-35, 38, 64
Bechtel, Steve, 35
Beckman Instruments, Inc., 21
 DU, 21
Belagorski, --, 48
Bend, Oregon, 18-19
 Mackenzie Pass, 19
Bericht, vom Bergkwerck, 63
Berkeley, California, 39
Bermannus, sive, De re Metallica, 63
Bibliography of the Honourable Robert Boyle, 73
Birch, Thomas, 73
Black, Joseph, 77
Blackwell's Bookshop, 59
Boeing Airplane Company, 26-27
 Plant 1, 27

supersonic transport [SST], 27, 34
Boeing Science Research Labs, 34, 39
Boerhaave, Herman, 54
 New Method of Chemistry, 54
Book Collecting as a Hobby in a Series of Letters to Everyman, 50
Book Collector, The, 69
Bostock, John, 78
Bothell, Washington, 26
Boucher, François, 88
Boulder, Colorado, 32
Bournemouth Municipal College, 9
Bournemouth School for Boys, 3, 10
Bournemouth, Dorset, England, 1-3, 7-8, 20, 42-43, 50, 93
 bookshops, 50
 Central Station, 42
Boyle, Robert, 17, 53-57, 61, 64-65, 69, 73, 76
 Boyle's law, 56
 Experiments and Considerations Touching Colours, 56
 New Experiments Physico-Mechanical Touching the Spring of the Air, 53
 Sceptical Chymist, The, 55-57
 tercentennial, 53-54
British Communist Party, 6
British Gas Board, 8-10
Brownwood, Texas, 40
Buckingham Palace Library, 79
Burton, Art, 61

C

California at Berkeley, University of, 85
California at Los Angeles [UCLA], University of, 89
California at Santa Barbara, University of, 8
California at Santa Cruz, University of, 8
California State University, 89
Calmo, Andrea, 51
 Cherebizzi, 51
Cambridge, University of, 9, 80
Campbell, Ishbel Grace McNorton, 8
Casodex[®], 47
Chamberlain, Neville, 90-91
Chemical and Medical Research Laboratories, Inc., 26
Chemical Heritage Foundation [CHF], 53, 55-56, 58, 60-61, 63, 67, 70-73, 75-78, 82, 84-86
 Center for the History of Chemistry [CHOC], 86
 Lifetime Achievement Award, 70
 Roy G. Neville Historical Chemical Library, The, 70
Chen, Harold, 31

HC3 [Harold Chen 3], 31
Cherebizzi, 51
CHF. *See* Chemical Heritage Foundation
Chicago, Illinois, 12, 14, 76
CHOC. *See* Chemical Heritage Foundation
Christchurch, Dorset, England, 7
Christie's, 66
Chronicle of the Kings of England, A, 51
Churchill, Winston, 6
Cicero, 52
Clark, Robert E. D., 5-6, 23
 opinion of, 23
Cochran, Dave, 39
Cohen, Julius B., 67
 Practical Organic Chemistry, 67
Cole, Nora, 65
Cole, William A. "Bill", 61, 73
 bibliography, 73
 competition for Neville, 66, 71, 77
 rare book collector, 65
 visit to Neville's private library, 66
 wife [Nora Cole], 65
College Southampton, University, 7-11, 16, 21, 80
Commentationum Metallicarum, 71
Commin, Horace G., 50
Como, Italy, 22
Compleat Chymist, The, 77
Coordination compounds, 21
Cornell University, 22
Corver, --, 45
Coyle, Donald B., 29-30
Croll, Oswald, 72
 Basilica Chymica, 72
Cromwellian rebellion, 51
Crosby, Harvey, 28-29
Cysteine, 21-22
Cystine, 22

D

Da Vinci, Leonardo, 85
Dacron-Y graft, 47-48
DaFano, Etory, 28
Dallas, Texas, 40
Dalton, John, 78-79
 New System of Chemical Philosophy, 78

Dawsons of Pall Mall, 53, 58
Dayton, Ohio, 67
De Koninck, Philips, 87
De Magnete, 63
De Neuville, Richard, 1
De re Metallica. *See* *Bermannus, sive, De re Metallica*
Deadwood, South Dakota, 37
Dean, Robert B., 11, 15-16, 20, 24
Depression, The, 3
Descartes, 70
Dexter Award for Outstanding Achievement in the History of Chemistry, 68-69
Dexter Chemical Corporation, 70
Dickens, Charles, 53
Dictionnaire de Chymie, 60
Dinitrobenzene, 8
Diphenyldimethylsilane, 27
Djerassi, Carl, 55, 60
Dorset, England, 2, 93
 Durdle Door, 91
Dowey, Doris, 20
Downey, California, 31
Dudek, Tom, 29-30
DuPont, E. I. de Nemours and Company, 31
Duveen, Denis, 68-69
 opinion of, 68
 private library, 69
 rare book collector, 69
 wife [Patricia Duveen], 69
Duveen, Patricia, 69

E

Earl of Warwick. *See* Richard Neville
Edelstein Award for Outstanding Achievement in the History of Chemistry, 70
Edelstein, Sidney M., 68
 private library, 68
 rare book collector, 69
Edgar Fahs Smith Memorial Collection, 30, 86-87
 opinion of, 86
Eleuterio, Herbert S., 31
Elliott, Hugh K., 64
Ellis, Bernie, 27
Elsevier Press, 52
Engh, Bob, 19
Engineering and Technical Consultants, Inc., 37
Englewood Cliffs, New Jersey, 68

English Channel, 93
English Spa, The, 51
Environmental pollution control, 35
Environmental Protection Agency [EPA], 36
EPA. *See* Environmental Protection Agency
Ercker, Lazarus, 64
Eugene, Oregon, 15, 23
Experiments and Considerations Touching Colours, 56

F

FCC. *See* Federal Communications Commission
Federal Communications Commission [FCC], 41
Ferguson, John, 68
Fields, W.C., 89
Finch, Simon, 78
Fireman's Fund, 75
Fludd, Robert, 77
Utriusque Cosmi, 77
Fluoroepoxides, 31
Fort Worth, Texas, 40
Franklin, Benjamin, 76-77
Frewen, Thomas, 54
Fulton, John F., 73
Bibliography of the Honourable Robert Boyle, 73

G

Gaertner, Russell, 20
Gates, Bill, 85
Gaudiani, Vincent A., 45-46
Geber, 70
Gerard, John, 68
Herball, The, 68
Gesner, Konrad, 66
New Jewell of Health, The, 66
Gilbert, Bennett, 79-82
Gilbert, William, 63
De Magnete, 63
Glaser, Christophe, 77
Compleat Chymist, The, 77
Glaser, Edwin V., 63
Gorin, George, 20-24
 opinion of, 20
Gray, Peter, 92
Great Exhibition of 1851, the, 6
Great Northern Railway, 14

Gründlicher Unterricht von Hütte-Werken, 64
Gurney, Richard, 66-67, 78

H

HC3 [Harold Chen 3], 31
H.P. Kraus, 71-72
Half Moon Bay, California, 64
Halsey, Admiral William F. "Bull", 26
Hampshire, England, 2
Harper, Lathrop C., 58
Harvard University, 9, 57, 71
 Houghton Library, 57, 69
Hastings, Sussex, England, 54
Hausdorff, John A., 48
Hayes, Kenneth Edward, 11, 15, 20, 24
Heatly, --, 46
Hector, Fred, 3
Heller, F. Thomas, 56, 58, 69
Herball, The, 68
Hexanitroethane, 28
Hill, Jonathan, 8, 71, 84
Hitler, Adolf, 4, 90-91
Hoffman, Charles J., 28
Homestake Mining Company, 37, 39
Honeyman IV, Robert
 Honeyman Library, 63
Hoover, President Herbert C.
 rare book collector, 63
Horowitz, Fredrick, 25
Houston, Texas, 40
Hovey, --, 30
Howe, Peter Gordon, 24
Howell, Warren, 54, 63-64, 76
Howell's Bookshop, 54
Huber, W., 17
Hudson Brothers Grocery & Market, 2
Hudson River, 13
Hughes Aircraft Company, 29

I

IBM Corporation, 37
Ihde, Aaron, 68-69
Illinois at Urbana-Champaign, University of, 57
Imperial Chemical Industries, 47
Internal Revenue Service [IRS], 40, 42, 59, 81, 85

IRS. *See* Internal Revenue Service

Isis, 73

Isler, O., 17

Isotopes, 67

J

Jackson, Henry M. "Scoop", 26

JACS. See Journal of the American Chemical Society

John Crerar Library, 76

Johnson, Samuel, 51

Prince of Abyssinia, 51

Jones, Lee, 81, 83-84

opinion of, 83, 86

Journal of Chemical Education, 56, 61

Journal of Colloid Science, 24

Journal of the American Chemical Society [JACS], 23-24

K

Kaiser Wilhelm, 1

Kansas City, Missouri, 81

Kerr Magee Corporation, 38

Kindsvater, Howard M., 27

King Charles II, 52

King Edward IV, 1

King Edward VII, 1

King George VI, 6

King Richard III, Crouchback, 1

King William I, the Conqueror, 1

Kirchers, Athanasius, 58, 70

Mundus Subterraneus, 58

Klickstein, Herbert S., 69

rare book collector, 69

Klimek, Norm, 31

Kofler, M., 17

Krebs Engineers, 35-37

Kunz, Adolf, 20, 22

L

Langmuir isotherm, 15

Langmuir, Irving, 15

Last, Tony, 96

Lavoisier, Antoine Laurent de, 61, 69, 80

Traité Élémentaire de Chimie, 80

Lead, South Dakota, 37-38

Levinson, Harry, 57

Libavius, Andreas, 71
Linda Hall Library, 81-84
Ljubljana, Slovenia, 11
Lockheed Missiles & Space Company, 27, 33-34, 77
 Materials Sciences Department, 28
Logan, --, 30
London, England, 1, 6-7, 24, 42-43, 53, 55, 59-60, 64, 66
 Chiswick, 1
 U.S. Embassy, 19
London, University of, 5, 8-10, 60, 62
Long Beach, California, 67
Lord Kelvin, 67
Lord Lyle of Westbourne, 10
Los Angeles, California, 29, 31, 65, 70, 79, 89
Los Osos, California, 89

M

MacDonald, Ramsey, 90
MacDowell, Barbara, 43
MacDowell, Daniel, 43, 80
Macquer, Pierre Joseph, 60-61
 Dictionnaire de Chymie, 60
Maggs Rare Books, 55
Magnuson, Warren G., 26
Majnarich, Joe, 26
Mark, Herman, 29
Martayan Lan, Inc., 63, 71
Martayan Lan, Seyla, 71
Matte la Faveur, Sébastien, 51
 Pratique de Chymie, 51
McDowell and Stern, 55-56, 59
McKinney, --, 2
Memorex Corporation, 37
Methylureas, 25
Miami, Florida, 87
Miller, Lou, 23-25
Moignard, --, 9
Mond, Ludwig, 67
Monsanto Chemical Company, 25-26
Montana 8, 40
Moore, Betty I., 84
Moore, Gordon E., 83-85
 involvement in purchase of Neville's private library, 83-84
 visit to Neville's private library, 84
Morley, --, 90

Mudder, Terrence I., 38
Muir, Percy H., 50
 Book Collecting as a Hobby in a Series of Letters to Everyman, 50
Mundus Subterraneus, 58
Munich Agreement, 90
Mussolini, Benito, 22, 90

N

NASA. *See* National Aeronautics and Space Administration
National Aeronautics and Space Administration [NASA], 33
 Space Shuttle Challenger, 33
Neville, Anne, 1
Neville, Georgina L., 1-5, 12, 50, 67, 90, 93, 96
Neville, Janet M., 44, 89
 husband [Dennis], 89
Neville, Jeanne F., 16-17, 19, 23, 28, 35, 37, 40, 42-47
 daughter [Janet M. Neville], 44, 89
 daughter [Laura J. Neville], 53, 89
 husband [Roy G. Neville]
 courtship, 17-18
 first meeting, 16
 interest in books, 54
 interest in chemistry and biology, 18
 marriage, 18-20, 23, 26, 52, 54
 mother, 18-19, 48, 52
 son-in-law [Dennis], 89
 uncle [Sherrad], 19
Neville, Laura J., 53, 89
Neville, Percy H., 1, 3-8, 10-11, 13, 20, 23, 51, 53, 64, 89-91, 93-95
 career, 2
 mechanical ability, 4, 89-90
 police officer, 4, 93
 soldier, 90
Neville, Richard, 1
Neville, Roy G.
 art collection, 87-88
 aunt [Addie], 2, 7
 aunt [Madge], 1
 aunt [Minnie], 13
 birth of, 2
 chemistry, 3
 bomb making, 4-5
 early interest in, 4-6
 first lesson in, 3
 lab at home, 5

- childhood, 3
 - bomb making, 4-5
 - chemistry lab at home, 5
 - effect of the Depression on, 3
 - effect of World War II on, 7, 90-96
- consultant work, 34-36, 38, 67, 74
- cousin [Christine], 42
- cousin [Norman], 42
- daughter [Janet M. Neville], 44, 89
- daughter [Laura J. Neville], 53, 89
- education
 - early, 2-3
 - graduate school, 8-10, 15-16
 - Fulbright scholarship, 19-20, 22
 - Ph.D. research, 11, 15-16, 19, 22-24, 52-53, 59
 - high school, 4, 10-11, 23, 35, 39, 92
- family background, 1
- father [Percy H. Neville], 1, 3-8, 10-11, 13, 20, 23, 51, 53, 64, 89-91, 93-95
 - career, 2
 - mechanical ability, 4, 89-90
 - police officer, 4, 93
 - soldier, 90
- first trip to America, 11-15
- grandfather, 2, 94
- health problems, 42-49
 - aneurysm, 46-49
 - angioplasty, 45
 - cancer, 46-48
 - orciectomy, 47
 - Paget's disease, 46
 - pyloric stenosis, 2
 - quintuple bypass, 46
- Lifetime Achievement Award, 70
- private library, 53, 55-56, 58-61, 70
 - bibliography, 74
 - cataloging, 49, 67-68, 72-73, 77
 - collecting rare books, 58, 63-64, 67, 70-72, 74, 77-78
 - collection of engravings, 87
 - decision to sell collection, 79-81
 - in 1965, 57
 - to Chemical Heritage Foundation [CHF], 82-85
 - Gordon E. Moore's involvement in, 83-84
 - to Linda Hall Library, 81-84
 - to Stanford University, 79, 81
 - to University College Southampton, 80

- to University of Cambridge, 80
- focus of, 54
- growth rate of, 74
- management of, 72, 75
 - insurance, 75
- purchase of Franz Sondheimer's rare books, 59
- purchase of stolen property, 76
- reputation with book dealers, 64, 77
- selling books to university libraries, 57
- theft from, 75-76
- interests in
 - art, 4-6, 50, 52, 88
 - books, 50-52, 67
 - chemistry, 4-6
 - fossils, 10, 42
 - history of chemistry, 56
 - history of science, 17
- marriage, 18-20, 23, 26, 52, 54
 - parents' reaction to, 20
- maternal grandmother, 1
- maternal great-grandmother, 1
- mentor, 19
- mother [Georgina L. Neville], 1-5, 12, 50, 67, 90, 93, 96
- retirement, 59
- son-in-law [Dennis], 89
- U.S. citizenship, 23-24, 26-27
- visit to William A. "Bill" Cole's private library, 65
- visit to Sidney M. Edelstein's private library, 68
- wife [Jeanne F. Neville], 16-17, 19, 23, 28, 35, 37, 40, 42-47
 - courtship, 17-18
 - first meeting, 16
 - interest in books, 54
 - interest in chemistry and biology, 18
 - mother, 18-19, 48, 52
 - uncle [Sherrad], 19
- work with coordination compounds, 21
- work with epoxy resins, 25
- World War II, 90-91
 - air raids, 91, 94-95
 - bombings, 93, 95-97
 - draft into an "industry of national importance", 4, 6
 - work at Signals Research and Development Establishment, 7-8
 - work at the British Gas Board, 9
 - housing evacuees, 92

New Experiments Physico-Mechanical Touching the Spring of the Air, 53

New Jewell of Health, The, 66
New Method of Chemistry, 54
New System of Chemical Philosophy, 78
New York, New York, 12, 14, 56, 58, 63, 65, 68, 71, 75, 87
 Empire State Building, 13
 Grand Central Station, 12-13
Newman, Paul, 45
Newton, Isaac, 17, 54, 59, 70, 80
 Opticks, 54, 59
 Principia Philosophiæ, 80, 85
Norman, Haskell, 85
Norman, Jeremy, 66, 78, 85
North American Aviation, Inc., 34
 Space and Information System Division, 30
Northrop Corporation, 34
Nussbaum, --, 36

O

O'Shaughnessy, Marion Thomas, 29-30
 opinion of, 29
Offenbacher, Emil, 58, 70-72
Omaha, Nebraska, 14
Opticks, 54, 59
Orang-outang, 57
Oregon, University of, 11, 15, 52
Organosilicon polymers, 28
Overberger, Charles G., 29

P

Padovani, Fabrizio, 63
Paget's disease, 46
Palo Alto, California, 27-28, 35, 56, 77
Palos Verdes, California, 29, 31, 34, 38
Parmalee Cab Company, 14
Pasadena, California, 28, 87
Pasteur, Louis, 77
Pennsylvania, University of
 theft of rare Benjamin Franklin book, 76
Perfluoroolefins, 31
Pescadero, California, 64
Phenyltrimethylsilane, 27
Philadelphia, Pennsylvania, 86
Phillip J. Pirages Fine Books and Manuscripts, 49
Pilmer, Bob, 23
Pittsburgh, Pennsylvania, 14

Pitwines Gas Works, 8
Pokesdown, Dorset, England, 2
Poole, Dorset, England, 8
Portland Station, 14-15
Portsmouth, Captain --, 7
Poughkeepsie, New York, 14
Practical Organic Chemistry, 67
Pratique de Chymie, 51
Prince of Abyssinia, 51
Princeton University, 9, 20
Principia Philosophiæ, 80, 85
Pyloric stenosis, 2

Q

Queen Mary, 11
Queen Victoria, 1
Queen's Closet Opened, The, 70

R

Rare books, 17, 52
 market for, 85
Red phosphorus, 4
Redwood City, California, 60-61, 64, 79
Rembrandt, 88
Richter, Hal, 22
Rockefeller, Nelson, 88
Rockwell International Corporation, 34
Ronco, A., 17
Rousselle, 26
Roy G. Neville Historical Chemical Library, The, 70
Royal Society, The, 55, 60-62
Ruckelshaus, William D., 36

S

S.S. Washington, 11
Samuel I. and Cecile M. Barchas Collection of The History of Science and Ideas, 79
Samuels, Gary, 40-41
San Carlos, California, 38
San Francisco, California, 34-35, 37, 42, 63, 65-66, 70
Sangorski & Sutcliffe, 79
Santa Barbara, California, 29
Sceptical Chymist, The, 55-57
Schlüter, Christoph Andreas, 64
 Gründlicher Unterricht von Hütte-Werken, 64
Schultz, Bob, 30

Seattle, Washington, 23, 25-26, 28, 30, 34, 38-40, 53, 56
 SEC. *See* Securities and Exchange Commission
 Securities and Exchange Commission [SEC], 41
 Selmon, --, 44
 Senear, Allen E., 27
 Sequoia Hospital, 45
 Sewell, "Tubby", 3-4
 Shakespeare, William, 1
 Shaw, Peter, 73
 Shoor, --, 46-47
 Sierracin Corporation, 28
 Signals Research and Development Establishment [SRDE], 7-8
 Silicon isocyanates, 29
 Silicon Valley, 34-36
 Skolnik, Sol, 29-30
 Smeaton, W. A. "Bill", 60-62
 Socialist Britain, 11-12, 15, 90
 Somerford, Wiltshire, England, 7
 Sondheimer, Franz, 55, 59, 62
 competition for Neville, 66
 death of, 61, 64
 family problems, 62
 mental illness, 59, 61-62, 65
 private library, 60
 rare book collection, 55
 sale of collection, 58-59
 visit to Neville's private library, 60-62
 Soonpaa, Henn H., 15
 Sorgenti, Harold A., 70
 Sotheby's, 55, 66
 Southampton, Hampshire, England, 20
 Southeran, 53
 Space Technology Labs [STL], 29
Spectator, The, 51
 Spode, Josiah, 75
 Sputnik, 33
 SRDE. *See* Signals Research and Development Establishment
 SST. *See* Boeing Airplane Company
 St. Ivel, 2
 St. James's School, 2
 St. John Nepomucene, Sister --, 68
 Stacy, Graham, 92
 Stanford University, 45, 47, 55, 59, 76, 79, 81
 Sterne, Laurence, 51
 Tristram Shandy, 51

Stewart, A.T., 34
STL. *See* Space Technology Labs
Stuttgart, University of, 81
Sullivan, --, 36
Sun Microsystems, Inc., 37
Sutherland, --, 81
Swan, Elizabeth, 82
Swent, Langan W., 37

T

Taunton's School, 10-11
Technical Library Services, 58
Teniers, David, 87-88
Tetraphenylsilane, 27
Texas 9, 40-41
Texas 10, 41
Thackray, Arnold, 62, 70, 82-85
 visit to Neville's private library, 62, 75, 82, 84
Thioureas, 25
Thomas, Allen Graden, 29, 50-51
Thomson, Thomas, 67
Thorne, --, 8
Traité Élémentaire de Chimie, 80
Tristram Shandy, 51
Tyson, Edward, 57
 Orang-outang, 57

U

U.S. Air Force, 29, 32
U.S. Public Health Service, 21
UCLA. *See* California at Los Angeles, University of
Utriusque Cosmi, 77

V

van Dreist, --, 30
Van Rysselberghe, Pierre, 22
Vernon, --, 2
Vesalius, 85
Vetter, --, 44-45

W

Walford, George, 59
Wallersteiner, --, 6
Walsh, James, 80
War of the Roses, 1

Battle of Barnet, 1
Wellcome Historical Medical Library, 70
Wilkinson, Ellen, 6, 8
Williams, Robert M., 23-25
Wiltshire, England, 2
Wimborne Minster's Chained Library, 51
Wing Books, 60
Winton and Moordown School, 3
Wirth, Joseph, 27
World War I, 1, 90
World War II, 4, 6, 10-11, 23, 50, 90, 92-94
 Anderson shelter, 91
 Battle of Dunkirk, 91-92
 butterfly bombs, 92
 German invasion on south coast of Bournemouth, 93-94
 magnesium bombs, 92
 Morrison shelter, 91
 phosphorus bomb, 95
Wothers, Peter, 80
Wreden, William P., 77

Y

Yachats, Oregon, 19
Yale University, 9
York, North Yorkshire, England, 42-43, 51, 55, 81
Yorvick Hotel, 43
Young, Thomas, 59
Y-Worth, William, 49

Z

Zeitlin, Jake, 65-66
 opinion of, 66