

Newsletter of the



FRIENDS OF THE FARLOW

Number 26

Spring 1995

Carolyn S. Hesterberg, Editor

W. G. Farlow -- His Life and Times

This past December 17th marks the 150th anniversary of the birth of William Gilson Farlow. The seventy-five years (1844-1919) of Prof. Farlow's life witnessed an unprecedented explosion in scientific and technological discovery along with social and economic upheavals whose effects are still with us. As an acknowledgement of this anniversary, we thought it would be appropriate to compose a timeline, a setting of Farlow's outwardly uneventful life against various "snapshots" of his tumultuous world. They range from the momentous (the American Civil War) to the trivial (the invention of chewing gum), from the introduction of the box camera to the publication of *Origin of Species*.

While engaged in this exercise, we were provided with its justification by the then-president of the Linnean Society of London who, when reviewing the 1858-9 session at which the Darwin-Wallace papers were read, observed: "The year which has passed...has not, indeed, been marked by any of those striking discoveries which at once revolutionise, so to speak, the department of science on which they bear."

-1844-

WGF born in Boston, December 17th

- Dumas the Elder's *The Three Musketeers* published
- Sarah Bernhardt born in Paris

-1845-

- Potato famine in Ireland
- Richard Owen introduces term "histology"

-1847-

- Karl Marx and Friedrich Engels publish *Communist Manifesto*

-1848-

- Revolutions sweep Paris, Berlin, München

-1850's

- China opened up to Western trade

-1850-

- Wilhelm Hofmeister describes process of generation in the fern

-1852-

- *Uncle Tom's Cabin* by Harriet Beecher Stowe

-1854-

- U.S. Navy compels Japan to open its ports to trade

-1856-

- Henry Bessemer produces the first steel

-1858-
WGF is fourteen years old; family moves to Newton, Massachusetts
- First Atlantic Cable laid

-1859-
- Charles Darwin publishes *Origin of Species*
- Henry Shaw founds Missouri Botanical Garden

-1861-
- Civil War begins in U.S.
- Serfdom abolished in Russia
- Pasteur sets to rest controversy on spontaneous generation

-1862-
WGF is eighteen years old; enters Harvard College

-1865-
- American Civil War ends
- *Alice in Wonderland* by Lewis Carroll published

-1866-
WGF is twenty-two; graduates from Harvard with B.A.
- *From the Earth to the Moon* by Jules Verne published
- Dynamite is invented by Alfred Nobel
- Beatrix Potter, lichenologist, artist, and author of *Peter Rabbit*, is born
- Gregor Mendel publishes on plant heredity

-1867-
WGF is twenty-three; enters Harvard Medical School in November
- U.S. buys Alaska from Russia
- Barbed wire is patented in the United States
- First International Botanical Congress, Paris
- S. Schwendener publishes on the dual hypothesis [that lichens consist of a fungus living parasitically on an alga]

-1869-
- John W. Hyatt discovers celluloid, the forerunner of modern plastics

-1870's-
- Pasteur and Koch develop science of bacteriology

-1870-
WGF is twenty-six; graduates with M.D. in May; appointed assistant to Asa Gray
- Franco-Prussian War

- Standard Oil established by John D. Rockefeller

-1871-
WGF is twenty-seven; spends summer in Woods Hole [Cape Cod]; prepares to publish on algae
- German empire proclaimed; Wilhelm I, emperor
- Chewing gum is invented by Thomas Adams

-1872-
WGF is twenty-eight; goes to Strasbourg, Germany to work in laboratory under Anton De Bary
- Great Fire of Boston, 67 acres destroyed

-1874-
WGF is thirty; returns from Europe; begins teaching phytopathology at the Bussey Institute
- First use of cotton plugs to seal glass vessels

-1875-
WGF is thirty-one; collects algae in Florida with Asa Gray
- Bizet's *Carmen* first performed

-1876-
- The telephone is invented by Alexander Graham Bell
- The carpet sweeper is invented by Melville Bissell in Grand Rapids, Michigan

-1877-
- Phonograph invented
- Euphemia Allen, age sixteen, publishes the first written version of "Chopsticks" in Britain
- Discovery of "discontinuous sterilisation" of nutrient medium [Tyndallisation]

-1878-
- David Hughes invents the microphone

-1879-
WGF is thirty-five; becomes "Professor of Cryptogamic Botany; moves from Bussey Institute in Jamaica Plain to Cambridge
- Edison invents electric light bulb
- Ivory soap is introduced

-1880's-
- Causes of consumption and diphtheria discovered; some understanding of the function of vitamins.

-1880-
- Canned goods become available in stores
- *Ben Hur* by Lew Wallace is published

-1882-
WGF is thirty-eight; publishes "Marine Algae of the New England and Adjacent Coast"

- Koch isolates the tuberculosis bacillus

-1883-
- Daimler designs a motor-car

-1884-
- Lewis Waterman invents the first practical fountain pen

-1885-
WGF is forty-one; collects algae in California with Asa Gray
- The first commercially successful bicycle is introduced in the United States

-1886-
WGF is forty-two; publishes "The task of American botanists" and "Biological teaching in colleges"; purchases Tuckerman lichen collection

- John S. Pemberton creates Coca-Cola
- Josephine Cochrane invents the first mechanical dishwasher
- The Divinity School Library, the future home of the Farlow Herbarium, is built

-1887-
- Invention of the petri dish

-1888-
- Kodak introduces the box camera
- Irving Berlin is born

-1890-
- The first electric range is introduced
- Emil von Behring demonstrates immunity

-1891-
- Edison makes his film camera

-1892-
- Sir James Dewar invents the vacuum Thermos bottle
- D. Iwanowsky "discovers" viruses

-1895-
- Röntgen discovers X-rays

-1896-
WGF is fifty-two; begins teaching only graduate students
- Gold is discovered in the Klondike in the

Canadian Yukon
- The first Nobel prizes are awarded

-1897-
- Marconi transmits a wireless signal
- The electron is discovered

-1900-
WGF is fifty-six; marries Miss Lilian Horsford, daughter of Prof. Eben Horsford
- Suppression of Boxer Rebellion in China
- (ca.) term "biochemistry" begins to be used
- Karl Landsteiner demonstrates blood groups in humans
- Rediscovery of Mendel's Laws

-1905-
WGF is fifty-nine; publishes "Bibliographical index of North American fungi, vol. 1"
- Einstein publishes Theory of Relativity

-1911-
- Rutherford's model atom
- Amundsen reaches South Pole
- Last Manchurian emperor in China deposed and a republic proclaimed

-1912-
WGF is sixty-eight; publishes "Notes on the chestnut blight"
- Cosmic radiation discovered
- *Titanic* sinks with 1,513 lives lost

-1913-
WGF is sixty-nine; publishes "The change from the old botany to the new botany in the U.S."
- Panama Canal completed
- Bohr's atomic theory
- Stravinsky's *Rite of Spring* first performed

-1914
- World War I begins

-1917-
- Revolution in Russia

-1918-
- World-wide influenza epidemic [in which mycologist George Atkinson died]

-1919-
WGF, aged seventy-four, dies on June 3rd
- League of Nations founded

Lichens at the Arnold Arboretum

Sylvia and Stephen Sharnoff's photographic exhibit, "*Lichens: Fine Details of the Natural Landscape*", on display at the Arnold Arboretum since mid-February, has been greeted with much enthusiasm by staff and visitors alike. The intricate detail and variety of lichen morphology captured in the Sharnoff's work leads the viewer to a greater appreciation of these enigmatic organisms.

A display of local lichens set up by FoF members Prof. Donald H. Pfister and Dr. Samuel Hammer drew audiences of about fifty people with varying backgrounds and degrees of knowledge about lichens. Prof. Pfister's introductory lecture, "*Lichens: A Special Biological Interaction*," outlined the important aspects of the biology of lichens. By showing the audience fungal cultures grown from lichen spores, he illustrated the yet to be resolved mysteries of lichen biology and why they hold such fascination for those who study them.

Dr. Hammer's lecture, "*Lichens: British Soldiers and their Allies, A New England Challenge*," emphasized the ecology and development of the complicated genus *Cladonia*. Dr. Hammer mesmerized the audience with slides of scanning micrographs, making such topics as soil-binding properties of lichens and podetial anatomy more comprehensible. By sharing current work on the effects of off-road vehicles on lichens at the Myles Standish State Park, he reminded us all of the important role lichens play in plant communities.

On May 12th, four FoF members, Elizabeth Kneiper, Linda Berard, Elisabeth Lay and Philip May, will lead a lichen walk at the Case Estates in Weston.

The FoF extends a special thanks to Jon Hubbard, Richard Schulhoff,

Christopher Strand and Marcia Mitchell for bringing this exhibit to Boston this spring.

Thaxter Archival Project

In her annual letter to F.O.F. members in January, President Elizabeth Kneiper requested contributions to a project for the preservation of the Roland Thaxter letters. The response to that request has been genuinely overwhelming. Hoping for a minimum budget of \$500 to provide protective boxes for the bound volumes of letters, we find we are able to budget an additional \$500 for conservation work on what are currently boxes of Prof. Thaxter's loose manuscripts, drawings, and research notes.

We wish to thank the Friends of the Farlow and also members of the Thaxter family for their support of this project; a more detailed article on the contents of the Thaxter letters is planned for the fall newsletter.

A Word of Appreciation

Muss es sein? Es muss sein.
[Must it be? It must be.]

Ludwig van Beethoven
[Epigraph to String Quartet
in F major, Opus 135]

This issue of the *Newsletter of the Friends of the Farlow* sees a transition in its editorial staff. The press of academic obligations has compelled Robert K. Edgar, FoF charter member, Professor of Biology at the University of Massachusetts at Dartmouth, and editor of the FoF Newsletter since 1987, to relinquish his most able and appreciated editorship of the Newsletter. We would like to thank him for the generous devotion of his time to the organization, and we hope to see

many more articles by him on the history of science, on diatoms and algae-related topics [and perhaps more of those fiendishly clever crossword puzzles?].

FoF Fellow

In April, Francis A. (Mimi) Harrington, a Ph.D. candidate in Systematic Botany at Cornell, visited the Farlow as an FoF Fellow. She is undertaking a biosystematic revision of the scarlet-cup fungus family Sarcoscyphaceae and a monograph of the genus *Sarcoscypha*. In her application letter, Mimi described the Farlow as "hous[ing] many specimens found in the Sarcoscyphaceae, [including] types and isotypes, as well as the historically important material of Berkeley, Curtis, Fries, Thaxter, and Patouillard. The resources available at the Farlow are uniquely suitable for the proposed study." As many of our visiting scholars have found, however, more time was needed than was scheduled to take full advantage of the collections being studied, and Mimi has promised to return at a future date for further studies at the Farlow.

Officers Re-elected

An election held by the Advisory Board of the Friends of the Farlow swept in our current officers for another term in a re-election landslide victory: Elizabeth Kneiper, President; Philip May, Vice-President; Anna M. Reid, Secretary; Harvey I. Pofcher, Treasurer.

FoF Annual Meeting

The fourteenth annual meeting will take place on Saturday, November 4th in the Harvard University Herbaria. This

year's speaker will be Dr. David Hibbett, a post-doctoral fellow here in Dr. Michael Donoghue's laboratory. David's talk will be "The story of xiang-gu" [*Lentinula edodes* for those who would like to look up the common name of this popular mushroom]. He will draw on field and laboratory research in such exotic places as Tottori, Japan, China, New Guinea, and Harvard and will cover topics ranging from the history of its cultivation to some aspects of molecular systematics.

The business meeting will be held at 3:30 p.m. with David's talk scheduled for 4:00. Afterwards there will be the traditional reception in the Farlow library.

New Members

Mrs. Gordon T. Maxfield (Holliston, MA), Mr. Jonathan V. Hubbard (Lincoln, MA), Jack & Marie C. Gardner (Petoskey, MI), Mr. Gennaro J. Cacavio (Dorchester, MA), Mr. Raymond Abair (Middleboro, MA).

Farlow Visitors

October 1994 - March 1995

(Excluding members of the Harvard University community and the F.O.F.)

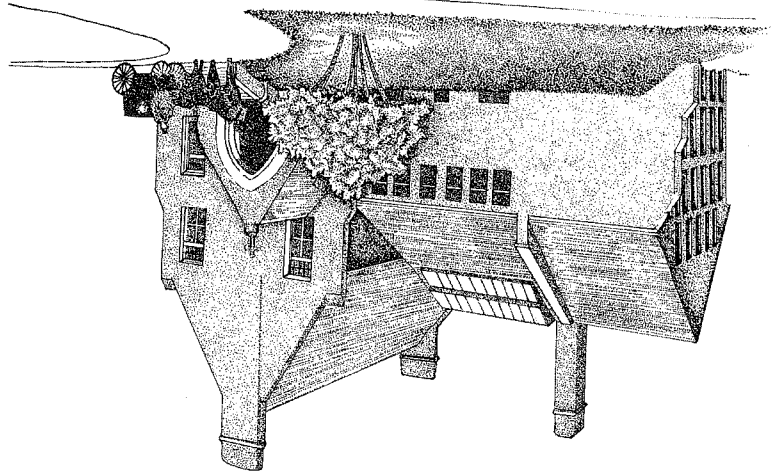
M. Müller (Germany), J. Fauls (Cambridge), P. & A. Redfearn (Springfield, MO), J. & M. Gardner (Petoskey, MI), C. Delgadillo (Mexico City), D. Strongman (Halifax, N.S., Canada), E. Hehr (Durham, NH), C. DeCapriles (Caracas, Venezuela), J. Seckbach (Efrat, Israel), V. Chapin (Cambridge), E. Hurst (Cambridge), P. & F. Spergel (Cambridge), P. Cook, Jr. (Lincoln), V. Walworth (Concord), G. Eaton (Cambridge), S. Ramakrishnan (Boston), A. Nocks (Marblehead), A. Cherwin (Wellesley), P. Busher (Boston), N. Cleavitt (Ithaca, NY).

FIRST CLASS

THE FARLOW REFERENCE LIBRARY AND HERBARIUM
OF CRYPTOGAMIC BOTANY, HARVARD UNIVERSITY
20 Divinity Avenue, Cambridge, Massachusetts 02138 U.S.A.

FRIENDS of the FARLOW

20 Divinity Avenue, home of the Farlow Library
and Herbarium, from an early photograph



Friends of the Farlow is an international group of amateur and professional botanists concerned with supporting the programs and resources of the Farlow Reference Library and Herbarium of Cryptogamic Botany of Harvard University. Membership categories are: Associate member, \$5-25; Full member, \$25; Sponsor, \$50-100; Benefactor, \$1000 or more. To join please make your check payable to the **Friends of the Farlow** and send to the address below. The membership year runs from January 1st to December 31st. Members receive a discount on Farlow publications and services, participate in book sales, annual meetings and other events, and receive a special welcome at the Farlow. This newsletter is published twice a year, in April and October. For more information, contact the Farlow Reference Library, 20 Divinity Avenue, Cambridge, MA 02138 USA (Tel. 617-495-2369; FAX 617-495-9484).