



Lincoln Lore

Number 1794

Bulletin of the Louis A. Warren Lincoln Library and Museum. Mark E. Neely, Jr., Editor.
Ruth E. Cook, Editorial Assistant. Published each month by the
Lincoln National Life Insurance Company, Fort Wayne, Indiana 46801.
Copyright © 1988 Louis A. Warren Lincoln Library and Museum

August, 1988

ROBERT V. BRUCE AND THE LAUNCHING OF MODERN AMERICAN SCIENCE 1846-1876 (continued)

George G. Meade was another Lincoln contemporary who was interested in science. Meade did "an outstanding job" as the leader of a topographical survey of the Great Lakes region before the war (similar to Bache's Coastal Survey). His friend, Joseph Henry, begged him not to give up a promising career in science to be "mere food for powder," but Meade ignored Henry's pleadings and went on to lead the Union forces at Gettysburg, never returning to science (p. 295).

Meade's experience illustrates the way the Civil War damaged American science by reducing the number of men who were able or willing to devote their lives to science. Obviously, many young men who might have become scientists did not survive the war, and others, like Meade, were distracted by the war and never returned to science.

Although the Civil War was the first war to use new technology like telegraphy and ironclad warships, this new technology had been developed *before* the war. Thus, American science did not benefit from government-sponsored research as it would later in World War II. Fortunately, most scientific libraries and collections were spared destruction by being located in the North, but collections and libraries in the South were not. In sum, Bruce concludes that no ingenious rationalization . . . could disguise the fact that wherever the war touched individual scientists it hurt them. One must look beyond individuals to the institutions of science to detect even an indirect benefit among the multiple wounds of war (p. 286).

In fact the institutions of science did benefit indirectly from the war. Without the opposition of Southern obstructionists, Congress passed the Morrill Land Grant Act, which formally recognized the importance of science in school curricula, especially in connection

with agriculture. Similarly, a Northern Senator, Henry Wilson, convinced his fellow Northerners to pass a bill creating the National Academy of Sciences (see *Lincoln Lore* 1792, Figure 1). The Academy was to be a prestigious organization which would be required to report on scientific questions put to them by any government department. The bill specified fifty lifetime members.

The issue of democracy versus elitism was immediately raised again because the Lazzaroni had appointed the lifetime members without giving the larger scientific community an opportunity to vote. Democracy triumphed over elitism in the first meeting, and from then on membership was by election. In the end, since the government refused to consult the Academy in any significant way, its main function became encouraging science by honoring people who achieved greatness in their fields.

The war helped, indirectly, in the birth of the National Academy of Sciences, but it greatly weakened the AAAS, which did not function at all during the war. Although the AAAS recovered after the war, it did not regain its centrality in American science, especially because similar more specialized organizations were springing up in each individual discipline, making a larger, more inclusive organization superfluous. In sum, Bruce argues that

The end of the Civil War . . . coincided with the dawn of a new era in the power structure of American science. . . . The Civil War had exalted the nation over the states in politics, but at its end the scientific community was moving from central authority toward a federalism of specialized fields. American scientific achievements in the century since, compared with those of more centralized science in other nations, suggest that the movement was



From the Louis A. Warren
Lincoln Library and Museum

FIGURE 1. George G. Meade, c. 1865. Before gaining prominence as the commander of the Army of the Potomac, Meade had led a scientific survey of the Great Lakes region.

not necessarily for the worse (p. 305).

Many colleges suffered during the war for lack of students, but after the war a "new education" developed which emphasized science; Ralph Waldo Emerson marked 1867 as the year of "cleavage" between the new and old forms of education. Until the 1870s there were very few American alternatives to advanced study in Europe. Yale had offered the first American Ph.D. degrees in 1861, but until 1871 it was the only school to offer a doctorate. By 1876 forty-four American doctorates had been awarded by 25 different schools, and in that year Johns Hopkins introduced a more modern Ph.D. program requiring two years of specialized work and another year of work on a thesis. Thus, Bruce marks 1876 as the beginning of a new era in American education, both because universities like Johns Hopkins offered European-style education and because they gave preference in hiring to people with research ability rather than teaching ability.

By 1876, Bruce describes American science as being like a "newborn foal, callow, ungainly, yet fully formed and swiftly gaining strength. It still had a long way to go. But it had some definite ideas of how to get there" (p. 353).

Even a survey as thorough and "solid" as this one cannot cover all aspects of a topic. In this case, Bruce has limited his study by discussing "science" to the exclusion of technology. The distinction between the two is not always obvious, and Bruce uses a metaphor from electricity to explain it.

Applied science and technology are connected not in series but in parallel. They run separate courses from theory to practice, coming closest to each other at the start and the

finish. In applied science, however, the basic theory is the child of curiosity, whereas that of technology stems from hope of material gain (p. 150).

Bruce also narrows his topic by excluding human-centered sciences like anthropology and sociology. Further, he does not include medicine because "medical science in this period cannot be easily separated from medical intuition and skill" (p. 6).

Bruce, noting that less than nine percent of the leading American scientists of this period had been born in the South, discusses mostly scientists from New England. Lester D. Stephens, from the University of Georgia history department, agrees that most American scientific activity was in New England, but suggests that Bruce has slighted the Midwest and South more than necessary (*Science*, v. 237, p. 1515). Another reviewer objects that Bruce's book does not give adequate attention to the discoveries and contributions made by the scientists he studies. "Can one truly understand the emergence of an American scientific community without some evaluation of the worth of the contributions to knowledge on some comparative scale?" asks Bernard Cohen, an emeritus professor of the History of Science at Harvard (*Nature*, vol. 329, p. 209). Bruce explains,

Measured against what Europeans were doing [in the nineteenth century], the output of American scientists was modest. The emphasis of this book will be on the process more than the product, on the internal sociology, economics, and politics of science and on its interaction with the larger society. In these lies the real significance of the period (p. 6).

In conclusion, *The Launching of Modern American Science 1846-1876* is everything one might expect from a Pulitzer Prize-winning book and from the author of the influential *Lincoln and the Tools of War*. Bruce's overview of the origins of modern American science demonstrates "solidity" in its comprehensive treatment of both statistical and documentary sources, and "imagination" in its organization and flowing, subtly humorous, writing style. Bruce's book is much more readable than most overviews, and his thumbnail sketches and statistics on leading scientists will make it equally valuable as a reference tool. In fact, Bruce's excellent book is likely to become a classic work on science in the United States.

UPTON SINCLAIR ON ABRAHAM LINCOLN

by Sarah McNair Vosmeir

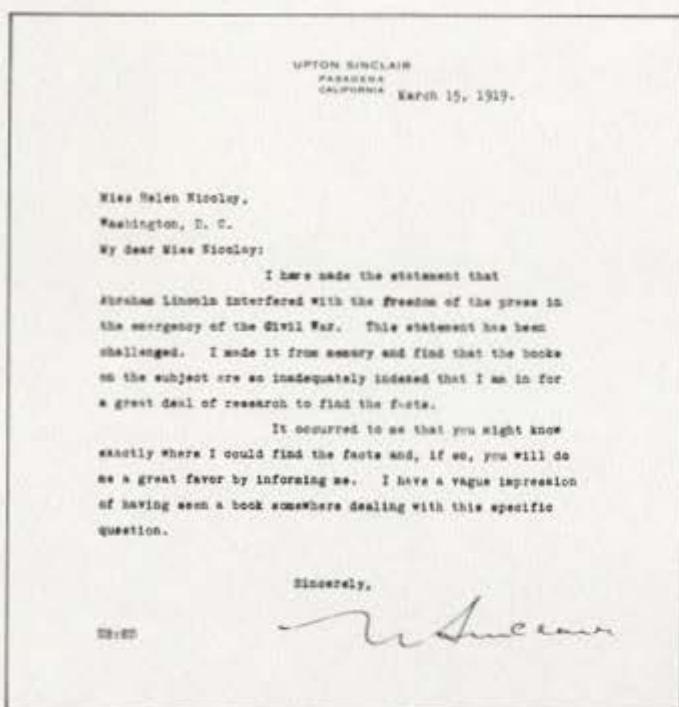
Upton Sinclair wrote a letter to Helen Nicolay on March 15, 1919 to ask her about Lincoln and the press. This letter is now part of a collection of Helen Nicolay's papers, owned by the Louis A. Warren Lincoln Library and Museum. The collection is particularly useful and interesting for a number of reasons. First, Helen Nicolay was a meticulous recordkeeper, retaining a complete copy of every letter she sent out as well as the letters she received. Also, living in Washington brought her in contact with famous politicians. Finally, she was a prominent Lincoln scholar, with control of many of the major documents of Lincolniana, including the Edward Bates diary and the papers belonging to her father, John G. Nicolay. She studied Lincoln all her life, beginning in early childhood when she took dictation from her father (whose eyesight was failing) as he worked on Lincoln's biography. Consequently, people throughout the country wrote to her with questions about Abraham Lincoln — including Upton Sinclair.

Sinclair (1878-1968) is most famous for his attack on the meat packing industry in *The Jungle*, and for being an active Socialist, but he also wrote on other radical issues: everything from a raw food diet to extrasensory perception. The Lilly Library at Indiana University has more than 250,000 of Sinclair's letters, and his correspondents include Charlie Chaplin (whom he converted to Socialism), Mahatma Gandhi, Joseph Stalin, Albert Einstein, and both Theodore and Franklin D. Roosevelt. In 1919, when he wrote to Helen Nicolay, Sinclair was working on a book about the American press, which he published a year later as *The Brass Check*. The title referred to a "brass check," or token, used as payment in



From the Louis A. Warren Lincoln Library and Museum

FIGURE 2. Charles Wilkes, 1861. Before seizing Confederate commissioners James Mason and John Slidell, Wilkes had led the 1838 Wilkes Expedition, an American scientific project similar to the English voyage of the *Beagle* (with Charles Darwin as naturalist). The Wilkes Expedition collected specimens of hundreds of new species and material for more than thirteen volumes of scientific reports.



From the Louis A. Warren
Lincoln Library and Museum

FIGURE 3. Letter from Helen Nicolay Collection.

a brothel; thus the title suggests that the press was being prostituted by big business.

Apparently, in early 1919 Sinclair was also thinking about the connection between politicians and the press. He wrote to Nicolay that someone had challenged his statement "that Abraham Lincoln interfered with the freedom of the press in the emergency of the Civil War," but that he had "a vague impression of having seen a book somewhere dealing with this specific question" which might support his statement.

Nicolay could not help Sinclair with a citation, and in any case, the final form of Sinclair's book focused on business rather than politics, and current events rather than history. Lincoln was not mentioned. In fact, much of the book is Sinclair's fulmination against the newspapers and their treatment of him as a radical.

Although Sinclair chose not to discuss Lincoln in *The Brass Check*, he was interested in the Civil War era. Sinclair's father worshipped Robert E. Lee and the "Lost Cause" and despised Northern capitalists and the Northern work ethic. Thus, Sinclair's socialism may have had its roots in attitudes he learned from his father. Sinclair learned similar attitudes from his grandfather, Arthur Sinclair, who had served as Lieutenant Commander in the Confederate Navy. Also, Sinclair's second wife, Mary Craig (Kimbrough) Sinclair was a "Southern lady" who had attended a New York finishing school under the supervision of Jefferson Davis's wife Varina. Before he met Mary Craig, Sinclair corresponded with Varina Davis while he was working on a book about the Civil War.

The book was published in 1903 as *Manassas* and was to be the first volume of a trilogy. However, the publisher discouraged him from continuing the series because he said the public was getting tired of historical novels. By 1909 historical novels were popular again, and Sinclair republished the book as *Theirs Be the Guilt*. The main character is Allan Montague, a son of a Southern planter, who goes to school in the North and adopts some Northern values. When Allan returns to the South, he helps a runaway slave escape, thwarting his family and friends' efforts to recapture the slave. (This scene is probably the most significant part of Sinclair's book because it so impressed an editor of a prominent Socialist newspaper that he gave Sinclair a \$500 advance to write a similar book about "wage slavery." Sinclair used the \$500 to live in Chicago and research the meat industry; in 1906 he published the results of that research as *The Jungle*.)

After the scene with the runaway slave, Allan leaves for the North, and ends up in Washington where he meets the President. Lincoln appears several times in *Manassas*, and in each case he appears bumbling and incompetent. Sinclair's Owen Lovejoy describes him as "incompetence spelt in letters a foot high" (p. 322). Several times Lincoln tells stories which relate only vaguely to the issue at hand and which are only funny to him. ("Never in his life did Allan forget the various heroic attempts which the auditors made to laugh over that story; and when at last the three had taken their departure and come outside of the building, they stood and looked at each other, and Jack Otis gasped, 'Jehoshaphat!'" p. 369)

Sinclair's description of the horrors of war reflects the graphic style that he would later use in *The Jungle*. At Bull Run, Allan and his cousin, Jack, go into battle for the first time.

And then suddenly from somewhere opposite there burst out a cloud of smoke and flame, and Allan heard at his side a crushing, spattering sound, and felt his cousin, whom he still grasped with one arm, half torn out of it. Things smote Allan's face, cutting him, tearing him, blinding him; and over his hands there rushed a flood of something hot and horrible. In a spasm of fright he shook his head free and wiped clear his eyes — staring. Jack — great God, where was Jack! Here was his body, and above it a neckbone sticking up, and a jaw dangling in front of it; and out of the middle, gushing up as from a fountain — pumping, pumping — a jet of crimson blood! (p. 394)

Manassas is significant as an early example of the writing style *The Jungle* made famous, but it also reflects Sinclair's attitudes toward Lincoln and the Union. Sinclair's upbringing made him sympathetic to the South, but by 1903, it was impossible to sympathize with slavery. Thus, although Sinclair's main character adopted abolitionism, Sinclair portrays plantation life positively, and the Montagues' slaves seem happy. In addition, by ending the book at Manassas, Sinclair makes the South victorious. Sinclair's Southern sympathies also inform his uncomplimentary description of Lincoln. Although he may have intended to show Lincoln maturing in the next volumes of the trilogy, Sinclair's description of a mature Lincoln probably would not have been complimentary either. Sinclair's statement, in his letter to Helen Nicolay, that Lincoln "interfered with the freedom of the press" suggests that Sinclair's Lincoln would have matured into a talented despot rather than an enlightened statesman.



From the Lilly Library
Indiana University

FIGURE 4. Upton Sinclair, 1919.

CUMULATIVE BIBLIOGRAPHY, 1986-1987

by Ruth E. Cook

Selections approved by a Bibliography Committee consisting of the following members:
Dr. Kenneth A. Bernard, 50 Chatham Road, Harwich Center, Mass. 02645; Arnold Gates, 168 Weyford Terrace, Garden City, N.Y. 11530; James T. Hickey, Box 55, Elkhart, Illinois 62634; Ralph G. Newman, 175 E. Delaware Place, 5112, Chicago, Illinois 60611; Lloyd Ostendorf, 225 Lookout Drive, Dayton, Ohio 45419; Hon. Fred Schwengel, 200 Maryland Avenue, N.E., Washington, D.C. 20515; Dr. Wayne C. Temple, 1121 S. 4th Street Court, Springfield, Illinois 62703; Frank J. Williams, RFD, Hope Valley Road, Hope Valley, R.I. 02832. New items available for consideration may be sent to the above persons or to the Louis A. Warren Lincoln Library and Museum.

1986

LINCOLN MEMORIAL UNIVERSITY

1986-27

Lincoln Memorial University Press/(Device)/Spring 1986/Vol. 88, No. 1/Lincoln Herald/A Magazine devoted to historical research in the field of Lincolniana and/the Civil War, and to the promotion/of Lincoln Ideals in American/Education./[Harrogate, Tenn.]

Pamphlet, flexible boards, 10 1/8" x 7 1/8", 1-36 pp., illus., price per single issue, \$5.00.

1987

ABRAHAM LINCOLN ASSOCIATION

1987-10

Journal/of the Abraham Lincoln Association/(Device)/Volume 9/1987/(Cover title)/

Book, paper, 9" x 6", 107 (7) pp., illus., price, \$15.00. Yearly membership dues include a subscription to the publication. Requests should be sent to the Abraham Lincoln Association, Old State Capitol, Springfield, IL 62701.

BAKER, JEAN H.

1987-11

Mary Todd Lincoln/A Biography/Jean H. Baker/(Device)/W. W. Norton & Company/New York-London/[1987]

Book, hardboard with cloth spine, 9 1/2" x 6 1/4", xv p., 429 (11) pp., illus., price, \$19.95.

BALDWIN, GORDON B.

1987-12

Abraham Lincoln-The First American/By Gordon B. Baldwin/Madison, Wisconsin/(Photograph)/Bulletin of the 43rd Annual Meeting/of/The Lincoln Fellowship of Wisconsin/held at Madison, Wisconsin/April 13, 1986/Historical Bulletin No. 42/1987/(Cover title)/

Pamphlet, paper, 10" x 7 1/2", 16 pp., price, \$3.00. Requests should be sent to the Lincoln Fellowship of Wisconsin, 1920 Lathrop Lane, #201, Racine, WI 53405.

BASSUK, DANIEL

1987-13

Abraham Lincoln/and the Quakers/(Silhouette)/Daniel Bassuk/Pendle Hill Pamphlet 273/[1987]

Pamphlet, paper, 7 1/2" x 5 1/8", 32 (2) pp., illus., price, \$2.50. Requests should be sent to Pendle Hill Publications, Wallingford, PA 19086.

BOAS, NORMAN F.

1987-14

Seaport/Autographs/(Portrait)/Lincolniana/(Cover title)/[1987]

Pamphlet, paper, 11" x 8 1/4", 45 pp., illus. Catalog of the collection of Herbert Wells Fay, 190 entries representing poets, authors, biographers, artists, sculptors, and other Lincoln memorialists, totalling approximately 650 pieces. Requests should be sent to Norman F. Boas, Seaport Autographs, 41 Tipping Rock Rd., Stonington, CT 06378.

BORITT, GABOR S.

1987-15

Abraham Lincoln:/War Opponent and War President/Gabor S. Boritt/Fluhren Professor of Civil War Studies/Gettysburg College/(Device)/Gettysburg/1987

Pamphlet, paper, 9" x 6", 34 (6) pp., illus., price, \$5.00. Copy autographed by the author. Requests should be sent to Gettysburg College, Department of History, Gettysburg, PA 17325.

CLARK, CHAMP

1987-16

The/Civil/War/The Assassination/By/Champ Clark/and the Editors of Time-Life Books/Death of the President/Time-Life Books, Alexandria, Virginia/[1987]

Book, cloth, 11" x 9", 176 pp., illus.

FEHRENBACHER, DON E.

1987-17

Lincoln/in Text and Context/Collected Essays/Don E. Fehrenbacher/(Device)/Stanford University Press/Stanford, California 1987/

Book, cloth, 8 3/4" x 5 3/4", 364 (32) pp.

GEORGE, JOSEPH, JR.

1987-18

The North Affair: A Lincoln/Administration Military Trial, 1864/(Caption title)/[Offprint from Civil War History, Vol. XXXIII, No. 3, 1987]

Pamphlet, paper, 9" x 6", 199-218 (1) pp.

HANDLIN, OSCAR

1987-19

The Road/To/Gettysburg/Oscar Handlin/Carl M. Loeb University/Professor Emeritus/Harvard University/25th Annual/Robert Fortenbaugh Memorial Lecture/Gettysburg College/1986/

Pamphlet, paper, 9" x 6", 25 (6) pp., illus. Requests should be sent to Professor Gabor S. Boritt, Department of History, Gettysburg College, Gettysburg, PA 17325.

ILLINOIS STATE HISTORICAL SOCIETY

1987-20

Illinois/History/February 1987/Volume 40/Number 5/(Picture)/(Device)/Illinois Historic/Preservation Agency/ (Cover title)/

Pamphlet, paper, 11" x 8 1/4", 97-116 pp., illus., price, 40¢. Requests should be sent to the Supervisor, Illinois History, Old State Capitol, Springfield, IL 62701.

LINCOLN COLLEGE

1987-21

Lincoln/Newsletter/(Device)/Volume VII, Number 4 Lincoln, Illinois Spring, 1987/(Cover title)/

Pamphlet, paper, 11" x 8 1/2", (8) pp., illus.

LINCOLN COLLEGE

1987-22

Same as above, except this is Volume VII, Number 5, Summer, 1987.

LINCOLN COLLEGE

1987-23

Same as above, except this is Volume VII, Number 6, Fall, 1987.

LINCOLN MEMORIAL UNIVERSITY

1987-24

Lincoln Memorial University Press/(Device)/Spring 1987/Vol. 89, No. 1/Lincoln Herald/A Magazine devoted to historical research in the field of Lincolniana and/the Civil War, and to the promotion/of Lincoln Ideals in American/Education./[Harrogate, Tenn.]

Pamphlet, flexible boards, 10 1/8" x 7 1/8", 1-39 pp., illus., price per single issue, \$5.00.

LINCOLN MEMORIAL UNIVERSITY

1987-25

Same as above, except this is Vol. 89, No. 2, Summer 1987.

LINCOLN MEMORIAL UNIVERSITY

1987-26

Same as above, except this is Vol. 89, No. 3, Fall 1987.

LINCOLN MEMORIAL UNIVERSITY

1987-27

Same as above, except this is Vol. 89, No. 4, Winter 1987.