Form No. 10-300 (Rev. 10-74)

THEME: Americans at Work
SUBTHEME: Science and Invention

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: George R. Minot House

AND/OR COMMON: 71 Sears Road

2 LOCATION

STREET & NUMBER: 71 Sears Road

__NOT FOR PUBLICATION

CITY, TOWN: Brookline __ VICINITY OF

CONGRESSIONAL DISTRICT: 4th

STATE: Massachusetts CODE: 25

COUNTY: Middlesex CODE: 017

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	X PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	X PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		X NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME: Marion W. Minot

STREET & NUMBER: 71 Sears Road

CITY, TOWN: Brookline __ VICINITY OF

STATE: Massachusetts

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Middlesex Registry of Deeds--Southern District

STREET & NUMBER: 3rd and Ottis Streets

CITY, TOWN: Cambridge

STATE: Massachusetts

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: None

DATE

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS

CITY, TOWN

STATE

82

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
xx EXCELLENT	__DETERIORATED	xx UNALTERED	xx ORIGINAL SITE
__GOOD	__RUINS	__ALTERED	__MOVED DATE_____
__FAIR (Unrestored)	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

71 Sears Road, the George R. Minot House in Brookline, Massachusetts, is a two and one half story brick house. Attached to the main block is a one and one half story kitchen. The architect, builder, and date of construction are unknown, but it was probably built in the 1920's. Architecturally the house is a 20th century venacular example of the Colonial Revival style. In itself the building does not appear to be of architectural importance and it is not noted in the standard texts on Boston architecture. Features of the house are two end chimneys, a hip roof with dormer windows, and a pedimented portico.

George R. Minot lived at 71 Sears Road from approximately 1929 until his death in 1950. His widow and daughter continued to occupy the residence as of 1975.

The integrity of the property is whole. No changes or alterations have been made to the building since the Minot period. There are no intrusions.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	X SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION	
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES 1929-1950 BUILDER/ARCHITECT unknown

STATEMENT OF SIGNIFICANCE

George Richards Minot, pathologist, was born December 2, 1885, in Boston, Massachusetts. Medicine was a tradition in the Minot family. George's father was a Boston physician and he also taught at the Massachusetts Institute of Technology. Minot's great-grandfather, James Jackson, had been a co-founder of the Massachusetts General Hospital. Minot's interest in the biological sciences began when he was a boy. Because of his delicate health his parents took him to Florida and California during the winters. There he read books on natural history and put together flora and fauna collections. Minot received his elementary and secondary education in Boston private schools. He then entered Harvard, where he graduate cum laude in the 1908. After traveling for a year with friends in Europe, he returned to Harvard where he earned his M.D. in 1912.

After graduating from Harvard Medical School Minot interned for sixteen months at the Massachusetts General Hospital and then joined the staff of the Johns Hopkins Hospital in Baltimore as an assistant resident physician. During these years in addition to his staff duties Minot developed a strong interest in the relationship between diet and disease. While at the Massachusetts General Hospital as an intern he initiated his research activities by keeping precise dietary histories of patients suffering from anemia. While at Johns Hopkins he worked in the physiology laboratory on the problems of blood coagulation.

In 1915 Minot returned to Boston, where he continued his research on blood disorders while working as a staff physician at the Massachusetts General Hospital. In 1917 he moved to the Collis P. Huntington Memorial Hospital. In 1921 together with other doctors Minot formed a group practice. The group practice, which brought together physicians with various specialities, was one of the first of its type in the United States. In 1923 Minot was appointed chief of the medical services at Huntington, a position he held until 1928. During his years at Huntington Minot conducted the research on anemia on which his fame rests. In 1928 he became chief of the Thorndike Memorial Laboratory and chief of Medical Service at Boston City Hospital. The Thorndike laboratory was the first clinical research facility in a municipal hospital. Minot remained director of the Thorndike laboratory until 1948, when failing health forced him to resign. From 1918 to 1948 Minot also taught at Harvard's School of Medicine, reaching the

(Continued)

9 MAJOR BIBLIOGRAPHICAL REFERENCES

"George Richards Minot," Dictionary of American Biography, Supplement Four, (New York, 1974).

Francis Minot Rackemann, The Inquisitive Physician: The Life and Times of George Richards Minot, (Cambridge, 1956).

Richard H. Shyrock, American Medical Research Past and Present, (New York, 1947).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than one acre

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	19	312,379	4,688,025
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

James Sheire, Historian

ORGANIZATION — DATE

Historic Sites Survey, National Park Service — August 1975

STREET & NUMBER — TELEPHONE

1100 L Street NW. — 202-523-5464

CITY OR TOWN — STATE

Washington — D.C. 20240

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL X STATE ____ LOCAL ____

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE — DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

87

rank of full professor. In 1921 Minot developed diabetes and only the discovery of insulin the following year saved his life. In 1947 he developed complications associated with the diabetes and also suffered a stroke. The illness forced him to greatly restrict his activities. He died three years later on February 24, 1950.

From his days as a young intern at the Massachusetts General Hospital until his retirement as director of the Thorndike laboratory in 1948, George Minot's major research interest was the study of diseases related to the blood. One blood related disease that especially interested him was anemia, a physiological condition in which the hemoglobin carried by the blood's red cells is reduced below normal. The causes of anemia vary widely depending on the underlying congenital condition or acquired disease, but a common feature of all anemia is a reduction or destruction of the red cells that contain hemoglobin. Minot's research on anemia began while he was an intern. In 1912-13 he studied the diets of a patient suffering from pernicious anemia, at the time almost always fatal, and speculated that there might be a relationship between diet and the disease. After returning to Boston from Johns Hopkins and assuming clinic duties, Minot observed that in patients suffering from pernicious anemia the removal of the spleen brought an increase in the number of red blood cells which in turn resulted in an improvement in the patient. Minot correctly suspected that anemia was not only related to diet but also the quantity of red blood cells in blood plasma. During World War I Minot investigated an alarming increase of anemia among workers at a New Jersey munitions plant. He discovered that the workers blood contained abnormally high amounts of TNT and that the TNT acted as a poison that killed red blood cells thus causing the anemic condition. This finding was further proof of a relationship between the red blood cells and anemia. By the beginning of the 1920's Minot was certain that there was a connection between the quantity of red blood cells and anemia, but he did not know how the reduced production of red blood cells could be corrected.

At about this time Minot read of experiments being conducted by George H. Whipple in Rochester, New York. Whipple had bled dogs and then fed them a diet rich in liver. After a few weeks Whipple discovered that the dogs had quickly regained normal red cell and hemoglobin levels. Minot, remembering his early studies of diet and anemia, immediately decided to experiment with the diets of patients suffering from pernicious anemia. In 1926, together with his colleague William Murphy, Minot announced that by feeding patients a diet of milk, meat, and liver at a rate of one half pound a day, pernicious anemia could be cured. Later research proved that the substance in the liver which caused the bone marrow to produce the required red blood cells was vitamin B 12. The discovery of a

(84)

(Continued)

dietary-liver treatment for pernicious anemia literally saved thousands of lives. For their work George H. Whipple, William Murphy, and George R. Minot shared the 1934 Nobel Prize in Medicine and Physiology.

Minot made other important contributions to a better understanding of anemia. In 1931-32 he demonstrated that iron deficiency could cause anemia and during the same period he proved that one of the causes of the iron deficiency was the lack of hydrochloric acid in the stomach. This lack of hydrochoric acid impeded the assimilation of the necessary iron. As director of the Thorndike laboratory Minot suggested stimulating research paths which shed more light on anemia. An unusual number of Minot's students later went on to occupy prominent posts in medical schools around the country, thus, further spreading his research methods.

In addition to the Nobel Prize in Medicine and Physiology, Minot received numerous other honors including the Moxon Medal of England's Royal College of Physicians. He was the first American so honored. After his death the American Medical Association established the George Richards Minot Memorial Lectures in his honor.

George Minot's immediate significance in the history of medicine and physiology was his discovery of a liver treatment for pernicious anemia. The practical consequence was the saving of the lives of those who suffered from the vitamin B 12 deficiency form of the illness. In the broader area of physiological research Minot's work re-directed the study of blood diseases to include the examination of the controls and nature of the production and destruction of blood cells and blood plasma components. After Minot had proven that liver, or something in liver, caused bone marrow to resume a normal production of red blood cells, the way was open for a research assault, first, on what this substance was and why it was important, and, second, on the chain of events which transpired between the consumption of the liver and the appearance of the red blood cells in blood plasma. Minot's direct contributions were significant, but just as important were the questions he raised and the directions for further research to which he pointed.