NPS Form 10-900
(3-82)

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United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received AUG 15 1985
date entered SEP 12 1985

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Old U.S. Forest Products Laboratory

and/or common Metallurgical and Mineral Engineering Building

2. Location

street & number 1509 University Avenue, Univ. of Wisconsin Campus ___ not for publication

city, town Madison ___ vicinity of

state Wisconsin code 55 county Dane code 025

3. Classification

Category	Ownership	Status	Present Use	
___ district	_X_ public	_X_ occupied	___ agriculture	___ museum
_X_ building(s)	___ private	___ unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	_X_ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	_X_ yes: unrestricted	___ industrial	___ transportation
	_X_ N/A	___ no	___ military	___ other:

4. Owner of Property

name University of Wisconsin Board of Regents

street & number 1860 Van Hise Hall

city, town Madison ___ vicinity of state Wisconsin

5. Location of Legal Description

courthouse, registry of deeds, etc. Register of Deeds, Dane County Courthouse

street & number 210 Monona Avenue

city, town Madison state Wisconsin

6. Representation in Existing Surveys

title Madison Campus Architecture, Historical & Archeological Survey has this property been determined eligible? ___ yes _X_ no

date 1978 ___ federal ___ state ___ county _X_ local

depository for survey records Dept. of Planning & Construction, University of Wisconsin

city, town Madison state Wisconsin

7. Description

Condition		Check one	Check one
X excellent	___ deteriorated	___ unaltered	X original site
___ good	___ ruins	X altered	___ moved date _____
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The Old Forest Products Laboratory, located at 1509 University Avenue on the University of Wisconsin Madison campus, is a two-story, C-shaped Georgian Revival building, constructed of red brick in Flemish double stretcher bond and set on a poured-concrete foudation. The main block,built in 1910,[1] measures 182 feet by ninety feet, and a narrow one-story addition of red brick appears on each of the east and south facades. The symmetrical exterior features red brick quoins, a hipped red tile roof, a modillioned cornice, and, on the main (north) facade, three projecting pedimented pavilions with brick quoins. The central pavilion houses the main entrance, with a pair of double doors framed in limestone. Above the doorway, foliated consoles support a stone entablature, surmounted by a marble plaque set with gold lettering which reads "METALLURGICAL AND MINERAL ENGINEERING." There is a square window at the second story level, and in the gable end above is an elliptical window. Each of the flanking pavilions creates a cross gable, and has a tri-partite window at the first and second floors set in limestone and recessed in a two-story brick arch.[2] The upper window forms a Serlian motif. The south facade addition, built in 1967,[2] is non-contributing and has brick quoins and a flat roof. A series of tall fixed windows, giving the appearance of multi-paned sash, appears on the south face of the addition, along with a double entrance door with a single-paned transom lettered "METALLURGICAL AND MINERAL ENGINEERING." Above the addition, on either end of the main block the two projecting cross gable sections are visible; each is three bays square with a red tile hipped roof. A brick chimney stack appears on the roof of the east projecting section. On the south facade of the main block, east of the addition, is a pair of double entrance doors; another set appears on the northwest corner on the west facade. The east facade addition, built in 1975,[3] is non-contributing and runs the length of the building. A stair tower rises above the flat roof toward the north end of the addition, and a pair of double doors is located just south of the tower. The bands of single-paned opaque windows flank either side. The remainder of the windows on the building are multi-paned, double-hung sash, with keystones and sills of limestone.

The Old Forest Products Laboratory was dedicated on June 4, 1910.[4] The divisions of timber physics and timber testing, as well as the pulp, paper, and wood preservation laboratories, were located on the first floor. The second floor housed the wood chemistry division and the wood distillation laboratories. The Department of Metallurgical and Mineral Engineering has been in residence in the building since 1932.[5] The interior of the building has been modified with the installation of asphalt tile flooring throughout. The main entrance opens into a vestibule and hall, at the south end of which is a concrete and brick open newel staircase. Down a half flight of stairs is the first floor, a tall story set partially underground which contains a large open space with machinery, and a number of enclosed laboratories. On the second floor a series of rooms open onto a central corridor. The walls and ceilings on the second floor and in the entrance hall have a plaster finish. The east addition is divided into two short stories with offices and an elevator, and has dropped acoustical tile ceilings, concrete block interior walls, and asphalt tile floors.
The majority of the original interior spaces have been changed, to some degree, since their initial construction in 1910.

[1]Alden Aust, "A Tabular History of the Buildings of the University of Wisconsin," (Madison, Wisconsin: University of Wisconsin, 1937), p.2.

[2]Gordon D. Orr, ed., "Prespectives of a University," (Madison, Wisconsin; University of Wisconsin, 1978), p.71.

[3]Gordon D. Orr, Department of Planning and Construction, University of Wisconsin-Madison.

[4]Charles August Nelson, "A History of the Forest Products Laboratory," (Ph.D. dissertation, University of Wisconisn-Madison, 1964), p.98.

[5]Ibid., p.227.

8. Significance

Period	Areas of Significance—Check and justify below			
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	X conservation	___ law	X science
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	X 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 1910[3] **Builder/Architect** Albert F. Gallistel[3] / Arthur Peabody[3]

Statement of Significance (in one paragraph) Period of Significance: 1910-1932

The Old Forest Products Laboratory is of national significance with respect to contributions made in the fields of conservation and science. It was designed and built to house the first institution in the world established for the express purpose of conducting research on wood and wood products. The investigations undertaken at the Forest Products Laboratory resulted in a more careful use of forest materials nationwide, as well as the discovery of many of the basic underlying principals of forest science, and brought major technological advances to the wood using industries. A fine example of the Georgian Revival Style, the building has local architectural significance and was designed by Albert F. Gallistelin association with university architect Arthur Peabody.

Historical Significance

Conservation and Science

During the early years of the twentieth century, the economic pressures resulting from decreased forest supplies brought about growing national support for forest conservation. The Forest Service, a branch of the United States Department of Agriculture, proposed establishing a national centralized wood-testing laboratory. It was to be a research unit committed to the idea that the application of scientific technology to the practical problems of the wood-using industries would result in a wiser and more economical utilization of wood and other forest products. Seven major American universities competed for the facility, including the University of Michigan, the University of Minnesota, the University of Illinois, Purdue University, Cornell University, and Yale University. In 1909 the Forest Service decided in favor of the University of Wisconsin. The most decisive factors in Wisconsin's favor were Madison's location, in close proximity to rail lines and easily accessible to America's timber regions,[1] and the University of Wisconsin's excellent reputation for scientific research. The university agreed to provide a suitable building and to furnish the heat, light, and power required, while the Forest Service was to supply the technical staff, test equipment, and materials,[2] and make the lab and personnel available to university graduate students.

The Old Forest Laboratory was designed by Albert F. Gallistel, employed[3] in the office of the University of Wisconsin Supervising Architect, Arthur Peabody. Technical assistance was provided by Forest Service representative, McGarvey Cline, then Chief of the Office of[4] Wood Utilization, and subsequently first director of the Forest Products Laboratory.

9. Major Bibliographical References

Nelson, Charles August. "A History of the Forest Products Laboratory." Ph.D Dissertation, University of Wisconsin-Madison, 1964.

The Forest Products Laboratory. Agricultural Information Bulletin #105. Washington, D.C., States Government Printing Office, 1953.

10. Geographical Data

Acreage of nominated property Less than one

Quadrangle name Madison West **Quadrangle scale** 1:24000

UTM References

	Zone	Easting	Northing		Zone	Easting	Northing
A	16	303700	4771530	B			
C				D			
E				F			
G				H			

Verbal boundary description and justification Part of the SW1/4 of Section 15, Township 7N, Range 9E, The corner of Univ. Ave. and Breese Terrace, extending 190's, 263' E, 190'N, and 263' W to point of origin.

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 Elizabeth L. Miller,Research Technican

organization State Historical Society of Wis. **date** November 1984

street & number 816 State Street **telephone** 262-2971

city or town Madison **state** Wisconsin

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

X national ___ 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.

State Historic Preservation Officer signature [signature]

title ~~AUGUST~~ DIRECTOR OF HISTORIC PRESERVATION **date** AUGUST 6, 1985

For NPS use only

I hereby certify that this property is included in the National Register

[signature] Entered in the National Register **date** 9/12/85

Keeper of the National Register

Attest: **date**

Chief of Registration

U.S. GOVERNMENT PRINTING OFFICE : 1983 O - 419-311

The Forest Products Laboratory was the first, and, for several years, the only institution in the world concerned wholly with the investigation of wood, wood products, and their adaptation to diversified fields of use.[5] Prior to the establishment of the lab, the United States government lacked adequate means for investigating the underlying problems in the use of forest products. The centralized character of the Forest Products Laboratory allowed for in-depth research into the problems of wood utilization as well as facilitating the exchange of information between Forest Service scientists and private industry. Eight divisions were brought together in the building. Previously located in different parts of the country, these divisions included wood preservation, timber tests, wood chemistry, wood physics, engineering, pulp and paper, pathology, and wood distillation.[6]

At the time the lab was officially opened, forest products research was a new field. Under the first director, McGarvey Cline, attention was directed toward fundamental studies of wood preservation, and investigations to improve the wood preservation process.[8] In 1912 Cline resigned and Howard F. Weiss was appointed the second director. Under his direction, the Forest Products Laboratory emphasized a closer working relationship with the wood-using industries, bringing about a marked expansion in wood preservation in the years prior to World War I. A significant early contribution resulting from research undertaken at Forest Products Laboratory was made by Harry D. Tiemann (1875-1966), an internationally reknowned timber physicist, who patented a humidty-regulated dry kiln in 1911 that resulted in the improved quality of kiln-dried wood and a concurrent reduction in waste.[9]

In 1917 Carlile P. Winslow became the third director of the Forest Products Laboratory.[10] During World War I, wood and wood products played a major role in the American war effort. Research conducted on glues and plywood aided materially in the development of the aircraft industry, and was continued following the armistice.[11] By the end of the war, work at Forest Products had expanded immensely. The most significant contribution made by Forest Products Laboratory occurred during the 1920's, in the field of pulp and paper research: the development of the "semi-chemical" process. The process revolutionized the pulp and paper industry by providing a method for the successful pulping of previously useless hardwoods,[12] in turn laying the foundation for a southern pulp and paper industry, which rose during the 1930's.[13]

The many technological advances resulting from the research conducted in the Old Forest Products Laboratory lend the building national historical significance. In 1932, the Forest Products Laboratory moved into new and expanded facilities located on the western edge of the University of Wisconsin campus. The Department of Metallurgical and Mineral Engineering has beeen located in the building since that time.[14]

Architecture

The Forest Products Laboratory is an excellent local example of the Georgian Revival style, employing such elements as a modillioned cornice, Palladian and multi-paned sash windows, and projecting pedimented pavilions. It is one of a very few structures on campus in the Georgian Revival style, and the only extant building on record as having been designed by Albert F. Gallistel.[15]

Albert F. Gallistel (1889-1964) was educated as an architect at the Chicago Art Institute and the University of Illinois.[16] Associated with the University of Wisconsin for over fifty years, Gallistel was first employed as a draftsman in the office of Arthur Peabody, Supervising Architect of the University in 1907.[17] Gallistel became Superintendent of Buildings and Grounds in 1929, and director of Physical Plant Planning in 1949.[18] He retired in 1959 but was retained by the University of Wisconsin as a consultant until his death.[19]

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[1]Charles August Nelson," A History of the Forest Products Laboratory," (Ph.D. dissertation, University of Wisconsin-Madison, 1964), p.82-83.

[2]The Forest Products Laboratory, Agricultural Information Bulletin #105, (Washington, D.C. United States Government Printing Office, 1953), p.1.

[3]Alden Aust, "A Tabular History of the Buildings of the University of Wisconsin," (Madison, Wis: University of Wisconsin, 1937), p.2.

[4]Charles August Nelson, op.cit., p.89.

[5]The Forest Products Laboratory, op.cit., p.92.

[6]Charles August Nelson, op.cit., p.92.

[7]Ibid., p.115.

[8]Ibid., p.118.

[9]Ibid., p.143-145.

[10]Ibid., p.168.

[11]Ibid., p.185.

[12]Ibid., p.223.

[13]Ibid.

[14]Ibid., p.227.

[15]Alden Aust, op.cit.

[16]"Albert F. Gallistel, 75, Dies; Headed U. Campus Planning," Capital Times (Madison), 2 January 1964, p.1.

[17]Ibid.

[18]Gordon D. Orr, Ed. "Prespectives of a University," (Madison, Wisconsin: University of Wisconsin, 1978), p.76.

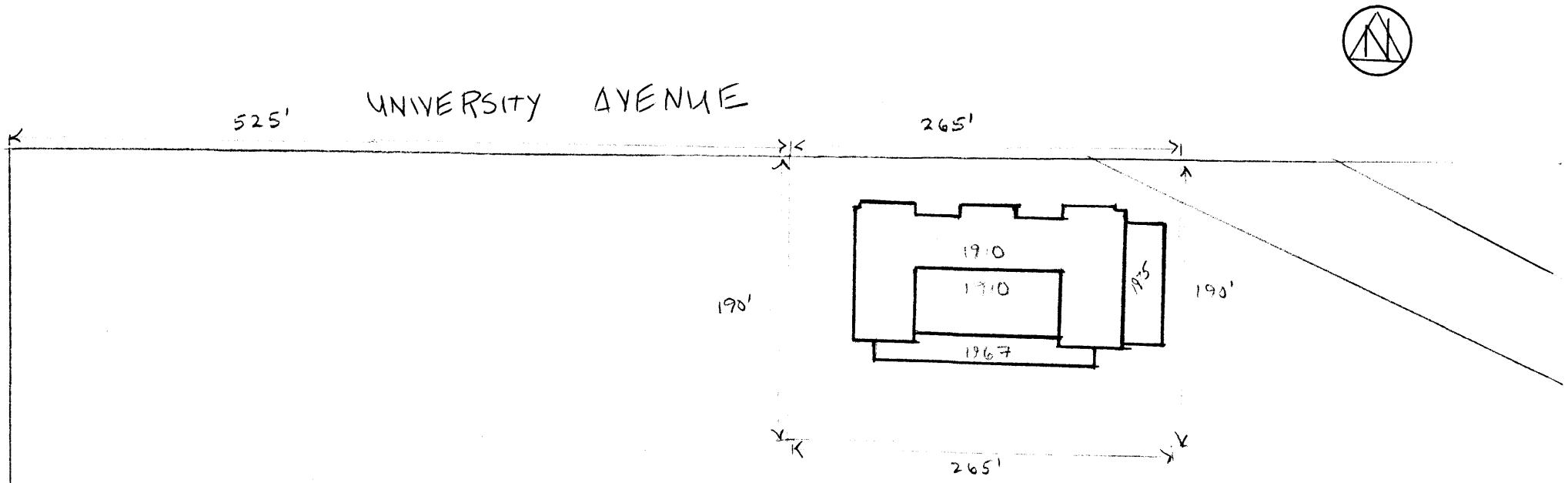
[19]"Albert F. Gallistel, 75, Dies; Headed U. Campus Planning," op.cit.

[20] Note: No significant interior spaces remain intact from the origional construction period, although the use of the spaces remains similar.

#6 Representation in Existing Surveys

Wisconsin Inventory of Historic Places 1984 State Historical Society of Wisconsin Madison, Wisconsin 53706	Not determined eligible State level survey

FOREST PRODUCTS LABORATORY
1509 UNIVERSITY AVENUE
UNIVERSITY OF WI
MADISON, WISCONSIN
SCALE: 1 INCH = 100 FEET



BREESE TERRACE