

FINAL

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Rudicel, George, Polygonal Barn

other names/site number 145-657-60013

2. Location

street & number C.R. 700S at C. R. 400E N/A not for publication

city or town Waldron vicinity

state Indiana code IN county Shelby code 145 zip code 46182

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Robert R. Ralick 4-19-93
Signature of certifying official/Title Date

Indiana Department of Natural Resources
State of Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:	Signature of the Keeper	Date of Action
<input type="checkbox"/> entered in the National Register. <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined eligible for the National Register <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined not eligible for the National Register.	_____	_____
<input type="checkbox"/> removed from the National Register.	_____	_____
<input type="checkbox"/> other, (explain): _____	_____	_____

RUDIGEL Barn
Name of Property

Shelby Co., IN
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property
(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
1	0	buildings
0	0	sites
0	0	structures
0	0	objects
1	0	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

Round and Polygonal Barns of Indiana

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

AGRICULTURE: Animal facility

Current Functions
(Enter categories from instructions)

AGRICULTURE: Animal facility

7. Description

Architectural Classification
(Enter categories from instructions)

OTHER: Twelve sided barn

Materials
(Enter categories from instructions)

foundation CONCRETE
walls WOOD: weatherboard

roof ASPHALT
other _____

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

AGRICULTURE

ARCHITECTURE

Period of Significance

1910-1936

Significant Dates

1910

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Rudicel, George; Henderson, Roy;
and Henderson, Earl

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

Historic Landmarks Foundation
of Indiana

Rudicel Barn
Name of Property

Shelby Co., IN
County and State

10. Geographical Data

Acreage of Property Less than one acre

UTM References

(Place additional UTM references on a continuation sheet.)

1	1, 6	6, 1, 1, 6, 0, 0	4, 3, 6, 4, 4, 5, 0
	Zone	Easting	Northing
2			

3			
	Zone	Easting	Northing
4			

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Jerry McMahan

organization Historic Landmarks Foundation of IN date November 11, 1991

street & number 340 West Michigan St. telephone 317/639-4534

city or town Indianapolis state IN zip code 46202

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name F. E. Montgomery

street & number Rt. 1, Box 312 telephone _____

city or town Waldron state IN zip code 46182

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number 7 Page 1 Rudicel Barn
Shelby Co., IN

The George Rudicel barn, located in rural Shelby County near Waldron, Indiana, is an interesting twelve-sided barn that was built in 1910. The builders were George Rudicel, the owner and a local carpentry team, Roy and Earl Henderson. The barn is located very close to the county road and is reached by way of a short gravel drive. To the east is a rectangular barn followed by the house and garage, all surrounded by mature trees. To the west is another rectangular barn with shed and off to the west and north are cultivated fields. The Rudicel barn maintains its integrity in relation to location, design, setting, materials, workmanship, feeling and association, meeting all of the requirements set forth in the registration requirements for multiple property nominations.

The twelve-sided, two-storied barn is sheltered by a section cone roof, complete with a large dormer on the south and a twelve-sided cupola. The dormer has a medium pitched roof while the cupola is topped by a sectional cone roof that is in turn capped by a square "cupola" with a pyramid roof. The dormer walls, angled to match the southern walls on the structure, are covered in horizontal wood clapboards with cornerboards at the corners and at the intersection of the two wall sections (down the middle of the dormer, Photo 1). There are two one-over-one sash windows; one in each wall face of the dormer. The cupola contains louvered vents in each of its wall faces and the upper square cupola, oriented with flat faces to the north, south, east and west, has a louvered opening in each face. Both the cupola and spire are sheathed in horizontal clapboards with cornerboards at each wall intersection.

The roof surfaces are now covered in asphalt replacement shingles, an alteration that protects the structure and minimally detracts from its historic significance. There is a slight overhang to the eaves of the roof surfaces and the rafters are exposed. The wall surfaces are composed of horizontal wood clapboards with cornerboards at the intersections of each of the wall sections. The balloon frame construction is anchored firmly to the poured concrete foundation.

The main facade on the south (photo 2) reveals the angular nature of the wall intersections with the juncture of two sides being central to the elevation. On either side of this intersection are

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
RESEARCH REPORT NO. 1000
1955

The following table shows the results of the experiments conducted during the course of this investigation. The data are presented in the form of a table, with the first column representing the concentration of the reactants, the second column representing the rate of reaction, and the third column representing the order of reaction with respect to each reactant. The values in the table are given to two significant figures, and the units are as indicated in the text.

The results of the experiments show that the rate of reaction increases with increasing concentration of the reactants. The order of reaction with respect to each reactant is found to be 1/2, indicating that the reaction is first order with respect to the square root of the concentration of each reactant. This is consistent with the proposed mechanism for the reaction, which involves the formation of a radical intermediate.

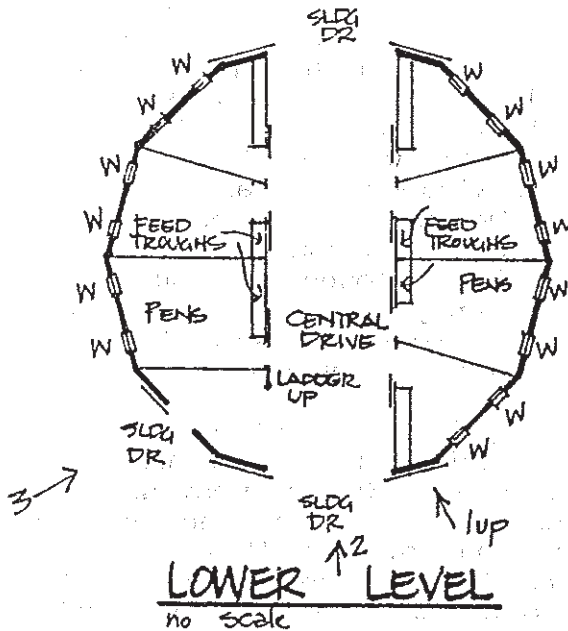
The rate of reaction is also found to be independent of the concentration of the catalyst, which is consistent with the proposed mechanism. The activation energy of the reaction is found to be 15.5 kcal/mole, which is in good agreement with the values reported in the literature for similar reactions.

The following table shows the results of the experiments conducted during the course of this investigation. The data are presented in the form of a table, with the first column representing the concentration of the reactants, the second column representing the rate of reaction, and the third column representing the order of reaction with respect to each reactant. The values in the table are given to two significant figures, and the units are as indicated in the text.

United States Department of the Interior
National Park Service

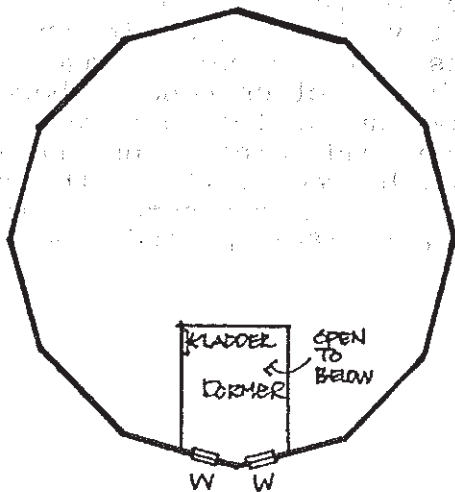
National Register of Historic Places Continuation Sheet

Section number 7 Page 2



Note: W = Window

UPPER LEVEL
no scale



RUDICEL (MONTGOMERY)
BARN

1910 12-SIDED
SHELBY COUNTY, INDIANA
NOBLE TOWNSHIP

↑₁ = Photographic Key

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number 7 Page 3 Rudicel Barn
Shelby Co., IN

large story and one half door that slides on overhead tracks and allow access to the interior. At the outer reaches of these two front wall sections are four light windows. Continuing around the barn in a clockwise manner, the next face contains a smaller, human-sized door with an overhead sliding track with the door being centered on the wall. The next three wall sections (photo 3) contain two evenly spaced four light windows that are centered on each of the walls. The following two wall sections are the northern equivalents of the front elevation and contain the large doors and four light windows. This is followed by four wall sections with each containing two evenly spaced four light windows. There are no upper level openings, except for the previously mentioned dormer windows and louvered vents.

The interior of the barn (see floor plan) is a well-planned series of pens around a central drive. The drive runs from north to south, connecting the two sets of main doors. On the west side of the drive is a set of three large pens with built in feed troughs next to the drive. At the southern end of the third pen is affixed a permanent ladder that leads to the upper level. The last bay on the south is left open to allow access to the small door on the southwest face. The east side contains four large pens, all with feed troughs that face the central drive.

Ascending the ladder to the upper level, the large open space of the hay mow is revealed. The front portion of the barn under the dormer window is left open to the central drive of the lower level for the ease of moving hay and straw. The dormer adds substantial light to both the upper and lower levels and the cupola's vents provide diffused light and ventilation to the hay mow. Finally, the upper level provides an excellent vantage point to the hay mow. Finally, the upper level provides an excellent vantage point to the balloon framed roof, executed in a section cone. There is a laminated beam at the base of the cupola that supports the cupola and upper roof sections with the load being transferred to the outer walls by way of the trusses between each of the roof sections. Small wooden braces then angle from the outer walls to one third of the way up the roof section, offering the remainder of the support for the roof.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 7 Page 4 Rudicel Barn
Shelby Co., IN

The historic integrity of the Rudicel (Montgomery) barn is without question since it is largely in the same condition today that it was in some eighty years ago at its dedication. Consequently, the Rudicel (Montgomery) barn remains today as a reminder of the development, sophistication and advancement of agriculture in the state of Indiana.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetSection number 8 Page 5 Rudicel Barn
Shelby Co., IN

The George Rudicel (Montgomery) barn, located in the Noble Township of Shelby County, Indiana, is significant under Criteria A and C for its association with the development of round and polygonal barns in Indiana. (See historic context, "Round and Polygonal Barns of Indiana.") The barn is an important and direct link to the agricultural development that occurred in the state from 1850 to 1936 (and beyond) and has changed little since its construction in 1910. The period of greatest significance for the barn was from 1910 to the mid 1930s when round and polygonal barns lost their popularity. By 1936, round and polygonal barns were considered obsolete and the last round structure was built in the state to replace a 1915 round barn that had burned (Grant County, Richland Township, extant).

The original owner of the barn was George Rudicel, who, along with local carpenters Roy and Earl Henderson constructed the twelve-sided barn. The lumber for the barn was all cut locally and milled nearby at George Howe's sawmill. The large lower level with central drive running from north to south contained pens on either side to house the animals. The upper level, with ventilation and light from the large southern dormer and the twelve-sided cupola, was devoted to the storage of hay and straw.¹

Mr. Rudicel maintained the property until his death at which time his son Lowell became the owner. Lowell farmed the land until 1972 when he in turn sold the property with its adjoining rectangular barns and frame farmhouse to Mr. & Mrs. Floyd E. Montgomery. The Montgomery's are the current owners of the property and continue to use the structure as a horse barn. Additionally, they live on the farm in the turn-of-the-century farmhouse.²

In Indiana, there were eighteen (18) twelve-sided barns constructed, making it the third most prominent style of the 219 round and polygonal structures that were built, behind true circles and octagon (true circles, 151 and octagons 33). The barns were built in Allen County (Adams Township, razed), Clinton County (Michigan Township, extant), three in Huntington County (Huntington and Lancaster Townships, extant and Polk Township, razed), the Orr (Oxenrider) barn in Kosciusko County (Washington Township, extant, application pending for the National Register),

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number 8 Page 6 Rudicel Barn
Shelby Co., IN

LaGrange County (Newbury Township, extant), Marshall County (three in Greene Township with two being extant and one razed), Miami County (Washington Township, razed, Parke County (Raccoon and Greene Townships, both razed), Ripley County (Jackson Township, extant), and George Rudicel barn, Tippecanoe County (Randolph Township, extant), Wabash County (Lagro Township, razed) and White County (Princeton Township, razed). Of these, only two were constructed before the issuance of the 1905 patent (Clinton and Wabash County examples), thus showing that the vast majority of the twelve-sided structures could well have been built to skirt the patent rights of McNamee, Duncan and Littleton.

The George Rudicel (Montgomery) barn is an unusual example of a polygonal barn, being one of the ten remaining twelve-sided barns in the state. One other barn compares to this structure in terms of its unusually large dormer, cupola and spire, the E. D. Sphenger barn, built in 1914 in Madison County's Union Township. However, the Sphenger barn is composed of ten sides and not twelve but it does have the same distinctive elements right down to the placement of the main doors on two wall sections. The barn has all of the essential physical features that it possessed at the time of its period of significance, from 1910 to the mid 1930s. The Rudicel (Montgomery) barn has aged gracefully and little has changed since its completion with the exception of the asphalt replacement roof.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 7 Rudicil Barn
Shelby Co., IN

ENDNOTES

1. John Hanou, research compiled on Indiana's round and polygonal barns from 1986 to present. Archived at Historic Landmarks Foundation of Indiana, 340 West Michigan Street, Indianapolis, IN 46202.
2. F.E. Montgomery, owner of the Rudicil (Montgomery) barn, Waldron, Indiana. Interviewed by Jerry McMahan, 25 October 1991.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 9 Page 8 Rudicil Barn
Shelby Co., IN

BIBLIOGRAPHY

Hanou, John. Research compiled on Indiana's round and polygonal barns from 1986 to present. Archived at Historic Landmarks Foundation of Indiana, 340 West Michigan Street, Indianapolis, IN 46202.

Intensive architectural survey of Indiana's round and polygonal barns. Conducted June to August 1991, conducted by Jerry McMahan, areawide survey of round and polygonal architectural and historical resources.

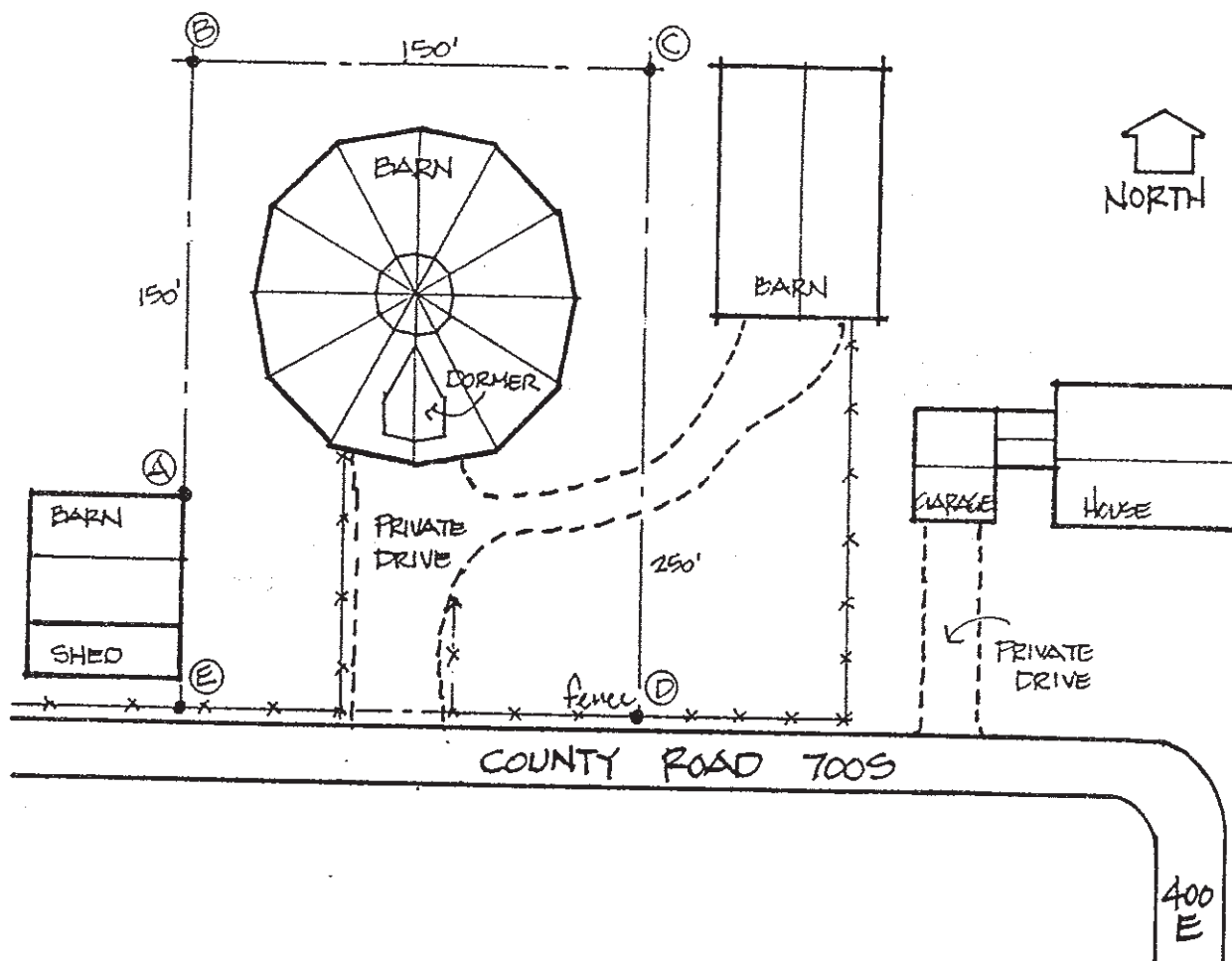
Montgomery, F.E. Owner of the Rudicil (Montgomery) barn, Waldron, Indiana. Interviewed by Jerry McMahan, 25 October 1991.

Soike, Lowell J. Without Right Angles, The Round Barns of Iowa. Des Moines, IA: Iowa State Historical Department, Office of Historic Preservation, 1983.

National Register of Historic Places Continuation Sheet

Section number 10 Page 9

Rudicil Barn
Shelby Co., IN



RUDICEL (MONTGOMERY) BARN

SITE PLAN

NO SCALE

1910 12-SIDED
SHELBY COUNTY, INDIANA
NOBLE TOWNSHIP

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number 10 Page 10 Rudicel Barn
Shelby Co., IN

Verbal Boundary Description

The Rudicel (Montgomery) barn is located in the SE/SE of Section 2, T11N-R7E of Noble Township, Shelby County, Indiana. Referring to the site plan, beginning at a point one foot east of the northeast corner of the west barn (Point A), proceed 150' north to Point B, then proceed east 150' to Point C, then proceed south 250' to Point D, then proceed west 150' to Point E; Point E being one foot east of the east wall of the west barn and on a line with Points A and B, then proceed north to Point A.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 10 Page 11 Rudicel Barn
Shelby Co., IN

Boundary Justification

The immediate area of the barn is a part of a larger acreage. Some of the acreage has been excluded from the nomination and the above boundary includes the property necessary to demonstrate the historic significance of the Rudicel (Montgomery) barn.