

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

1. Name of Property

historic name Centennial Malt House

other names/site number Chouteau Ave. Brewery Malt House, St. Louis Brewing Assn. Malt House
Joseph Schnaider Brewery Malt House

2. Location

street & number 2017-19 Chouteau Avenue [n/a] not for publication

city or town St. Louis [n/a] vicinity

state Missouri code MO county St. Louis code 510

zip code 63103

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [x] 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 [x] meets [] does not meet the National Register criteria. I recommend that this property be considered significant [] nationally [] statewide [x] locally. (See continuation sheet for additional comments [].)

Mark A. Miles

09/30/05

Signature of certifying official/Title

Mark A. Miles / Deputy SHPO

Date

Missouri Department of Natural Resources

State or 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

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

[] entered in the National Register
See continuation sheet [].

[] determined eligible for the National Register
See continuation sheet [].

[] determined not eligible for the National Register.

[] removed from the National Register

[] other, explain see continuation sheet [].

USDI/NPS NRHP Registration Form
Centennial Malt House
St. Louis (Independent City), MO

5. Classification

Ownership of Property

☒ private
☐ public-local
☐ public-state
☐ public-Federal

Category of Property

☒ building(s)
☐ district
☐ site
☐ structure
☐ object

Number of Resources within Property

contributing

noncontributing

1 0 building
sites
structures
objects
1 0 total

Name of related multiple property listing.
n/a

Number of contributing resources previously
listed in the National Register. 0

6. Function or Use

Historic Function

INDUSTRY/manufacturing facility

Current Functions

VACANT

7. Description

Architectural Classification

LATE VICTORIAN
Romanesque
Renaissance

Materials

foundation limestone
walls brick
limestone
roof asphalt
slate
other _____

see continuation sheet []

see continuation sheet []

NARRATIVE DESCRIPTION

See continuation sheet [x]

8. Statement of Significance

Applicable National Register Criteria

☒ 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

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

ARCHITECTURE

INDUSTRY

ETHNIC HERITAGE-EUROPEAN

Periods of Significance

1876-1946

Significant Dates

1876

Significant Person(s)

n/a

Cultural Affiliation

n/a

Architect/Builder

Wolf, Fred W./engineer

Kledus, Louis/architect

Narrative Statement of Significance

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

9. Major Bibliographic 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: Landmarks Assoc. of St. Louis

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10. Geographical Data

Acreage of Property under 1 acre

UTM References

A. Zone	Easting	Northing	B. Zone	Easting	Northing
15	742 660	4278 440			
C. Zone	Easting	Northing	D. Zone	Easting	Northing

[] 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 Matthew Bivens/researcher

organization Landmarks Association of St. Louis date February 10, 2005

street & number 917 Locust Street, 7th floor telephone 314-421-6474

city or town St. Louis state MO zip code 63101

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 Paul Hamilton

street & number 1111 Mississippi Telephone _____

city or town St. Louis state MO zip code 63103

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**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

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Centennial Malt House
St. Louis [Independent City], Missouri

Summary

The Centennial Malt House, located at 2017-19 Chouteau Avenue in St. Louis, Missouri, is a two and three-story red brick Late Victorian building on an exposed limestone foundation with flat and hipped roofs. Designed and built for local brewer Joseph Schnaider in 1876, the building has an eighty-five foot symmetrical primary façade with five bays accented by rusticated pilasters and extensive brick corbelling. Windows and doors are headed by smooth-cut limestone keystones; the limestone foundation slopes down at the west. The building features Romanesque and Renaissance details reflected in such elements as the round-arched windows, symmetrical massing, rusticated and corbelled brick and the heavy stone keystones. Exterior alterations on the main façade include replacement windows at both stories; two additional windows have glass block or boards. A former entrance nearest the west has been bricked in; a new door at the east appears to have the original transom above. Two bays, now boarded and containing new windows, originally held pairs of round-arched windows. A dentilled cornice and raised parapet are no longer extant and may have been removed during the period of significance. Other alterations include window replacements or closures on secondary elevations. Exterior alterations are reversible. The interior of the building retains its original configuration and materials and is virtually unaltered other than some rooms have been temporarily partitioned. Of note are exposed heavy wood posts and beams and an early concrete floor; some early malt house equipment is extant. A one-story brick addition (built prior to 1883) attached at the west (and set back from the street) has bricked-in, round-arch windows; the building is painted white. The building retains integrity of location, design, materials, workmanship, feeling and association; unfortunately the original brewery setting has disappeared.

Site

The Centennial Malt House at 2017-19 Chouteau Avenue measures approximately 85 feet on Chouteau Avenue and 130 feet near 21st Street; the parcel includes a fenced side lot measuring approximately 60 feet on Chouteau Avenue and 130 feet near 21st Street. The parcel is bound by Chouteau Avenue on the south, 21st Street on the west and an alley and Papin Street on the north; the remainder of the city block and 20th Street are on the east. The Centennial Malt House was once an integral part of Joseph Schnaider's

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Chouteau Avenue Brewery and Schnaider's Garden; only this building (and addition) remains of the original complex.

Exterior

The primary façade of the Centennial Malt House faces south on Chouteau. An exposed white limestone foundation, with both rough and polished blocks, supports two stories of red brick; the foundation slopes to the west (**photo 1**). The symmetrical façade includes five bays that are slightly recessed behind corbelled brick; bays are divided by rusticated pilasters that extend to the second story. The center first story bay contains a round arch loading dock entrance with two-light transom. Although the door is a replacement, the transom above is possibly original. A band of corbelled brick outlines the arch and extends to flanking rusticated pilasters; a white limestone keystone is mounted above the arch (**photos 1, 2**). A poured concrete slab is above the foundation just under the door. At either side of the loading dock is a partially boarded bay; the bays have new sliding windows installed near the centers. A look at **figure 3** (page 11) suggests that these bays included windows identical to those on the façade; the alteration may have occurred during the period of significance. Near the top of each boarded section is a corbelled course which continues from the center bay; the course extends across the entire first story, broken only by the pilasters. Above the course is a rounded belt course that extends only to the ends of the boarded bays; the course brick matches the façade. At both end bays of the façade are two round arch openings with corbelled courses; arches are headed with white limestone keystones. The easternmost bay contains the main entrance with original four-light transom. A boarded window is opposite. The westernmost bay contains a bricked-in portion (that was originally an entrance) and a second opening with a one-over-one replacement window. Both windows have limestone sills (**photo 1**).

Above the first story, a corbelled belt course extends the full width of the façade; dentils below contain three courses of protruding brick (**photos 1, 2, 3**). The five second-story recessed bays each contain a pair of round arch windows flanked by the rusticated pilasters. The ten windows have the same brick corbelling as those below; arches are headed with white limestone keystones. Nine windows have nine-over-six replacements with stucco above; one has glass block with brick above. All windows have limestone

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sills (**photos 1, 2, 3**). A simple cornice crowns the building. Another look at **figure 3** (page 11) suggests that a dentilled cornice and raised parapet originally adorned the building; the two may have been removed during the period of significance. The east and west walls extend above the main façade.

The east elevation of the Centennial Malt House faces the side lot; an iron hoist projects from the brick wall at the second story (**photo 4**). The elevation contains a garage entrance near the center of the building. Two rectangular doubled one-over-one windows (with brick sills) are at the left of the garage near ground level; two boarded segmental arch windows with wood sills are slightly above. Three rectangular industrial metal windows with brick sills are to the right of the garage; a segmental arch window is between. Three additional rectangular industrial metal windows with brick sills are at the second story. A three-story portion at the rear has a round arch window with limestone sill at the third story. Three additional round arch windows with limestone sills (at the third story near the rear) are visible over the two-story portion. A subtly corbelled cornice crowns the three-story portion (**photo 4**).

The rear (north facing) elevation is three stories and is visually separated into two portions (**photo 5**). The westernmost half contains a garage entrance accessible by a poured concrete loading dock at ground level. This entrance originally had a round arch, now infilled. At the right of the door is a round arch window on a limestone sill; the replacement window is nine-over-six. The second story contains a pair of similar windows with one-over-one replacements. Three similar windows at the third story are boarded. The corbelled cornice (continued from the east) extends across the surface. At ground level is a limestone round arch opening within the exposed limestone foundation. The easternmost half has two round arch windows on limestone sills; replacement windows are one-over-one. The second story contains a pair of short round arch windows on limestone sills; windows are boarded. A single segmental arch window with limestone sill at the third story is boarded. The original asphalt-covered hipped roof is visible above the window (**photos 5, 6**).

The west elevation of the two-story malt building is largely obscured by a one-story brick addition constructed prior to 1883; the painted building is setback from the street approximately 40 feet (**photo 6**). Visible at the second story of the main building is a round arch and a square window; both are on limestone sills and bricked in. Near the

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south elevation, a pair of segmental arch windows is bricked in at the first story. The exposed limestone foundation continues to the one-story building.

The one-story brick building addition contains four pilasters with paired, round arch windows on common sills at the rear (north) elevation; these windows (at two stories) are mostly bricked-in while some have vents. The west wall (facing 21st Street) contains six similar pilasters with single, centered, square windows filled-in with composite panels. A loading dock door is accessible above a concrete dock. The front (south) elevation contains four similar pilasters and paired round-arch windows at two stories. An entrance flanked by similar windows is at the side closest the main Malt House building. A look at figures 4 and 5 prove that this addition was completed by 1883; figure 5 in particular matches the design of the building although openings are closed with bricks.

Interior

The interior of the Centennial Malt House is almost entirely open at the first floor and is supported by massive exposed wood posts and beams (**photos 7, 8**). Office partitions are near the entrance and southeastern portion of the building; additional temporary partitions are near the south wall. The first story has a concrete floor; brick walls are exposed throughout. A freight elevator (with exposed mechanics) is just behind the central loading dock door. A round arch entrance in the thick brick wall leads to the three-story portion at the rear (**photo 8**). The three-story portion is divided in half by an interior wall; the easternmost half contains the original open wooden stairwell. A basement is below the entire building; it retains some original malt production machinery (Essmueller & Barry, circa 1870s), round-arched window and door openings and the malt pipe extending underground to the former brewery site. The second floor is an open space with a wood floor; wood posts and beams are visible (**photo 9**). Again brick walls are all exposed. Two sets of original wood stairs lead to third story lofts above the building. The rear of the building contains wood stairs that go to the third story. Access to the one-story addition at the west is possible through an iron door in the basement of the main building.

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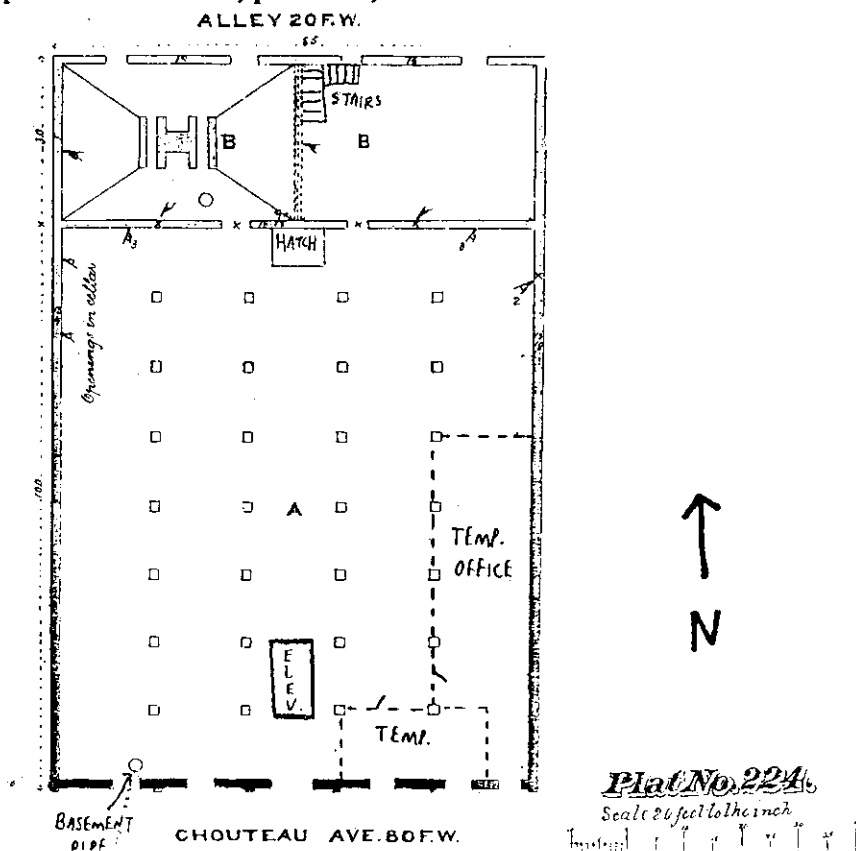
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Integrity

The building is in good condition with exterior alterations on the main façade including replacement windows at both stories and three boarded bays (two with new windows) at the first story. A former entrance nearest the west has been bricked in; a new door at the east appears to have the original transom above. A dentilled cornice and raised parapet are no longer extant and may have been removed during the period of significance. Other alterations include window replacements or closures on secondary elevations. Exterior alterations are reversible. The interior of the building retains its original configuration and materials and is virtually unaltered other than some rooms have been temporarily partitioned and no brewery equipment remains in place. Of note are exposed heavy wood posts and beams and an early concrete floor. The building retains integrity of location, design, materials, workmanship, feeling and association; unfortunately the original brewery setting has disappeared.

Figure 1: Centennial Malt House first floor plan. Source: *A. Whipple Fire Insurance Map*, Special Risks vol. 4, plate 224; base is circa 1878.



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Summary

The Centennial Malt House located at 2017-19 Chouteau Avenue in St. Louis, Missouri is locally significant under Criterion A in the areas of ETHNIC HERITAGE: EUROPEAN and INDUSTRY and Criterion C in the area of ARCHITECTURE. Co-designed in 1876 by German-born Chicago engineer and architect Fred W. Wolf and Austrian-born local architect Louis Kledus, the building was built for German-born brewer, Joseph Maximilian Schnaider. Originally named the Centennial Malt House, the building was an integral part of Schnaider's Chouteau Avenue Brewery complex; it is now the only extant building. In the period before the rise of the large "beer barons" in the 1880s, Schnaider's ranked among the top three local breweries in capital stock, annual value of business and number of barrels produced. The building is also significant as one of the earliest known malt houses in St. Louis as well as the earliest identified and most intact brewery building designed by Wolf and Kledus. Further, the Centennial Malt House is one of a few known extant buildings designed by Wolf in the United States. Wolf (one of the most prolific, widely recognized and longest-lived of the American brewery architects and engineers) was a German-born designer who was active and influential in the field from the 1870s until his death in 1912. The nominated building is an excellent example of the German *Rundbogenstil* or "round arch style," an eclectic style combining Romanesque and Renaissance design elements. Despite reversible exterior alterations, the building substantially reflects its historic appearance. It retains extensive brick corbelling, rusticated pilasters and limestone keystones at the exterior and massive exposed wood post and beams in the interior. The period of significance begins in 1876 (the original design and construction) and extends until 1946 when it was sold by the St. Louis Brewing Association; this period reflects its use as a brewery malt house and later as a manufacturing facility for the St. Louis Brewing Association.

Background: The American Brewing Industry

Beer brewing in America can be traced back to 1623 when the first commercial brewery was founded in New Amsterdam (New York).¹ Several American patriots, including Samuel Adams, William Penn and George Washington, even operated their own small breweries. These English-style ales first brewed in America required a top-fermenting

¹ Anheuser-Busch Inc. *What's Brewing in Soulard*. (St. Louis: A-B Inc., 1987), p. 9.

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process that yielded a dark, cloudy drink to be consumed generally at room temperature. Popularity of the beverage was supplanted by the introduction of German lager beer in the United States in the 1840s. Lager brewing required a bottom-fermented process and resulted in a clearer, lighter-tasting beverage to be consumed cold. The introduction of lager beer to the United States also coincided with the massive mid-nineteenth century wave of German immigrants from Europe. Immigration coupled with a new tax levied on alcoholic beverages (courtesy of the Internal Revenue System) in 1862 resulted in beer becoming a less costly drink than whisky; beer sales began to grow exponentially.² The shift in a preference for German lager beer over the traditional English ale began to reshape brewery design and function nationally, as each brewing process required a specific type of building or complex of buildings. Brewery evolution occurred at a quicker pace in cities with larger German immigrant populations. St. Louis and Cincinnati were the leading brewing cities in the Midwest in this early period; together with Milwaukee, the three contributed to the architectural development of the American brewery.³

In the years following the Civil War, professionally trained architects and engineers began to address the issues of creating brewery designs capable of containing new kinds of equipment efficiently, withstanding the weight of increasing amounts of materials, and taking advantage of new scientific, architectural and engineering ideas.⁴

Background: St. Louis Brewing and German Immigration

On April 26, 1810, the first announcement of a commercial brewery opening in St. Louis appeared in the *Louisiana Gazette*. By 1860, there were 40 local breweries producing 212,300 barrels of beer valued at \$1,525,400 each year.⁵ This sizable expansion of the local brewing industry corresponds to the increase of German immigration to St. Louis. In 1830, the population was 6,694. In twenty years (from 1830 to 1850) it grew from

² Robert W. Wells. *This is Milwaukee*. (Garden City, NY: Doubleday & Co. Inc., 1970), p. 100. A one-dollar tax was levied on each gallon of liquor and each 31 gallon barrel of beer.

³ Susan K. Appel. *Brewery Architecture in America from the Civil War to Prohibition*. Chapter 7, pp. 185-214. From John S. Garner, editor. *The Midwest in American Architecture*. (Urbana and Chicago: University of Illinois Press, 1991).

⁴ *ibid*, p. 186.

⁵ E. D. Kargau. *Mercantile, Industrial and Professional St. Louis*. (St. Louis: Nixon-Jones, 1902), p. 497. And *St. Louis Post-Dispatch*. "Area Facts," 4-26-1997, p. 7. St. Vrain's Brewery, Bellefontaine, was first.

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Centennial Malt House
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nearly 7,000 to 77,860. Responsible for the majority of this growth, a total of 38,397 were foreign born immigrants; of that number 22,340 were born in Germany.⁶

Among the mid-19th Century German immigrants was the successful St. Louis brewer Joseph Maximilian Schnaider—a man who had mastered the brewer's art with a "characteristic German thoroughness."⁷ Schnaider was born in Zell am Hammersbach in the province of Baden, Germany in 1832. After serving an apprenticeship in Rastadt (near Karlsruhe), he became foreman of a large brewery in Strasburg.⁸ Schnaider came to St. Louis in 1854 and found temporary employment as foreman of the Philadelphia Brewery on Morgan Street before going into business for himself the following year. In 1855, he built the Green Tree Brewery (in connection with the old Green Tree Hotel), one of the most famous of St. Louis' early breweries (demolished).⁹ Schnaider was soon joined by fellow brewer (and future brother-in-law) Max J. Feuerbacher and in 1864 the Green Tree Brewery moved to the south side of Sidney at Ninth. Schnaider sold his interest to his partner in 1865 to organize the Chouteau Avenue Brewery and Schnaider's Garden; he operated the complex until his untimely death in 1881.¹⁰

In terms of capital and value, beer manufacturing in St. Louis ranked among the top five industries between 1870 and 1875.¹¹ At the beginning of 1876, Joseph Schnaider's Chouteau Avenue Brewery ranked among the top three local breweries in capital stock, annual value of business, number of barrels produced, number of employees on hand and

⁶ William Hyde & Howard L. Conard. *Encyclopedia of the History of St. Louis*. (New York, Louisville, St. Louis: The Southern History Company, 1899), Vol. II, p. 889. The Federal Census of 1850 (Compendium U. S. Census, 1850, p. 399) lists 36,529 native born and 38,397 foreign born. These numbers do not include the native born children of German parentage; it is estimated that at least 100,000 Germans were in St. Louis in 1860. It has been said that local brewery business pursuits were in their hands exclusively. One such immigrant, German brewer Adam Lemp, introduced the first lager beer in 1838; some sources say that this may be the first lager beer produced in the country.

⁷ Hyde & Conard. Vol. IV, p. 2009.

⁸ *What's Brewing in Soulard*. Anheuser-Busch Inc. (St. Louis: A-B Inc., 1987), pp. 30-31.

⁹ The Green Tree Brewery (originally on Second Street between Myrtle and Spruce) was closed by the St. Louis Brewing Association in 1919.

¹⁰ *What's Brewing in Soulard*, pp. 30-31. Schnaider's wife Elizabeth took over as president through 1889 when the St. Louis Brewing Association ran operations.

¹¹ L. U. Reavis. *St. Louis: The Future Great City of the World*. (St. Louis: C.R. Barns, 1876), p. 140.

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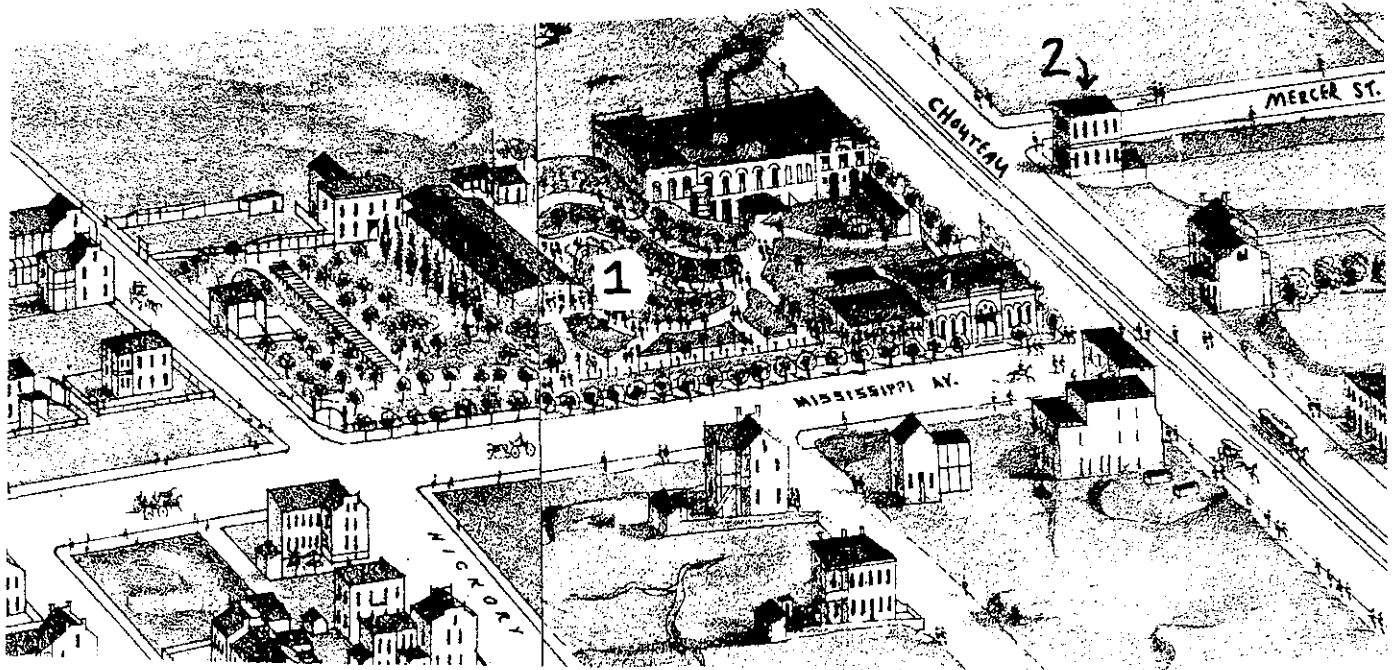
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number of horse wagons used.¹² Compton and Dry's *Pictorial St. Louis* shows the brewery and gardens as they appeared in 1875 (figure 2).

Figure 2: Joseph Schnaider's Chouteau Avenue Brewery and Schnaider's Garden. Source: Compton and Dry's *Pictorial St. Louis*, 1875, plate 40. The brewery complex (marked 1) is easily identified. The two-story building to the right of the brewery at Chouteau and Mercer (marked 2) was retained and used by Schnaider (now demolished).



Elaboration

Personal success and the continued growth of the local brewing industry led to the expansion of Joseph Schnaider's Chouteau Avenue Brewery complex of 1865. The original brewery occupied a space 350 feet on Chouteau Avenue and 577 feet on Mississippi Avenue (demolished); stables occupied a portion of Chouteau to the north. In September of 1876, Schnaider filed for a building permit to erect a two-story brick malt house on the north side of Chouteau Avenue between 18th and 21st Streets; the estimated

¹² *St. Louis: The Future Great City of the World*, p. 138. E. Anheuser & Co. (now Anheuser-Busch) ranked lower; A-B now makes more than 40% of the beer in America.

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cost was \$8,000. He commissioned the famed German-born Chicago engineer and architect Fred W. Wolf and the Austrian-born local architect Louis Kledus to design what is believed to be the brewery's first official malt house.¹³

The Centennial Malt House was designed with what could be called a German-inspired Victorian flair but more correctly titled *Rundbogenstil* or the German "round arch style." Built with deep red brick and accented with bright white limestone, the symmetrical street-facing façade featured rusticated brick pilasters and round arch windows in addition to extensive corbelling (**figure 3**).¹⁴ A visual balance created between openings and smooth, solid wall surfaces were features that tied such new American brewery buildings to the German *Rundbogenstil*, an eclectic style combining Romanesque and Renaissance design elements.¹⁵ The *Rundbogenstil* was a natural choice for such a building, being that it was owned by a German, designed by a German architect and built to produce malt for German lager beer—a triple dose of German inspiration.

The Centennial Malt House not only stored the malt necessary for the manufacturing of Schnaider's famous lager beer served at his celebrated beer garden (a capacity of 15,000 bushels), it provided the facility for the essential first steps in lager beer production. Barley would be brought by cart or carriage to the central bay of the building. Inside, malting and mashing took place to convert the starch in the grain into gum and sugar by fermentation. In the process of malting, the grain was first steeped then crushed (on the first and second floors), then floored (in the cellar) and then kiln-dried—the germinated barley being rendered perfectly dry and crisp (in this condition it is malt). The two

¹³ Building permits do not state that the 1876 malt house replaced an older one; the original 1865 brewery complex did have a space for malt storage and processing, but not an entire or separate building. Malt may have been obtained from a number of commercial maltsters previous to constructing a permanent one for the complex. The first recorded permit for the main brewery was issued in 1881 for an ice house. The building was completed in time for a February 3, 1877 Doppelfest held by Schnaider at the brewery. Kledus may have been in the office of the prominent German brewery architect, Edmund Jungenfeld.

¹⁴ No permits exist for the buildings visible at the left side of the malt house. A look at figure 2 shows that a two-story building was on the site; it was used prior to and in conjunction with the malt house in 1876. Presently a white-painted one-story building with filled-in round arch windows adjoins the malt house; again no building permits correspond to the building and its original purpose is unknown. There is no access between either buildings and each is owned separately.

¹⁵ Appel, p. 190. Based on the structural unit of the round arch, or *Rundbogen*, the style was not a historical revival but was among the first architectural movements to insist that form be derived not from history but according to abstract notions of utility and objectivity. The style brought Germany for the first time to a position of international prominence in architectural theory.

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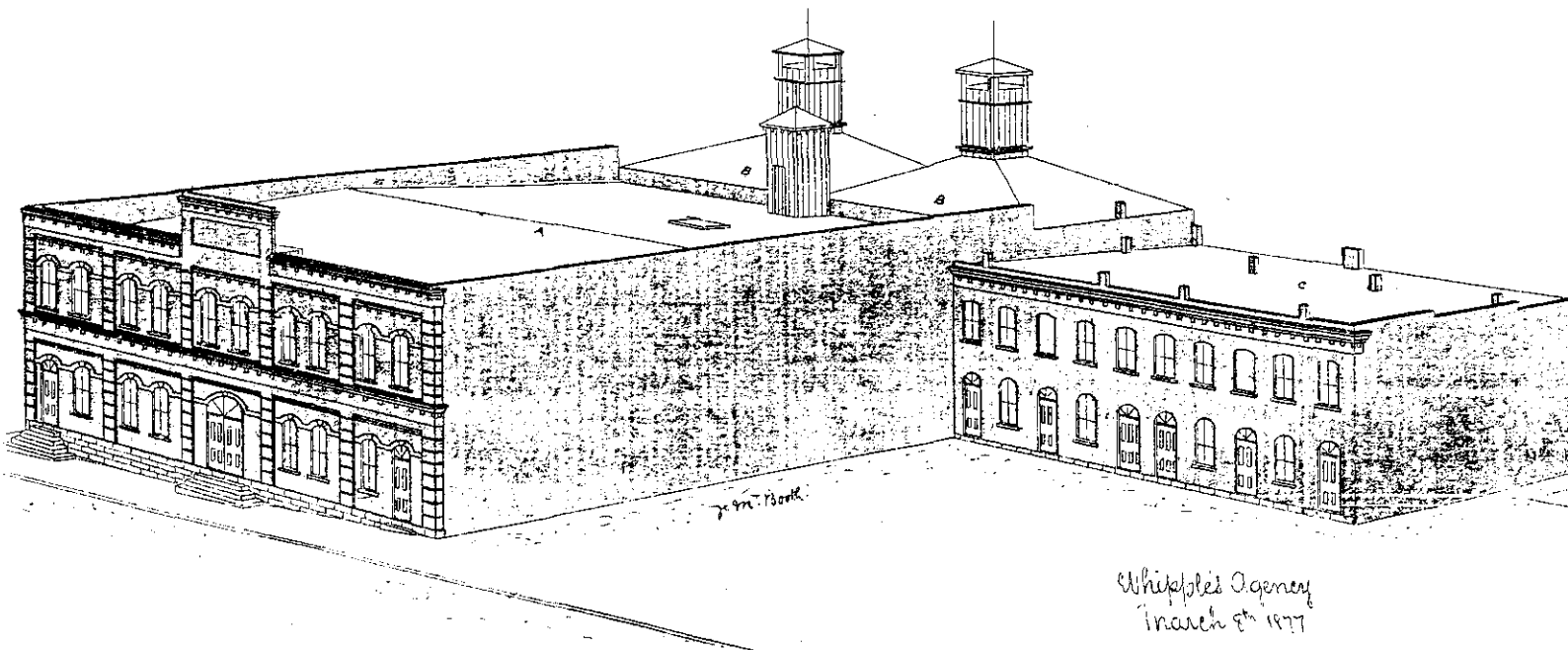
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adjoining drying kilns at the northernmost portion of the building were designed by Wolf; Wolf also supervised the construction directly. New innovations in kiln materials were also supplied and installed by Wolf. The malt was bruised and put into large mash-tubs with warm water, the temperature was then raised to 167 degrees; three such tanks were aligned along the north wall. The substance was then allowed to stand and clarify. Hops were added to heighten the bitter taste and improve the beverage. (Lager beer is the product of a slow fermentation at a low temperature.¹⁶) Through an extant pipe at the southern wall of the cellar, malt was conveyed by means of a suction fan in the brewery across the street; steam was pumped into the Centennial Malt House through a second pipe from the main brewery. The brewing process and final beverage storage across the street resulted in lager beer.

Figure 3: Joseph Schnaider's Centennial Malt House. Source: *A. Whipple's Insurance Maps: Special Risks* (second series, 1878). Vol. 4, plat 224. The building to the right was demolished at an unknown date; the foundation is visible at the rear.



¹⁶ Hyde & Conard. Vol. I, p. 221.

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In 1912, architect Frederick Widmann (St. Louis) wrote an expansive article on the history of brewing "The Development of the Buildings and Equipments of Breweries from Pioneer Times to the Present Day" for the *Western Brewer*.¹⁷ Widmann identified the period from 1860 to 1880 as the era when simple buildings and brewing techniques gave way to complexities requiring the knowledge of skilled architects and engineers. (A principal in the successor firm to E. Jungenfeld & Co., Widmann had gained considerable expertise in the field.) Many of the men in the United States associated with the rapid evolution of this building type were German-born and trained in German polytechnic schools; many of their clients also had roots in Germany. The Centennial Malt House of 1876 fits this model to perfection.

One of the most prolific, widely recognized and longest-lived of the American brewery architects and engineers during this period was Fred W. Wolf, a German-born designer who established an office in Chicago in 1867. Wolf was active and influential in the field from the 1870s until his death in 1912.¹⁸ His early training in mechanical engineering (a technical college in Karlsruhe) led him to develop a number of new mechanical devices for brewers and maltsters and in 1882 he became a major figure in the field of artificial refrigeration.¹⁹ Among the earliest designs attributed to Wolf are a new brew house and a projected malt house for Fortune Brothers of Chicago in 1880 (demolished).²⁰ The Centennial Malt House is Wolf's only known building in St. Louis; thus far it is the earliest identified Wolf design in the country and one of a handful of extant buildings known to be designed by Wolf.²¹

¹⁷ Appel, p. 186. Widmann's work was entitled "The Development of the Buildings and Equipments of Breweries from Pioneer Times to the Present Day," *The Western Brewer* 38 (January 1912), pp. 29-32. Widmann was a principal in the firm of Widmann & Walsh, St. Louis, earlier known as Widmann, Walsh & Boisselier (1898-c. 1907), and earlier as E. Jungenfeld & Co. (before 1884-98).

¹⁸ Appel, p. 197.

¹⁹ Appel, pp. 197-99. Wolf acquired U. S. patent rights to manufacture and distribute the famous German Linde ice machine.

²⁰ A section drawing appeared in the *Western Brewer* 5 (March 1880).

²¹ Extant buildings at the Joseph Schlitz Co. Brewery in Milwaukee, Wisconsin (NR 12-30-1999) were designed by Wolf beginning in 1886. The Schlitz buildings and the Centennial Malt House in St. Louis will represent the only Wolf buildings on the National Register of Historic Places. Susan K. Appel suggests that a number of Wolf's designs can be attributed to his talented partner Louis Lehle (from 1874-1894). A memorial book (*Zum Andenken an Unseren Lieben Vater, Joseph Schnaider*, 1881.) published about Schnaider's life in German and English states that the Centennial Malt House was not only designed by Wolf (and Kledus), but that Wolf personally supervised the construction. Further, it states that Wolf delivered the most recent innovations in kiln floor materials to Schnaider.

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Centennial Malt House
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The second malt house architect, Louis Kledus, was born in Austria and later trained at the University of Vienna; he came to St. Louis in 1869.²² Kledus immediately began working as an architect, draftsman and engineer for various firms, including that of Edmund Jungenfeld—perhaps one of the most significant architects of local brewery designs. Kledus, credited with being one of the most successful members of the profession in this city, also worked in his own office.²³ Between 1884 and 1887, he held the office of Commissioner of Public Buildings. Between 1891 and 1892, he was one of a number of architects in charge of designing local school buildings, before the Board of Education hired a permanent architect.²⁴ Kledus was an active member of the Western Architects' Association and the American Institute of Architects. Up to this point only one other extant Kledus-designed St. Louis building has been identified; the Centennial Malt House is the oldest.²⁵

In 1879, Joseph Schnaider incorporated all of his business interests (including the Chouteau Avenue Brewery and Schnaider's Gardens) under the Joseph Schnaider Brewing Company. By May of that year, prominent brewery architect Edmund Jungenfeld (1839-1884) designed a wagon shed and a beer storage house for the brewery; four two-story brick residences were also built on an adjacent block (*Western Brewer*, May 15, 1879 and January 15, 1885). (**figure 4**). The one-story brick building addition to the west of the Centennial Malt House may have been constructed during this period, it is also visible on figure 4.

²² *Pen and Sunlight Sketches of St. Louis, the Commercial Gateway to the South*. (Chicago: Phoenix Publishing Co., c 1892), p. 223. And Landmarks Association architect files.

²³ *Pen and Sunlight Sketches of St. Louis*.

²⁴ William B. Ittner was hired as Commissioner of School Buildings in 1897; in 1910 he was promoted to the position of Architect of the Board of Education.

²⁵ The extant octagonal one-story Frank B. Blair Kindergarten on Rauschenbach Avenue was designed in 1891. Of the others identified, three fire houses (nos. 21, 26 and 27), the original Alexian Brothers Hospital, and other educational institutions have been razed.

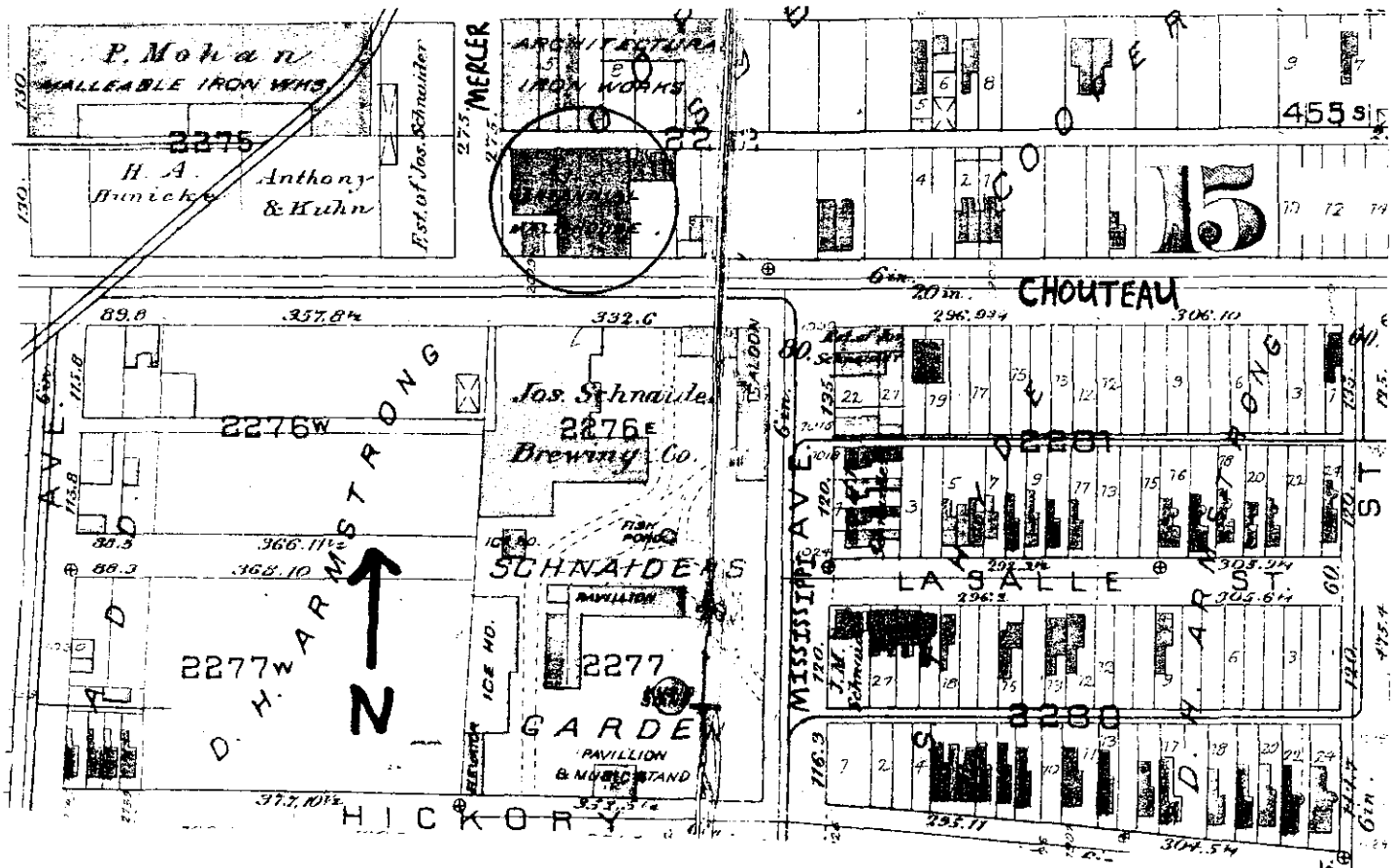
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Figure 4: Joseph Schnaider Brewing Company, Schnaider's Garden and Schnaider estate. Source: *Hopkins Atlas of St. Louis*, plate 13, 1883. Note the Centennial Malt House to the north (circled). The adjoining building to the left of the malt house (and set back from the street, visible in photo 6) is the same building currently attached; the remaining brewery buildings have all been razed.



Schnaider's untimely death occurred in 1881 while on a trip back to his homeland with his family; he was hoping to regain his health. His remains were brought back to St. Louis and "buried in the city which had been the scene of his great business success, and to which he had always been a loyal adopted son."²⁶ Although a short-lived career, he

²⁶ Hyde & Conard, op. cit., Vol. III, pp. 2009-10.

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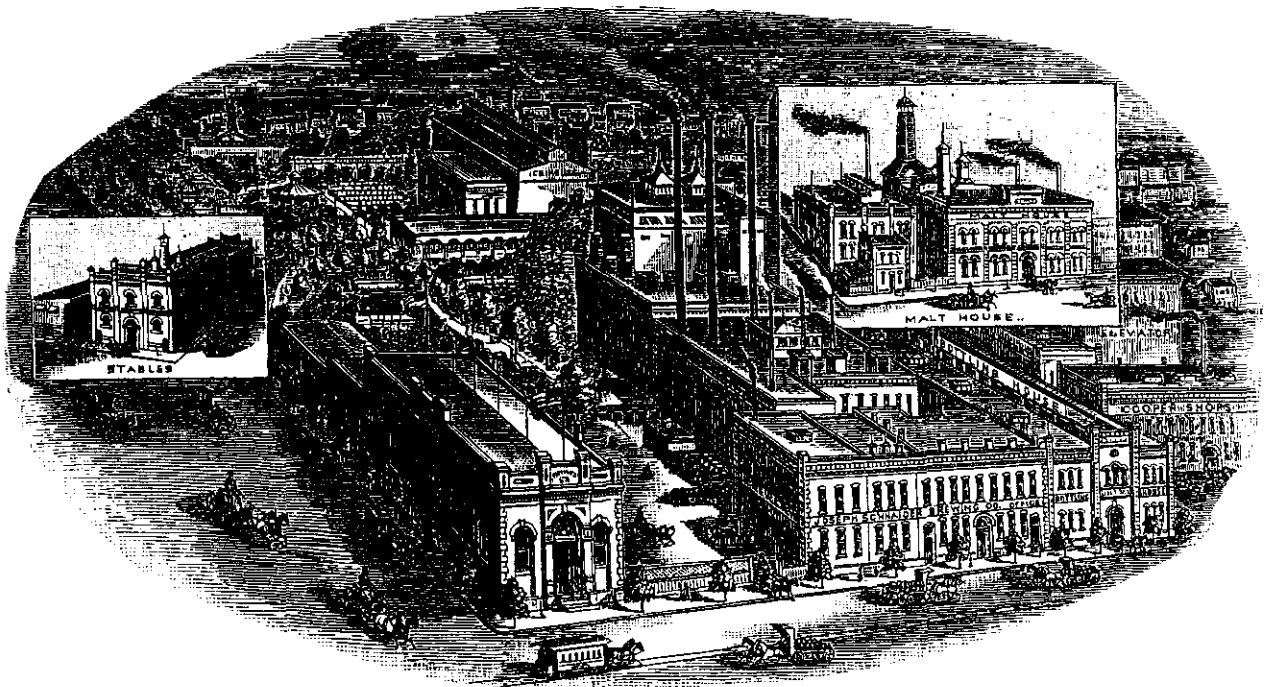
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Centennial Malt House
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made a lasting impact on the local brewing business first with establishing the Green Tree Brewery and last with his greatest enterprise, Schnaider's Brewery and Garden. After his death, Schnaider's wife Elizabeth took over as president and between 1881 and 1889, the brewery complex continued to grow. An ice house, a machine house, a storage house, a bottling house and a summer theater were constructed on the grounds at an estimated cost of \$25,000. By 1885, Schnaider's was considered one of the most complete breweries in the city.²⁷ Employing eighty men, the brewery had natural cellars for beer cooling, a natural spring, a bottling establishment and the Centennial Malt House in addition to its renowned gardens (figure 5).

Figure 5: Joseph Schnaider's Brewing Company. Source: *Visitor's Guide to the St. Louis Exposition*, September 1886 (Published in 1885). A portion of the former brewery and gardens is encompassed by the Mississippi Lofts (buildings 1902-22; NR, August 23, 1984); the remainder is an empty lot. Only the Centennial Malt House exists today.



²⁷ *The Industries of St. Louis*. (St. Louis: J. M. Elstner & Co., 1885), p. 166.

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Centennial Malt House
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A series of strikes during the later 1880s led to, in 1889, a consolidation of eighteen of the oldest and best-known St. Louis breweries. The consolidation was known as the St. Louis Brewing Association; it was handled by a subsidiary of a London company known as St. Louis Breweries, Limited.²⁸ The Association was headed by local brewer Ellis Wainwright of the Wainwright Brewery Company, another to be included within the brewery consolidation. Each brewery retained independence regarding the manufacturing of special brands of lager beer. The merger included Joseph Schnaider's Brewery at 2000 Chouteau.²⁹ By 1893, the combined capacity of the syndicate breweries was 1,500,000 barrels.

The St. Louis Brewing Association made a number of repairs to the malt house during its ownership. In October of 1893, Bothe & Raterman, builders and contractors, repaired one of the brick storage rooms at the rear of the malt house; the cost was \$2,500. In February of 1896, Jungenfeld & Company directed repairs to the malt house elevator; the cost was \$13,000. Additional buildings including draft horse stables, wagon sheds, a lumber shed and a boiler house were designed by Jungenfeld & Co. from 1901-06.

Between 1860 and 1896, the number of local breweries had been reduced from forty to just twenty-five. St. Louis was second in product value only to New York by 1896, a position it held since 1890.³⁰ By 1898, The St. Louis Brewing Association ran only thirteen of its breweries. In an effort to meet the competition of the larger independent breweries and the consolidated St. Louis Brewing Association, several other breweries merged in 1907 to form the Independent Breweries Company. The Schnaider Brewing Branch and related gardens were closed at the turn of the 20th century and all of the remaining Syndicate breweries were finally shut down at Prohibition in January of 1920.³¹ The brewery buildings and the Centennial Malt House were retained by the Association and used for its new company, the Chouteau Avenue Crystal Ice & Cold Storage Plant.

²⁸ Lemp's Western Brewery Co., Anheuser-Busch and others refused multi-million dollar offers from the Syndicate. The Association also took advantage of brewery worker strikes in Chicago, Milwaukee and New York and bought breweries in those cities.

²⁹ In 1890, it appeared in St. Louis directories as the Joseph Schnaider Brewery Branch of the St. Louis Brewing Association. Schnaider's son Joseph M. remained there as brewer and soon became Vice-President; his brother Louis was assistant manager of operations.

³⁰ Hyde & Conard. Vol. I, p. 222. The 1890 annual value of the product of New York was \$23,926,955 and St. Louis, \$16,185,560; Brooklyn, Milwaukee, Philadelphia, Chicago and Cincinnati followed.

³¹ Only one Syndicate-owned brewery, Hyde Park Brewery, would reopen after the repeal of Prohibition.

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The St. Louis Brewing Association sold the malt house to a Marvin A. Stein in 1946. Stein transferred the property directly to a family named Shanfeld who used the building as a warehouse. The St. Louis Brewing Association fled the United States to France in order to avoid a jail term for involvement in the payment of bribes to public officials for control of St. Louis' streetcar lines—many of which passed in front of its numerous properties.³² In the meantime, all of the buildings and lagering cellars were demolished in the 1960s; only the Centennial Malt House was spared. The nominated building was sold in 1977 to a truck parts company. The new owner envisions an adaptive re-use as a restaurant.

³² *St. Louis Inquirer*. "Lemp Refuses to Sell His Brewery to Out-of-Town Investment Group." (a reprint from September 1888 with later information included) St. Louis Public Library, local brewery file.

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Centennial Malt House
St. Louis [Independent City], Missouri

Boundary Description

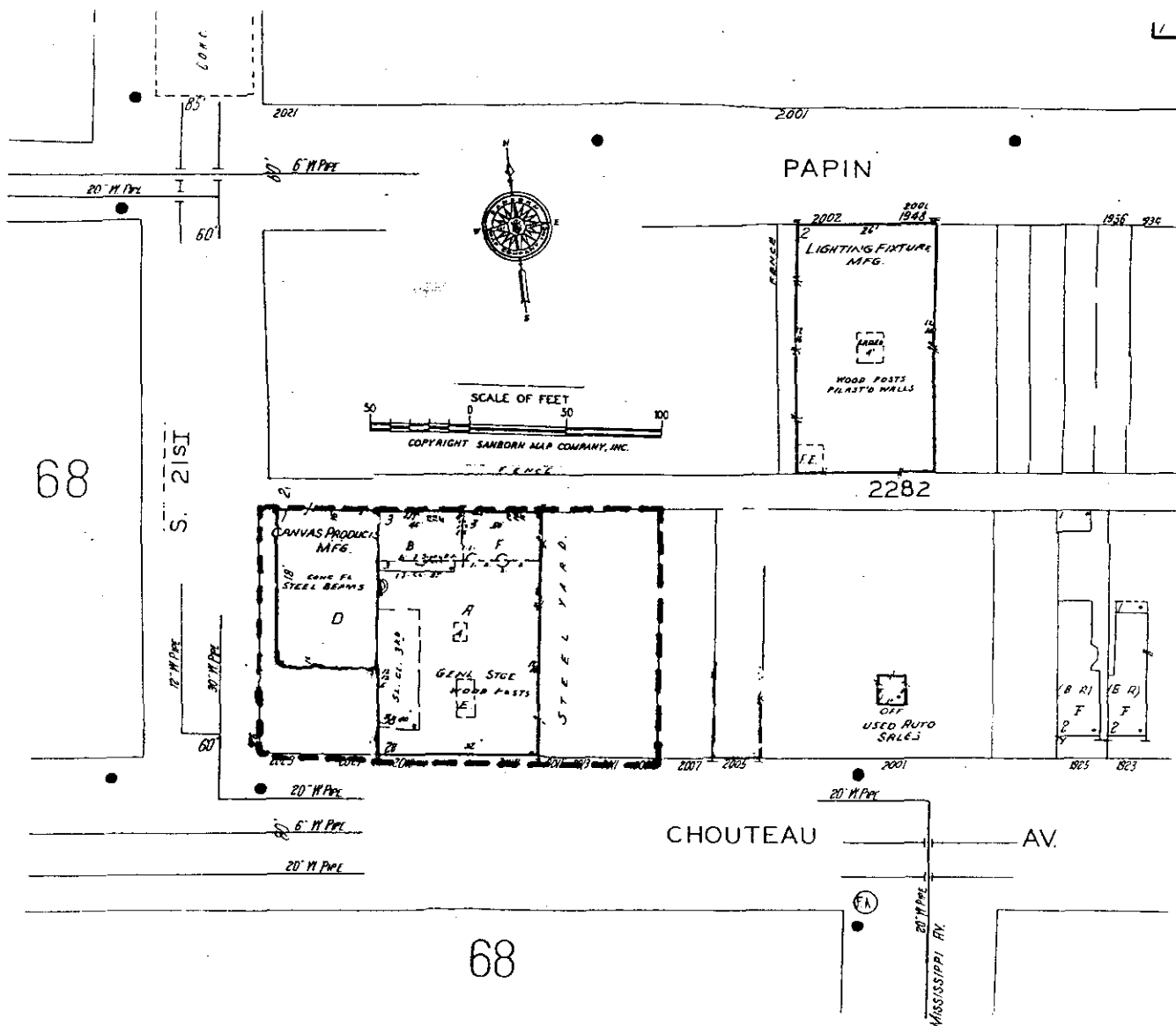
The Centennial Malt House property at 2017-19 Chouteau Avenue is located on City Block 2282 in St. Louis, Missouri. The nominated property is legally known by the Assessor's Office as parcel number 00228200320. The property was part of U. S. Survey 363 and is a portion of A. Chouteau's Estate, Cooper's Addition, Tamm's Subdivision and Cooper's Subdivision; the parcel includes lot numbers 1-4. The boundary of the nominated property is indicated by a dashed line on the accompanying map entitled "Centennial Malt House Boundary Map."

Boundary Justification

The nominated parcel includes all of the property historically associated with the Centennial Malt House.

Centennial Malt House
St. Louis [Independent City], Missouri

Source: Sanborn Map Company. Vol. 1W, plate 59, 1968.





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U.S. GEOLOGICAL SURVEY



38°37'30" 90°15' 140°00' E 12°30' 144

Centennial Malt House
2017-19 Chouteau Ave.
St. Louis [Ind. City], Mo.
Zone 15
Fasting 742 660
Working 4278 440

1 010 000 FEET
(MO EAST)





