1. NAME OF PROPERTY

Historic Name: George T. Stagg Distillery

Other Name/Site Number: O.F.C. Distillery, Carlisle Distillery, Albert B. Blanton Distillery, Ancient Age Distillery, Buffalo Trace Distillery

2. LOCATION

Street & Number: 1001Wilkinson Blvd. Not for publication: N/A

City/Town: Frankfort Vicinity: N/A

State: KY County: Franklin Code: 073 Zip Code: 40601

3. CLASSIFICATION

Ownership of Property		Category of Property	
Private:	X	Building(s):	___
Public-Local:	___	District:	X
Public-State:	___	Site:	___
Public-Federal:	___	Structure:	___
		Object:	___

Number of Resources within Property

Contributing	Noncontributing	
50	3	buildings
2	1	sites
10	5	structures
___	___	objects
62	9	Total

Number of Contributing Resources Previously Listed in the National Register: 61

Name of Related Multiple Property Listing: N/A

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, 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.

Signature of Certifying Official Date

State or Federal Agency and Bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria.

Signature of Commenting or Other Official Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

___ Entered in the National Register
___ Determined eligible for the National Register
___ Determined not eligible for the National Register
___ Removed from the National Register
___ Other (explain): _____

Signature of Keeper Date of Action

6. FUNCTION OR USE

Historic:	INDUSTRY	Sub:	manufacturing facility industrial storage
	DOMESTIC	Sub:	single dwelling
Current:	INDUSTRY	Sub:	manufacturing facility industrial storage

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: Other: American industrial modernism; American round-arched; Rustic

MATERIALS:

Foundation:	stone, brick, concrete
Walls:	brick, ceramic tile, metal, stone, wood, asbestos, concrete
Roof:	asphalt, metal, asbestos, stone
Other:	stone, brick, concrete, metal, glass

SUMMARY STATEMENT OF SIGNIFICANCE AND INTEGRITY

The George T. Stagg Distillery Historic District, a fifty-acre site located in Franklin County, Kentucky, is an iconic and highly intact example of a whiskey distillery complex associated with the nationally significant post-Prohibition expansion of the distilled spirits industry. The distillery has been evaluated within the context of the distilled spirits industry in the United States with particular attention paid to the important 1933 to 1960 period when the industry was virtually reinvented after Repeal. The Stagg Distillery meets National Historic Landmark Criteria 1 and 4. It has national significance in the area of architecture for its outstanding ability to document major trends in the development of post-Repeal distillery architecture: the way a number of historic, well-built, pre-Prohibition distilleries were modernized and repurposed to meet the needs of dramatically increased production and the new "scientific" distilling industry; the way changes in technology resulted in new building and equipment types and the reconfiguration of old ones; and the significant degree to which the federal government's policies and regulations impacted the architectural character and operation of distilleries. The property is a superlative example of one important type of whiskey distillery that developed after the 1933 repeal of Prohibition – the relatively intact, pre-Prohibition distillery that was repurposed to meet the needs of the newly re-emerging industry. It clearly conveys the nature of the architecture and engineering associated with whiskey distilling after Repeal, particularly that associated with the distilleries of the Big Four, the four huge companies that dominated the industry from 1933 through the 1950s. Its diverse collection of intact historic distilling resources ranging in date from ca. 1880 to 1953 also provides a unique and unparalleled opportunity to study at one site the evolution of the building types, building materials and construction technology associated with the American whiskey industry over time.

It should be noted that in terms of distillery architecture, technology and production no major differences exists between distilleries producing bourbon whiskey and those producing rye whiskey, the two principal whiskey types historically associated with the United States. Only their grain recipes differ, bourbon, by definition, requiring 51% corn and rye, 51% rye. Production and aging requirements are identical and, in many cases, distilleries produced both.

The period of significance for the George T. Stagg Distillery dates from 1933 to 1953, dovetailing with the period of the most important industry-wide, post-Repeal development. At Stagg it represents the active period of post-Repeal growth during which the distillery was dramatically expanded following a major building program rooted in the latest advances in scientific distilling. It documents the distillery's major role in the industry's war efforts during World War II, and it's repositioning after the war with a second period of new construction for peacetime production. In 1933, as the distilling industry prepared for Repeal, the first major physical improvements were made at Stagg in anticipation of massively increased post-Prohibition production. 1953, arguably the distillery's year of peak success, marked the end of twenty years of major construction that created the iconic distillery. In June of that year, the two-millionth barrel of whiskey produced at the plant since Repeal was placed with much fanfare in newly constructed Warehouse V, the single-barrel warehouse designed to hold it. Stagg was the first Kentucky distillery to achieve this production milestone. Warehouse V was the last significant building constructed at the site until the 1970s. Stagg's extant buildings, structures and manufacturing processes retain a high degree of integrity to the 1933-1953 time period; much of its historic equipment remains in place from that era; and very little new construction or demolition at the site post-dates 1953. The area proposed for designation has a very intact internal setting with outstanding integrity of location, design, workmanship, materials and feeling. The property provides an exceptional opportunity to interpret America's cultural values as expressed by the buildings, structures, equipment and overall layout and operation of the facility. In sum, it is arguably the single best intact representation of the nationally significant post-Repeal distilling industry, an important and under-studied area in American history.

Describe Present and Historic Physical Appearance.

The George T. Stagg Distillery is located in Franklin County, Kentucky in the state's central Bluegrass Region. Its owners and name have changed a number of times over the years, but the distillery has operated continually on the site in some form from its 1870 establishment to the present. The irregularly-shaped, fifty-acre site proposed for nomination sits on the east bank of the Kentucky River directly to the north of the city limits of Frankfort, the state capital. The major part of the property, occupying a level terrace at approximately 500 feet above sea level, is heavily industrial in character. Extending to the south on land that slopes steeply up to almost 600 feet are about fifteen acres of landscaped green space. This area surrounds two clusters of buildings and structures, one with a domestic and the other with a social function, both integrally related to the distillery. The property retains a wide variety of historic resources dating from ca. 1790 to 1953, most of them with a high degree of integrity to the period of significance: 1933-1953. A ca. 1790 stone house from the early settlement of Leestown that predated the distillery and a section of an early nineteenth- century turnpike were both integrated into the plant early on. A group of six buildings constructed between 1880 and 1907 represent the distillery's formative years before Prohibition.[1] A large group of 54 buildings and related structures built between 1933 and 1953 during a major post-Repeal expansion overwhelming dominates the site.

All together, the district contains 62 contributing and 9 non-contributing resources. The building types represented are primarily excellent examples of those associated with the post-Repeal distilling industry as identified in Appendix A. They include a group of large buildings associated with whiskey production – the grain elevators, the mash, fermenting and still houses, the dry house, and two cistern rooms. Others are warehouses where new whiskey is aged in barrels, bottling and finished product storage and shipping facilities, and various smaller support facilities such as maintenance and storage buildings, fire suppression and water cooling systems, and employee support structures. Their size varies from massive two- to nine-story aging warehouses to small sheds and hose houses.

Building materials and construction techniques are for the most part determined by the age of the buildings. The late nineteenth-century and one early twentieth-century buildings are all load-bearing brick buildings with stone foundations, gable roofs and the segmentally-arched windows and brick pilasters associated with much industrial architecture of that period. The construction methods used for the 1930s-1950s buildings are more varied including examples of both steel and reinforced-concrete framing as well as corrugated metal-clad wood framing, and load-bearing, hollow tile and concrete block with brick facing. Concrete foundations, in some cases faced in stone, brick and ceramic-tile curtain walls, flat roofs and glass block and industrial steel sash windows are much in evidence. Stylistically, the buildings are representative of much engineer-designed industrial architecture of the late-nineteenth and mid-twentieth centuries which was solidly built to reflect a functional beauty but without clear reference to any particular high-style movement. The terms "American round-arched" and "American industrial modernism" work well to describe the 1880s and 1930s to1950s buildings, respectively.[2] Rock Hill, the residence built in 1934 for Albert Blanton, long-time president of the

[1] The history of the modern distilling industry in the 20th century is divided into three distinct periods. These correspond in date to the years before, during and after Prohibition, the period from January 1920 to December 1933 during which the Eighteenth Amendment to the U.S. Constitution prohibited, with very few exceptions, the manufacture, transport and sale of alcoholic beverages. The years before 1920 are commonly referred to as pre-Prohibition and those beginning in 1934 as post-Repeal in reference to the Twenty-first Amendment that repealed the Eighteenth.

[2] In *The Works: The Industrial Architecture of the United States* (Oxford University Press, 2009), Betsy Hunter Bradley provides a very helpful discussion of the "aesthetics of industrial architecture" in which she discusses the descriptors "American round-arched style" and "American industrial modernism" as useful terms for discussing industrial architecture. (pp. 235-239 and 244-258) An American round-arched industrial building is characterized by brick construction detailed with pilasters, brick corbelling, molded surrounds and round- or segmentally-arched windows. American industrial modernism defines buildings whose designers were

distillery, is a stone-veneered house with eclectic detailing. The 1935 Clubhouse and Lodge are Rustic-style log buildings created for company employee and visitor use. Most buildings retain highly intact historic interiors and often 1930s -1950s manufacturing and warehousing equipment which in many instances is still in use. The industrial buildings are linked by a network of encircling asphalt and gravel roadways, some grassed areas, and various systems of above-ground pipes and barrel runs, many of which are contributing historic resources. The grounds surrounding Rock Hill, the clubhouse and lodge, and their outbuildings are landscaped with terraced gardens, water features and foot bridges that date to the 1930s. The nominated area is identical to that included in the George T. Stagg Distillery historic district, listed in the National Register of Historic Places in 2001.

The property is flanked by the Kentucky River and a few non-historic residences on the west. To the north are two non-historic water treatment ponds associated with the distillery, a stream flowing into the Kentucky River known as Penitentiary Branch and beyond it, a high, undeveloped, wooded ridge. To the east and south is modern development. This includes the distillery's huge ca. 1970 one-story metal-clad distribution center and two of the distillery's historic double warehouses (R/S and T/U), built in 1950-1951, that were excluded from the nomination because of their extensive remodeling in the 1990s as office space. A fourth large, one-story metal-clad business/industrial building with no connection to the distillery is also located in this area. All four buildings are surrounded by extensive areas of non-historic, surface-level parking. The distillery is now accessed from Wilkinson Boulevard, a modern four-lane highway completed in the late 1990s, which runs just to its south beyond the converted warehouses and the non-historic housing.

From Wilkinson Boulevard an intact section of the Lewis Ferry Turnpike winds down past Rock Hill and the Lodge to the industrial heart of the distillery. There the site is dominated by two groups of resources: the suite of large whiskey production buildings built in 1936-1937 and the massive aging warehouses ranging in date from ca. 1880 to 1942.

Close to the steep bank of the Kentucky River are the production facilities (the mashing, fermenting and distilling buildings with the associated boiler and dry houses). These are organized roughly along two north-south axes paralleling the river with a narrow paved access road running between them. This area was the earliest part of the distillery to develop, adjacent to the river which provided ample supplies of water for cooling and fire suppression and also steamboat transport into the early 1900s. In addition, a spring on the river's bank at this point was the original source of the pure limestone water that was mixed with grain to make the whiskey. The substantial brick production buildings and warehouses associated with the two adjacent distilleries that developed on the site, the 1870 O.F.C. Distillery (RD or DSP 113)[3] and the 1879 Carlisle Distillery (RD 2) were located here until about 1934. At that time, Schenley Distillers Corporation, the new owner of what by then was called the George T. Stagg Distillery, began its massive expansion of the plant. The Carlisle still house and boiler house and a shared barn-like grain storage facility were demolished. The huge new boiler house for George T. Stagg was retrofitted into the shell of the 1883 O.F.C. still house and boiler room, leaving only the section housing the mashing and fermenting rooms (today's Dickel Building) reasonably intact. The present grain elevators, and mash, fermenting and still houses were built new in 1936-1937 as state-of-the-art facilities; the dry house followed in 1944. A good deal of the equipment in these buildings including mash cookers and drop tubs, yeast tubs, fermenting vats, and slop tanks and slop drying equipment dates to the time of construction or shortly thereafter and much is still in use. The function of this equipment is explained in the resource inventory that follows.

---

working with new structural systems (steel and reinforced concrete framing) and new building materials such as hollow tile, industrial steel sash and glass block.

[3] The Federal government has identified distilleries by number since the Civil War period. Before Prohibition, "Registered Distillery" (RD) was the accepted terminology. Sometime shortly after Repeal it was changed to "Distilled Spirits Plant (DSP). The number stayed with the distillery even as the name and/or ownership changed.

From the production facilities, the aging warehouses fan out to the north and east with the five oldest, dating from ca. 1880 to 1909, in closest proximity. Two of these (NHL 4 and 6) had been adapted for other purposes before Repeal. The other three, Warehouses B, C and D are some of the earliest remaining intact examples in the United States of "continuous rack warehouses" where barrels are stored in a rigid grid of wooden racks that extends uninterrupted from the ground to the roof. C and D were in use throughout Prohibition, during the entire 1933-1953 period of significance and remain in active use today. B was returned to use after Repeal. Farther to the east beyond warehouses C and D, on land purchased incrementally after 1935 from Albert Blanton, are the post-Repeal warehouses built by Schenley. These were added to accommodate the hugely increased production at the plant which climbed from 600 barrels per day at O.F.C. before Prohibition to more than four times that number by 1940. These warehouses date from 1935 to 1942. They include Warehouse H, a four-story, wood-framed, metal-clad structure, Warehouses I and K, nine-story, continuous rack warehouses with load-bearing brick and tile walls, and L/M, N/O and P/Q, three double, fireproof, five-story warehouses built with reinforced-concrete frames, the construction method that became common at the largest distilleries during the 1930s. R/S and T/U, two more pairs of almost identical warehouses dating to 1950-1951, are the ones excluded from the district. Warehouse V was built in 1953 to hold a single barrel of bonded whiskey, the only such facility ever built by the industry. It was designed to hold the two-millionth barrel of bourbon produced at Stagg, the first Kentucky distillery after Repeal to reach that milestone.

Nestled amidst these newer warehouses are two cistern rooms where the new whiskey is loaded into barrels. Here also are the regauge facility and dump room where the aged whiskey is emptied from the barrels and re-measured, all, until the 1980s, under strict government supervision. A series of elevated pipes for steam, whiskey, and distilled water, primarily dating to the 1930s, as well as elevated and ground level barrel runs, link the boiler house, still house, cistern room, warehouses, and bottling house in various configurations. Distributed around the production and warehousing facilities on the fifty acres are the wide variety of support facilities, almost all from the 1933 to 1953 period, such as a large barrel storage shed, a maintenance shop, carpentry shop, guard house, several garages, the government office, and washrooms for workers. Also present are a number of contributing buildings and structures relating to a complex plant-wide fire suppression system and others associated with a water cooling system necessary for the mashing and distilling processes. These include two reservoirs, a water tower, several large water tanks and pump houses, hose houses, and a fire station.

In marked contrast to the rather densely built up industrial area of the plant is the fifteen-acre area of green space at the south of the property containing Rock Hill, the clubhouse and the lodge and their surrounding outbuildings and landscape features. This whole area was developed between 1934 and 1936 under the supervision of Albert Blanton once it became clear that Schenley was going to invest in modernizing and dramatically expanding the distillery. Aside from the addition of a playground and several pieces of outdoor sculpture in the clubhouse area and a paved parking area at Rock Hill, the buildings and grounds at both these sites have outstanding integrity of location, setting, design, workmanship, materials, feeling and association.

BUILDING INVENTORY

The extant resources included within the proposed fifty-acre boundary are identified and described below. For the purpose of this nomination they have been organized and assigned numbers so the list may be used to make some sense of the development of the site and the technical operation of the distillery. They are organized in approximately chronological order and grouped to a certain extent by function. Two other sets of identifying numbers also exist for most of these resources and these are indicated with each entry. According to government requirements initiated with Repeal in 1933, buildings on the site were assigned numbers by then owner, Schenley Distillers Corporation. This numbering system has been continued to the present at the

distillery as new buildings have been constructed. In addition, National Register (NR) inventory numbers were assigned in 2001 although a few structures, some contributing and some non-contributing, such as spirit and slop tanks, cooling towers, and piping systems were omitted in that inventory. They have been added to the following list.

Resources that Predate the Founding of the O.F.C. Distillery in 1870

1. Frankfort and Lewis Ferry Turnpike. NR 1. 19th century. Contributing structure. Photo 1
Function: Early road from nearby Frankfort that passed through the distillery grounds on its way north until the 1990s. Presently integrated into vehicular circulation route on distillery premises.
Description: Asphalt-surfaced, two-lane road that in some areas retains its integrity of scale as a narrow country lane. Section from Wilkinson Blvd. to Guard House (NHL 60) is particularly intact. Other sections have been merged into larger areas of asphalt between buildings. Presently gated at north edge of property.
Significance: Documents essential overland transportation route to and from distillery before construction of railroad in 1933 and four-lane Wilkinson Boulevard in 1990s which bypasses distillery.

2. Riverside. NR 27/Building 15. ca. 1790/ca. 1890/ ca. 1935. Contributing building. Photos 17, 83
Function: Residence/first aid clinic/laboratory. Presently vacant. May have been built as early as ca. 1790 for Captain Richard Taylor, a prominent early settler of Leestown, a very early community that developed on the site before the distillery. House was located on the distillery property purchased by E.H. Taylor, Jr. in 1870 and probably served as employee housing. It was adapted by Schenley in the post-Repeal period after 1935 to provide a "hospital" (in a newly constructed rear wing) and for use as an on-site laboratory.
Description: Two-story, gable-roofed, stone and frame residence with long and complicated history of additions, alterations, and demolitions. Present 20' by 40' first floor dating in all or part to ca. 1790 is constructed of coursed-rubble limestone; second-story, frame addition finished with weatherboarding was added about 1890. Gable roof has asphalt shingles; interior gable-end chimneys have been removed above roofline. Windows include both six-over-six and two-over-two, double-hung, wood sash. Four door openings presently exist with evidence of a fifth, now filled in with brick on the front façade; only one four-panel exterior door remains in place. Sanborn maps indicate a series of frame additions were added to the side and rear dating from before 1886 to about 1936, all of them now removed. Evidence of the lab remains in the first-floor north room which retains paperboard wall and ceiling finishes and built-in storage cabinets and counters. South room has original stone chimney breast with fireplace opening exposed and some areas of early plaster walls. Narrow board floor has collapsed in much of this room. Central hall has steep single-run stair with square balusters and molded newels. Second floor has two rooms with end fireplaces detailed with simple wood mantels and cast-iron coal grates, plaster and lath walls and ceilings, closets constructed with vertical boards, four-panel doors and, in north room, matchboard cabinets and shelves suggesting additional lab space. Presently the building is in very poor condition and awaiting restoration.
Significance: Example of Schenley's pattern at the distillery of building adaptation and reuse rather than demolition and reconstruction. The presence of the laboratory documents the increasingly scientific approach to distilling favored by the large national companies that controlled the industry after the end of Prohibition and represents one of the increasing number of ancillary facilities found at George T. Stagg and other large distilleries of the 1930s through 1950s.

1870 to1920: Active Development of Distillery before Prohibition

3. O.F.C. Mashing and Fermenting House/Dickel Building. NR 20/ Building 14. 1883/ca.1937. Contributing building. Photos 18-20

Function: Designed as mash floor (upper level) and fermenting room (lower level) for new O.F.C. distillery built after 1882 fire. From ca. 1937 to about 1948, after construction of a stone addition and a metal-clad, wood-framed superstructure to house a still, this wing of the early distillery served as a separately functioning distillery (DSP 46) for the George Dickel Company, a subsidiary of Schenley. After 1948 used for general storage. Currently vacant.
Description: One-story building set into river bank with full basement. Constructed of limestone block on basement level with massive battered stone piers on river frontage and south end; American-bond brick on the upper level with pilasters supporting corbelled brick cornice. Eight-over-eight, double-hung sash windows with stone sills and segmental-arched lintels; shallow-pitched parapet gable roof. 1933 pump house is attached to the river side. 1937 changes significantly altered the north and east exterior facades with new stone-block addition, and addition of two-story iron-clad still house rising from roof. South and west facades are virtually unchanged from the 1880s. Building retains the vast open spaces of the original mash and fermenting floors and a great deal of original interior fabric including floors, floor coverings, exposed brick and stone walls, wood posts and cast-iron columns, doors and window sash.
Significance: Significant for outstanding documentation of the architectural character of the O. F. C. Distillery and for comparison purposes in documenting relative scale of pre-Prohibition and post-Repeal plant. Excellent example of Schenley's philosophy of adapting existing structures for new uses and of its business model that involved the acquisition of many distilling companies.

4. O.F.C. Bonded Warehouse 113B/Glass Storage Building. NR 35/Building 28. 1881 with some later interior and exterior alterations. Contributing building. Photos 12, 25-27
Function: Bonded, open-stack, steam-heated warehouse for O.F.C. Distillery used into Prohibition. The stack house, where barrels were stacked on their sides on top of each other generally three barrels high, was the accepted storage method before the 1879 invention, patenting and quick introduction of the "patent rack." Bonded warehouses, required by law to be under strict government supervision, held aging whiskey before payment of taxes. After Prohibition, building was used by Schenley for storing bottling supplies. Presently used for storage on second floor. First floor houses expanded bottling facilities as well as gift shop and orientation center at east end. Original capacity: 10,000 barrels.
Description: Two-story, American-bond brick building with stone-block foundation. American round-arched styling includes pilasters flaring at top into quarter-round arches that extend to create corbelled brick cornice along sides; windows every other bay. Many original windows with their segmental-arched lintels and barred six-over-six wood sash still in place although metal-clad fire shutters have been removed. Gable roof with parapet ends and metal sheathing has four gabled ventilation housings along ridge line installed about 1934. "O.F.C. Erected 1881" appears on building's north façade. Interior is relatively intact with exposed brick walls, wood floor on second level, original wood-post support structure (now reinforced with metal plates in some areas) and exposed rafters. Original dirt floor on ground floor has been replaced with concrete, probably when plant was reconditioned by Schenley in 1930s. On south side, Blending and Processing facility (NHL 51) has been attached since before 1940. Loading dock was added before 1940 and later expanded. First-floor, east front section was altered about 2000 for visitors' services with new window and door openings fitted with six-over-six, double-hung sash and wood doors with glazed upper halves. Interior has new partitions with new finishes.
Significance: A relatively intact and rare remaining example of an important early type of distillery warehouse. One of the 15 warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the U.S. Excellent example of Schenley's philosophy of adaptation of existing structures for new uses.

5. Buffalo Sculpture and Water Garden. 2009. Non-contributing site. Photo 28
Function: Site beautification.

Description: Bronze sculpture set within small water garden at southeast corner of Warehouse 113B (NHL 4).

6. Free Warehouse A. NR 39/Building 3. ca. 1880/ca. 1949/multiple alterations. Contributing building. Photo 9, 29

Function: Originally a free warehouse of the stack house variety for Carlisle Distillery, the second distillery constructed at the site in 1879-1880. Distilleries had both bonded and free warehouses, the former for aging whiskey before the payment of government taxes and the later for tax-paid storage. Original capacity: 7,000 barrels. Varied later functions initiated by Schenley included use as blending plant with regauge and shipping facilities and, after World War II, second bottling house. Presently used primarily for storage of bottling supplies.

Description: Two-story, American-bond brick building with pilasters, gable roof, and American round-arched styling. Very similar in scale, construction and detailing to O.F.C. Warehouse 113B (NHL 4) except with windows originally in every bay. Stack house type. Many modifications including numerous filled-in windows, new overhead door openings, and interior subdivisions. Ca. 1949 east-end addition is a one- and two-story, flat-roofed brick extension with large overhead door on north side. Overhead conveyor, in place by 1951, is boxed in corrugated metal and runs from roof of this building to Case Shipping (NHL 53) so that finished case goods could be transferred to the train loading area. Interior has concrete floor, exposed brick walls, I-beam and wood posts, and exposed wood common rafters. Retains enough of its early 1950s exterior and interior form, materials, and appearance to qualify as a contributing building.

Significance: One of the fifteen warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States. Excellent example of Schenley's philosophy of adaptation of existing structures for new uses.

7. Warehouse B. NR 41/Building 101. ca. 1881-1882/1934 alterations/2011. Contributing building. Photos 30-32

Function: Bonded "patent-rack," steam-heated warehouse for Carlisle Distillery and, later, other distilleries on site. The "patent rack," a system for tiering barrels in warehouses, was patented in 1879 as a method for storing barrels of aging whiskey in a way that improved ventilation and ease of handling. A rack or "rick," the two terms are used interchangeably, is a heavy wooden framework designed to store three rows of barrels tiered above each other. Thus one rack holds three tiers of barrels. When joined together vertically and horizontally, they form a rigid support system not only for the barrels but also for the warehouse walls and roof erected around them. Patent racks quickly became and remain today the most common method for whiskey storage in the U.S. Original capacity 20,000 barrels. Continued in use as aging warehouse throughout 1933-1953 period of significance. Presently vacant.

Description: Three-story, American-bond brick warehouse with American round-arched styling. Rough cut-stone foundation and same façade pier detailing as NHL 4 and 6. Six-over-six, double-hung sash windows with stone sills and segmental-arched lintels and metal bars on first two levels. Some original metal-clad fire shutters remain on first level. Shallow-pitched gable roof has asphalt-shingle sheathing. Although vacant, interior retains nine continuous tiers (three racks) of heavy-timber racks accessed by aisles with heavy board flooring that run along the end of the ricks and bisect the warehouse at the center. The racks are designed to hold 48-gallon barrels rather than present day 53-gallon barrels. Schenley made some changes in 1934-1935 including addition of concrete floor, drains, elevators to replace earlier hoists, and expansion of capacity from 20,000 to 25,000 barrels. Cincinnati Elevator Works elevator which replaced one of two hoists, probably in 1930s, has beaded tongue-and-groove elevator car enclosure. Water-damaged north wall that partially collapsed in 2009 has recently been rebuilt.

Significance: One of the very earliest remaining warehouses in the U.S with an intact set of racks still in place documenting the unique way that rack warehouses were constructed. Important as an intact element from the pre-Prohibition distillery that became an integral part of Schenley's 1933-1953 operation at the plant.

8. Warehouse C. NR 43/ Building 102. ca. 1884-1885/ca. 1910. Contributing building. Photos 33-35
Function: Bonded stack warehouse for O.F.C. Distillery that was converted to a patent-rack warehouse between 1907 and 1912 with a 'hot house" for quick aging on the north side. Original capacity 18,680 barrels; after installation of racks, 24,000 barrels. Served as "concentration warehouse" during Prohibition. Continues to function as warehouse.
Description: Four-story, gable-roofed masonry building with American round-arched stying. Stone first floor and brick above. Six-over-six, double-hung sash windows barred on the first two floors and with first floor iron shutters remaining. Five-story elevator tower projects from south side. Considerable architectural detailing including stone quoining at corners and stone keystones in segmental-arched window lintels. Interior contains eighteen continuous tiers (six racks) on six levels serviced by a network of aisles at each level, an early set of plumb lines with their attached plumb bobs to monitor shifting ricks, and elevator in tower. Original ground-level dirt floor remains with evidence of early steam heating system just above it. Alterations include changes to top level of elevator tower in 1930s, removal of rooftop monitor at an unknown date after 1960, and repair of collapsed upper portion of north wall in the 1990s.
Significance: One of the key buildings from the pre-Prohibition O. F. C. Distillery that remained in operation throughout Prohibition. Its continued use during the Schenley era at the distillery provides documentation of Schenley's policy of utilizing existing facilities at its post-Repeal plants.

9. Warehouse D. NR 42/Building 103. 1907. Contributing building. Photos 13, 36-38
Function: Built as bonded patent-rack, steam-heated warehouse for O.F.C. Served as concentration warehouse during Prohibition. First warehouse on site to be built with its own gauging room. Continues to function as warehouse with gauging room recently refurbished for use as Visitor Orientation Center.
Description: Seven-story, gable-roofed, American-bond brick building with attached one-story, shed-roofed gauging room at southwest corner. Stone block foundation, six-over-six, double-hung sash windows, barred on the first two levels and with some of original metal-clad fire shutters remaining. Windows, far fewer in number than on earlier warehouses, are carefully located with ventilation in mind with largest number on west façade to take advantage of wind from the west and those on other facades linked to system of interior aisles on interior. Continuous ricks with 21 to 27 tiers with slatted board floors and two central elevators. Capacity 22,500 barrels. One of two original steam-powered elevators remains in place but out of service with its system of leather belts and wood wheels. Very few alterations except for recent addition of concrete floor and of exterior lift device on east side in 2008 as well as removal of some shutters. Gauging room retains original appearance with new paint job and addition of some new industrial style overhead lighting.
Significance: Important for documenting significant advances in warehouse design marked by an increasing number of stories and barrel capacity made possible by improved elevator technology and by strategic window placement. A well-constructed, pre-Prohibition building that continued in use throughout Schenley era at the distillery providing documentation of Schenley's policy of utilizing existing facilities at its post-Repeal plants.

<u>1933 through 1945: Post-Repeal Development of Plant by Schenley Distillers through World War II</u>

10. Rock Hill. NR 2/Building 80. 1933-1934. Contributing building. Photo 3, 39
Function: Residence of Albert Blanton, President of George T. Stagg Company and Vice-President of parent-company Schenley Distillers. Blanton (1881-1959) worked at the distillery from 1897 until his retirement in 1952. Property was transferred to Schenley in 1961 as directed by Blanton's will and from shortly after that date has served as office space for distillery.
Description: Two-story, frame house veneered with random-laid, square-cut limestone. Eclectic styling includes some Craftsman detailing. A central section containing stair hall is flanked by angled wings and the whole is roofed with three gables finished with Lamarite slates (formerly asbestos) and copper flashing. Central

one-story, flat-roofed porch with stone pillars protects front entrance which is detailed with reeded surround with dentil molding and sidelights with oval muntins. Other exterior details include two rear-elevation chimneys with sloped shoulders, round-arched windows in the two front-facing gables, cornice returns, and a cornerstone inscribed "A.B. Blanton." Interior is extremely intact with no changes made for office use. Finishes include random width board flooring, plaster walls and ceilings, extensive use of natural, blond-tone woodwork, and French and one-panel doors with glass knobs. An elaborate fireplace wall in the living room features a Georgian Revival mantel flanked by fluted Ionic pilasters with glass-fronted bookcases to either side. Bathroom fixtures and tile work are original to house. Designed by Frankfort architects Leo L. Oberwarth & Sons.
Significance: Closely associated with the post-Repeal Stagg Distillery. Blanton's decision to construct a house on this site for his new bride at the end of Prohibition went hand in hand with Schenley's 1929 purchase of the George T. Stagg Company and its commitment to expanding Stagg into one of its three flagship operations. Surrounding land owned by Blanton that was sold to Schenley as needed between 1935 and 1950 made the expansion possible. From this hilltop location overlooking the distillery Blanton was able to oversee the massive 1930s expansion. Although on a separate piece of property until 1961, it has always functioned as an integral part of the distillery much as at a number of other Kentucky distilleries where the owner's or manager's house was adjacent to the plant.

11. Gardens and grounds. NR 8, 9, 68. ca. 1934. Contributing site. Photos 2, 39, 40
Description: The house is sited near the high point of a twelve-acre landscaped property. Stone entrance gates mark the beginning of a long asphalted drive that sweeps up a wide, grassed hillside to encircle the house. Stone steps lead from the drive up to the front porch. To the northwest, a long, narrow asphalted parking area for about 10 cars has been created for office staff in the building. Four historic outbuildings are situated to the rear of the house above and beyond the drive. Surrounding the house are foundation plantings. In 2000, the trunk of a large dead shade tree to the north side of the house was fashioned into a totem-like "Spirit Pole" (NR 65). Blanton was a noted gardener who about the time the house was built created two planting areas for the property. Immediately to the front of the house beyond the drive are a series of three garden terraces with stone walls and steps that climb down the steep hillside (NR 8). The terraces are joined at the top level by a rock garden with cascading pools and a built-in stone bench. Behind the house, adjacent to the garage, are a series of planting beds and walks outlined with stone and concrete curbs that step down the hill from a gardening shed (NR 7).

12. Garage. NR 3. ca. 1934. Contributing building.
Description: One-story, two-bay, limestone-faced concrete garage (NHL 13) set into the hill. Its flat roof functions as a patio with a railing formed of stone piers and metal piping. Vinyl garage doors are replacements.

13. Root Cellar. NR 4. ca. 1934. Contributing building.
Description: Grotto-like, semi-subterranean cellar with a front built from irregular limestone block and two rooms of concrete and tile-block construction with concrete floors and beaded matchboard doors.

14. Smokehouse. NR 5. ca. 1934. Contributing building. Photo 40
Description: One-story, V-notched log building with a stone foundation, concrete chinking, an asphalt-shingled hip roof, floor- and eave-level vents and a batten door. Interior, with concrete floor and exposed log walls, is divided in two with larger front section for salt-curing meat and rear smaller area for smoking meat.

15. Gardening Shed. NR 6. ca. 1934. Contributing building. Photo 40
Description: One-story building with concrete foundation, board-and-batten siding, six-light windows and asphalt-shingled, shed-roof. Evidence of construction in two phases. Interior has concrete floor, exposed wall studs, girts and plates, exposed roof members, and a work table.

16. Frankfort and Cincinnati "Bourbon Line" Depot/Bottling House. 1933. NR 45/Building 45. Contributing building. Photo 41
Function: Originally served as passenger depot for Frankfort and Cincinnati Railroad which built a spur line to the plant in 1933. By 1961 it was serving as a guard house and after train service was all but eliminated in 1970s it became the master distiller's office sometime soon after. Since 1984, it has served as a dump room and bottling hall for some of the single barrel bourbons produced at the plant.
Description: One-story, brick-veneered building with concrete foundation, tile-block walls and hip roof that, originally, protected a small concrete platform on a portion of the south side. East-end entrance retains bracketed entrance stoop. Building has been altered somewhat by enclosure of platform area with brick wall with two glass-block windows and by addition of ramp on east end. Interior retains pine floor, glazed tile-block wall finish, plaster ceiling, and vertical beaded batten door.
Significance: First new building to be constructed on site after Prohibition and as such an important reminder of the essential role the railroad played in the 1930s through 1950s era at the distillery. All railroad track on site has been removed, so this building, although somewhat altered but retaining much of its original fabric and its original scale, provides only strong visual reminder of railroad's presence.

17. Reservoirs. NR 18. 1934-1935. Contributing structure. Photo 42
Function: Storage for river water used for cooling mash, condensing new alcohol and for fire suppression.
Description: Two 100,000-gallon, abutting, partially above ground, square concrete reservoirs with concrete tops. Each is capped with concrete pump housing and north one retains pump and intake pipe which leads to Kentucky River.
Significance: Documents an important resource type at George T. Stagg and at many large post-Repeal distilleries. Along with extensive system of hose houses, hydrants, water storage tanks, pump houses and reservoirs, an important reminder of the ever-present threat of fire and the elaborate system designed by Schenley era to prevent it. Adequate water sources and water storage and distribution facilities for use in production and for fire prevention were critically important components of a distillery and often a deciding factor in location.

18. Water Storage Tank. 1934-1935. Contributing structure. Photo 43
Function: Water storage for fire suppression. Continues in use.
Description: 100,000 gallon cylindrical steel tank with conical roof fed from nearby reservoirs. Set into side of hill with stone retaining wall on south side. Painted white.
Function: Documents an important resource type at George T. Stagg and at many large post-Repeal distilleries. Along with extensive system of hose houses, hydrants, water storage tanks, and pump houses, an important reminder of ever-present threat of fire at a distillery and elaborate system designed to prevent it.

19. Toilets/Fire Pump House. NR 28/ Buildings 18, 19. 1934-1935. Contributing building. Photo 44, 45
Function: Two separate but contiguous buildings, one providing toilets for employees and other serving as pump house for distillery's fire suppression system installed after Prohibition. Presently, toilet/locker room area is being used as office for master distiller. Pump House is currently not in use.
Description: Small one-story brick pump house (Bldg. 18) has industrial sash windows and flat roof. Original centrifugal fire pump and other equipment manufactured by Dayton-Dowd Co. are still in place, although not presently in use. Present master distiller's office (Bldg. 19) is brick with four-over-four, wood sash windows,

and a cross gable roof. Original L-shaped toilet building was expanded with addition of locker area before 1961. Existing layout and interior trim were retained when rehabilitated for current office use.
Significance: Documents two distillery building types at post-Repeal distilleries: employee support resources and fire suppression systems.

20. Water Tower. NR 46. 1934-1935. Contributing structure. Photo 46
Function: Water storage, originally for fire suppression and for steam engines operating on F & C Bourbon Line. Presently, water continues to be used for fire suppression.
Description: 150,000-gallon, steel storage tank with conical top set on steel supports which in turn rest on concrete footers. Presently painted with the Buffalo Trace logo.
Significance: Part of the complex water storage system that is an essential feature and resource type at every post-Repeal distillery.

21. Hose Houses/Fire Control System. NR 17. Mostly 1930s. Contributing structure. Photos 47-50
Function: Hose houses store fire hoses that are connected to nearby hydrants in case of fire.
Description: Four houses are small, rectangular, gabled-roofed structures with a gable-end door. They vary in building materials and detailing depending on location. Most elaborate, located near Clubhouse, is log structure with extended gable roof forming small portico (21A). Another is simple brick building (21B), a third is wood framed with board-and-batten siding (21C) and fourth is frame structure with corrugated metal siding (21D). Cast-iron fire hydrants, most in place since the 1930s, are scattered around site.
Significance: A part of the elaborate post-Repeal fire suppression system that continues to play an important role at a distillery.

22. Hose House/Fire Equipment Shed. NR 25/Building 6. ca. 1935. Contributing building. Photo 51
Function: Storage for fire-fighting equipment. At one point 400 feet of hose on a reel was kept here. Presently serves as employee break area.
Description: Small, rectangular, one-story tile-block building with concrete foundation, shed roof and sliding door on north end.
Significance: Along with extensive system of hose houses, hydrants, water storage tanks, and pump houses, an important reminder of ever-present threat of fire at a distillery and elaborate system designed to prevent it.

23. Garage/Storage. NR 26/Building 7. ca. 1935. Contributing building. Photo 52
Function: Built as garage for automobiles and since 1970s used for storage.
Description: One story, metal-clad frame building with shed roof and open front.
Significance: Documents one of many types of support facilities present at large post-Prohibition distilleries.

24. Clubhouse. NR 9/Building 17. 1935/1940s. Contributing building. Photos 53-57
Function: Employee dining/recreation center/guest reception center. Presently, employee lunch and break area and event facility for Buffalo Trace and for rentals.
Description: Two-story Rustic-style log building of V-notched construction with concrete chinking, six-over-six casement windows, and asphalt-covered gable roof. Major exterior features include two stone chimneys and a two-level veranda with tree limbs for posts and branches for railings that wraps around three sides of building. The 1940s south end addition has similar styling. Interior is very intact and elaborately detailed with wood-paneled walls, stone fireplaces, a semi-circular bandstand, room dividers constructed of cedar poles forming a rustic screening, and some original light fixtures and furniture. First floor housed employee cafeteria and second floor served as ballroom. 1940s second-floor addition contains room with a long bar detailed with Rustic bark veneer and log foot rest. Very few changes were made after 1950s. Architects: Leo L. Oberwarth & Sons.

Significance: Clubhouse and its landscaped grounds represent an atypical yet important property type for a distillery that reflects the vision of Albert Blanton, president of the distillery, and the enlightened labor relations policies of Schenley, its post-Repeal owner and developer. According to Schenley's March 1937 in-house newsletter, *Remarks of Merit*, the clubhouse was conceived of by Blanton to "bring about a feeling of good will and understanding between officials and employees."

25. Burgoo House. NR 12/Building 16. 1935. Contributing building. Photo 57
Function: Outdoor kitchen associated with Clubhouse that was and is used for food preparation for large outdoor events for employees and visitors. "Burgoo" is a traditional Kentucky stew historically prepared with wild game and often served at outdoor gatherings.
Description: One-story stone building with front-facing asphalt-shingled gable roof, three rear, exterior stone chimneys, 6/6 windows and a front batten door. Random-laid, square-cut stone is identical to that at Rock Hill. Interior has flagstone floor, large oven, and two huge 110-gallon kettles, all with fire-boxes below. Very intact.
Significance: Important as an original feature of Clubhouse complex with its focus on hospitality and employee relations. On June 23, 1953 the building was used to prepare dinner for a distinguished group of 300 people gathered to celebrate the production at George T. Stagg of its two-millionth barrel of bourbon since the end of Prohibition. This date and event mark the end of the period of significance for the NHL nomination.

26. Lodge. NR 15/Building 29. 1935. Contributing building. Photo 58
Function: Designed as guest house for visiting company executives/guests. Presently, office for President of Buffalo Trace.
Description: One-story, V-notched, log building with stone and concrete foundation and asphalt-shingled gable roof. Gable-roofed front portico with stone floor, rough-finished log posts, and log railing protects central entrance with beaded batten door. Windows include 4/4 wood sash and two bow windows to either side of front door which are replacements of unknown date. A shed-roofed south wing with its own shed-roofed entry porch is original to structure.
Significance: Important component of early hospitality complex that includes Clubhouse, Burgoo House and landscaped grounds.

27. Landscaped grounds. NR 10, 11, 13, 14, 66, 67. 1936. Contributing site. Photos 57, 59-62
Function: Landscaped area to link Clubhouse, Burgoo House and Lodge and provide attractive setting for special outdoor events at distillery.
Description: Connecting the three buildings in the hospitality area is a rather whimsically landscaped hillside set off at the bottom from the nearby industrial facilities by a stone wall. The grassed area contains a number of flagstone paths with three small foot bridges (one stone bridge is a replacement of an earlier wood bridge) that cross several gullies and two water features (NR 10) with associated rock gardens. The paths pass by two "follies," – a wishing well and a small stone structure described as a "singing cave" in a company publication. The water flows from the top of the hill from in front of a wall-like stone monument with a chiseled stone plaque that reads: "This tablet erected by the employees of the George T. Stagg Co. to the executives of Schenley, in appreciation of their interest and efforts in making this recreational center possible. May 1936." Nearby is a D.A.R. monument (NR 11) consisting of two millstones and a bronze plaque erected in 1931 to commemorate the eighteenth-century Leestown settlement. It was moved to this hillside, probably in the late 1970s, from another site at the distillery. Water meanders down the hill in a series of stone-trimmed, concrete-lined pools and channels and is collected at the bottom in a long retaining pond. Albert Blanton designed the rock gardens and pools which were built by James Brown, Sr. The water system, originally supplied from the nearby reservoirs, has been reengineered to recirculate. The stone wishing well (NR 13) has a circular stone skirt and seating area and a conical wood-shingled roof supported by stone pillars. The "singing cave" (NR 14) is a small rectangular stone structure with a stone gable roof and a beaded batten door at its entrance. Several

pieces of outdoor sculpture have been sited on the hillside since the landscape was created in 1936. In 1961, following the 1959 death of Albert Blanton, Lewis Rosenstiel, President of Schenley, commissioned a life-sized, white-marble sculpture of Blanton (NR 66) that was carved in Italy and installed near the Clubhouse. Its inscription reads: "Loved and Respected Master Distiller and True Kentucky Gentleman." In 1999, "Thunder" (NR 67), a wood sculpture of a buffalo was carved by Stan Schu from the remains of a large sycamore tree near the Clubhouse Set apart from the historic landscape features in a grassed area to the southeast of the Lodge is an L-shaped children's playground installed in 2007. It has typical equipment as well as a large wood sculpture of a buffalo intended for climbing, all sitting on wood chips contained by an edging of railroad ties.

28. Recreation Building/Acetylene Plant. NR 36/ Building 39. 1933-1935/late 1930s/1984. Contributing building. Photo 63
Function: Contains remnants of walls from mid-1890s acetylene plant that provided steam for some warehouses. Expanded to present size about 1933-1935 for additional steam generation and altered in late 1930s after completion of new boiler house to serve as second employee recreation center. For some years has served as bottling hall for single-barrel and small-batch bourbons produced on site.
Description: One-story, brick building with concrete and stone foundation and cross-gable roof with asphalt shingle finish. Most windows are six-over-six wood sash. Built in two sections with north wing remaining from boiler plant and retaining original detailing on west facade including façade piers with quarter round arches at their tops. South wing has two entrances, one with gabled stoop supported by wood brackets and one highlighted by a small parapet gable and served by a non-historic concrete ramp. Exterior batten doors have Craftsman detailing. Building enlarged in 1933-1935, but current fenestration, stoop and doors probably date to adaptation as recreation center. Principal interior space is open room housing bottling equipment with concrete floor, painted brick walls and four large posts with molded caps that support a sloping celotex-sheathed ceiling.
Significance: One of the group of buildings including the clubhouse, hospital (demolished) and restrooms built by Schenley as facilities for employees.

29. Barrel Storage Building. NR 49/Building 47. 1933/1936. Contributing building. Photo 64
Function: Barrel storage for new empty barrels. Schenley owned a cooperage in Louisville and barrels were brought in by train. Presently used as branding shed where new barrels are labeled with Buffalo Trace's various brands, a task that quite likely occurred here in years past as well.
Description: One-story, corrugated metal-clad, wood-framed building constructed on reinforced concrete piers with shed roof, wood-framed and metal-framed windows, and sliding wooden doors. Built in two sections, first in 1933 and second in 1936. Interior has wood floors, exposed wall and roof framing, wood and I-beam posts (distinguishing the two construction dates), and multiple barrel runs with metal rails. Enclosed loading dock for trucks on north side with corrugated metal walls and roof, probably added in 1980s, is only non-historic change.
Significance: Important reminder of government regulation of distilleries. After Repeal, plants were required to provide inside storage for empty barrels (packages) on site.

30. Warehouse H. NR 54/Building 104. 1935. Contributing building. Photos 65-68
Function: Bonded rack warehouse for storing aging whiskey. Continues to function as warehouse.
Description: Four-story, wood-frame building with poured concrete foundation, corrugated-metal cladding and gently-pitched gable roof. Walls have diagonal board sheathing inside the corrugated siding. Windows are small six-over-six wood sash with bars and, originally, metal shutters on first two levels. Present metal replacement shutters are on first floor only. A one-story wing (barrel loading area, later tasting room) and elevator/stair tower run along southwest side. Interior has twelve tiers of continuous racks set on concrete footings with aisles constructed of slatted boards and one level of building-wide, lightweight sub-flooring above the sixth tier. Original system of plumb lines and bobs still in use. Original Electolet electric lighting and Kaylor Co. elevator

(Peoria, IL) with beaded tongue-and-groove lining are still in use. Steam heat. Capacity 15,000 barrels. Extremely intact except for non-historic wood paneling in tasting room in first floor wing.
Significance: First warehouse to be constructed at distillery by Schenley after Repeal. Stands out as only example at the distillery of a metal-clad, wood-framed warehouse with racks, a common type of warehouse at many distilleries both before and after Prohibition.

31. Warehouse I. NR 48/Building 105. 1935. Contributing building. Photos 69-71
Function: Bonded rack warehouse for storing aging whiskey. Continues to function as warehouse.
Description: Nine-story, brick-faced cinder-block building with façade piers, small windows with industrial steel sash, and gently pitched gable roof with stepped parapet ends. Interior has original dirt floor and poured concrete footings to support racking system, 27 continuous tiers of wood racks with their historic plumb lines and plumb bobs intact, and five levels of wooden-slat board floors. Elevator/stair tower and one-story loading room with steel framing on south corner. Original Otis elevator with open cage still in use. Capacity 49,840 barrels. First of many buildings on site designed by Carl J. Kiefer Associates, Inc., Engineers and built by Frank Messer and Sons, both of Cincinnati. Construction began in January 1935 with completion in March at cost of $100,000. Heat: hot air ducts with blowers later changed to unit steam blower heat.
Significance: First of the massive 50,000-barrel warehouses built by Schenley as distillery increased capacity almost fourfold in mid-1930s after end of Prohibition. Use of cinder block in construction represents new building material in warehouse construction at George T. Stagg but not yet new technology. One of the 15 warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States.

32. Bonded Recooperage Shop (Warehouse J). NR 37/Building 106. 1935. Contributing building. Photo 72
Function: Bonded recooperage shop for repair of filled leaking barrels while they were still in bond. Originally, a barrel run under adjacent road linked this building to Warehouse I. Presently used as stop on self-guided distillery tour where information on manufacture and use of barrels is presented.
Description: Small one-story, tile-block building with flat roof and industrial steel sash windows which are barred. Present wrap-around, shed-roofed porch is not original but was in place by 1951. Interior is open space with concrete floor and tile-block walls. Intact with new asphalt shingle roof replacing earlier one. Design/Build by Kiefer/Messer.
Significance: Provides documentation of essential warehousing function and how it was handled in period of close government supervision of bonded distilled spirits. One of many support facilities present at a large post-Repeal distillery.

33. Warehouse K. NR 58/Building 107. 1935. Contributing building. Photo 73
Function: Bonded rack warehouse for storing aging whiskey. Continues to function as warehouse.
Description: Nine-story, tile-block building with façade piers, poured concrete foundation, low-pitched gable roof with parapet gable ends and small windows with industrial steel sash. Elevator/stair tower with Otis elevator and one-story loading room at south corner. Interior has original dirt floor and poured concrete footings to support rack system, 27 continuous tiers of wood racks with plumb lines and bobs and five levels of wooden slat board floors. Capacity 49,950 barrels. Identical to Warehouse I except for hollow tile-block rather than brick-faced cinder block walls. Exterior barrel loading hoist on west side dates to ca. 2005. Design/Build by Kiefer/Messer.
Significance: Part of Schenley's massive 1930s plant expansion and modernization at George T. Stagg. . First major use of tile block as a building material on site. One of the 15 warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States.

34. Boiler House. NR 21/ Building 13. 1883/1937. Contributing building. Photos 21-24
Function: Power plant for entire distillery.
Description: Massive two- and three-story, brick building incorporating wall and foundation elements from 1883 boiler room and still room area of pre-1936 O.F.C/Stagg distillery. Footprint of original building and many wall remnants including blind arcading and corbelling are in evidence. Overall appearance of main east façade is of 1937 Schenley-era rebuild which includes new front curtain wall in most areas with very large industrial steel sash windows, new smokestacks, coal storage and ash storage tanks on roof. Most evidence of original building remains on north portion of east façade, north end, and west river façade. Inside two huge coal-fired boilers from the 1940s remain in place, but not in use, alongside four newer gas-fired boilers. Maximum boiler capacity: 400,000 pounds of steam per hour.
Significance: Provides important documentation of scale and riverside location of O.F.C/Carlisle distillery complex on site as well as intact documentation of the massive boiler house and equipment put in place by Schenley as part of the major expansion and modernization of the plant in the 1930s and 1940s.

35. Grain Elevators/Mill. NR 22/Building 11. 1936/1951. Contributing Building. Photo 74
Function: Grain storage and milling. Retains original function. Replaced earlier barn-like, two- and three-story, wood-framed, metal-clad, gable-roofed grain elevator dating to before 1886.
Description: Six, sixty-foot concrete grain silos with a combined capacity of 70,000 bushels capped by a concrete conveyor house with a hammer mill in a concrete room above. All built in 1936. In 1951 a second concrete room with additional milling capacity was added on the north end adjacent to the first and above the conveyor house. Exterior grain lift conveys grain from delivery trucks (earlier freight cars) to the top of the silos and then again up to the mills when needed for milling. Milled grain is transferred by conveyor to the top level of adjoining Mash House (NHL 36) where it is stored in meal bins. Enclosed, shed-roofed unloading dock was added across portion of east façade after 1948 and before 1960.
Significance: Grain storage facility was essential component of a distillery although only a few post-Repeal distilleries had one as big as this one.

36. Mash House. NR23/Building 10. 1936-1937. Contributing building. Photos 75-77
Function: Mashing facility where the various grain meals to be used in whiskey production were and are combined with heated water in cookers. With the addition of enzymes, often in the form of malted barley, they are further heated to produce a chemical reaction converting starch into sugar. Daily mash capacity 6,600 bushels. Retains original function and remains essential part of present production plant. From here mash is sent to Fermenting House (NHL 37).
Description: Multi-story, steel-framed structure with brick-faced, tile-block curtain walls with windows glazed with industrial steel sash. Flat steel roof, and concrete (1st) and metal grate (2nd and above) floors. Foundation is concrete caissons on spread footings because of riverbank location. Exterior stone detailing includes stone wainscot at foundation level and stone-faced, flat-arched lintels above doors and windows, all to match trim on Still House and Fermenting House. Interior is divided into varying number of levels in different areas. One-bay deep, four-floor section along north and east facades contains four large and one small built-in meal bins on top level which are still used today to store ground grain (meal) ready for mash process. One level below a moving hopper weighs the meal and drops it into cookers below. First floor houses three cookers, two original to the building and one a replacement. Basement level contains two drop tubs, both original equipment, that receive cooked mash for cooling before it is piped across a bridge to the Fermenting House (NHL 37). Mash House, Fermenting House and Still House: Design/Build by Kiefer/Messer.
Significance: One of the suite of new, state-of-the-art production facilities built by Schenley in 1936-1937 as production at the plant was increased nearly fourfold. Exemplary of the scale and building materials used in post-Repeal distillery architecture.

37. Fermenting House. NR 31/ Building 25. 1936. Contributing building. Photos 78-82
Function: Fermenting facility and location of yeast room where yeast used in fermentation process was grown. When mash reaches desired chemical composition and temperature, it is pumped into large tanks in the Fermenting House where it is mixed with yeast and a quantity of "spent beer" and over a period of three to four days the sugar in the mash is converted to alcohol (fermented mash is referred to as "beer" at this stage). Beer flows through pipes to beer well (NHL 39) outside Still House (NHL 38) and from there to still. Facility continues in active use although distillery has not manufactured its own yeast for over 20 years. Yeast room has been used as micro-distillery since 2008.
Description: Two-story, brick-faced tile-block structure with pilastered walls, angled northwest corner, large architectural glass-block windows and pent roof with concrete coping. Same stone detailing as Mash House and Still House with arched main entrance on northwest corner elaborately detailed in stone. Interior is divided into two sections with yeast room in east corner of second floor and remainder housing twelve huge fermentation tanks. Features include concrete floor on first floor and on second floor in yeast room; steel columns. Banged copper fermenting tanks (carbon steel impregnated with copper) hold 92,000 gallons each and are original to building which was constructed around them after they had been built in place. Steel-grate floor is located near top of tanks and a large flared vent with its ductwork hangs over each tank to draw off the carbon dioxide that is generated in fermentation process. Yeast room retains original tubs and other equipment and is now home to a new copper pot still manufactured by Vendome Copper & Brass Works in Louisville. Rooftop skylights with wired-glass lights have been removed. Seriously deteriorated glass block in two windows was replaced in 2009 and brick work above one was reworked. All glass block windows evidence varying degrees of deterioration including cracking, breaking and milking over. Design/Build by Kiefer/Messer.
Significance: One of the suite of new, state-of-the-art production facilities built by Schenley in 1936-1937 as production at the plant was increased nearly fourfold. The 6,600 bushel/day capacity made the Stagg distillery one of the most productive in the U.S. in the late 1930s. Exemplary of the scale and building materials used in post-Repeal distillery architecture.

38. Still House. NR 29/Building 21. 1936. Contributing building. Photos 9, 83-87
Function: Distilling facility for distillery. Location where fermented mash (beer) is fed through a continuous still (beer still) with resulting output of "low wine" and "spent beer" ("slop" or "stillage"). As heated mash is fed into top of still to filter down through a series of perforated plates in the still, steam is introduced at the bottom. As steam rises, it causes the volatile vapors in the beer to rise with the steam to a condenser where the alcohol is liquefied. Beer residue which falls to the bottom is collected in large tanks as "slop" or "spent beer." Second distillation sends low wine through a "doubler" or "pot still" where it is redistilled and refined into the finished high quality "white dog" or "high wine." This is piped to the Cistern Room (NHL 43) for barreling. Still house continues to function much as originally designed although much of equipment has been replaced.
Description: Multi-story building with tile-block, brick-faced curtain walls and large industrial steel sash windows and steel roof. Exterior stone detailing matches Mash House and Fermenting House. Four-story, 73-foot-high still area is steel-framed with metal grate floors. Two-story west section of masonry construction has concrete floors and houses whiskey tanks on first floor and equipment for making Reverse Osmosis (RO) water on second floor. Early on, a fifty-pound carbon dioxide extractor was located in this area. Four-story still area contains two continuous stills (very tall, cylindrical structures) and a doubler, a wide squat cylinder, at the ground level. All three stills are replacements of similar earlier structures. Other equipment in this area includes three condensers and beer and water heaters. Design/Build by Kiefer/Messer at cost of $300,000.
Significance: One of the suite of new, state-of-the-art production facilities built by Schenley in 1936-1937 that document the scale and design of the largest post-Repeal distilleries. Schenley and the Stagg Distillery played a major role in World War II when whiskey production was halted by the Federal government in an all-out effort to make industrial alcohol for the wartime production of synthetic rubber and other products.

39. Beer Well 1960s. Non-contributing structure. Photo 9
Function: Holding tank for new beer that has been pumped from fermenting house ready for distillation.
Description: Large 100,000 gallon cylindrical steel "beer well" installed between 1960 and 1972 on east side of still house. Tank sits on concrete footings.

40. Kettle Still. 1960s. Non-contributing structure. Photo 84
Function: Installed in the 1960s to make "light whiskey" in conjunction with the second of the continuous stills. Together they are now used to produce vodka.
Description: Large cylindrical metal still with rounded ends that is lying on its side supported by a concrete cradle and wrapped in an asbestos blanket.

41. Slop Tanks. 1936/1960s. Contributing structure. Photos 88, 89
Function: Tanks for storage of spent beer or slop, the thick liquid byproduct of distillation that is sent to Dry House (NHL 55) for processing. Prior to invention of Dry House and continuing for some time after, distilleries often had cattle and feed yards to utilize slop. George T. Stagg retained a cattle pen and hay barn until they were demolished about 1935 to make way for Warehouses K and N/O.
Description: Stainless steel slop tanks are presently located in two places. Two large cylindrical open-top tanks set on open concrete footings are located to the south of the still house and were installed when it was constructed in 1936. Slop is pumped here from the still through a strainer that separates the material into thinner and thicker consistencies. This material is, in turn, pumped to three slop tanks dating to the 1960s that sit to the north of the Dry House.
Significance: Slop disposal is necessary step in distillation process and slop tanks have been essential distillery element from early on in their history.

42. Piping Systems. 1930s-1950s/later additions. Contributing structure. Photos 7, 90
Function: Distribution system for steam, distilled water, cooling water, water for fire suppression, waste water, mash, beer, whiskey, and slop to various buildings and structures throughout the distillery. Color coding of above-ground pipes was mandated by Federal regulation beginning in 1868 for conveyance of all whiskey related products – distilled water, mash, beer and high wine – and this established practice of using overhead pipes. Color coding requirement continued after Repeal but has been discontinued since 1980s.
Description: A complex network of above ground pipes, most put in place in the 1930s through the 1950s as Schenley redeveloped and expanded the distillery. A few are still color coded, although no longer required to be. Pipes vary in material and dimensions from the narrow copper pipes that transport new whiskey to the wide, insulated pipes that carry steam. Pipes are most in evidence in production area near Mash House, Fermenting House and Still House and also around the Cistern Room-Regauge complex. Main steam line can be tracked from the boiler house through all the major production buildings and then out though all the warehouses to Warehouse N/O and P/Q at the far end of the property. It still follows the same path it has since at least the 1940s. Water lines for fire suppression are underground as are drain pipes leading from warehouses to water treatment ponds. It is virtually impossible to identify which present pipes postdate the period of significance.
Significance: An essential property type at all distilleries at least since the beginning of modern post-Civil War distilling. Sanborn maps of the distillery indicate elevated whiskey pipes running from the distilleries to the cistern rooms by 1886 and steam pipes to warehouses by 1892. Present intricate system documents complexity of operations at large post-Repeal distillery.

43. George T. Stagg Cistern Room. NR 51/Building 49. 1936. Contributing building. Photos 91-92
Function: Cistern room for George T. Stagg Distillery (DSP #113). Federal law dating to 1868 required dedicated cistern room with two cisterns, each large enough to hold all the whiskey produced at the distillery in a single day. Whiskey went straight from still house to cistern room where it was cut with distilled water to

correct the proof, put into barrels and weighed. Until 1980s government gauger oversaw and kept records of this process, carefully labeling each barrel with identifying information. Continues to function in original capacity although original cisterns have been replaced by two outside tanks on the east side of the building and record keeping for tax purposes is now handled by distillery employees and computers. Each barrel is now bar coded for tracking.
Description: Designed for security. One-story, masonry tile-block building with pilastered walls, concrete floor, high ceiling and flat, steel roof. Double-height windows with narrow industrial steel sash are barred and some were bricked in at unknown date. Higher, three-level area located in east corner houses original distilled water tank, still in place but no longer in use, and also allowed government gaugers to see into cisterns. Building now contains seven 13,000 gallon spirit tanks and ground-level barrel run. Exterior metal fire escape is original. Design/Build by Kiefer/Messer.
Significance: Highly significant as one of essential distillery facilities required by the Federal government since 1868 and as part of the state-of-art distillery built by Schenley as it increased production at the plant fourfold.

44. Dump Room. NR 50/Building 52. 1940. Contributing building. Photo 93
Function: Facility where aged whiskey was emptied from the barrels and strained through a series of filters in order to remove any particles of charred wood or other material. Beginning in 1894, the "Carlisle Allowance" enacted into law by Congress, allowed for a second measuring of whiskey as it was emptied from barrels so tax was paid only on remaining volume and not on evaporated spirits. Law required designated dumping area at each warehouse or separate "dump room" for this process where the whiskey was "regauged" under the watchful eye of a government gauger. Beginning in late 1940s dumping and regauging at Stagg began to shift to Regauge Room (NHL 45) although Dump Room was still in operation into 1960s. Building now houses small bottling operation.
Description: One- and two-story, tile block building with concrete foundation, industrial steel sash windows and double height section at southwest end. Built as pair with Stagg Cistern Room (NHL 43) Two-story section at southeast end designed to hold large spirit tanks was added between 1948 and 1961.
Significance: One in the essential suite of distillery facilities required by the Federal government since 1894 and part of the state-of-art distillery built by Schenley as it increased production at the plant fourfold.

45. Case and Bottle Storage Building/Regauge Room. NR 52/Building 100. 1936/ca. 1945-1948/ca. 2003. Contributing building. Photos 94, 95
Function: Originally built for case and bottle storage. With addition of two-story tank room, probably after WWII and certainly by 1948, it was converted to the main Regauge Room or "Dump Room" for the plant where whiskey was re-measured by government gaugers for tax purposes as it was emptied from the barrel at maturation. Presently, facility functions in similar manner although "gauging" is now done by distillery employees. After dumping, spirits are stored in various tanks in room before being sent via pipe to Blending and Processing Building (NHL 51) and to Bottling House (NHL 52).
Description: One-story, American-bond brick building with 1940s double-height addition on south side housing tall spirit tanks. One-story, load-bearing brick portion has gable roof, barred six-over-six sash windows with metal-clad fire shutters, and several low doors to admit barrels from a barrel run. 1940s brick addition has shed roof, concrete foundation and metal-framed windows with metal-clad fire shutters. Interior has concrete floor with imbedded barrel run, painted brick walls, wood posts and an exposed roof structure with rafters, beams and a truss at the east end. Conveyors are used to position barrels for emptying and for rinsing after emptying. (Bourbon-flavored rinse water is used to cut bourbon.) Late-nineteenth-century Howe barrel scale with chamfered wood supports and wrought iron fixtures is located in building. Large covered loading dock on west side dates to about 2003.
Significance: One in the essential suite of distillery facilities required by the Federal government since 1894 and as part of the state-of-art distillery built by Schenley as it increased production at the plant fourfold.

46. Barrel Runs. Mainly late 1940s and 1950s. Contributing structure. Photos 16, 73
Function: System for moving barrels around distillery, principally from Cistern Room to warehouses and from warehouses to Regauge Room.
Description: Majority are pairs of metal rails imbedded in asphalt or concrete at ground level. Barrel runs have been used at distilleries at least since the 1880s (a few short ones appear on 1886 Sanborn map for Stagg) but existing ones date to time of creation of Regauge Room in 1940s. Some more elaborate elevated barrel runs with drops/lifts for changing elevations have been installed since 1999 when Sazerac/Buffalo Trace took over plant.
Significance: A warehouse-related resource type found at many distilleries.

47. Warehouses L/M. NR 56/Building 108/109. 1936. Contributing building. Photos 96, 97
Function: Bonded rack warehouses for storing aging whiskey. Continue to function as warehouses for aging whiskey and for storage of cased liquor.
Description: Five-story, double warehouse with all fireproof construction: reinforced concrete frame, floors and slightly-pitched gable roof, tile-block curtain walls, and small windows with industrial steel sash. Built in two sections with external stair/elevator tower for each section and fire wall between sections. Ricks on each floor stand two ricks (six tiers or barrels) high. Heat: hot air ducts with blowers later changed to unit steam blower heat. One-story, shed-roofed metal-clad addition on east side of Warehouse M built in the 1970s or later. Capacity of each warehouse 50,000 barrels. Design/build by Kiefer/Messer.
Significance: First set of all fire-proof warehouses constructed by Schenley at this plant that served as a model for all subsequent warehouse construction on site. Representative of one important type of post-Repeal warehouse construction design: the huge controlled temperature, fire-proof warehouses utilized by most of the largest distilling concerns including Schenley and Seagrams. Two of the fifteen warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States.

48. Warehouses N/O. NR 59/Building 110/111. 1937. Contributing building. Photo 98
Function: Bonded rack warehouses for storing aging whiskey. Continue to function as warehouses.
Description: Identical to Warehouse L/M, but with no later addition. Design/Build by Kiefer/Messer.
Significance: Example of fire-proof warehouses constructed by Schenley at George T. Stagg. Two of the fifteen warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States.

49. Carpentry Shop. NR 19/Building 24. 1936/1940s/1970s? Contributing building. Photo 99
Function: Facility for many varied woodworking needs at distillery. Presently vacant with functions once carried out in this building now occurring in Maintenance Shop.
Description: One-story, wood-framed building with poured concrete foundation and corrugated-metal siding built in multiple stages. Original 20’ by 52’ building from 1936 was doubled in size and roofed with gambrel roof probably in late 1940s. 1951 aerial photo shows this section in addition to gable-roofed rear wing. Present gable-roofed south wing post-dates that photo. Features include front loading dock, fixed and awning windows with variety of muntin patterns, four-panel doors. Interior has exposed wall and ceiling framing, wood floors and posts. Numerous wood work tables and shelves are inside. Building is in seriously deteriorated condition.
Significance: One of the many ancillary buildings that supported the distilling operation at the site in the post-Repeal period.

50. George Dickel Cistern Building. NR 44/Building 50. 1937. Contributing building. Photo 100
Function: Cistern Room for George Dickel Distillery (DSP #46) active on site for a few years after 1937. By 1948 served as Free Warehouse where tax-paid goods were stored. Currently serving as exhibit space for self-guided distillery tour.
Description: One-story brick building with three-level north corner area has concrete foundation and a flat parapeted roof with ceramic coping. Windows are double-height, industrial steel sash; large overhead doors are located on east and west ends. Original exterior metal fire escape leads to third-level door. Interior has concrete floor, and high ceiling with exposed wood trussing. Distilled water tank once occupied position in three-level area. All original fabric. Original equipment removed from building. Design/Build by Kiefer/Messer.
Significance: Along with the Dickel Building (NHL 3), an essential component of the second distillery established on the site by Schenley after Prohibition and documentation of the complexity of the company's post-Repeal distilling history.

51. Refrigeration Room/Blending and Processing Building. NR 34/ Building 33. 1934/2007. Non-contributing building. Photos 12, 101
Function: Since 1934, location where whiskey has been chilled and filtered before bottling.
Schenley was one of the few distillers that used a chilling process in the final filtration of bourbon before bottling, believing it provided for a better tasting product.
Description: Two-story brick structure of irregular form that in 2007 replaced seriously deteriorated original asbestos-shingle-clad frame structure with same footprint. Many of spirit tanks and much of equipment inside remain the same.
Significance: Although compromised by the new outer shell, an important component of the bottling, packaging and shipping operation that dates back in this location to 1934.

52. Bottling House. NR 32/ Building 26. 1940/ca. 1950. Contributing building. Photo 102
Function: Upon completion it served as bottling facility for several Schenley distilleries in the area. Replaced smaller bottling house on same site that was created by Schenley about 1934 in former O.F.C. Warehouse 113A, built in the 1870s. A small Prohibition-era bottling facility (used for bottling medicinal whiskey) had also been located in building. Continues to serve as main bottling facility today.
Description: Reminiscences of Albert Blanton state that new bottling house was created in 1940. Sanborn maps suggest that building may have incorporated some fabric from O.F.C. Warehouse 113A which formerly occupied the site. Interview with retired distillery manager, Elmer T. Lee, confirmed that major changes were also made about 1950. Main portion of building is very high one story with concrete floor, steel frame, and a barrel-vaulted wood roof set on steel joists and trusses. A mezzanine area with offices runs along west end and a four- and five-story, hip-roofed, wood-framed section with asbestos-siding and wood and metal windows rises along the south wall. A ca. 1950 two-story brick-faced addition with industrial steel sash that originally served as an employee recreation area flanks the south wall. Building contains extensive modern machinery for bottling, probably all post dating the period of significance. Numerous spirit tanks that feed whiskey into bottling area occupy four- and five-story area.
Significance: An important component of the bottling, packaging and shipping operation designed by Schenley for the plant as bottled goods became an essential part of the post-Repeal distillery operation. In 1934 following the enactment of the 21st Amendment, the Federal government for the first time required the sale of distilled spirits in bottles only. Before Prohibition much whiskey had been sold in barrels to wholesale dealers.

53. Case Shipping Building. NR 33/Building 27. 1934. Contributing building. Photo 103
Function: Storage for cased bottled goods ready for shipping. A railroad siding ran alongside this building so that cased goods could be loaded directly onto box cars for shipping. Since 1960s or 1970s trucks have loaded from a dock that has been added to building.
Description: One-story wood-framed building with poured concrete foundation, corrugated-metal siding, and low-pitched gable roof. Interior has wood floors and wood posts, exposed wall and ceiling framing, and beaded tongue-and-groove doors. An overhead bridge housing a conveyor, constructed before 1951, connects this building to Building 3 (NHL 6). Concrete loading dock with corrugated-metal roof and siding that dates from before 1972 projects from north side.
Significance: Part of the massive bottling, packaging and shipping operation designed by Schenley for the plant as case goods became an important part of the post-Repeal distillery operation.

54. Warehouses P/Q. NR 55/Buildings 112/113. 1941/1942. Contributing building. Photo 104
Function: Bonded rack warehouses for storing aging whiskey. Continue to function as whiskey warehouses although several floors now house finished case goods waiting for shipment.
Description: Warehouse P is almost identical to Warehouses L/M and N/O: five-stories with all fireproof construction and elevator/stair tower, reinforced-concrete frame, floors, and shallow-pitched gable roof, tile-block curtain walls, and windows with industrial steel sash. Ricks on each floor are six tiers high. Capacity 52,770 barrels, the largest single warehouse capacity on site. Unit steam blower heaters. Warehouse Q, attached to P by fire wall, was planned as identical structure but World War II and Federal restrictions on use of concrete and other materials intervened. Q is six-story, tile-block structure similar to Warehouse K with pilastered walls, low-pitched gable roof, step-parapet gable end, and small industrial sash windows. Interior has wood posts, three levels of wood, slat-board floors, 18 continuous tiers of wood racks, but all wood is salvaged. Steam heat and Abell elevator. Capacity is 41,000 barrels. Design/Build: Kiefer/Messer.
Significance: Warehouse Q provides documentation of the impact of government policy during World War II on the distilling industry. Two of the fifteen warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States.

55. Dry House. NR 24/Building 61. 1944. Contributing building. Photos 105-108
Function: Facility for drying and processing spent mash (slop) into a protein-rich animal feed. Thick slop is sent from storage tanks to separators on top floor called “Roballs” which remove much liquid and send the liquid directly to evaporators on first floor where it is converted into syrup. The remaining slurry is collected and put through “pressers” to squeeze out more liquid and then sent to dryers on the first floor where it is rotated at very high temperatures. The resulting “distillers’ grain” is stored on the second floor before being loaded onto trucks for sale. Building and equipment function as when first built. Replaced much smaller ca. 1905 wood-framed, metal-clad dry house that was demolished to create space for Government Office (NHL 56).
Description: Three-story building of fireproof construction with concrete floors and frame and tile, brick-faced curtain walls, industrial steel sash windows, and flat roof. Most dryers (Louisville Dryer Co.), all separators and some evaporators (Vendome Copper and Brass Co.) date to 1944 when dry house was built. Truck loading area across west façade with corrugated metal enclosure and ground-level scale dates to after 1972. Design/Build: Kiefer/Messer.
Significance: Highly significant as state-of-the-art dry house funded by the Federal government towards the end of WWII to upgrade slop-drying technology and facilitate the conversion of the massive amounts of slop generated by the non-stop production of industrial alcohol into badly needed animal feed. Stagg plant received largest and one of first four Federal grants for construction.

1946 through 1953: Post-World War II Development

56. Government Office. NR 63/Building 72. 1948. Contributing building. Photo 109
Function: After Repeal, IRS regulations mandated that each distillery have a government office where records were kept and from which the gauger/storekeepers who monitored production at the plant operated. Since distilleries began to self monitor in the 1980s, building has functioned as a break room and currently as an infirmary.
Description: One-story, fire-proof building with concrete foundation, yellow, stretcher-bond brick walls, windows with industrial steel sash and flat, concrete roof supported by steel joists. Front façade has decorative stone facing and entry porch of modernist design. Interior intact with one large room, rest rooms, and several small offices detailed with stuccoed walls and ceilings, composition floor tiles, and beaded, batten doors.
Significance: Highly important reminder of direct role Federal government played in oversight of distillery operations until 1980s. This building replaced earlier wood-framed government office on the site.

57. Garage. NR 60/Building 73. ca. 1948. Contributing building. Photo 110
Function: Garage for company vehicles.
Description: One-story, six-bay concrete block building with cinder-block buttresses, large industrial steel sash windows, and flat roof with high end parapets. Two pairs of half-glass doors open out on east end.
Significance: One of the many ancillary buildings that supported the distilling operation at the site.

58. Fire Equipment House. NR 47/Building 55. 1950. Contributing building. Photo 111
Function: Housing for plant's fire truck. Replaced earlier structure of similar size and shape on site. In 2011 serving as café for visitors.
Description: One-story, tile-block building with concrete foundation, windows with industrial steel sash, and parapeted flat roof. Large sliding metal door is located on northwest side. Interior has poured concrete floor, tile walls, and steel joists supporting steel roof. Shed-roofed metal canopy extending from front is of unknown date. Interior has been painted and some restaurant equipment has been added for café but no structural changes have been made.
Significance: Along with extensive system of hose houses, hydrants, water storage tanks, and pump houses, an important reminder of ever-present threat of fire at a distillery and the elaborate system designed to prevent it.

59. Maintenance Shop. NR 30/Building 75. 1949-1951. Contributing building. Photo 112
Function: Provides maintenance support for entire distillery. Replaced smaller 1930s machine shop on same site and presently non-functioning carpentry shop (NHL 48).
Description: Two-story, steel-framed building with concrete foundation, brick-faced, tile-block walls and industrial steel sash which form ribbon window around east and long south façade of first floor. Southeast corner is angled, east end has third-story bulkhead, and large overhead doors are located at east and west ends. . Parapeted, flat metal roof rests on steel joists. Interior has concrete first floor, exposed tile-block walls, I-beam supports, steel truss beams supporting second floor, office cubicles, and numerous work tables, shelves and machinery.
Significance: One of the many ancillary buildings that supported the distilling operation at large post-Repeal distilleries. A good example of the way new buildings were inserted into the physical fabric of the distillery.

60. Guard House. NR 16/Building 70. ca. 1950. Contributing building. Photo 113
Function: Gate house at one entrance to distillery. Continues to operate as such.

Description: Small square building with slate-shingled, pyramidal roof with terra cotta ridge tiles. Concrete foundation, brick walls to window height and frame above, one-over-one sash windows and half-glass door which may be replacement.
Significance: One of the many ancillary buildings that supported the distilling operation at the site.

61. Warehouse Office/ Break Room. NR 53/Building 79. 1950/2003. Contributing building. Photo 114
Function: Center for warehouse operations when built and today. Replaced earlier building with same function, since demolished.
Description: One-story, brick-faced concrete-block building with flat roof, cinder-block foundation, and windows with industrial steel sash. In 2003 an addition with plate-glass windows was made to the east wall. Interior has painted block walls, composition-tile flooring, exposed metal ceiling joists, and smoking and non-smoking break rooms.
Significance: One of the ancillary buildings that supported the warehousing operation at the distillery.

62. Storage Shed. NR 61/Building 59. ca. 1950. Contributing building. Photo 115
Function: Storage. By 1961 used for storing office records. In 1979 propane tank was located next to it. Today used for miscellaneous storage.
Description: Small one-story, wood-framed building with concrete foundation, metal siding, metal-sheathed wood door, and front-facing gable roof.
Significance: One of the many ancillary buildings that supported the distilling operation at the site.

63. Field Restroom. NR 57/Building 76. ca. 1950. Contributing building. Photo 116
Function: Restroom for employees working in remote warehouses. Built in conjunction with Warehouses R/S and T/U. Two separate rooms and entrances were reportedly for segregated facilities for black and white workers. Presently one serves men and the other women.
Description: Small one-story brick building with a parapeted flat roof and metal-framed windows.
Significance: One of the group of employee support facilities.

64. Water Storage Tank. ca. 1950. Contributing structure. Photo 117
Function: With adjacent pump house, additional fire prevention equipment for remote warehouse area including Warehouses R/S and T/U.
Description: Large 250,000-gallon, flat-bottomed, cylindrical, steel water tank with conical roof used for fire suppression.
Significance: Documents the fire suppression system, an important resource type at George T. Stagg and at all many large post-Repeal distilleries.

65. Pump House. ca. 1950. Contributing structure. Photo 117
Function: Together with adjacent water storage tank, provided necessary fire prevention equipment for remote warehouse area including Warehouses R/S and T/U. Pumping equipment housed here presently services entire distillery.
Description: Small flat-roofed brick building housing pump.
Significance: With NHL 64 documents fire suppression system.

66. Warehouse V. NR 62/Building 118. 1953. Contributing building. Photo 118
Function: One-barrel bonded warehouse built to showcase the two-millionth barrel of bourbon produced at distillery after Prohibition. Since then each additional millionth barrel has been installed here amid some fanfare. In May, 2008, the six-millionth barrel produced on site was placed in the warehouse.

Description: One-story, flat-roofed brick building with Modernist styling. Details include wood-panel side door and large plate-glass front display window with stone trim and Art-Deco style, wave pattern, aluminum grating. A single barrel of bourbon is displayed inside. Warehouse sits on low, landscaped, concrete terrace surrounded with stone retaining walls and with five steps leading up to it. Complex designed by architectural firm of Schwartz & Ellison in collaboration with Cincinnati engineering firm Hall, McAllister & Stockwell.
Significance: Only bonded warehouse in the United States designed to hold a single barrel and as such an interesting addition to the impressive history and range of warehousing displayed at the distillery. On June 23, 1953 a distinguished group of 300 people gathered to celebrate the production at George T. Stagg of the two-millionth barrel of bourbon since the end of Prohibition. Stagg was the first in Kentucky to reach this milestone. Guests watched as the barrel was placed in Warehouse V and then enjoyed a dinner prepared for them in the Burgoo House (NHL 25), part of the distillery's hospitality complex. Albert Blanton, recently retired as a director and vice-president of Schenley and as president of the George T. Stagg Company, played an important role in the event. Blanton was arguably the reason for the Stagg plant's post-Repeal success; the distillery was renamed the Albert B. Blanton Distillery in his honor at his November 1952 retirement. The June 1953 date and event mark a suitable end to the period of significance for the NHL nomination. The high note marked by this event was followed by an increasingly challenging climate for the entire whiskey industry created by overproduction and changing tastes in liquor preferences from "brown" to "white" products such as gin and vodka. A virtual halt to the construction of new production and warehousing facilities occurred on this site and elsewhere. Aside from the Bottle Case Storage/Distribution Center built in the early 1970s, no major buildings have been constructed since 1953. One of the 15 warehouses at George T. Stagg that together provide unparalleled documentation of the evolution of whiskey distillery warehousing in the United States.

<u>After Period of Significance: 1954 to the Present</u>

67. Cooling Tower. 1970s. Non-contributing structure. Photo 8, 119
Function: A cooling system for condensation of water vapor generated in mashing and slop drying operations. Prior to 1970s hot waste water impregnated with mash residue was dumped directly into the Kentucky River, but new EPA regulations required cooling and treatment before discharge. Since that date, water has gone from here to treatment ponds, excluded from the district because they post-date the period of significance. They were created in 1970s from an existing slough, a natural area of mud and mire. As early as the 1890s and continuing into the post-Repeal period underground drain lines from the warehouses were directed to the slough for the purpose of drawing off burning whiskey in the event of a fire.
Description: Large box-like piece of metal mechanical equipment set on concrete platform. Located on site of original O.F.C/George T. Stagg office building.

68. Shed. NR 64/Building 35. 1970s. Non-contributing building. Photo 120
Function: Storage of supplies for chlorine treatment of waste water in water treatment ponds.
Description: Small wood-framed, metal-clad building with flat roof set on concrete slab.

69. Shed. NR 65/Building 35A. 1970s. Non-contributing building. Photo 120
Function: Storage of various water treatment supplies for water treatment ponds.
Description: Wood-framed, metal-clad shed with flat roof set on concrete slab.

70. Chiller. 1970s. Non-contributing structure. Photo 121
Function: Chills water used in mash operation.
Description: Outside equipment consisting of various chambers and pipes through which hot water is run to reduce its temperature. A chiller of similar form and function has occupied this or a nearby site since about 1935.

71. Spirit Tank Farm. 1999 – 2011. Non-contributing structure. Photo 8
Function: Tank farm designed to hold bulk distilled spirit products shipped in from other company-owned distilleries that await bottling at Buffalo Trace's large bottling facility.
Description: Group of about twenty stainless steel tanks of varying sizes that has increased in number from 1999 to the present. Located on site of ca. 1880 brick structure (NR 40) demolished in 2002. With both 1930s and later non-historic additions and alterations, that building had functioned originally as a cistern room for the Carlisle Distillery and after 1933 as a storage building and later as a loading dock.

EVALUATION OF INTEGRITY TO PERIOD OF SIGNIFICANCE, 1933-1953
Within the boundary of the nominated property, there have been only three major changes since the end of the period of significance in 1953 – the removal of the railroad tracks that snaked through the site, the demolition of the original office building, and the construction of a number of new spirits storage tanks. Evidence of truck transport appears in aerial photographs of the distillery as early as 1951. Beginning in the 1970s it completely replaced the railroad for the shipment of distilled spirits industry wide and the railroad spur and numerous sidings that had been constructed at the distillery in 1933-1934 were gradually removed. Rail service permanently ceased about 1980. Fortunately, the small brick depot built in 1933 remains in somewhat altered form to document the railroad's historic presence. The original O.F.C. Distillery office building dated to the 1870s or 1880s but continued in active use with a number of additions well after Repeal. It was demolished to make room for a large cooling tower, probably in the late 1970s. As business at the plant has grown rapidly in the past ten years, the present owner has built a collection of about 20 cylindrical metal tanks for storage of spirits that await bottling. These are located in the open asphalted area between Free Warehouse A and Warehouse B on the site of a small building (NR 40) that was demolished in 2002. Aside from these changes, the property is remarkable intact to 1953, the end of the period of significance. In total, only 9 resources out of 71 are listed as non-contributing. These include the above mentioned spirits tanks, two pieces of large, outdoor industrial equipment, small sheds, a small landscaped area that post-dates 1953, and one wood-framed building whose walls have recently been replaced with brick. Changes and/or additions to individual buildings and structures have been identified in the resource inventory above.

The overall integrity of the site compares very favorably with that at the two other Kentucky distilleries previously designated as National Historic Landmarks where considerable reconstruction and new building have occurred. In the 2000 NHL nomination for Labrot and Graham's Old Oscar Pepper Distillery note was made that the setting of the George T. Stagg Distillery had been "compromised by subsequent suburban development." The two rehabilitated warehouses and distribution center with their associated parking and a few houses, all outside the district boundary, are within the distillery's viewshed from some vantage points. However, the Stagg Distillery developed historically into a large industrial site on the edge of Kentucky's state capital. By the mid-1930s it was no longer a small-scale rural industry in a bucolic setting as at Labrot and Graham where the natural setting is a key measure of integrity. The Stagg distillery has unchanged Kentucky River frontage with still-wooded bluffs rising to the northeast and an old service road still winding through the plant along its early path. It has a very intact internal setting with outstanding integrity of location, design, workmanship, materials and feeling which more than make up for its slightly compromised surroundings. Except for the rebuilding of one collapsed wall of Warehouse B, the enclosure of the depot's open platform, and the replacement of the exterior walls of the Chilling Room attached to the Bottling Plant there has been no major reconstruction or re-creation of historic buildings at the site. In 2012, the distillery strongly reflects its character during the distillery's Post-Repeal period of significance, 1933-1953. Its extant buildings, structures, equipment and manufacturing processes are minimally changed from that time period and very little new construction or demolition postdates 1953. This fact is documented in aerial photographs of the distillery taken

in 1951 (Figure 1) and 2012 (Figure 2) accompanying this nomination. Figure 3 is a plan of the distillery dating to about 1975 that is coded according to the ages of the buildings in order to show how the site developed over time. This also helps to illustrate the minimal amount of new construction post-dating 1953. The current owners of the distillery are committed to protecting its historic character as they continue operations at the site.

8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:
Nationally: X Statewide: _ Locally:

Applicable National Register Criteria:	A X B_ C X D
Criteria Considerations (Exceptions):	A_ B_ C_ D_ E_ F_ G
NHL Criteria:	1 and 4
NHL Theme(s):	III. Expressing Cultural Values 5. Architecture, Landscape Architecture and Urban Design V. Developing the American Economy 1. Extraction and Production
Areas of Significance:	Architecture, Industry, Social history
Period(s) of Significance:	1933-1953
Significant Dates:	1936-1937, 1944, 1953
Significant Person(s):	N/A
Cultural Affiliation:	N/A
Architect/Builder:	Carl J. Kiefer, engineer Frank Messer and Sons, Inc., builders Leo L. Oberwarth and Sons, architects Schwartz and Elliston, architects/ Hall, McAllister & Stockwell, engineers
Historic Contexts:	XII. Business B. Manufacturing Organizations 1. Food, Beverages, and Tobacco

State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

INTRODUCTION

The George T. Stagg Distillery Historic District is nationally significant under NHL Criteria 1 and 4 as an iconic and highly intact example of a distillery complex associated with the post-Prohibition expansion of the distilled spirits industry. It documents the cultural heritage of the United States distilling industry during the period from 1933 to1953. The property is a superlative example of one important type of whiskey distillery that developed after the 1933 repeal of Prohibition – the relatively intact, pre-Prohibition distillery that was repurposed to meet the needs of the newly re-emerging industry. From the January 1920 implementation of the Eighteenth Amendment prohibiting the manufacture, transport and sale of intoxicating beverages until the December 1933 ratification of the Twenty-first Amendment that repealed Prohibition, the alcohol industry in the United States was almost completely shut down. The distilled spirits sector of this industry quickly rebounded in the 1930s, becoming a very different industry on a vastly bigger scale with a different business model and a significantly changed set of manufacturing facilities. During World War II, beginning in 1942, the production of beverage alcohol was prohibited by the federal government and the distillers became the major suppliers of industrial alcohol for the war effort. At war's end, the industry scrambled to reposition itself for peacetime production during an expansive period characterized by repair and new construction. This was the last period of much building activity until the 1990s.

The Stagg Distillery is nationally significant as it played a major role in the industry's re-emergence and reinvention during this era. Because of its outstanding degree of integrity to the 1933 to 1953 time period, this distillery provides an exceptional opportunity to interpret America's cultural values as expressed by the buildings, structures, equipment and overall layout and operation of the facility. The distillery has been evaluated within the context of the distilled spirits industry in the United States with particular attention paid to the important 1933 to 1960 period when the whiskey industry was virtually reinvented after Repeal. The George T. Stagg Distillery Historic District meets National Historic Landmark Criteria 1 and 4. It has national significance in the area of architecture for its outstanding ability to document major trends in the development of post-Repeal distillery architecture: the way a number of historic, well-built, pre-Prohibition distilleries were dramatically modernized and repurposed to meet the needs of the new "scientific" distilling industry; the way changes in technology resulted in new building and equipment types and the reconfiguration of old ones; and the manner in which the Federal government's policies and regulations impacted the architectural character of distilleries.

Stagg is arguably the best overall example and certainly the best remaining example of a major post-Repeal distillery developed using the repurposed buildings and infrastructure of a plant operating before and, to a limited extent, during Prohibition. Such plants with functioning or quickly-repairable production and aging facilities were in great demand as Prohibition ended. Distillers could churn out new whiskey while they developed plans for new, modern, vastly expanded production and warehousing that utilized new building materials and new technologies. Solid old buildings were often adapted for new uses. At Stagg two of the oldest aging warehouses were converted into bottle storage and blending facilities, a necessity with new government regulations mandating the sale of whiskey in bottles. An out-of-date power plant became an employee recreation center, an old stone house a scientific laboratory. The immense scale and modern design of the grain silos, the new suite of production buildings, the cistern room and the warehouses built between 1936 and 1937 all document "scientific distilling" at the site. Highly intact and with much of their original equipment in place and still in use, these are outstanding examples of their respective building types as they were realized in the 1930s. They also illustrate the sensitive way that new construction was inserted into a prized historic industrial site through careful placement and attention to design elements. The state-of-the-art

dry house completed in 1944 with the help of a large government grant provides physical documentation of the plant's important role during World War II. Warehouse V, the only single-barrel warehouse in the United States, was built in 1953 amidst a flurry of public relations and marketing activity celebrating a Kentucky distillery's first two-millionth barrel of whiskey after Repeal. It aptly represents Stagg's role in the advertising-driven corporate climate that characterized the post-Repeal industry. The elaborate systems of above-ground pipes, the official labels on the mash cookers, fermenters, stills, and tanks, the government office, the empty barrel warehouse, the aging warehouses with their barred and shuttered or steel-framed and wire-glassed, first- and second-story windows all provide important documentation of the major impact of government regulation on the architectural character and the operation of the plant. The distillery's national significance derives from its exceptional ability to convey the nature of the architecture associated with whiskey distilling after Repeal, and particularly the architecture associated with the distilleries of the Big Four, the four huge companies that dominated the industry from 1933 through the 1950s. Its diverse collection of intact historic resources ranging in date from ca. 1880 to 1953 also provides a unique and unparalleled opportunity to study at one site the evolution of the building types, building materials, construction technology and corporate character of the American whiskey industry over time.

A BRIEF HISTORY OF THE DISTILLING INDUSTRY IN THE UNITED STATES

The Seventeenth through the Mid-nineteenth Centuries: Beginnings of the American Distilling Industry

As suggested by the title of W. J. Rorabaugh's 1979 book, *The Alcoholic Republic: An American Tradition*, the United States has been since its earliest days a country with a long and complex history regarding the consumption of alcoholic beverages. A culture of alcohol production and consumption arrived with each group of early immigrants to America. Beer, wine and distilled spirits were almost completely accepted in society and were considered a necessity for daily life – an important alternative to unsafe water, the only common anesthetic for medical procedures and above all, an ameliorant to the extraordinary drudgery of daily life. Alcoholic beverages were distilled from whatever was at hand – fruit, grain, potatoes, and molasses. Distilling was considered a fundamental part of agricultural life much as were such tasks as butchering and candle making.[1]

Rum, beer, cider, and tea were the principal drinks of pre-Revolutionary America.[2] Rum was both imported from the Caribbean and produced in the New England area from molasses brought into the country's principal ports as part of the important Triangle Trade. It was the liquor of choice for prosperous colonialists who disdained the crude early attempts at producing whiskey.[3] But despite an initial poor quality product, a country of farmer-distillers continued to develop, spreading west with westward expansion.[4]

American-made whiskey produced from rye and/or corn gradually gained ascendency between 1790 and 1830 for a number of reasons. The new American government set limits on molasses importation from the Caribbean, and the Embargo Act of 1807 prohibited the import of foreign liquor, hurting the rum business and directly assisting domestic production. The Slave Trade was outlawed in 1808 ending the Triangle Trade. Large numbers of newly-arrived Scottish and Irish immigrants with a long tradition of distilling with grains migrated into the western sections of Pennsylvania, Maryland, North Carolina and Virginia, and, after the Revolution, into Kentucky and later Illinois. These were areas particularly suitable for whiskey distilling with excellent supplies of the limestone water that makes great whiskey and with land well suited to grain

[1] Henry G. Crowgey, *Kentucky Bourbon: The Early Years of Whiskeymaking* (Lexington: University Press of Kentucky, 1971, reprinted 2008). Crowgey, the most scholarly of the writers on the distilling industry, gives an excellent overview of the early history of distilling in Chapter One: "Thirsty Colonialists," 1-20.

[2] Waverly Root and Richard de Rochemont, *Eating in America: A History* (New York: William Morrow, 1976), 364.

[3] Gerald Carson, *The Social History of Bourbon* (New York: Dodd, Mead, 1963), 7-10.

[4] Crowgey, 3-9.

production.[5] An element of chance was involved in the evolution of rye and bourbon whiskey, by definition produced with a minimum of 51% rye and 51% corn, respectively. Rye, which grew easily in western Pennsylvania, was used as a substitute for barley, the grain traditionally used in whiskey making in England and Ireland, and people acquired a taste for it; corn which grew well in Kentucky was substituted for rye with the same result.[6]

The earliest distilleries were very small operations in crude, frequently, log buildings with minimal equipment: a few wooden tubs for preparing the mash, a copper pot still or sometimes a more home-fashioned wooden still, a doubler for a second distillation, and a worm, the snake-like metal coil submerged in cold water through which the gaseous alcohol was sent for condensation. At first many stills were imported from England, but before 1800 they were being manufactured in Philadelphia and soon after by coppersmiths in Kentucky and, no doubt, many other states. Early deeds, wills, probate inventories and newspaper notices suggest greater value was assigned to distilling equipment, in most cases still small enough to be portable, than to the buildings that housed it. Structures were rarely mentioned. Of greater importance were the springs and/or waterways that provided one of the essential ingredients and the necessary power for production.[7] By 1810 there were approximately 14,000 small distilleries in operation throughout the nation but production was very limited averaging about three to fifteen barrels or casks (the words are used interchangeably) per season.[8]

The year 1791 was a transformative one in the early history of distilling. The new Federal government in an effort to generate desperately needed internal revenue established the first excise tax on distilled spirits to become effective July 1, 1792. This marked the beginning of Federal intervention in the industry. Taxing districts were created and commissioners appointed. Distillers were required to register their facilities and their whiskey casks were to be labeled by government officers before leaving the premises.[9] Outrage among distillers was immediate, leading to all sorts of civil disobedience and in 1794 to the so-called Whiskey Rebellion during which physical violence against tax collectors in western Pennsylvania was subdued by Federal troops. Whiskey had become an efficient means for isolated western farmers to convert their excess grain into an easily transportable cash crop that could be sold or bartered at market. The tax was seen as an unfair burden on farmers, particularly those west of the Alleghenies where whiskey was not as valuable as in the east but where it was taxed at the same rate as elsewhere. [10] Taxes ended in 1802 but reappeared between 1814 and 1817 in the form of licensing fees to help finance the War of 1812, thus establishing a precedent for taxation of distilled spirits in times of war or national emergency. Federal intervention disappeared entirely between 1818 and 1862 when, once again, an expensive war caused the government to look to the distilled spirits industry for revenue.[11] In the intervening years the states regulated the industry to varying degrees.

The end of the eighteenth century saw a movement away from the small farm distillery towards milling centers where a distillery would be associated with a grist mill and perhaps a saw mill on the property of a prosperous farmer or miller. Increasingly as the nineteenth century progressed, a capitalist might be involved in distilling ventures and one of the newly emerging whiskey experts would be hired on a salaried basis to run the operation.

---

[5] William L. Downard, *Dictionary of the American Brewing and Distilling Industries* (Westport, CT: Greenwood Press, 1980), xxi.

[6] Root and de Rochemont, 379-380.

[7] Crowgey, 10, 50, 112-113.

[8] Downard, xxii.

[9] *Public Statutes at Larg* (sic) *of the United States of America from 1789 to March 3, 1845* Vol. I (Boston: Charles C. Little and James Brown, 1848) First Congress, Session III, Chapter 15, 199-214. http://heinonline.org.echo.louisville.edu (accessed December 4, 2011).

[10] Tun Yuan Hu, *The Liquor Tax in the United States: 1791-1947* (New York; Columbia University, Graduate School of Business, 1950), 19-30.

[11] Hu, 32-35.

The size, complexity, and permanence of distilleries began to increase as steam power and scientific equipment were introduced and improvements in transportation led to somewhat wider markets. Specialization and consistency of product began to appear with consumer recognition of such products as "Monongahela rye" and "Kentucky whiskey," an early descriptor of bourbon whiskey made with a preponderance of corn.[12] Distillery housings advanced from the early log buildings to multi-story, wood-framed, mill-type structures and to the solid stone buildings recommended by Harrison Hall, a prominent Philadelphia distiller and author in 1818 of *The Distiller*, an influential book written for farmers and distillers.[13] By mid-century the most ambitious facilities were often built of brick, but the range was extensive with many of the thousands of small operations that dotted the landscape still extremely rudimentary.

One missing or minimal element at these early distilleries was the warehouse which became such an important building type at post-Civil War facilities. The concept of aging whiskey to improve its taste was only slowly acknowledged to be an important part of the production process and the small amounts produced at most facilities did not encourage storage. In 1818, however, Hall did suggest that aging whiskey for up to a year could greatly improve its taste. He also points to the practice by Kentucky and Tennessee farmers of sending their whiskey to market by boat and suggests that an improvement in its taste is caused by its agitation while in transit.[14]

A few examples from this pre-Civil War period should be cited. George Washington's distillery at Mt. Vernon was built in 1797 under the direction of Washington's Scottish farm manager, James Anderson. He used his knowledge of "Old Country" distilling to build for Washington what was at the time one of the largest and most ambitious distilleries in the country. The distillery has recently been reconstructed on its original site based on extensive archaeological and historical research. The 75' by 30' building constructed of stone, brick and wood housed five stills, a boiler and fifty mash tubs which were capable of producing 4,500 gallons of whiskey a year and supporting 150 cattle and 50 pigs. This compared to the average Virginia operation which produced 650 gallons a year. [15] Another early example of a state-of-the-art distillery project was the massive Hope Distillery, incorporated in Kentucky with money from New England investors, and built in Louisville in 1816-1817. Its two English-built stills of 1,500- and 750-gallon capacity were powered by a powerful steam engine and could turn out 1,200 to 1,500 gallons of whiskey a day, more than at many of the Kentucky distilleries operating after Prohibition. But the Hope Distillery was a business failure that by 1821 had been abandoned, an ambitious project that was ahead of its time.[16]

Others are more typical. Bomberger's Distillery, built about 1840 in Lebanon County, Pennsylvania and designated a National Historic Landmark in 1980, is an excellent example of a distillery built with the heavy timber framing and wood siding typical of many mills of the period. The important Overholt Distillery at West Overton, Pennsylvania is documented in the West Overton Historic District (National Register of Historic Places, 1985). The evolution, all at one site, of the Overholt family distilling operation from its pre-1810 beginnings in a log structure to a stone building completed in 1814 and finally to the extant 5 ½- story brick distillery/mill building completed in 1859 exactly chronicles the industry development described above. Clearly documenting the farming/milling/distilling operation of a prosperous farmer is the Staley Farm in Miami County, Ohio (National Register of Historic Places, 1980), with its 1818 wood-framed grist mill, a ca. 1831 braced-frame saw mill, and the ruins of a ca. 1831 brick distillery linked together by a mill race. Labrot and Graham's Old Oscar Pepper Distillery (designated a National Historic Landmark in 2000), a group of

[12] Crowgey, 52-61, 105.
[13] Harrison Hall, *The Distiller*, 2nd edition (Philadelphia, 1818), 25.
[14] Hall, 14-15.
[15] Distilled Spirits Council of the United States, "George Washington's Distillery," http://www.discus.org/heritage/distillery.asp (accessed November 28, 2011).
[16] Crowgey, 57.

primarily stone buildings built beginning in 1838 in Woodford County, Kentucky is another of the solidly built distilleries representative of ante-bellum distillery architecture. The Pepper Distillery with its important association with Dr. James Crow, credited with bringing many scientific advances to the industry, is an excellent example of a distillery business overseen by one of the whiskey experts who began to appear in the early nineteenth century.

Liquor consumption in the United States peaked during the 1810 to1840 period[17] with disastrous consequences for the American people in terms of rampant alcoholism and resultant crime, family suffering and lost productivity. For the first time religious, political, and community leaders in large numbers began to question the pervasive use of distilled spirits in daily life. It was during this period that the initial stirrings of the temperance movement emerged leading eventually to Prohibition. In 1826 the American Temperance Society was founded in Boston; the Western Temperance Society, said to be the first national organization, formed in Baltimore in 1840. By 1833 there were temperance societies in twenty-three states.[18]

1862 to 1920: The Beginning of Modern Distilling and of Major Government Intervention

In July 1862 Congress in "An Act to Provide Internal Revenue to Support the Government and to Pay Interest on the Public Debt" created the Office of Commissioner of Internal Revenue within the Treasury Department. The act established licensing fees, excise taxes and an income tax to help fund the Civil War. Included among many excise taxes was a twenty cent per proof gallon tax on distilled spirits, the first federal tax on the industry since 1818. The tax quickly jumped to sixty cents, then $1.50 and in January 1865 to $2.00. Perhaps more significant than the tax were the detailed regulations set out for the industry that established the symbiotic relationship between the distillers and the Federal government that continues to exist today. Once again, distilleries were required to be licensed and government inspectors or "gaugers" in each state district were to oversee the gauging (measuring) of whiskey before it was removed for sale. Distillers were required to keep detailed records of the amounts of grain they used and the whiskey they distilled. The act permitted the construction of warehouses built of "iron, stone or brick with a metal or other fireproof roof" which, when approved by the government collector and put under his custody, were to be designated as "bonded warehouses of the United States" for use only for storage of distilled spirits.[19]

1868 and 1878 saw the creation of additional important legislation that further tightened the government hold on the industry. In 1868 the high tax of two dollars was dropped back to fifty cents in an attempt to discourage the rampant illegal distilling activity that had developed in response to it. A one year bonding period was established allowing distillers to keep aging whiskey in bonded warehouses for up to a year before payment of taxes. But with these improvements in the taxing situation came extensive new reporting requirements and regulations. Distillers had to submit detailed plans of their facilities indicating the location of all buildings. A warehouse was now required at each distillery along with a cistern room where new whiskey was to be loaded into casks under government supervision. Both had to be built to specification. Pipes carrying mash, low wine, spirits, and water (all to be above ground and completely visible to the inspectors) were to be painted designated colors, and for the first time "storekeepers" were assigned to each distillery at distillers' expense to keep track of warehouse activity. These were only some of the detailed government requirements for operating a distillery.[20] The 1870s saw the introduction of the warehouse receipt, a financial tool peculiar to the distilling

[17] Downard, 227-228.

[18] Root, 373.

[19] *Statutes at Large, Treaties, and Proclamations of the United States of America from 1859 to 1863*. Vol. XII (Boston; Little Brown, 1863). Thirty-seventh Congress, Session II, Chapter 119, 432-453. http://heinonline.org.echo.louisville.edu (accessed April 17, 2008)

[20] *Statutes at Large, Treaties, and Proclamations of the United States of America from December1867 to March 1869.* Vol. XV (Boston; Little Brown, 1869). Fortieth Congress, Session II, Chapter 186, 125-135). http://heinonline.org.echo.louisville.edu (accessed April 16, 2008)

industry which allowed the distiller to sell barrels of whiskey before they had finished aging and while they remained in the warehouse. This permitted the distiller to finance the whiskey taxes that came due after one year of aging. In 1878, after much pressure from the distillers, the bonding period was extended to three years,[21] prompting a huge boom in warehouse construction and increased production.

The 1870s witnessed the construction of new up-to-date distilleries, the expansion and upgrading of others and the disappearance of many of the smaller operations that couldn't afford the cost of all the new licenses and taxes. The 1880s and 1890s saw massive overproduction and increasing battles between the producers of straight whiskey and those who were rectifiers or sold primarily to them. Rectifiers redistilled whiskey to a higher proof before mingling products and sometimes adding flavorings, often of a dubious nature, to create their own brands. The industry became increasingly speculative due to government tax provisions that exempted existing whiskey stored in bond from the new higher tax each time the tax was raised. As there was almost always a lag between the Congressional enactment date and the effective date of the higher tax there was a mad scramble among the distillers to produce as much as possible before the new tax rate took effect. Not surprisingly, this practice resulted in massive overproduction and over-construction of warehouses by the early 1880s.[22] The growing creation of trusts and monopolies was part of a somewhat futile effort to stem the flow of new whiskey and stabilize prices. The Distillers' and Cattle Feeders' Trust, established in Peoria, Illinois in 1887, eventually controlled over eighty affiliates before being effectively shut down by a major anti-trust case. The Trust churned out neutral spirits required by the rectifiers and the cologne industry.[23] The Kentucky Distilleries and Warehouse Company, which eventually owned fifty-nine bourbon distilleries, followed in 1899. Although essentially moribund by the early 1920s, a number of its distilleries became part of American Medicinal Spirits Company when it was formed in 1927.[24]

Much of the 1880s was spent lobbying the government to extend the bonding period beyond three years to avoid the "force out" of massive quantities of unsold product. The growing rift in the industry between the makers of straight whiskey, who, in their opinion, produced a far superior product, and the frequently larger distilleries that sold primarily to rectifiers intensified as the government ignored their pleas. Whiskey produced for rectifying did not require the increasingly long aging period that was by then associated with the production of fine straight whiskey; hence, it was not as affected by the three year "force out" that so challenged the makers of unadulterated whiskey. Finally, in 1894, the efforts of the straight whiskey men paid off and the bonding period was extended to eight years. The tax was raised to $1.10, and this time the new tax rate became effective immediately and was applied to bonded whiskey in warehouses as well as to new product. The so-called Carlisle Allowance was introduced as part of this legislation with the government for the first time acknowledging the considerable evaporation that occurred as whiskey aged. Distillers were allowed to request a regauge of their casks of whiskey within four years of the original fill and gauging date. While saving the distillers money, the regauging procedure required yet another layer of record keeping and government oversight.[25]

Two more triumphs for the powerful straight whiskey men came in 1897 with the passage of "An Act to allow the bottling of distilled spirits in bond" and in 1906 with the passage of the so-called Pure Food and Drug Act,

---

[21] *Statutes at Large of the United States of America from October,1877 to March,1879.* Vol. XX (Washington: Government Printing Office, 1879) Forty-fifth Congress, Session II, Resolution 16, 1878, 249-250. http://heinonline.org.echo.louisville.edu (accessed December 4, 2011)

[22] Hu, 41.

[23] Carson, 130-136.

[24] Downard, 100.

[25] *Statutes at Large of the United States of America from August, 1893 to March, 1895.* Vol. XXVIII (Washington; Government Printing Office, 1895) Fifty-third Congress, Session II, Chapter 349, 1894, 563-567. http://heinonline.org.echo.louisville.edu (accessed June 17, 2008)

effective in 1907. In 1897, in order to control the common practice among rectifiers of selling adulterated whiskey, the government, with the encouragement and support of the makers of fine whiskey, for the first time developed a series of standards for whiskey to be "bottled in bond." This whiskey by definition had to be "straight whiskey," at least four years old, all from one distillation season and from one distiller, aged in a bonded warehouse, and bottled at 100 proof. Government gaugers were required to oversee bottling to insure compliance with standards, and a government label was affixed to each bottle indicating where the whiskey was distilled and bottled.[26] Bottling in bond led to an increase in bottled whiskey, particularly bourbon, which previously had been sold almost exclusively in barrels to wholesale distributors. The Pure Food and Drug Act for the first time called for the establishment of standards of quality for a wide variety of American food and drug products and prohibited interstate and foreign commerce in adulterated and mislabeled products.[27] As feared by the whiskey rectifiers and wholesalers, H.W. Wiley, chief government chemist and supporter of the straight whiskey interests, required the labeling of blended whiskey as "imitation whiskey," a decision that held until 1909 when President William Howard Taft ruled that rectified whiskey could be labeled "compounded" or "blended" whiskey to avoid negative connotations.[28]

The period after the Civil War was one of great national growth – a period which saw the ascendency of the railroad and with it a further westward expansion that opened up new markets for the many manufactured goods, including whiskey, that were flooding into the market. Waves of immigration expanded the labor pool and provided a new demand for the whiskey that was pouring from the distilleries. The center of the industry shifted west during the 1870s and 1880s into Kentucky and Peoria, Illinois which by the 1890s had overtaken all other states in the production of distilled spirits. Illinois's distilleries were not numerous – only 7 remained by 1907 – but they were huge, out-producing Kentucky's 169 distilleries by 42,754,966 gallons to 29,645,335 in 1905-1906. To a large extent the Illinois distilleries produced high-proof neutral spirits for rectifiers, blenders and the makers of cologne rather than the aged straight product that Kentucky was becoming known for. Very telling are the 1907 figures for whiskey removed from warehouses for bottling in bond: Illinois, 85,983 gallons; Kentucky, 2,942,259 gallons. Certainly the distillers of straight whiskey reigned in Kentucky. Other big producing states in 1906 were Indiana, Ohio, Pennsylvania and Maryland in that order, all places where the limestone substratum that produced the calcium-rich, low-iron water associated with great whiskey was found.[29]

The Character of Late-nineteenth and Early-twentieth Century Distilleries

Many inventions and improvements in tandem with speculation and increased demand led to increased production and new, bigger distilleries. By the 1880s, steam power had become almost ubiquitous in the industry, used for heating the mash, vaporizing the beer in the still and sometimes heating the warehouses. In the mashing process, cookers were taking the place of small mash tubs at some of the larger distilleries. Fermenters grew in size and number. During the 1870s the "three-chambered charge still," began to replace the pot still. By 1910, the continuous still, derived from the "patent still" perfected in 1830 by Irishman, Aeneas Coffey, was in wide use in Kentucky and Tennessee; the rye-producing states of Maryland and Pennsylvania continued primarily to utilize the three-chamber charge still. Unlike the pot still in which a batch of fermented mash is introduced and then heated from beneath to generate the alcohol vapors, a continuous still is designed to

[26] *Statutes at Large of the United States of America from December, 1895 to March, 1897.* Vol. XXIX (Washington; Government Printing Office, 1897) Fifty-fourth Congress, Session II, Chapter 379, 1897, 626-628. http://heinonline.org.echo.louisville.edu (accessed June 17, 2008).

[27] *Statutes at Large of the United States of America from December, 1905 to March, 1907.* Vol. XXXIV (Washington; Government Printing Office, 1907) Fifty-ninth Congress, Session I, Chapter 3915, 1906, 768-772. http://heinonline.org.echo.louisville.edu (accessed June 17, 2008).

[28] Jack High and Clayton A. Coppin, "Wiley and the Whiskey Industry: Strategic Behavior in the Passage of the Pure Food Act," *Business History Review* 62 (Summer 1988), 305.

[29] *Wine and Spirits Bulletin:* January 1907, 67; January 1907, 28c; January 1908, 24.

feed a continuous stream of mash into the top where it comes in contact with steam rising from the bottom, thereby avoiding the chance of burning the mash. Continuous stills were often four stories high, necessitating design changes in the still house. [30]

The production facilities themselves ranged enormously in size and appearance during this period, on average capable of producing anywhere from five to one hundred barrels a day.[31] Many of the plants had moved away from their simple agricultural ad-hoc beginnings assuming a more industrial character. As at all industrial facilities, the physical envelope that housed the essential equipment required for processing was influenced by location, available building materials, technology, markets, and company philosophy. The layout of the works was in most cases fairly similar, reflecting the practical necessities of the distilling process and the government's requirements, but the outer shells of the buildings varied considerably depending on each distiller's business philosophy and available capital. There were many completely utilitarian, wood-framed complexes. The simplest, often remnants of pre-Civil War distilling, were rectangular, two- and three-story, mill-type structures. More typically, they had a complicated asymmetrical layout and varying roof heights that reflected the various components of the distilling process within – milling, mashing, fermenting and distilling. Many distillery buildings of this period were wrapped in sheet metal. Corrugated, galvanized-iron sheeting was readily available by the 1870s, and by the 1880s its use for industrial and commercial construction had soared, spurred on by its promotion as a fire retardant, capable of forming a "protective envelope" around a building.[32] To the author's knowledge, no example of such a pre-Prohibition still house complex is extant, but those at some post-Repeal distilleries such as the just-closed Wild Turkey still house at Tyrone, Kentucky are similar in form and materials although larger in scale.

Other distilleries were well-built stone or brick works sometimes with considerable architectural detailing that derived from the structural necessities of the buildings. These were the buildings described by Betsy Hunter Bradley as "American round-arched" that featured round- or segmental-arched window openings, often with molded surrounds, elaborate brick corbelling, horizontal banding, and a heavy use of pilasters that were often linked together at the top by arched spandrels.[33] These facilities were used by their owners to convey a marketing message to buyers and visitors of permanence, solidity, and prosperity and, by association, of a quality product being made within. A well-designed and prominent smokestack made necessary by the increasing size of power plants might announce the distillery's presence to all who passed by on a nearby river or road. Frequently detailed images of these distilleries could be found on company letterhead, labels and/or advertising pages.[34] The handsomely detailed 1880s brick distillery buildings at the O.F.C. and Carlisle distilleries, the early components of the George T. Stagg Distillery, were among the finest of this type. Unfortunately, almost none of these nineteenth century works are extant in close to their original form, one exception being the Italianate-styled, stone, Melvale Distillery built about 1862 in Baltimore County, Maryland.[35] Perhaps the most unusual example of a distillery designed with marketing and branding in mind is the architect-designed, Spanish Mission-style Old Prentice Distillery built in Anderson County, Kentucky in 1910-1912 ("Old Prentice Distillery," National Register, 1987).

---

[30] A. B. Adams, "The Distillation of Whiskey." *Journal of Industrial and Chemical Engineering* Vol. II, 1910. (Easton, PA: American Chemical Society), 34-42.

[31] *Spirits*, January 1935, 22.

[32] Betsey Hunter Bradley, *The Works: The Industrial Architecture of the United States* (New York: Oxford University Press, 1999), 142-144.

[33] Bradley, 235-239.

[34] Gillian Darley, *Factory* (London: Reaktion Books, 2003), 8, 157, 166.

[35] Dennis Zembala, ed., *Baltimore: Industrial Gateway on the Chesapeake Bay* (Baltimore: Baltimore Museum of History, 1995), 105.

During this period, warehouses were ballooning in size and number at distilleries, particularly after the 1879 patenting and rapid dissemination of the "patent rack," a grid-like system of wooden barrel supports designed by Louisvillian, Frederick Stitzel, for improved barrel ventilation and ease of handling.[36] The government-specified bonding period for whiskey, which jumped from one year in 1868 to eight years in 1894, combined with the growing belief in the value of aging fine whiskey as well as improvements in elevator technology resulted in increasingly larger capacity. Although in most cases built with patent racks, warehouses during this period split into two methods of construction: the generally unheated, corrugated-iron-clad variety and the masonry brick, or occasionally stone warehouses frequently heated with steam. By 1910, when the last wave of warehouse construction before Prohibition had wound down, some masonry warehouses had reached nine or ten levels and 50,000 barrel capacity and, in one instance, 129,000 barrels. The very largest of the more common wood-framed, iron-clad warehouses were eight stories with a 35,000 barrel capacity, but, more typically, they housed 10,000 to 20,000-barrels in five- to seven-story structures.[37]

Distillers, by virtue of the nutritious byproduct of the distillation process, had traditionally also been livestock feeders; barns, sheds, and feed lots where cattle and pigs were fattened for market were commonly associated with their plants. In general, the bigger the distillery the larger the livestock facilities. At the Great Western Distillery in Peoria, Illinois a brick cattle barn designed for 2,700 head of cattle measured 275 by 475 feet.[38] By the 1890s the first mentions of drying equipment to process the slop into animal feed appeared in trade publications. By 1906 the Louisville Drying Company was advertising "slop dryers" in the *Wine and Spirits Bulletin.*[39] Dry houses were in evidence at many of the Kentucky and Tennessee distilleries mapped by the Sanborn Map Company in 1910; the earlier, almost ubiquitous barns and feed lots were beginning to disappear.

Brown Forman began bottling its whiskey in 1870 to appeal to physicians looking for reliable, unadulterated product.[40] With the passage of the Bottled in Bond Act of 1897 and the invention of the Owens automatic bottle-making machine in 1903, many plants began to establish small bottling facilities. At first, these were generally carved out of existing warehouses, but separate buildings were constructed at some larger plants.

A Rising Tide of Temperance Activity

By 1900 the industry was struggling against an ever growing wave of temperance activity which culminated in the passage of the Eighteenth Amendment in 1919 and the enactment of Prohibition a year later. The Civil War had provided a temporary lull in temperance activity but at its end the dry movement rallied, gradually increasing its momentum as the century progressed. In 1869 the national Prohibition Party was organized followed by the Women's Christian Temperance Union in 1874 and the influential Anti-Saloon League, led by the immensely powerful Wayne Wheeler, in 1895. By 1900, thirty-seven states had local option laws and by 1905, four states had statewide prohibition laws. The situation was summed up in a "Resume of the Year 1907" in the January issue of *The Wine and Spirits Bulletin* which spoke of the "overwhelming menace" and increasing momentum of the prohibition forces.[41]

One key factor that had protected the industry from the dry forces was the immense amount of income generated for the government through liquor taxes. In the years between 1890 and 1917 alcoholic beverages provided between twenty-nine percent and forty-one percent of total federal tax revenue per year of which

---

[36] "Rack for Tiering Barrels," U. S. Patent No. 221,945, November 25, 1879. Copies of original documents on file at Filson Historical Society, Louisville, KY.

[37] *Sanborn Survey of Whiskey Warehouses of Kentucky and Tennessee, 1910.* (Sanborn-Perris Map Company).

[38] *Sanborn Surveys of Whiskey Warehouses of Illinois, Ohio and Indiana, 1894*, Sheet 12. (Sanborn-Perris Map Company).

[39] *Wine and Spirits Bulletin:* April 3, 1891, 11; July 1, 1906.

[40] www. discus.org/heritage/spirits.asp#14 "What's in the Bottle?"

[41] "Resume of the Year 1907," *The Wine and Spirits Bulletin*, January 1, 1908, 17.

distilled spirits alone provided between twenty percent and thirty percent.[42] An alternative source of revenue had to be created before the Federal government could or would halt liquor production. In 1909 Congress passed a resolution proposing the Sixteenth Amendment creating a federal income tax and in 1913 the amendment was ratified by the necessary number of states. At that point, the mechanism was in place allowing the dry forces to make their final aggressive push towards national prohibition.

That same year, 1913, the Webb-Kenyon Interstate Liquor Act made it illegal for distillers in wet states to sell across state lines to customers in dry states. In August 1917 the industry was effectively shut down by the so-called Lever Food and Fuel Act which called for the wartime prohibition of grain usage for distilling.[43] On December 18, 1917 a Joint Resolution of the House and Senate proposing an amendment calling for the prohibition of the manufacture, sale and transportation of intoxicating liquors was submitted to the states for ratification. Nebraska became the necessary thirty-sixth state to ratify on January 17, 1919, and a year later, as called for in the Eighteenth Amendment, Prohibition took effect on January 17, 1920.[44]

1920 to 1933: Prohibition

In October 1919, Congress had passed the National Prohibition Act (commonly referred to as the Volstead Act after its principal author, Andrew Volstead) which provided a mechanism for implementation of the Eighteenth Amendment. The act defined "intoxicating liquor" as any spirit containing ½ of- 1% or more of alcohol by volume. It confirmed the legality of storing existing pre-Prohibition whiskey in bonded warehouses and of possessing liquor in private homes. Provisions for setting up an administrative and enforcement staff were established, funds were designated for implementation, and punishments for violations were spelled out. In order to prevent its diversion for beverage use, regulatory measures were established for the production of industrial alcohol. Perhaps most significant for the battered liquor industry were two exemptions provided in the law: for wine for sacramental purposes and for medicinal whiskey. Absolutely no advertising was to accompany the sale of these items and government permits (very limited in number) were to be required for operation of bottling facilities.[45]

The liquor industry was almost totally closed down by Prohibition. Beginning about 1917 with the passage of the Lever Food and Fuel Act, came a great rush to dispose of distilleries. Many were sold at extraordinary losses. The *Louisville Courier Journal* reported on November 19, 1918 that nineteen Kentucky Distilleries and Warehouse Company plants worth anywhere from three to five million dollars were sold for $205,000. In 1920, 152 registered distilleries remained in Kentucky, but the majority of these were partially or totally dismantled and sold for scrap during the ensuing decade. The picture was the same for distilleries throughout the country. Moore and Sinnott, the largest rye distillery in Pennsylvania located on a valuable Monongahela River site, declared bankruptcy in 1920; the property was bought by Pittsburgh Steel and the distillery totally dismantled a few years later. The Great Western Distillery in Peoria, reportedly the largest in the world, was demolished in the mid-1920s. A few distilleries were converted to industrial alcohol plants and a few more were converted to other industrial uses. Only a small group remained relatively intact.[46]

---

[42] Hu, Appendix 1: "United States Internal Revenue Collections of Alcoholic Liquors… Fiscal Years 1863-1947, Inclusive."

[43] *Statutes at Large of the United States of America from April, 1917 to March, 1919.* Vol. XL (Washington; Government Printing Office, 1919) Sixty-fifth Congress, Session I, Chapter 53, 1917, 276-277. http://heinonline.org.echo.louisville.edu (accessed June 17, 2008).

[44] Ibid, 1050.

[45] *Statutes at Large of the United States of America from May, 1919 to March, 1921.* Vol. XLI (Washington; Government Printing Office, 1921) Sixty-six Congress, Session I, Chapter 85, 1919, 305-381. http://heinonline.org.echo.louisville.edu (accessed June 17, 2008).

[46] Churchill, 135; "American Whiskey: Distillers of Western Pennsylvania, John Gibson's Son & Co." www.ellenjaye.com

In September 1922, following Congressional authorization, Federal Prohibition officials called for all the remaining whiskey at three hundred functioning warehouses to be centralized in approximately thirty "concentration warehouses," located for the most part near large population centers where security would be less costly and more successful. At that time forty million gallons remained in warehouses. No official list of the eventual thirty-one concentration warehouses has been found, but most of the list can be pieced together from various newspaper articles from the time. By 1927, eleven distilleries and one warehouse site were located in Kentucky; Pennsylvania was given three distillery sites. The majority of the others were large city warehouses in Boston, Baltimore, Chicago, St. Louis, San Francisco, Fresno, Los Angeles and, almost certainly, New York.[47] The distilleries on the list were the lucky few because with a concentration warehouse permit came an associated permit for bottling medicinal whiskey, allowing for a modicum of activity at the otherwise shuttered sites. Beginning in late 1929, the Commissioner of Prohibition announced that permits would be awarded for very limited production of new whiskey. The seventy percent bourbon-thirty percent rye split was indicative of a rapidly declining taste for rye. Again, no complete list of permits has been found, but the majority of the very small number of plants selected were in Kentucky. Production of additional quantities was authorized in November 1930 and August 1931 by which time seven Kentucky distillers operating at four or five facilities had powered up their stills. [48] The George T. Stagg Distillery was among the eleven Kentucky distilleries granted a concentration warehouse permit in 1922 and those given production privileges in 1930.

Initial euphoria over and compliance with Prohibition fairly quickly turned into a growing lawlessness. Tun Juan Hu comments in *The Liquor Tax in the United States* that inadequate funds were provided at the federal and state level for the enforcement of the law. Prohibition agents were incapable of controlling increasingly rampant bootlegging. Illegal drinking swelled dramatically with many segments of the population drinking far more than before Prohibition. Speakeasies replaced saloons with the result that for the first time women began drinking distilled spirits with men outside the home. During the mid to late 19th century whole families of German-Americans enjoyed German beer gardens, but women had never been welcome in saloons. As the 1920s wore on, more and more people became disenchanted with the state of "dry" America.[49]

Wealthy Republican men had formed the Association Against the Prohibition Amendment in 1918, with the principal aim of ending the federal income tax. The organization proved largely ineffectual until 1927 when Pierre du Pont became its powerful spokesman. Pauline Sabin, an immensely wealthy Republican, first woman member of the Republican National Committee, and a mother deeply concerned about the effect of Prohibition on drinking among young people, formed the Women's Organization for National Prohibition Reform in 1929. The WONPR worked hard to attract broad appeal and by 1933 the organization grew to 1.3 million members. "Why American Mothers Demand Repeal," a widely disseminated pamphlet, helped to make it acceptable for women to support Repeal. The Anti-Saloon League rapidly lost power and funding sources after 1927 when Wayne Wheeler died. The 1929 stock market crash rapidly depleted state and Federal coffers and generated a huge distaste for the Republican Party, then in power. Reapportionment which had been delayed after the 1920 census by powerful Republican interests in Congress finally shifted the balance of power in the country from rural, generally dry areas to the overwhelmingly wet cities.[50]

All of the above set the stage for a vote for repeal of the Eighteenth Amendment, an astounding feat considering that no Amendment had ever before been repealed. In November 1932, Democrat Franklin Delano Roosevelt, running on a Repeal platform, soundly defeated Herbert Hoover for president, and both houses of Congress

[47] "Picks Liquor Warehouses," *New York Times*, September 6, 1922, 8; "Ten Whiskey Concentration Warehouses Named in Kentucky," *Louisville Courier-Journal*, December 9, 1922; "Push House Fight," *Louisville Times*, February 23, 1927.

[48] "Bourbon Permits Interest Kentucky," *New York Times*, August 11, 1929; "Liquor Manufacture Permits Ready Soon," *Louisville Courier-Journal*, November 9, 1930*:* "Seven State Plants Make U. S. Whiskey," *Louisville Herald Post*, February 8, 1931.

[49] Hu, 51-52; Daniel Okrent, *Last Call: The Rise and Fall of Prohibition* (New York: Scribner, 2010), 28-131, 134-135, 142-145.

[50] Okrent, 240-241, 295-299, 323-327, 339-341, 348.

tipped heavily toward wet majorities. In February 1933, before Roosevelt took office, the Twenty-first Amendment was debated in Congress. On February 14th the Senate voted 63 to 23 to send it to the states for ratification; two days later the House concurred, 289 to 121. The proposed amendment prohibited the transportation or importation of intoxicating liquors across state lines in violation of state law.[51] It called for ratification by specially called state conventions rather than by state legislatures to save time and to circumvent the majority of rural legislators in many state legislatures. On April 10, 1933 Michigan's state convention was the first to vote approval of the Amendment; on December 5, 1933 Utah became the necessary thirty-sixth state to ratify it.[52]

1933 through 1940: The Rebirth and Reinvention of the Distilling Industry; An Onslaught of Government Regulation

In the Twenty-first Amendment the Federal government ceded some control of liquor regulation to the states in the areas of distribution and sales and in such matters as the definition of reasonable use and the control of sales taxes. But, for the most part, the Federal government retained the power to regulate and tax production and to oversee quality control. Immediately before Repeal on December 4, 1933, President Roosevelt established the Federal Alcohol Control Administration (FACA) under the aegis of the National Industrial Recovery Act (NIRA) to guide the transition from Prohibition to the Repeal era. Federal excise taxes and an extensive set of regulations that dated from before Prohibition were reinstituted and in many cases expanded. These defined liquor types and controlled distillery construction and production. FACA created codes of competition for the various segments of the industry – the Distillers' Code, Rectifiers' Code, Wholesale Liquor Dealers' Code, Wine Code, Brewers' Code and Importers' Marketing Agreement. [53] A major feature of the distilled spirits code was the creation of a strict permitting system for distillers that attempted to keep shady players and illegal activity out of the reemerging industry. Also of major consequence was the provision requiring the sale of all beverage alcohol in sealed bottles of not more than one wine-gallon capacity. Previous to Prohibition the vast majority of whiskey had been sold in barrels to the wholesale and retail trade. [54]

In 1935 following the Supreme Court invalidation of the NIRA, Congress, in the Federal Alcohol Administration Act, established the Federal Alcohol Administration (FAA) within the Treasury Department to assume and expand the role of FACA.[55] Finally, in 1936, the Liquor Tax Administration Act ("the omnibus liquor bill") made the FAA a separate agency. [56] At this time the ban on the sale of bulk liquor to the wholesale and retail trade was confirmed and a precise reclassification and definition of all liquors was established. The regulations and codes governing the industry, some going back as far as 1868, were completely rewritten in order to streamline and update requirements with intended financial savings for both the government and the distillers. [57] The FAA merged with the Alcohol Tax Unit of the Department of the Treasury in 1940 and eventually became today's Alcohol, Tobacco and Firearms Division (ATF). [58]

Beginning in 1938, the details of these new regulations and codes began to appear in *The Code of Federal Regulations of the United States of America*, a new compendium of the law of the Executive Branch and its agencies published in the Federal Register. The first edition of the code appeared in 1938, and to the present

---

[51] Okrent, 396.
[52] Okrent, 351-354.
[53] Downard, 72-73.
[54] Hu, 97-98.
[55] *Statutes at Large of the United States of America from January 1935 to June 1936.* Vol. XLIX (Washington; Government Printing Office, 1936) Seventy-fourth Congress, Session I, Chapter 814, 1935, 977-990. http://heinonline.org.echo.louisville.edu (accessed March 23, 2011).
[56] Ibid, Seventy-fourth Congress, Session II, Chapter 830, 1936, 1939-1966.
[57] Downard, 72-74; Hu, 96-105.
[58] www.atf.gov/about/history/atf-from-1789-1998.html (accessed February12, 2012).

day its annual update lists the newest regulations and the latest changes. Title 26: Internal Revenue and Title 27: Intoxicating Liquors spell out the pages and pages of directives for the liquor industry on such items as the standards of identity defining different categories of alcoholic beverages, permits, record keeping, bulk sales, labeling, and distillery and warehouse construction.

Clearly apparent in these pages is the extent to which regulation dictates the physical layout and appearance of a distillery in order to protect one of government's most valuable sources of revenue from possible adulteration or theft. All the key parts of the plant and their associated equipment are subject to extensive control: the production facilities, the warehouses, and the bottling plant. They call for a government office to be provided at each plant. In many cases the requirements spell out construction materials and methods, interior and exterior finishes, window and door details. Twelve pages of small print discuss requirements for production buildings and equipment; another nine pages address warehouses. As an example, Section 183.12 addresses distillery floors:

> The distillery buildings must have suitable floors constructed of wood, concrete, brick or other equally substantial material. If the floor of the cistern room or building is constructed of wood, the boards must be fitted together by tongue and groove, or laid double with the second layer crossing the first at an angle of more than 20 degrees, and securely nailed and fastened.[59]

Section 183.43 spells out detailed requirements for fermenters:

> Each fermenter must be constructed of wood, metal, concrete, or other suitable material, and so arranged as to permit examination of every part thereof. Each fermenter must have plainly and legibly painted thereon in oil colors the word, "Fermenter," followed by its serial number, and capacity in wine gallons, depth in inches, and, if of uniform dimensions and standing on end, the capacity per inch of depth. Where such tanks are of irregular dimensions the distiller shall furnish to the district supervisor a table, in duplicate, showing the capacity of the tank for every inch of depth…. [60] (Photo 81 documents this requirement.)

Government control was so extensive that a distiller could not enter most of the buildings at his plant without the presence of a government storekeeper or gauger. Doors to buildings had two locks, one with a key controlled by the distiller and the other with a key controlled by the government.[61]

New Challenges for the Industry and its Evolving Character

As the whiskey industry reemerged after Repeal, it faced a number of serious challenges. First was how to obtain the necessary capital for rebuilding, for raw materials, and for government fees and taxes. Second was how to regain control of production and sales from the bootleggers who had established deep footholds during Prohibition. The government was desperate for revenue, but the lengthy discussions leading up to the designation of a new excise tax – two dollars a proof gallon – indicate the concern over setting the tax too high, thereby forcing the distillers to sell their product at a rate that could not compete with the still readily-obtainable illegal supplies. A third challenge involved re-establishing the market for its goods. During Prohibition tastes had changed based on available product. Blended whiskey from Canada had often been the best whiskey available and gin, easily made by bootleggers and served with various mixers to mask its sometimes dubious taste, had become very popular. Even more problematic was the scarcity of good American aged whiskey.

---

[59] *1940 Supplement to the Code of Federal Regulations,* Title 26, Part 183, Section 183.12, 2443 (Washington; Government Printing Office, 1941) http://heinonline.org.echo.louisville.edu (accessed January 10, 2011).

[60] Ibid, 183.43, 2449.

[61] Ibid, 183.15, 2443.

Only about a million gallons remained of pre-Prohibition whiskey. The remainder, produced for the medicinal whiskey trade in 1929 and after, was too new to make a good product.[62]

A very accurate prediction for the emerging character of the distilling industry as one with "national distribution of nationally known brand names pushed by national advertising, all backed by a large corporate technique" was presented in "Whiskey," a feature article in the November 1933 issue of *Fortune*.[63] As predicted, a very large change in scale occurred in the post-Repeal distilleries, both in terms of the size of the companies themselves as well as their production and warehousing facilities and capacities. In many instances, consolidation was the solution to providing the necessary capital for startup and for the cost of the vastly increased advertising necessary for reaching the national audiences now required for profitability. To insure against the possibility of a return to Prohibition or the public's failure to re-embrace whiskey in one or more of its pre-Prohibition forms, the larger and more successful companies began to diversify their product base into areas such as foreign whiskies, gin and vodka, beer, wine, pharmaceuticals and animal feed. Distillers often took on the production of both straight whiskey and blends at the same plant more or less eliminating the former middlemen in the rectifying business. The government made this possible by, for the first time, allowing distilling and rectifying to occur at the same location.[64] In order to successfully assume this new business model, the industry took on more of a corporate character with central management, in a number of cases operating from New York City. Hence as new distilleries came on line and some pre-Prohibition facilities reemerged, intense competition began to develop between the smaller independent distilleries trying to make it alone and four large corporations that successfully adapted the corporate model and grew during the 1930s and the following decades to overwhelmingly dominate the industry. As the "Big Four," as they were called, assembled a roster of companies, plants, and brands, they operated for the most part as holding companies. From the 1930s through the 1950s they purchased many of their smaller competitors, sometimes nurturing their brands and/or their facilities but more often shutting them down.

The Emergence of the Big Four

Amidst the bleak backdrop of Prohibition, just a few individuals and companies in the distilling business had held out sufficient hope for eventual repeal of the Eighteenth Amendment to continue buying up brand names and remaining stocks of aging whiskey. One of these men was Lewis S. Rosenstiel, who as a young man trained in the whiskey business at a Kentucky distillery until it was shut down by Prohibition. In 1917, Rosenstiel with a partner, Sidney Hellman, established a brokerage business which thrived even after Prohibition began by linking owners of existing stocks of whiskey with the few distillers with medicinal whiskey permits. The partners set out to obtain a permit and a stock of whiskey for themselves by joining a syndicate, the Schenley Products Company, which owned a small shuttered distillery in Schenley, Pennsylvania. When the Schenley distillery failed to obtain a concentration permit in 1922, the other syndicate members got cold feet and Rosenstiel and Hellman bought them out, becoming sole owners of the company. Obtaining an option on the remaining whiskey at the Joseph Finch Distillery in Pittsburgh, one of the lucky few designated as a concentration warehouse site, Rosenstiel moved the Finch permit, name, and whiskey to the distillery at Schenley and set about bottling medicinal whiskey and buying up more stocks. When new whiskey production was authorized in 1929, the company became bolder, buying the George T. Stagg Distillery that same year, quickly making needed repairs and successfully obtaining for it one of the very few production permits. By mid-1933 when Repeal seemed imminent, Schenley in rapid succession bought the James E. Pepper Distillery outside Lexington, Kentucky and the old Squibb Distillery in Lawrenceburg, Indiana, renamed

[62] Hu, 87.
[63] 'Whiskey," *Fortune*, November 1933, 121.
[64] *1940 Supplement to the Code of Federal Regulations*, Title 26, Part 183, Section 183.5, 2442 (Washington; Government Printing Office, 1941) http://heinonline.org.echo.louisville.edu (accessed January 10, 2011).

by Schenley Old Quaker, and incorporated as the Schenley Distillers Corporation.[65] Schenley entered the post-Repeal era with approximately five million gallons of aging whiskey, one quarter of the total remaining in warehouses nationwide. [66] By 1937, with the addition of the Bernheim Distillery in Louisville and the New England Distillery in Covington, Kentucky that produced rum, it owned six distilleries and was first in the number of barrels of aging whiskey in storage. [67]

National Distillers Products Corporation emerged from Prohibition with a number of relatively intact distilleries and with half of all remaining American whiskey stocks – approximately ten million gallons. The firm had been formed in 1924 under the able direction of Seton Porter from the U. S. Food Products Corporation, the bankrupt vestiges of the Distillers' and Cattle Feeders' Trust. It too recognized the value of the medicinal whiskey market and began buying up warehouse receipts whenever it could. In 1927, as it became clear that the government might authorize some limited whiskey production, Richard Wathen, owner of the R.E. Wathen Distillery in Louisville and a major stockholder in National Distillers, formed American Medicinal Spirits Company from the remains of Kentucky Distilleries and Warehouse Company which he purchased from National Distillers; in turn, National Distillers became AMS' largest stockholder until it totally subsumed the company in 1936. The two continued to buy up key facilities – AMS, the Hannis-Mt. Vernon Distillery in Baltimore in 1928, and National, the Sunnybrook Distillery in Louisville and A. Overholt's Large and Broad Ford plants in 1933. [68] By the end of 1936 it owned eight, including the Old Taylor and Old Crow plants in Woodford County, Kentucky and was operating nine (one leased) distilleries.[69]

The other two key players in the rush for dominance that quickly emerged beginning in late 1933 were Canadian companies that unlike their American competitors had been able to produce and store whiskey at will throughout the 1920s. Hiram Walker-Gooderham & Worts, Canada's oldest and largest distiller, had sold whiskey in the U.S. before Prohibition and had fourteen and a half million gallons of fine aged bourbon and rye on hand in 1933; Distillers Corporation-Seagram's Limited had over thirteen and a half million. Both decided to establish U.S. subsidiaries with a production presence in the United States in order to avoid import tariffs. Hiram Walker selected the site of the Great Western Distillery in Peoria, before its 1920s demolition the largest distillery in the world, to build what became the world's largest post-Repeal distillery. Work began on the 100,000-gallon-per-day distillery in September 1933, even before ratification of the Twenty-first Amendment. [70]

Seagram formed Joseph E. Seagram & Sons, Inc. (U.S.A) in 1933, purchased the Rossville Union Distillery in Lawrenceburg, Indiana, a plant that had operated as an industrial alcohol distillery during Prohibition, and began the work of creating a modern distillery there. The next year it purchased the Maryland Distillery in Relay, Maryland, one of the first new, large post-Repeal distilleries to come on line, from the Calvert Distilling Company. In 1937 a third huge plant was built by the Calvert Distilling Company, by then a subsidiary of Seagram, in Shively, Kentucky just outside Louisville. Whereas Schenley and National Distillers chose to focus on developing a large roster of straight whiskies, Seagram brought with it from Canada a tradition of quality blends which became the hallmark of the company throughout its existence.[71] The battle between straight whiskies and blends as they rose and fell in favor with the public once again became an important theme for the whiskey industry, continuing well into the 1980s and the emergence of single-barrel and small-batch bourbons.

---

[65] "Name, Schenley; Age, Three," *Fortune,* May 1936.
[66] "Whiskey," 30.
[67] Morris Victor Rosenbloom , *The Liquor Industry* (Braddock, PA: Ruffsdale Distilling Co., 1937), 63.
[68] "Whiskey," 39, 114; "Historic Brands Made at Louisville's Great A.M.S. Distillery," Herald-Post, January 1, 1936; "National Distillers/Beam Time Line," http://Bourbonenthusiast.com. (accessed June 7, 2011).
[69] Hu, 108.
[70] "Whiskey,"40-42, 128, 131; "Hiram Walker Digs In," *Fortune*, March, 1939.
[71] "Liquor in America: An Interim Report," *Fortune*, October 1934, 112; "Seagram in the Chips," *Fortune*, September 1948, 99.

As noted above, the rush to ready distilleries for the frantic production push that accompanied the end of Prohibition had started for the Big Four even before Repeal. In 1934 the race to develop operational facilities and to begin producing took off at a frantic pace. Numbers tell the story. By the end of 1934 forty-four distilleries were in operation. This number rose to 79 in 1935, 112 in 1936 and 126 in 1937. By 1938 the number dropped to 108, indicating the building boom was over and the struggling smaller operations were shutting down.[72] Another set of figures listing registered distilleries as of September 1936 gives an idea of the geographical distribution of the industry: Kentucky, 43; Pennsylvania, 15; Maryland, 13; Illinois, 6; Indiana, 6; Ohio, 5; Virginia, 3; Massachusetts, 3; Michigan, 2; Connecticut, 1.[73] Clearly, even more than before Prohibition, the industry was concentrated in Kentucky with other production centers around Peoria, Illinois, Pittsburgh, Baltimore, Cincinnati and Lawrenceburg, Indiana. Statistics on the average percentage share of U.S. production of distilled spirits from 1935-1941 by the leading states flesh out the story: Kentucky, 30.32%; Illinois, 18.82%; Indiana, 17.16%; California, 10.78%; Pennsylvania, 9.05%; Maryland, 6.82%. [74]

Some of the emerging independents did manage to hold their own and to keep a seat at the table in this extremely competitive business environment. Hu gives figures for the percentage of whiskey production and whiskey stocks attributable to the Big Four from 1934 to 1938.[75] Production ranges from 60% of the total in 1934 to a low of 45% in 1936 and a high of 64% in 1938. Warehouse stocks vary from 60% in 1934 to a low of 48% in 1936 and 54% in 1938. Independents managed to attain control of between 35% and 40% of production. One indication of success was their presence on the Distilled Spirits Industry Advisory Board which was formed at the beginning of World War II to help guide the Federal War Production Board on matters of industry wartime production. In addition to on-going representation from the Big Four, Brown-Forman, Glenmore, and Stitzel-Weller, all from Kentucky, Baltimore Pure Rye, Fleischmann, headquartered in New York with distilleries in Cincinnati and Peekskill, New York , Century Distilling from Peoria, Continental (a subsidiary of Publicker) from Philadelphia, and A. Smith Bowman from Virginia all had a seat at the table at various times.[76]

Patterns of Redevelopment

A 2011 study of post-Repeal distillery plants by this author, "United States Whiskey Distilleries Operating after Prohibition: Their History, Site Development, Physical Character and Condition in Comparison with the George T. Stagg Distillery, Frankfort, Kentucky" documents that the redevelopment of the industry's facilities assumed three forms. One large group of distilleries was rebuilt and frequently considerably expanded utilizing existing buildings and infrastructure from pre-Prohibition distilleries that had survived relatively intact. This group included many of the distilleries that had been successful in obtaining concentration warehouse permits during Prohibition which had allowed minimal warehousing, bottling house and office activity on site during the 1920s. This model seems to have been preferred by Schenley and National Distillers as they developed and expanded. Schenley's George T. Stagg, Old Quaker, Bernheim and, to a lesser extent, James E. Pepper and Joseph S. Finch plants all had extensive remaining production and warehousing facilities that were used for immediate operation in the 1933 to 1937 period while massive new construction and adaptation of existing buildings were completed around them. National Distillers' R.E. Wathen, Sunnybrook, Old Taylor, Old Crow, Mt. Vernon and A. Overholt distilleries had a similar profile. Seagram's first plant in the United States at Lawrenceburg, Indiana also employed this model. In cases where the existing facility was considered to be particularly historic or architecturally significant as at George T. Stagg, Old Taylor, Old Crow, A. Overholt at

[72] Hu, 108.
[73] Rosenbloom, 98-101.
[74] Hu, 68.
[75] Ibid., 88.
[76] *Volunteer for Victory: How a Great Industry Enlisted for War* (New York: Liquor Publications, Inc., 1943), 26.

Broad ford, and Mt. Vernon, there seems to have been a concerted effort to retain and respect the older features. For example, an article in *Spirits* discussing the 1935 reopening of Old Crow states: "in modernizing the property, care was taken not to destroy its picturesque atmosphere." [77]

Among others in this category are some of the smaller independent distilleries whose pre-Prohibition owners had held on to them without demolishing critical production facilities. In Kentucky, the H. McKenna Distillery in Nelson County and the Old Joe Distillery in Anderson County are examples as are the Ruffsdale Distillery and Hamburger Distillery in Pennsylvania. A very few distilleries that developed using vacant industrial buildings originally unconnected with the liquor industry are a small sub-set of this group. Primarily located in states where abandoned distilleries suitable for redevelopment were less common, these plants evolved from a railway power plant and a textile, soap, tire and rubber, and shovel factory among others. Most had little impact on the development of the industry.[78]

A second approach to redevelopment involved using a valuable location and existing infrastructure at a former, dismantled distillery site – land, railroad tracks, springs, deep wells, waterways, easy access to grain supplies and occasional remaining buildings – as the starting point for an essentially new facility. The Hiram Walker plant at Peoria and Seagram's Maryland (later Calvert) Distillery at Relay, Maryland are good examples of this model as used by the Big Four. The Old Kentucky Distillery in Shively, Kentucky which later became Brown-Forman's Early Times Distillery, the Jim Beam Distillery at Clermont, Kentucky and the Boulevard (Wild Turkey) Distillery at Tyrone, Kentucky document this model well among smaller independent distillers.

A third variation, sometimes not significantly different from the second, was to start from scratch at a totally new location. Seagram's state-of-the-art Calvert Distillery built in Shively in 1937 is the only example of this practice as utilized by the Big Four. It was a more common practice among the independents with more than twenty using this approach. Among the small and mid-sized independent plants that sprang up, three of Frankfort Distilleries' Louisville and Baltimore plants, as well as Baltimore Pure Rye in Dundalk, Maryland, T. W. Samuels in Nelson County, Kentucky (National Register of Historic Places, 1988), and Stitzel-Weller's Shively plant are all good examples. Not surprisingly, these plants tended towards more uniformity, particularly in the character of the warehouses which were usually built all at one time or within a few years of each other. Whatever the approach, by the end of the 1930s massive over-construction had occurred. Hu estimates that in 1938 the 108 distilleries in operation had an annual production capacity of 434,986,000 tax gallons but an output of only 192,895,000 tax gallons.[79]

Scientific Distilling

One of the most dramatic changes in the industry after Prohibition was the extensive emphasis on scientific distilling as a replacement for the intuition and tradition that had previously played a big role in guiding it. The industry had certainly been moving in this direction before Prohibition, in fact since the introduction of Dr. James Crow's innovations in the mid-nineteenth century, but the change became fundamental after Repeal. Some of the early issues of *Spirits*, an industry trade magazine that commenced publication in October 1933, contain highly technical articles that set the tone for the newly emerging industry. In February 1934, E.H. Leslie's "The Beer Still Design and Operation" addressed advances in still design using technical language such as "equilibrium units," "water weight calculation basis," and "molal vapor flow." Equipment became more and more sophisticated.

[77] "Old Crow Opens Renovated Plant," *Spirits*, November 1935, 72.
[78] *Spirits*, various issues 1933-1935.
[79] Hu, 108.

At Hiram Walker fully one-sixth of the 800 men running the plant were said to be chemical or electrical engineers. [80] Two of Lewis Rosenstiel's first hires for the new Schenley Distillers Corporation were Dr. Alfred Liebmann, an industrial chemist then working for General Electric, and Carl Kiefer, an industrial engineer from Cincinnati who could implement Liebmann's research. [81] Seagram was perhaps the leader in scientific distilling with Sam Bronfman, the dominant brother in the family company, leading the charge. He envisioned the Calvert plant in Shively as the "showpiece of the industry" and in 1937 hired Herman Frederick (usually referred to as H.F.) Willkie as vice-president of production and research for Seagram. Willkie who had played a major role in the construction of the Hiram Walker plant in Peoria and become its manager before coming to Seagram was described as a "creative innovator." From his Louisville office, Willkie oversaw Seagram's technical operations and created in-house classes in various aspects of the distilling process. He wrote and supervised the production of many books and in-house manuals focusing on such topics as controlling warehousing conditions, detailing the biological characteristics of various classes of grains and their relative merits for use in distillation, and controlling the distillation process itself.[82] In the preface to *Fundamentals of Distillery Practice,"* a 1943 publication of Joseph E. Seagram & Sons' Department of Education, Willkie and co-author, Joseph A. Prochaska, directly addressed Seagram's commitment to scientific distilling:

> This text is largely an outgrowth of the developments in the distilling industry since the repeal of Prohibition in 1933. Prior to Prohibition, the distilling industry was controlled by producers who were trained in "distillery art," which had been handed down from one generation to another. Knowledge of the scientific advances made by Pasteur and Lavoisier had not erased age-old mystery and superstition from this industry.
>
> Thus with the passage of the 21st amendment, a new, vastly underdeveloped field was opened to the 20th Century scientist. In the ten years which have passed since the repeal of Prohibition, the results of scientific developments have elevated the grain alcohol industry from a superstitious "art" to a modern industry.

In a 1947 speech on the history of distilling in the United States delivered to the American Chapter of the Newcomen Society of England, he summed up essentially the same thoughts in different words:

> The manufacture of spirits, – first a domestic handicraft like weaving, blacksmithing, tanning and candle-making; then a small-scale vocation, usually associated with milling and farming; then a family profession, well supplied with secret formulas; then a large-scale business, shamelessly unconcerned about public interest and recklessly greedy; then a ghost, standing in pitiful obsolescence as Prohibition took its unhappy course, – has at last become a great, progressive, scientific industry. [83]

Although some of the smaller independents continued to profess their faith in distilling as an "art," many of their plants were thoroughly up-to-date and scientific. Morris Rosenbloom in *The Liquor Industry* reported that in 1930 Frankfort Distilleries, Inc. created one of the finest laboratories in the country in Louisville. [84] Brown-Forman hired a chemist in 1934 and adopted a concern for quality and consistency of product resulting from scientific distilling as part of its company philosophy. [85] The 1936 Sanborn map of Glenmore Distillery, one of the larger independents located in Owensboro, Kentucky, shows a suite of laboratories almost certainly indicating the presence of chemists on staff.

---

[80] "Hiram Walker Digs In," 96.
[81] "Name, Schenley; Age, Three," 154.
[82] Michael R. Marrus, *Samuel Bronfman: The Life and Times of Mr. Sam* (Hannover, NH: University Press of New England for Brandeis University Press, 1991), 241-245.
[83] H. F.Willkie, *Beverage Spirits in America* (New York: The Newcomen Society of England, American Branch, 1949), 24.
[84] Rosenbloom, 66.
[85] John Ed Pearce, *Nothing Better in the Market* (Louisville: Brown-Forman Distillers, 1970), 58.

One of the biggest disagreements between the Big Four and some of the bigger independents on one side and many of the remainder of the independents on the other concerned the subject of aging. Because of the lack of sufficiently-aged whiskey at Repeal, the concept of rapid aging became particularly appealing. In 1933, Publicker Commercial Alcohol Company of Philadelphia claimed to have devised a method to artificially age whiskey in twenty-four hours. [86] A subsidiary, Continental Distilling Company, was formed to produce whiskey to be subjected to this process. In "The Aging Myth," an article in the February 1934 *Spirits*, Carl Kiefer discussed the idea that controlled heating and cooling could hasten aging.[87] Rosenbloom also addresses this development and refers to a lecture titled "The Elementary Chemistry of Whiskey Manufacture" given at Fordham University in 1936 by Dr. James M. Doran, Director of the Distilled Spirits Institute. [88] By that time experiments in quick-aging had met rejection from the buying public and Doran is quoted to have said: "Heating, shaking and passing electric currents through the spirits… will take the newness out, but they almost invariably fail to put the age in." A more lasting impact of scientific aging theories was the many reinforced-concrete, fireproof warehouses with temperature and humidity controls that became one of the significant new distillery building types introduced after Repeal.

Many of the independent distillers, particularly in Kentucky, continued to use the smaller high-dry galvanized-iron-clad warehouses which were much less expensive to build but considerably more expensive to insure. Financial considerations aside, it seems clear that a philosophical difference existed between the two schools of thought on whiskey aging. In a 1945 promotional booklet prepared for Glenmore, *The Spirit of Old Kentucky*, a discussion on warehousing states:

> But here, they believe that there is no substitute for Nature's own methods of aging, that the free circulation of air possible in an open-rick warehouse, produces a quality of bourbon whiskey impossible to match in stone, brick or cement warehouses – where due to condensation, artificial heating is necessary. [89]

The Nature of 1930s Distillery Plants

The 1930s was the key decade for post-Repeal distillery construction. This was the period immediately after Prohibition when almost all the distilleries that played a role in the post-Repeal industry came on line either with all new facilities or vastly expanded and modernized pre-Prohibition plants. Certain commonalities existed among the distilleries of the 1930s. The great majority were served by a railroad. With the emergence of national markets and distribution systems, reliance on the railroad became essential and almost complete. Definitely there were none among the Big Four's flagship facilities that lacked railroad service in the 1930s. Government requirements brought a certain sameness to the building types present at each distillery because every plant had to have a complement of buildings or dedicated spaces constructed within allowable variations: fermenting room or house, cistern room, empty barrel storehouse, government office, regauge room and bonded warehouses. These were in addition to the other basic components necessary for distilling – the still house and the power house.

As before Prohibition, the new distilleries that came on line during the 1930s displayed considerable variety in terms of building materials and methods, configuration of production facilities, equipment, power and water sources, and warehouse design; the biggest change of all came in their relative size and scale. Whereas daily individual plant capacities ranged from 5 to 100 barrels in 1914, they reached 20 to 500 barrels in 1934. In

[86] "Whiskey," 43; "Whiskey in a Day," *Spirits*, November 1933, 80.
[87] Carl Kiefer, "The Ageing Myth," *Spirits*, February 1934, 39-40.
[88] Rosenbloom, 38-39.
[89] James Boone Wilson, *The Spirit of Old Kentucky* (Glenmore Distillery:1945), 25.

other words, the largest plants in the 1930s were five times the size of the largest before Prohibition. The 8,000 bushel per day capacity of the Great Western Distillery in Peoria, the largest in the world before Prohibition, was dwarfed by the 20,000 bushel capacity of Hiram Walker, the largest post-Repeal distillery. The combined production capacity of the 600 distilleries with active permits in 1914 was a potential 181,919,542 gallons; in 1934 only 297 distilleries had the potential to produce 310,280,034 gallons. [90] As will be seen, this change in scale was most apparent in such areas as grain storage, fermenting equipment and buildings, still capacity, power provision, warehousing, and bottling and shipping.

The January 1935 *Spirits* has a feature comparing the industry in 1914 and 1934 which provides very useful information about some of the major changes in equipment and plant operations at the larger plants.[91] High pressure steam boilers producing 225 pounds of pressure and generating electricity as a by-product were introduced to power and heat the massive production equipment and to heat the growing number of warehouses. Now often housed in free-standing boiler houses, they replaced the 100- to 125-pound, low-pressure boilers more commonly used before Prohibition. Steam vacuum refrigerant systems which became commercially available during the early 1930s were powered by in-house generated electricity and brought changes to mashing technology. These systems made year-round operation possible for the first time. This became an expensive yet fairly common practice as distillers raced to replenish depleted whiskey stocks. In a few instances the refrigerants were utilized to air condition warehouses.

Every step of the production process was affected by new equipment. The massive amounts of grain required for dramatically increased production led to the introduction of large concrete grain elevators and silos at many of the larger plants. At 70,000 bushels and 80,000 bushels respectively, George T. Stagg's and Old Quaker's grain storage capacity was very large. Hiram Walker's, at 285,000 bushels, was the largest. More consistent grain milling was made possible by improved roller mills which eliminated the unwanted creation of flour in the milling process. Pre-Prohibition mash tubs with their agitators and steam and cold-water coils for temperature control were often replaced by a system of mash tubs used in conjunction with large cookers that were heated and cooled using vacuum refrigeration. Later on, the mash tubs entirely disappeared. Fermenters increased dramatically in size with those at Hiram Walker reaching 120,000 gallons each. Whereas before Prohibition most were constructed of wood (George T. Stagg's copper-lined fermenters were an exception), a number of the largest capacity fermenters at the Big Four facilities were fabricated from steel, tile or glass and in some cases completely enclosed to allow for capture of the carbon dioxide gases that were generated. At some plants carbon dioxide was then converted to dry ice. Larger continuous stills with state-of-the-art temperature controls and more internal trays (plates) replaced smaller, simpler ones or the pot stills and batch stills that were still operating at some distilleries before Prohibition. Sophisticated chemical water treatment equipment lessened the reliance on pure limestone water; the use of deep wells and city water often replaced the springs of earlier days. Slop drying facilities which provided for the sanitary disposal of stillage were ubiquitous. By 1936, when the Sanborn Map Company surveyed the registered distilleries in the major spirits producing states, no livestock feeding yards remained in evidence and the practice of dumping slop discharge in nearby waterways or spraying it on nearby fields had virtually disappeared.[92]

Some of the smaller independents were quick to implement some of this new technology. The July 1935 issue of *Spirits* in its "In and Around Kentucky" column lists six distilleries that had just or were about to install refrigeration systems, and it reports that Brown-Forman was planning to air condition three new warehouses.[93]

---

[90] *Spirits*, January 1935, 22.
[91] Ibid, 27.
[92] Ibid, 27; *Sanborn Surveys of Whiskey Warehouses of Pennsylvania, Maryland, Illinois, Indiana and Kentucky, 1936.* Sanborn Map Company.
[93] "In and Around Kentucky," *Spirits*, July 1935, 68-69.

This is not to suggest that all of the distilleries coming on line embraced all the latest advances in distilling equipment. Primarily for financial reasons, but also for philosophical ones, some of the smaller plants clung to the technology that had worked successfully to make fine whiskey before Prohibition. For example, Stitzel-Weller in Louisville was built all new in 1935 with old-fashioned mash tubs with steam-engine-driven agitators.[94] Many distilleries, including some of the largest, continued to use wood fermenting tubs. In fact there was some thought in the industry that it was more difficult to make a good product using the highly sanitary steel and tile fermenters.

Especially at the smaller plants, the main production unit often continued to be one complex building, often projecting in various directions and with various heights and rooflines. All this, of course, reflected the great variety of operations that took place within – power generation, grain storage and milling, mashing, fermenting, and distillation. At the larger plants the over-sized equipment and increased capacity required much bigger facilities. Sometimes various production processes were broken out into free-standing buildings instead of being clustered in one complex building. Fermenting houses, sometimes with a yeast room within, were the most likely to be separated out from other production facilities because of the large number and massive size of the fermenters – for example, the twelve 120,000 gallon tanks at Hiram Walker and twelve 96,000 gallon tanks at George T. Stagg. Also, scientific distillers touted the value of a carefully controlled sanitary environment. Fermenting houses and yeast rooms were often now finished with great attention to sterile conditions. Glass-block windows which created air-tight walls were introduced in the 1930s. They became popular in buildings such as fermenting houses requiring controlled interior conditions.[95] Glazed tile or smoothly painted washable surfaces were common interior finishes so rogue strains of yeast couldn't breed in cracks, overpowering a distillery's carefully nurtured and distinctive yeast culture which was considered critical to the consistent reproduction of a whiskey's recipe. With the ready availability of steel and reinforced-concrete framing as well as the more old-fashioned, load-bearing masonry, it was common to find a variety of construction methods and materials used in different buildings at the same plant depending on the weight and size of the machinery and the nature of the operations within.[96]

Connecting all the processing operations, linking the new whiskey to the cistern room, and sending the aged whiskey to the bottling house after it was dumped from the barrels at the regauge facility, was a complex system of pipes and pumps that moved the product through the system and provided the necessary power and heating and cooling for the production processes. Federal regulation required that pipes be above ground, visible at all points for inspection, and color coded beginning in 1868.[97] By 1940 the extent of the different pipes identified in the regulations for color coding indicates the great complexity of the piping systems found at post-Repeal distilleries: black for whiskey, gin, rum and other finished spirits; blue for vapor, singlings, high wines, low wines and other unfinished spirits; red for mash, beer or other distilling material; grey for molasses and other fermenting material; brown for spent beer or slop; yellow for fusel oil; white for water; aluminum for steam; orange for air; and olive green for carbon dioxide.[98]

Warehouses fell into two main variants: the galvanized-iron-clad, wood-framed structures which were frequently unheated and the climate-controlled, masonry and reinforced-concrete buildings. Masonry warehouses, after Repeal sometimes built with tile block instead of brick and almost always with industrial steel sash, were similar to the largest of the continuous-tier rack houses built in the early-twentieth century. The reinforced-concrete, fireproof whiskey warehouse which was erected in relatively large numbers during the

[94] Ed Foote interviewed by author, Louisville, KY, January 11, 2010.
[95] Bradley, 175.
[96] *Sanborn Surveys of Whiskey Warehouses of Pennsylvania, Maryland, Illinois, Indiana and Kentucky, 1936.*
[97] *Statutes at Large… from December1867 to March 1869*, Chapter 186, Section 17, 131.
[98] *1940 Supplement to the Code of Federal Regulations*, Title 26, Section 183.56, 2452.

1930s and the 1950s was a new distillery building type introduced with Repeal. It was generally four to six stories in height with brick or tile-block curtain walls, small industrial sash windows and often an exterior stair/elevator tower isolating what is in essence a vertical flue in case of fire. Heating and cooling were often separately regulated at each level of these buildings making for maximum control of the aging process. These warehouses continued to use ricks for storage but generally only two ricks (six tiers) per floor instead of the twenty to thirty continuous tiers found in the masonry warehouses. For the most part, the ricks were still wooden, but in a few of the 1950s warehouses they were steel. Capacity averaged about 50,000 barrels, but at Seagram's Lawrenceburg, Indiana plant one single warehouse without a firewall held 99,000 barrels. Reinforced-concrete construction had been widely introduced for industrial architecture in the 1910s at a time when the distilling industry was not building. It was not until after Repeal that the industry was able to take advantage of its two particular advantages – great strength for supporting heavy loads and truly fireproof properties.[99]

Regardless of the size of the production facilities at a distillery and the variety of warehousing selected, overall warehouse capacity skyrocketed as distillers scrambled to produce and age enough product for the anticipated market for whiskey. The Big Four with their huge budgets and interest in controlled, scientific distilling almost without exception built large and very expensive reinforced-concrete, fireproof warehouses. This was true, too, for some of the larger and more successful independents including Brown-Forman and Frankfort Distilleries. Particularly in Kentucky, and for the most part outside urban areas, the independent distillers favored iron-clad, wood-framed warehouses. These they built in large numbers – over 18 at Glenmore in Owensboro, and 23 at Heaven Hill and 29 at Barton, both located in Bardstown.[100]

Other new or once uncommon building types emerged after Repeal. Two, the government office for the use of the on-site storekeepers and gaugers and the barrel storage warehouse, were newly mandated by the government; another, the bottling house, was made almost essential by the government's new regulation which for the first time required the sale of liquor in bottles. Others, primarily found at some of the Big Four plants, included employee-oriented facilities such as clinics, recreation and dining facilities, club houses, and field restrooms. These were dictated by the mushrooming work forces at the largest plants and the increasingly powerful role played by labor unions in 1930s industry. Based on information gleaned from Sanborn maps and from general acknowledgement, Schenley seems to have been the industry leader in terms of employee amenities. Another group of resources found in large number at the greatly expanded and modernized plants were designed for fire prevention. Although water towers were occasionally present before Prohibition, they became common after Repeal. Reservoirs, water storage tanks, pump houses, hose houses, and hydrants linked together in various combinations were common features. The use of automatic sprinkler systems, newly introduced after Repeal, became widespread.[101]

The overall appearance of the 1930s plants ranged, as before Prohibition, from totally utilitarian with absolutely no regard for aesthetics to architect-designed. At one end of the spectrum were some of the small independent distilleries, particularly in rural Kentucky, that elected to rebuild entirely with corrugated-iron-clad wood framing. The Jim Beam plant at Clermont, Kentucky and the Hoffman Distillery in Anderson County, Kentucky are good examples. At the other end was Seagram's Calvert Distillery in Louisville. It was designed to convey the atmosphere of a college campus with its carefully laid out landscaped grounds and architect-

[99] *Sanborn Surveys of Whiskey Warehouses of Pennsylvania, Maryland, Illinois, Indiana and Kentucky, 1936.*
[100] *Insurance Maps of Whiskey Surveys, Kentucky, 1936.* Updated to 1960 in volume at Filson Historical Society, Louisville, KY.
[101] "Harry Freeman, "The Employee Club," *Spirits*, June 1934, 98; *Sanborn Surveys of Whiskey Warehouses of Pennsylvania, Maryland, Illinois, Indiana and Kentucky, 1936.*

designed, red-brick, Art Deco-inspired buildings surrounding an elegant, stone-faced, Neoclassical office building.[102]

In between were the great number of plants whose new 1930s buildings reflected the solid engineering of the best industrial architecture of the day. They were neither overly flamboyant in the manner of some of the great American breweries of the late-nineteenth century, nor were they consciously "modern" as some of the factory buildings designed by the great industrial architect Albert Kahn. Their "industrial building envelope," a term used by Gillian Darley in her analysis of factory buildings, tended to be solid and without pretense, reflecting the needs generated by the equipment and operations within. Their facades were predominantly brick or tile, sometimes revealing their load-bearing masonry construction, sometimes utilized for curtain walls and sometimes as a veneer. For the most part, they were the products of engineers rather than architects. They used the most up-to-date industrial building materials of the day – industrial steel sash, hollow-tile block, and glass block – that often make for a naturally smooth finish and clean lines. They are examples of what Betsy Hunter Bradley in *The Works* describes as "American industrial modernism." [103] The buildings at Hiram Walker are emblematic of this approach to industrial design as were those at the Frankfort Distillery in Louisville, demolished some years ago.

At a few plants, a nod was made to the perceived significance of the site or the company or the product through the addition of limited architectural embellishments. At George T. Stagg, the stone trim used for the foundation and lintels of all the production buildings and the monumental stone-trimmed entrance of the fermenting house perhaps pay tribute to the architectural excellence and heritage of the former O. F. C. Distillery. At the Seagram distillery in Lawrenceburg, Indiana some of the warehouses announce the company's presence in the community by spelling out "Seagram" in large letters in white glazed brick along their sides just below the roofline. Heaven Hill in Bardstown, Kentucky had a fine, 1950s-era, brick still house detailed with Art Deco panels. It was sadly lost to fire in the 1990s. Brown-Forman's headquarters in Louisville, formerly the Old Forester plant, has an iconic water tower built in the shape of a whiskey bottle. Frequently, an on-site office building of contrasting building materials and of more high-style architectural design was used to express an image of corporate prosperity and success.

1939 through 1945: World War II Era

The distilling industry played an important, yet somewhat under-studied role in nationwide war preparedness efforts during World War II. Beginning in 1939 with the advent of hostilities in Europe, the American government began to develop a readiness program to address allies' needs and American possible involvement. The production of industrial alcohol was a prime concern. Industrial alcohol, the same grain alcohol used in beverage alcohol but distilled to a higher (190 as opposed to 120 to 140) proof, was an essential ingredient in many war-time materials – synthetic rubber, smokeless gunpowder, mustard gas and medicines. By 1940 the leaders of the distilling industry had offered to begin converting some of their plants to industrial alcohol production for the government, but their overtures were at first rejected. By initiating this discussion, distillers hoped to project a positive image of the industry and no doubt to generate some unanticipated profits without producing excess quantities of whiskey in a time of oversupply. The government's initial reluctance to involve the distilling industry may have resulted from conflicts between the producers of grain alcohol and petroleum. Each industry jockeyed the government to gain acceptance of its product as the preferred raw material for synthetic rubber manufacture. In the end, the government sanctioned both production techniques. [104]

[102] Marrus, 240.
[103] Bradley, 244-253.
[104] Marilyn Harper, project manager, "World War II and the American Home Front," National Historic Landmarks Theme Study. (National Historic Landmarks Program: Washington, D.C., 2007), 17.

In January 1942, after the Japanese attack on Pearl Harbor on December 7, 1941 and the American declaration of war on Germany and Japan, President Roosevelt established the War Production Board (WPB) as a government agency to direct wartime production. Demand for industrial alcohol soared and the distilling industry was called into action. The Distilled Spirits Industry Advisory Committee was created to interact with the War Production Board. By March, Congress had enacted two pieces of legislation addressing the need for industrial alcohol production. The Gerheart Bill for the first time made it legal for the production of industrial and beverage alcohol to occur at the same plant and for a plant to operate seven days a week. Previously, Sunday production had been prohibited. A second bill called for the production of high wines (120- to 140-proof alcohol) at beverage alcohol plants for non-beverage purposes with their ensuing shipment to one of the few existing industrial alcohol plants for redistillation. [105]

Conversion to industrial alcohol production was for the most part voluntary, but by November 1942 a complete shutdown of beverage spirits production was mandated by the WPB. Approximately half of beverage production capabilities had been converted by late 1942, and by early 1943 one hundred and twenty-five distilleries were participating in industrial alcohol production.[106] As during other American wars, distilled spirits were an easy target for raising desperately needed government revenue. In July 1940 the tax was raised to three dollars per proof gallon. This became four dollars in January 1942, six dollars in November 1942 and, temporarily, nine dollars in April 1944, a rate that was made permanent in March 1947. [107]

Plants operated on a twenty-four hour schedule seven days a week and production was dramatically increased. Smaller plants unable to produce 190-proof alcohol because of the size and arrangement of their distilling equipment churned out high wines that were transported to nearby facilities for redistillation. Stills and other production equipment at inactive distilleries, mainly brandy distilleries, were shipped to operating facilities. Carl Kiefer, Schenley's head of production, invented the "packed column," a still that could be attached to an existing still to generate alcohol at a higher proof. The packed column was easily fabricated from tile rings densely packed into an outer shell of wood, ceramic, or even sections of old metal tanks with minimal use of new metal whose wartime use was severely restricted. By mid-1942, Schenley had seven packed columns in operation. This technology was shared with the industry without royalty charges, allowing for the conversion of many more plants. [108] At Seagram, major efforts were focused on improvements in distilling and grain processing. Advances in continuous cooking, flash conversion, continuous yeasting, and rapid fermentation that hastened production and improved yields were offered to the government and to interested competitors.[109]

The massive amounts of alcohol production generated enormous amounts of stillage (slop) and in July 1943 the federal government announced a seventeen million dollar program to support the construction of state-of-the-art dry houses for the conversion of slop into animal feed. Production of more "distiller's grain" for the livestock industry was intended to free up actual grain for human consumption. The first four grants went to Schenley's George T. Stagg Distillery, Seagram's Lawrenceburg, Indiana plant, Hiram Walker and the Farm Crops Processing Corporation in Omaha. The Stagg grant of $500,000 was by far the largest.[110] Another government supervised program involved the production of penicillin, the new miracle drug discovered in 1929 which was desperately needed for treating war casualties but remained very much in an experimental phase. In 1943, as Schenley scientists were exploring methods of producing molded wheat bran to replace malt in the distilling process, they developed the technology to produce penicillin in large quantities. A penicillin plant at the Old

[105] *Volunteer for Victory*, 8 and 10.
[106] Ibid, 15.
[107] Downard, Appendix VII, 237-238.
[108] "Whiskey to Alcohol," *Remarks of Merit*, August 1942, 6-7.
[109] *Seagram and the War Effort* (Joseph E. Seagram & Sons: 1943), Forward.
[110] "Distillers to Make Feed," *New York Times*, July 29, 1943, 23.

Quaker Distillery in Lawrenceburg, Indiana was rushed into readiness and the new miracle drug was made available primarily, at first, for use in military medicine. [111]

The war was inadvertently responsible for a number of important industry developments during this period. One was further consolidation as the Big Four bought up more small independent distillers primarily for their stocks of aging whiskey, but also their grain allocations and potential high wine output. By 1943, Schenley and National Distillers each controlled twelve plants producing alcohol for the war effort, Seagram and Sons, six and Hiram Walker, three.[112] By 1947 Schenley owned nineteen, including twelve in Kentucky, many of which it permanently shut down at war's end.[113] As of 1947, the Big Four's holdings translated into control of 70% of the U.S. whiskey supply and 50% of production capacity which translated into 70 of the 152 existing distilleries.[114]

A second development involved the expansion of the distillers, particularly the Big Four, into the American wine industry with Schenley leading the way in 1940 with the purchase of the Cresta Blanca Wine Company and of three more in California, including the huge Roma Wine Company, by late 1942. The other three quickly followed with significant acquisitions so that by the end of 1943 approximately fifty percent of wine aging in the U.S. was controlled by the distillers. Schenley in particular saw its investment in the wine industry as part of its long term diversification strategy, correctly predicting that wine would play a larger and larger role in Americans' alcoholic beverage consumption.[115]

Despite the much higher taxes on liquor, the war years were a time of great profit for at least some in the industry. Demand for alcoholic beverages grew to three times what it had been before the war as incomes swelled from wartime employment. By the end of the war, 750 million gallons of 190-proof alcohol had been supplied to the government and liquor sales had been brisk. Schenley's net profit soared from $4,128,080 in 1939 to $49,129,975 in 1946. The distillers were, of course, quick to point out that had the country still been operating under Prohibition, the war's outcome might have been different.[116]

The war had the negative effect of steering drinking preferences away from whiskey because so much that was produced was so bad. With valuable stocks of aging whiskey being rationed, distillers turned almost completely to spirit blends, whiskeys produced with aged whiskey mixed with neutral spirits. With the production of grain spirits for beverage consumption prohibited, they scrambled to produce neutral spirits with anything available – sugar cane, potatoes and molasses. Towards the end of the war with only two short "distilling holidays" when the industry was permitted to produce beverage alcohol, supplies of aged whiskey were limited and distillers began to ration sales. At the same time, beer gained ground over whiskey, and rum, easily obtainable from the nearby Caribbean, began to reemerge as a popular drink. This had serious ramifications for the 1950s and beyond. [117]

The Japanese surrendered on August 6, 1945 and all war contracts for the production of industrial alcohol were cancelled as of August 31, 1945, even before the official surrender documents were signed on September 2nd.

---

[111] "Penicillin at War," *Remarks of Merit*, January 1945, 2-6.
[112] *Seagram and the War Effort*, 32-35; "Whither Whiskey?" *Business Week*, April 24, 1943, 32.
[113] *Schenley Distillers Corp. Annual Report*, Fiscal Year Ending August 31, 1947.
[114] "The Whiskey Rebellion," *Fortune*, 141, 143.
[115] "The Big Wine Deal," *Fortune*, September 1943, 125-129.
[116] "Whiskey Rebellion," 142; Aaron Purcell, "Bourbon to Bullets: Louisville's Distilling Industry during World War II, 1941-1945," *Register of the Kentucky Historical Society*, Winter 1998, 85; Schenley Annual Report for 1947, 8-9; *Volunteer for Victory*, 17.
[117] "Whiskey Rebellion,"142; Gary and Mardee Haidin Regan, *The Book of Bourbon and Other Fine American Whiskies* (Shelburne, VT: Chapters Publishing, 1995), 83; K. Austin Kerr, "Distilled Spirits," in *Handbook of American Business History: Manufacturing*, ed. David Whitten (Westport, CT: Greenwood Press, 1990), 60.

The distilling industry returned to a semblance of normalcy, but grain supplies were heavily rationed by the federal government for some time making it difficult for distillers to replenish their stocks. An additional round of distillery buy-ups began right after the war as big companies scrambled to obtain control of the grain allotments of some of the remaining independents. It was not until 1948 or 1949 that the distillers had totally free reign to control their production quotas again.[118]

World War II Building Activity, The Korean War, and Overproduction

The principal impact of the war on the physical character of distilleries was construction inactivity. Without War Production Board approval, war regulations prohibited the use of many basic building materials including metal and concrete, so little was built. As noted above, equipment was shifted around the industry on a lend-lease basis from shuttered distilleries to those actively involved in producing industrial alcohol for the government. The massive new, multi-story, reinforced-concrete dry house built at George T. Stagg in 1944 was one highly-significant exception to the no-build policy at that location. Thirty-four plants were recommended for dry-house equipment grants, but it is difficult to determine how much of the $17 million allocated by the government was used before war's end.[119]

With the end of grain rationing, the industry jumped full steam into replacing the stocks of whiskey that had been so seriously depleted during the war. But no sooner had the distilleries returned to a semblance of pre-war equilibrium than rumblings of increasing trouble in Korea sent them into panic mode. The looming Korean War and fear of another beverage industry shutdown generated a huge uptick in production in the early 1950s in association with a dramatic warehouse construction program by some of the distillers. Schenley's response was the most extreme with $6,000,000 spent on storage facilities between 1950 and 1951 at George T. Stagg, Old Quaker, and its Fresno, California and Bardstown, Kentucky plants.[120] When the Korean War passed by with no accompanying government intervention in the industry except for another big jump in the tax on liquor in November, 1951 to $10.50 a gallon, some distillers were caught with a massive glut of aging whiskey. Schenley was able to boast in 1953 of George T. Stagg's production of its two-millionth barrel of whiskey since the end of Prohibition. Stagg was the first Kentucky distillery to reach this goal, but in the same June 29, 1953 issue of *The Beverage Retailer Weekly* that reported on the ceremonies celebrating this milestone, an article appeared titled "Beer, Ale Sales Up in '52; Liquor Sales Down 12.7%."

The second half of the 1950s was a period of mounting crisis for Schenley and other distillers who had dramatically overproduced in the late 1940s and early 1950s. An eight-year bonding period was still in place, and the distillers faced the distinct probability of a force out of millions of gallons of whiskey for which there was no ready market. As early as 1951, Schenley's annual report was raising the issue of the "unconstitutionality" of the bonding period. In October 1955, Schenley's lawyers brought suit against the Federal government and filed a claim for refunds on the taxes they had paid on whiskey forced out of warehouses without a market. Finally in August 1958, Congress voted to extend the bonding period to twenty years. Schenley's competitors, particularly the remaining independents such as Brown-Forman and its archrival, Seagram, accused the government of handing Schenley a windfall. Schenley was once again able to claim its whiskey remaining in bonded warehouses as an asset.[121]

Industry Trends

The distilled spirits industry during the 1950s was characterized by increasingly heightened competition as companies scrambled to gain a larger share of a shrinking market. Successful brands were more and more

[118] Schenley Annual Report for 1949.
[119] "Distillers to Make Feed," *New York Times, 23.*
[120] *Schenley Industries Inc., Annual Report, Fiscal Year Ending August 31, 1951*, 17.
[121] *Schenley Industries Inc:* Annual Report for 1951, 10; Annual Report for 1956, 8; Annual Report for 1958, 7-8.

related to intense advertising, and successful companies invested millions of dollars advertising each of their brands. One of the reasons for Brown-Forman's rising visibility was its decision to pour its limited advertising budget into its two best-selling bourbons rather than spreading it out among a range of brands. The battle between blends and straight whiskeys raged on with Seagram, always a staunch believer in high-quality blends, gaining ascendency over Schenley with its stable of straight whiskeys. The Big Four invested heavily in international operations, building or buying distilleries in other parts of the world and paying for distribution rights to popular imports in all segments of the market. They also diversified even farther into areas unrelated to beverage alcohol such as petro-chemicals, oil and gas.[122] This decade marked the height of their success with National Distillers in 1953 and Seagram in 1958 building new corporate headquarters in New York City. The Seagram's Building, a modernist skyscraper designed by Mies van der Rohe in collaboration with Philip Johnson, became one of New York's iconic twentieth-century buildings.

1950s Plant Developments

A second period of heightened building activity extended from the late 1940s through the 1950s as the industry recovered from World War II. Equipment was replaced, some production facilities were rebuilt or expanded, and warehouse capacity was again significantly expanded. By this time, the playing field had narrowed again, as a number of the smaller distilleries bought up by the Big Four during World War II were shut down, at least seven in the late 1940s and close to twenty in the 1950s. By the early 1950s many plant upgrades initiated after 1945 were being completed. New or enlarged bottling and rectifying plants and office buildings were added at some plants; new equipment was installed at many. A few of the successful independents continued to grow. The 1950s also saw the last efforts for many decades to develop a few new, small operations, ones that would produce whiskey using traditional methods and aging practices. Three of these success stories are among the thirteen or so plants that continue in operation in 2012. In 1953, the tiny Star Hill Distillery, formerly Burks' Distillery, outside Loretto, Kentucky was purchased by T. W. Samuels, Sr. and thoroughly refurbished before being renamed Maker's Mark (National Historic Landmark, 1980) in 1958. Brown-Forman purchased the Jack Daniel's Distillery near Lynchburg, Tennessee in 1956 (National Register of Historic Places, 1972), continuing an extensive upgrading and expansion that had begun in the early 1950s. In 1958, with the battle over the bonding period behind it and with some competition for Jack Daniels in mind, Schenley purchased an old Tennessee distillery site in Coffee County for its George Dickel subsidiary and built a new distillery there to produce its brand, Cascade.[123]

1950s construction materials and methods shared many similarities with those used at distilleries in the 1930s. Design may have leaned a bit more towards Mid-century modern with more use of ribbon windows and, in some instances, classic curved corners. Certainly some of the buildings built at Schenley's plants fit this description – an office/bottling facility at the Bernheim plant in Louisville (National Register, 1983), an office at the Old Quaker plant, and the government office, maintenance building and Warehouse V built at George T. Stagg. Most significant in terms of the physical appearance of the plants overall was a major wave of warehouse construction that occurred throughout the 1950s, responding first to the panicked production of the early 1950s and then to the 1958 extension of the bonding period. Again government policy had a direct impact on facilities' development. This round of 1950s warehouse construction was the last before the 1990s. The Big Four as well as the more successful independents such as Brown-Forman, Glenmore, Heaven Hill, Jim Beam and Barton, all in Kentucky, added significantly to their warehouse capacity. Warehouses were primarily of the two types introduced with Repeal: the wood-framed, iron-clad variety built in large number by Barton,

[122] "Brown-Forman's Big-Time Bourbons," *Fortune*, November 1955, 123; "National Pulls the Cork," *Fortune*, October 1953; "Seagram in the Chips," *Fortune*, September 1948, 99-100 "Seagram's Late Awakening," *Forbes*, February 1, 1973, 24-26.

[123] Carolyn Brooks, "United States Whiskey Distilleries Operating After Prohibition: Their History, Site Development, Physical Character and Condition in Comparison with the George T. Stagg Distillery in Frankfort, Kentucky." Unpublished manuscript, 2011.

Glenmore, and Jim Beam and the larger, masonry, or more frequently reinforced-concrete structures that were constructed at Schenley and National Distiller plants, at Brown-Forman and at Publicker's Kinsey Distillery outside Philadelphia. Publicker was the only Pennsylvania or Maryland plant other than Joseph Finch that continued to expand significantly in the 1950s.[124] Seagram built a new still house complex and a few more fire-proof warehouses at its Lawrenceburg, Indiana facility. To service its cluster of distilleries in the Louisville area it took another tack. A complex of experimental one-story, open-rick, masonry warehouses, so-called "flat houses," were built near Bardstown, Kentucky to serve as a central aging facility. These were designed by Seagram's technical experts for ease of handling and to maximize uniformity of aging, a key goal for Seagram's heavy emphasis on blends. Aside from the absolutely unique one-barrel warehouse built at George T. Stagg in 1953, they represent the only new form of warehouse design to emerge after the 1930s.

The 1960s and Beyond

The 1950s,1960s and early 1970s were good years for a few in the distilling industry with Seagram and Schenley in particular continuing to dominate the market and reaping extraordinary profits and with Brown-Forman, Jim Beam and a very few other independents finding real success. But liquor tastes were continuing to change and other sectors of the beverage alcohol industry were fast making gains. Beer, wine, and white goods (gin and vodka) all gained market share against whiskey. In 1964 Congress designated bourbon "a distinctive product of the United States."[125] By that time Americans' taste for rye had almost disappeared, only to be revived in the last few years. Vodka which at the beginning of Repeal was almost unavailable in the United States overtook gin in sales in 1967 and whiskey sales in 1976. Of total sales of distilled spirits in the United States in 2003 only 11.4% were American-made whiskey and 16.8% were imported whiskey compared with 26.25 % vodka. This contrasts with 82% whiskey as late as 1955. [126]

Distillery closures continued at a fairly rapid rate. Of the plants inventoried in connection with this nomination, at least nine closed in the 1960s, twelve in the 1970s and thirteen in the 1980s, another four in the 1990s, and a smattering of the very few remaining after 2000. In 2012 only about fifteen are producing whiskey, a startling figure considering that just over fifty years ago there were about 150. After the Prohibition years, the 1980s was definitely the nadir for American whiskey. It was a decade that saw the continuing slide in whiskey's share of the distilled spirits market as well as revived efforts to curb alcohol consumption by such powerful organizations as Mothers Against Drunk Driving, founded in 1980.

Remarkably, considering their former market dominance, the 1980s and 1990s saw the total disappearance of the Big Four from the industry. All four were the victims of the declining demand for whiskey, but also a number of other factors including management issues and new trends in big business such as the growth of hostile takeovers and international conglomerates. At each company, the early and profitable years were guided by the brilliant, yet controlling and domineering presence of one man – Seton Porter at National Distillers, Lewis Rosenstiel at Schenley, Samuel Bronfman at Seagram and Harry Hatch at Hiram Walker. As these men retired, the transition to new leadership seems to have been accompanied by business decisions that ultimately resulted in the company's exit from the liquor business or its total demise.

---

[124] *Insurance Maps of Whiskey Surveys, Kentucky, 1936.* (updated to 1961); "National Pulls the Cork," 148, 286.

[125] *United States Statutes at Large, 1964,* Volume 78, Senate Concurrent Resolution 19: Bourbon Whiskey Designated as Distinctive Product of U. S., (Washington: United States Government Printing Office, 1965), 1208. http://heinonline.org.echo.louisville.edu (accessed June 30, 2008).

[126] James Fogarty, "The Demand for Beer, Wine, and Spirits: Insights from a Meta Analysis Approach," AAWE Working Paper No. 31: Economics, 4. www.wine-economics.org/workingpapers/AAWE_WP31.pdf. (accessed February 28, 2012); "The U. S. Spirits Market," International Wine Center, 2004, 9. www.international_wine_center.com/download/US%20Spirits%20Market.pdf (accessed February 28, 2012); "Brown Forman's Big-Time Bourbons," 126.

Despite or perhaps because of the challenging environment, several positive events for the industry did occur. About 1984 many of the government regulations and practices controlling the industry were lifted. Distilleries were directed to self-monitor their production and gauging and regauging activity. Extensive record keeping was and is still required, now made easier by bar coding and computerized tracking, but except for twice yearly inspections, most of the government presence at distilleries disappeared.[127] In 1983, at what was by then called the Ancient Age Distillery (the former George T. Stagg Distillery), the idea of single-barrel bourbon was first conceived. This followed Maker's Mark's earlier inroads into the market with whiskey produced and aged in small batches. Although the concept took some years to gain traction in the marketplace, the introduction of premium-quality, single-barrel and small-batch bourbons is credited with reversing the downward trend in bourbon consumption and by the first decade of 2000 making whiskey once again more popular and more profitable.[128] International markets for whiskey have expanded greatly, a few new production facilities have been built, and there has been a small but significant uptick in domestic demand, primarily for premium quality brands. Beginning slowly in 1991 and accelerating up to the present came a rush to build new warehouses, close to thirty of the traditional wood-framed metal-clad rick houses to date. This has been the first significant increase in aging facilities since the 1950s. [129]

HISTORY OF THE GEORGE T. STAGG DISTILLERY

Early History of the Site

The George T. Stagg Distillery sits on the site of Leestown, first visited by white explorers in 1773 and surveyed two years later in 1775. Located on high bottom land along the Kentucky River near a shallow ford that had served as an ancient buffalo crossing, it had a number of natural advantages. These included a productive spring emanating from the river bank and an adjacent small stream that emptied into the Kentucky near a sandy beach suitable as a landing. Although neatly laid out with tree-lined streets, Leestown was quickly overtaken by nearby Frankfort which became Kentucky's state capital in 1792. It never developed into much more than a scattering of houses, most of them long gone.[130] A small stone dwelling still standing on the distillery grounds and a section of an early road are among the principal above ground remains of the early settlement. The house, with an estimated construction date of about 1790, was reportedly the home for a short time of Colonel Richard Taylor, a Revolutionary War veteran who served for some years as a Commissioner for Improvement of the Kentucky River.[131] In 1811, Richard "Hopping Dick" Taylor, son of Richard, with Willis Lee, obtained a permit to build a warehouse at Leestown, to serve as one of several state-designated facilities for the storage and inspection of goods awaiting shipment along the Kentucky River. An 1819 inventory of the three-story stone warehouse lists 20 barrels of whiskey on hand among many other goods as well as 1,374 barrels already exported.[132] Clearly whiskey was being produced in the immediate area.

On October 8, 1858, a notice in the *Western Citizen*, a newspaper serving the region, advertises a "First Rate Distillery for Sale." This ad provides solid documentation for distilling on the site:

---

[127] David Hall interviewed by the author, Bardstown, KY, July 12, 2010; Mark Brown, President and CEO, Buffalo Trace Distillery, e-mail to author, August 29, 2008.

[128] "Blanton Bourbon: Historical Sketch," Unpublished manuscript, Kentucky Historical Society Library, Frankfort, KY.

[129] Kevin Aldred, Chief Engineer, Buzick Construction Co., Bardstown, KY, supplier of metal-clad warehouses to the distilling industry since 1937. Telephone interview by the author, June 12, 2010.

[130] Willard Rouse Jillson, *Early Frankfort and Franklin County, Kentucky* (Louisville: Standard Printing Co.,1936), 32-37.

[131] D.G. Churchill, "Ancient Age through the Ages," Unpublished manuscript, 1993, 19. Churchill reports on conflicting construction dates of 1785 (Jillson) and 1792 (Samuel Wilson). "Reports of Commissioners for Improvement of Kentucky River," Kentucky *House Journal*, 1818-1819, 207, 313-314.

[132] Churchill, 21, 24.

> I [Daniel Swigert] offer for sale my Distillery and Fixtures….It has an excellent wharf perfectly convenient for the landing of coal, wood, grain etc, and equally so for the shipment of everything either up or down the river. The improvements consist of a large three-story stone warehouse, a still house, wood-house and excellent pens. The machinery is of the best and most approved patterns for making copper distilled Whisky. The engine is a splendid one and entirely new, having cost a few months since, one thousand dollars. The establishment is supplied with a splendid spring of pure water which never fails and never gets muddy…

A deed search of the Stagg distillery property indicates that in 1856 and 1857 Swigert had acquired two tracts on the Kentucky River including the "Leestown warehouse or pork house" and attached lands. In 1859 he sold the property then described as containing a stone dwelling and stable as well as the distillery grounds with the distillery buildings, all the fixtures, mill machinery and apparatus used for distilling and a spring.[133]

1870 through 1886: Creation of the O. F. C. and Carlisle Distilleries

These same two parcels were purchased by E. (Edmund) H. (Haynes) Taylor, Jr. in November 1870 for $6,000, becoming the nucleus of his O. F. C. Distillery, later the George T. Stagg Distillery.[134] Judging from the descriptions in the ad and the deeds, the distillery with its copper equipment, commodious warehouse, expensive steam engine and valuable access to river shipment was a reasonably "modern" distillery at the time of purchase. But E. H. Taylor, Jr. had ambitious plans for his operation that would further develop it into "The Model Distillery Plant of the World."[135]

Taylor (1830-1923) is regarded as one of the seminal figures in the post-Civil War development of the Kentucky distilling industry. He began his career in Frankfort as a banker and as the Civil War ended focused his energies on the rapidly developing distilling industry. In the early 1860s he was an organizing partner in Gaines, Berry and Co., later W.A. Gaines and Co. which during the 1860s built two important distilleries in the Frankfort area, the Hermitage and Old Crow. In 1866 he travelled to Europe to tour prominent distilleries in Scotland and Ireland to observe and collect information. [136]At the death of Oscar Pepper in 1869 his widow leased the famous Old Oscar Pepper Distillery to W.A. Gaines and Co., and Taylor became actively involved in its operation, guiding twenty-year-old James Pepper, its manager.[137] After Taylor's involvement with the O.F. C. Distillery ended in 1886 he went on to pour his energies into the development of the E.H. Taylor, Jr. and Sons Co. and its Old Taylor Distillery in nearby Woodford County. Taylor was the most eloquent and effective spokesman for the industry into the early 1900s, representing the interests of Kentucky's straight-whiskey distillers in Washington at hearings relating to the Bottled in Bond Act and the Pure Food and Drug Act.

Taylor had severed his ties with W.A. Gaines and Co. in 1870 and that same year began to develop his O. F. C. Distillery (O. F. C. standing for Old Fire Copper) at Leestown, Registered Distillery No. 113, 7th District of Kentucky.[138] An impressive illustrated pamphlet almost certainly written by Taylor just before he ended his involvement with the distillery in 1885-1886 provides a detailed look at its history, buildings, and equipment and reveals Taylor's approach to the distilling business: nothing but the best.[139] He initiated distilling on the site

---

[133] Franklin County Deed Book 6, 89, December 12, 1856 and page 220, September 5,1857; Franklin County Deed Book 7, 75, December 14,1859.

[134] Franklin County Deed Book 11, 270, November 12, 1870; Albert B. Blanton, "The George T. Stagg Co.", 1. Taylor-Hay Papers, Folder 443, Filson Historical Society, Louisville, KY.

[135] *Description of the O. F. C., Carlisle and J. S. Taylor Distilleries* (Chicago: Shober &Carqueville Lithography Co, ca. 1885), title page.

[136] Unpublished biography of E. H. Taylor, Jr., 94. Taylor-Hay Papers, Folder 588, Filson Historical Society*; Press Reference Book of Prominent Kentuckians* (Louisville: Standard Printing Co., 1916), 209.

[137] Labrot and Graham's Old Oscar Pepper Distillery, National Historic Landmark nomination, 2000, 38.

141 Blanton, "The George T. Stagg Co., 1.

[139] *Description of the O. F. C., Carlisle and J. S. Taylor Distilleries.*

using Daniel Swigert's distillery, by then about thirteen years old, but in 1873 he was able to demolish the old warehouse and still house to make way for a new state-of-the-art still house and Warehouse 113A. In the pamphlet we are told that "permanence of and solidarity of construction will be noted throughout in the materials of stone, brick, iron and copper that unite in the building." An engraving in the pamphlet of the 1873 distillery pictures an elaborately detailed, two-story, brick building set on a high stone foundation with round-arched windows, corner quoins, and a square tower on the river frontage. It is an excellent example of the "American round-arched" style identified by Betsy Hunter Bradley as a common industrial building style of the nineteenth century associated with building in brick. Unfortunately, the distillery was not as permanent as Taylor had hoped. In the summer of 1882 the still house succumbed to fire, but with insurance money it was completely rebuilt by the following year with similar, but even more elaborate detailing.

Taylor was perhaps a better distiller than businessman. Having overextended himself with the distillery's construction and failing to receive repayment for a loan extended to James Pepper at Old Oscar Pepper, Taylor declared bankruptcy in 1877. In fact he went into hiding to escape his creditors.[140] He was rescued by George T. Stagg, a partner in Gregory and Stagg, Commission Merchants and Distillers Agents, from St. Louis with whom the O. F. C Distillery had much of its whiskey on consignment. Stagg paid off Taylor's loans, but as a result gained control of the distillery. In 1879 the E. H. Taylor, Jr. Company was established with Stagg as president and Taylor as vice-president. Taylor continued to manage and develop the distillery but with his hands tied by Stagg. In 1879-1880, in response to the 1878 extension of the bonding period to three years and an increasingly positive climate for the industry, the Carlisle Distillery, R.D. # 7, 7th District, Kentucky and several associated warehouses were built along the riverbank directly to the north of O. F. C.[141] Unlike O. F. C., which proudly advertised its hand-made approach to whiskey production using small mash tubs, the Carlisle was designed for volume production with machine-driven mash tubs. In 1886 each had a government-approved capacity to produce forty to fifty barrels a day from 500 bushels of grain.[142]

With Warehouse C, the final component of his model distillery, under construction or possibly just completed and with mounting friction with Stagg, Taylor submitted his resignation in October 1885. Late the following year a separation deal was worked out to divide the assets of the E. H. Taylor, Jr. Co. Stagg retained title to the O. F. C. and Carlisle distilleries. Taylor obtained title to the J. Swigert Taylor Distillery, a small facility in nearby Woodford County that had been purchased by Stagg and Taylor in 1882. He immediately established the E. H. Taylor, Jr. and Sons Co. with his three sons, and they began to develop their distillery, newly renamed "Old Taylor."[143] By the 1910s, it was an acknowledged showplace, surpassing Taylor's impressive efforts at O. F. C. In the separation deal Stagg retained control of the E. H. Taylor, Jr. Co., now completely disassociated from its namesake but useful to Stagg's company because of the industry's respect for Taylor and his whiskey. For years after, there were suits and counter-suits regarding Stagg's use of Taylor's name for the company and the use of his distinctive signature on O. F. C. barrels.[144]

The Distillery in 1886

A brief discussion of the distillery property in 1886 is warranted because with only three significant additions – Warehouse D built in 1907, and a dry house and acetylene plant from about the same date – the building stock was much the same in 1886 as it was when the distillery shut down for Prohibition just over thirty years later. And with the exception of the Carlisle still house which was partially demolished during Prohibition, the buildings completed by 1886 were the same set acquired by Schenley in 1929 and utilized, in many cases with new functions, as the company accomplished its massive transformation of the site between 1933 and 1941.

[140] J. Swigert Taylor to E. H. Taylor, Jr., letter dated October 17, 1877. Taylor-Hay papers, Folder 54.
[141] Blanton, 1-2; Churchill, 57, 58, 64.
[142] Sanborn Map Co., Frankfort, Kentucky, Sheet 10, June, 1886.
[143] E.H. Taylor, Jr. to George T. Stagg. Letter dated October 13, 1885. Taylor-Hay Papers, Folder 60; Blanton, 3.
[144] Blanton, 3-4; Churchill, 61, 64-66.

Plate 8, a bird's-eye view of the distillery property in Taylor's brochure (Figure 4) together with an 1886 Sanborn map (Figure 5) provide a detailed and probably fairly accurate view of the plant. A 1933 aerial photo documents the plant before major construction began that same year. (Figure 6)

The engraving shows a complex of handsome brick buildings carefully laid out in a grid-like arrangement and set amidst landscaped grounds. A group of well-kept houses cluster at the edge of the distillery and two others are set amidst fields atop a prominent hillside, all to the plant's southeast. The two distilleries and a grain elevator stretch along the Kentucky River's high bank in a long straight line, reflecting their reliance on the river for transport and for a supply of water for everything but the pure, limestone spring water used in the whiskey itself. The distilleries are flanked on the inland side by a broad tree-lined avenue. This roadway created the axis that was so carefully preserved when the railroad and the new distillery buildings were inserted into the site in the 1930s, and it still exists today. The road effectively separates the production facilities from the rest of the distillery buildings – the seven warehouses, four belonging to the O. F. C. plant and three to Carlisle, the company office and two cistern rooms. The two distilleries are elaborately detailed examples of the American round-arched factory style discussed previously. Boldly defined main entrances with arched doorways, a tower at O. F. C., round-arched windows with prominent moldings set between arching pilasters, extensive corbelling work, and a tall, elaborately detailed smoke stack are among their main features. The office, an ornate little Victorian building thoughtfully placed along the avenue and designed in a contrasting style to give it prominence, has elements of Stick- and Queen Anne- styling. The warehouses, ranging from one to four stories in height, are typical of the best-built masonry warehouses of the period. O. F. C. Warehouse 113C, with its stone-trimmed lintels, corner quoining, and finely-detailed exterior elevator tower (conveniently transposed in the engraving from its actual location in order to illustrate its existence and detailing), is the most highly ornate whiskey warehouse known to the author.

A fountain set in a tree-lined quadrangle, what look to be flower beds by the office, and a profusion of carefully planted trees indicated in the engraving could be wishful thinking on Taylor's part (they would not be indicated on a Sanborn map even if there). However, Taylor's written description speaks of the distillery being "well set in grass, with macadamized roadways and dry sidewalks" giving support for the site's greater-than-usual attention to aesthetics.[145] The engraving certainly suggests that the O. F. C./ Carlisle site was the beginning of Taylor's vision of the distillery as "showplace," a vision that he later brought to full actualization at his Old Taylor Distillery. Such a site certainly falls within Gillian Darley's exploration of "the factory as sales tool" concept,[146] where the subliminal image created by the buildings and their setting is deliberately crafted to suggest a corporate and product identity (in today's terms, a brand). For Taylor at the O.F.C. Distillery, the image is certainly one of excellence but also of tradition.

1886 – 1920: Years of Little Change

Following Taylor's departure, George T. Stagg had to cope with a company with too much capital invested in its physical plant and with Taylor's lawsuits. His problems were compounded by growing threats to the industry caused by over construction, overproduction, falling prices, and struggles with the government over extending the bonding period beyond three years. Stagg turned to Walter B. Duffy, a business tycoon from Rochester, New York and owner of Duffy's Medicinal Whiskey who had leased the Carlisle Distillery during the 1885 season. By the early 1890s, Duffy had quietly purchased all Stagg's stock and gained control of the company which Stagg retired from about the same time. In 1900, almost immediately after the last of the law suits with Taylor had been settled, the company adopted the name George T. Stagg and Co. which had been created in 1887 but little used until then. That same year Duffy created the New York and Kentucky Company, pooling his

[145] *Description of the O. F. C. Distillery*,. 20.
[146] Darley, 157-166.

whiskey assets in one small combine which the *New York Times* reported on January 20, 1900 was for the purpose of manufacturing cologne spirits, alcohol, whiskey, and medicinal preparations, etc.[147]

Physically, particularly on the exterior, little changed at the distillery between 1886 and 1920. In 1898 the Carlisle Distillery was renamed the Kentucky River Distillery and substantially remodeled with the thought to turn out volumes of cheaper whiskey for the mass market.[148] An accompanying increase in its daily grain capacity to 1,240 bushels made it one of the larger capacity facilities in the state. At O. F. C., the company's highly respected "hand-made" brands of premium straight whiskey continued in production unchanged. In response to the passage of the Bottled-in-Bond Act of 1897 and the Pure Food and Drug Act in 1906, a room for bottling in bond was retrofitted into half of Warehouse 113A by 1901 and Warehouse D, a large seven-story, 22,500- barrel brick warehouse was constructed in 1907. Also by 1907 the first dry house was in place, a wood-framed, metal-clad building with a furnace, slop dryer and presser indicated within. By 1910 other new additions included a barrel shed, a case house (for storing the wood cases used to ship bottled whiskey at this time), a machine shop, blacksmith's, and an oil house, mostly small wood-framed or brick buildings that did little to alter the overall visual appearance of the site.[149]

Probably the most important event of this period was the 1897 hiring of Albert B. Blanton (1881-1959) as an office boy at the distillery. Colonel Blanton (the colonel acknowledging his membership in the Honorable Order of Kentucky Colonels) grew up at the Beeches, the historic centerpiece of a large, prosperous farm adjacent to the distillery, and elected to make the whiskey business his career. Deciding to learn the business first hand he asked to be moved around the distillery from department to department, mastering every aspect of the operation. By 1912 he was plant manager, navigating the facility through the challenging years leading up to Prohibition. In 1916 the Kentucky River Distillery was outfitted for the production of industrial alcohol which was sold to England and France for a brief time during World War I. Production was shut down at both distilleries in September 1917, and the property was put up for sale at auction in December 1918. It was Blanton, like Lewis Rosenstiel, Seton Porter and the few other visionaries able to see beyond Prohibition, who personally purchased the distillery for $18,000. In turn, he sold it the next year to Henry Naylon, a Buffalo, New York business associate of Duffy's. Naylon assigned the real estate to the Industrial Grain Products Corporation which he organized in 1920 and leased the property back to the George T. Stagg Company. Blanton was made president of George T. Stagg in 1921, guiding it through Prohibition and all the way through the first eventful twenty years after Repeal.[150]

1920 through 1933: The Prohibition Era

The Prohibition years at George T. Stagg began quietly with whiskey-filled warehouses at both distilleries but with withdrawal and shipping activities dwindling to a trickle. In 1922, with the enactment of the Concentration Warehouse Act, Blanton applied for one of the limited number of government permits (about thirty nationwide of which eleven were in Kentucky) that designated certain distilleries and warehouses as authorized whiskey warehousing sites and gave them authority to bottle whiskey for medicinal use. Registered Distillery #113, 7th District, Kentucky, was successful in obtaining a permit. At this point any remaining whiskey in Carlisle Distillery warehouses was moved to adjacent O. F. C. facilities. Blanton reports that whiskey from Waterloo, New York and Carrolton, Maryland was also brought to the site for storage.[151] So from

[147] Blanton, 4; *New York Times*, January 20, 1900, 7.
[148] Blanton, 4.
[149] Sanborn Map Company, Frankfort, Kentucky: September 1896, Sheet 15; November 1901, Sheet 17; September 1907, Sheet 29; August 1912, Sheet 31; February 1925, Sheet. 31; *Sanborn Surveys of Whiskey Warehouses of Kentucky and Tennessee, 1910*, Sheet 73.
[150] Churchill, 150-151; Blanton, 9-10; Franklin County Deed Books: 65, 540, December 10, 1918; 68, 208, July 17, 1919; 68, 214, June 17, 1920.
[151] Blanton, 10.

1922 to 1930 a modicum of activity occurred at the distillery as a few warehousemen, bottling house operators, and, no doubt, a skeleton office, maintenance, and security crew went about their duties. Records of whiskey withdrawals at the distillery assembled by D. G. Churchill indicate 667 barrels were withdrawn for bottling in 1924 and 460 during the first third of 1925, the last Prohibition year for which figures were found.[152]

In 1929, the government announced that it would award permits to a small number of distilleries for a very limited production season to augment dwindling supplies of aging whiskey. Blanton, always alert to opportunities for his distillery, stepped into action. He talked Naylon, apparently uninterested in investing in the necessary repairs to make the distillery operable once again, into putting it up for sale. On October 1, 1929, Naylon's Industrial Grain Products Corporation sold all its George T. Stagg Co. stock to Schenley Products Co. and by deed transferred all the associated real estate, buildings, and equipment to it for $25,206.89.[153] A few months before the government announcement and the sale of the Stagg stock to Schenley, Blanton had purchased 150 acres of farm land immediately adjacent to the existing distillery site.[154] This land must have played heavily in the deal, no doubt coming with Blanton's assurances that it would be available for distillery expansion when needed. Schenley, taken over by Lewis Rosenstiel in 1922, operated the Joseph Finch Distillery in Schenley, Pennsylvania, another concentration warehouse site. The George T. Stagg Co.'s distillery became Schenley's second.

Blanton was able to snag one of the coveted licenses for whiskey production and Schenley launched quickly into making the necessary repairs. The stills were fired up in April, 1930 for the first time in over twelve years. Stagg distilled its own small quota in less than two months but went on to produce 50,000 gallons for Schenley's Finch Distillery which had also been allotted an amount. By the fall of 1931 the mashing capacity at Stagg had been expanded from 600 to 1,107 bushels a day. Stagg received permission to produce several more allotments before the end of Prohibition and also distilled whiskey on a contract basis for at least one of the large warehouses (in St. Louis) with a medicinal whisky permit but no production facilities.[155] From 1930 to the official end of Prohibition on December 5, 1933, the distillery became a pretty busy place.

1933 through 1941: The Development of a New Modern Distillery

In July, 1933, with Repeal an almost certain future, Schenley Products Co. incorporated as Schenley Distillers Corporation, making the George T. Stagg Co. an official subsidiary of the new company. Like Seagram and to a lesser extent National Distillers, Schenley operated as a holding company giving considerable autonomy to its subsidiaries such as Stagg. Albert Blanton was retained at Stagg as president, by this time considered invaluable by Lewis Rosenstiel as an expert on the legal aspects of distilling as well as all aspects of production. The Stagg Distillery emerged from Prohibition as one of a very few operational distilleries nationwide and Schenley and Blanton had to steer a tricky course to take advantage of its existing production capabilities but also to contemplate a massive expansion at the site.

First steps at the distillery appear to have involved improving the infrastructure and adding as much distilling capacity as possible while continuing operations. *Spirits* magazine in its November 1933 issue reported that the plant was undergoing $500,000 in alterations and additions in preparation for Repeal.[156] By August plans were underway for the Frankfort and Cincinnati Railroad to extend a branch line to the site, accomplished in part with a right-of-way deeded to it by Blanton.[157] The on-site depot was one of the first new buildings completed in 1933. Another was a small gable-roofed, wood-framed building erected to serve as the now required

[152] Churchill, 214-215.
[153] Blanton, 4, 10-11; Franklin County Deed Book 77, 633, October 21, 1929.
[154] Franklin County Deed Book 77, 522, May 6, 1929.
[155] Blanton, 11; Churchill, 147-149.
[156] *Spirits*, November 1933, 58.
[157] Franklin County Deed Book 80, 419, August 29, 1933.

government office. To step up mashing capacity, additional fermenting tubs and other equipment were acquired, some from Schenley's newly purchased James E. Pepper plant where old production facilities were in the process of being replaced. Mashing capacity increased incrementally from 1,514 bushels a day in early October, 1933 to 3,602 bushels or about 350 barrels a day by December. [158] Improved water storage and fire safety features were next. Reservoirs, tanks, a water tower, a pump house, hydrants and hose houses were completed during 1934 and 1935, a complex system designed to service a modern and much larger plant. At the same time old warehouses were adapted and new buildings were constructed for various bulky supplies – barrels, bottles and shipping cases. These were needed for the new emphasis on bottling and shipping resulting from new government regulations prohibiting the sale of whiskey in bulk and requiring secure interior storage for empty barrels stored on site.

In 1934 Albert Blanton married and began building Rock Hill, an imposing stone residence on a piece of high ground overlooking the distillery. The land had been purchased from Henry Naylon in 1929 and had originally been part of the distillery property. An avid gardener, Blanton developed his ten-acre property with extensive gardens detailed with terraces and water features as well as a compliment of outbuildings including a garage, gardening shed, smokehouse and root cellar. Blanton lived at the house until his death in 1959, overseeing activity at the distillery even when he wasn't at his office below. With this project completed, he moved on to the adjoining distillery property where on the lower end of his own hillside the steep slope terminated in a sink hole. This was ground unsuitable for industrial development. During 1935 Blanton oversaw the construction here of a large, rustic, two-story, log clubhouse envisioned as a gathering place for company employees. The clubhouse and an associated lodge were set in a quaint landscaped park complete with gardens, water features, gardens, stone paths, and bridges as well as an outdoor kitchen for the preparation of burgoo, a Kentucky stew. *Remarks of Merit*, Schenley's in-house publication for employees, has a page-long article on this development in its March 1937 issue.[159] Schenley has been identified in the industry as the company that had the most generous employee benefits and at least one other Schenley plant, Joseph Finch, had a clubhouse and recreation building.[160] But this complex at Stagg was something unique, a gesture by Blanton to link his beloved distillery to Kentucky's long and distinguished distilling heritage and to emphasize the high-quality, hand-crafted tradition of the distillery's whiskies.

Kentucky ratified the Twenty-first Amendment at a state convention on November 27, 1933. But casting a cloud of uneasiness over the early years of Repeal in Kentucky was the fact that the state's legislation authorizing prohibition remained the law. The dry forces were in disarray after the advent of Repeal and state authorities were so eager for the reemergence of a strong distilling industry in the state that some legalities were ignored. Distillers who by 1935 had already invested a million dollars in the state were operating in limbo. Their unease increased during the campaign season leading up to the November 1935 election when prohibition supporters made a last effort to rally support. But in the election, state prohibition laws were defeated by a margin of about 110,000 votes. As *Spirits* reported in its November 1935 issue, "the result of the drys' crushing defeat led to the unleashing of elaborate plans for expansion," an estimated $50 million for the state. Projects such as the new Seagram plant for Louisville, a new still house at Brown-Forman and more than ten others were identified as ready for implementation. It was against this backdrop that Schenley and the George T. Stagg Co. elected to move ahead with the construction of an entirely new distillery set amidst the existing distillery on the site.[161]

---

[158] Blanton, 11.
[159] "Stagg Lodge, *Remarks of Merit*, March 1937, 4.
[160] Harry Freeman, "The Employee Club," *Spirits*, June 1934, 98.
[161] "Kentucky Repeals its Prohibition Law," *Spirits*, November 1935, 72.

The new distillery included huge grain elevators, milling facilities, a group of three production buildings that separated out the three principal steps in distilling – mashing, fermenting and distilling – into three separate buildings, and a government-required cistern room. A new boiler house was created from the shell of the old O. F. C. still house and boiler room. The single most significant difference between this complex of buildings and the old distillery was its scale, both in terms of the buildings themselves and the equipment within. Designed with the capability to mash 6,600 bushels of grain a day, it had more than ten times the capacity of the O. F. C. Distillery in 1912. A set of official construction photos dating from June 23, 1936 through April 6, 1937 in the Buffalo Trace archives helps to understand the building process and appreciate the complexity and remarkable speed of the huge transformation. Carl Kiefer, Schenley's supervisor, later vice-president, for plant production, was in charge of design and equipment and Frank Messer and Sons did the construction. Sequence and timing were critical so as not to disrupt ongoing whiskey production. Most remarkable was the construction of the fermenting house which required building around and over the oldest warehouse on site. Since before Prohibition it had housed at least six fair-sized fermenting tanks but these were dwarfed by the twelve new 96,000 gallon, stainless-steel tanks that replaced them. The walls of the old warehouse were demolished while the fermenters were in operation and as the new building was erected around them.[162] Photo 36 taken on August 18, 1936 shows the work in progress. (Figure 7)

First to be completed were the six, seventy-foot concrete grain elevators capped by a mill room that fed ground grain to hoppers in the adjacent mash house. Then came the fermenting house, the mash house and the still house, all carefully inserted along the existing service axis formed long before between the old distillery buildings and the old warehouses. This suite of production buildings was built using several construction methods – steel framing and load-bearing masonry – selected in each case to best house the equipment and operations within. (These buildings are described in detail in the Description section of the nomination.) The fermenting house with its imposing round-arched main entrance heavily highlighted in stone marks the entrance to the whole production area. All three buildings are finished in red brick with the same stone-veneered foundations and stone-trimmed windows, reflecting a more conscious attention to ornament than is found at most comparable 1930s distilleries. They are more streamlined in appearance than the earlier O. F. C. buildings and characteristic of new distilling buildings of their era, but they nonetheless carry on the earlier tradition of quality construction, attention to architectural detailing, and company image initiated by E. H. Taylor, Jr. in the 1870s and 1880s.

Schenley built nine large warehouses at Stagg as part of the 1930s building program. They stretch out to the east away from the river and the original core of the distillery for the most part on land purchased as needed by Schenley from Albert Blanton. They began in 1935 with Warehouse H, the only corrugated-iron-clad, wood-framed structure on the site, and Warehouses I and K, oversize versions of the traditional continuous-tier masonry warehouses common before Prohibition. Then, as part of the 1936-1937 expansion, the first two sets of double, reinforced-concrete warehouses, L/M and N/O, were built. These were typical of the new climate-controlled, truly fireproof warehouses introduced at many of the larger distilleries after Repeal. P/Q followed in 1940 and 1941, with Q getting caught in war-time rationing of reinforced concrete, forcing its construction using the earlier continuous tier method. Together with the five warehouses dating from ca. 1880 to 1907, some of the nation's very earliest remaining examples of the masonry stack house and the continuous tier types, and with single-barrel Warehouse V, built in 1953, they constitute an encyclopedic collection of distillery warehousing types. Assembled at one site, they offer an outstanding opportunity for the study of this important building type that is so critical to an understanding of whiskey distilling from the post-Civil War era through the historic post-Repeal period.

[162] Blanton, 12.

At some point shortly after the new distillery buildings were dedicated in May, 1937, Schenley obtained a license to refurbish and operate the remaining intact portion of the old O. F. C. Distillery as a separate plant with its own Register Distillery number – R.D. #46. Sometime before 1939, the George A. Dickel Co., a Schenley subsidiary, began producing Cascade whiskey in the building using the small-tub mashing containers and the copper-lined fermenters that had remained in use since before Prohibition.[163] The building was extended on the east side with a stone addition, a new still was put in place and a separate new cistern room, required by the government for this separate new distillery, was built. The mashing and fermenting floors of this building are to this day referred to as the Dickel Building.

1941 through 1945: World War II Era Distilling

The George T. Stagg plant participated in Schenley's vigorous contribution to the war effort. One of Carl Kiefer's packed columns designed to produce 190-proof, industrial alcohol was certainly installed at Stagg, probably by early in 1943. Most of Schenley's plants were producing alcohol round the clock, seven days a week by 1943 and judging from its capacity and production figures Stagg was no exception. Its mashing capacity had been increased to about 10,000 bushels a day by 1943.[164] The August 1943 *Remarks of Merit* includes a chart with statistics about Schenley's by-then seven plants. It showed Stagg with the second highest mashing capacity after Old Quaker and with about one-quarter of Schenley's total alcohol production. By June 1, 1945 Stagg had produced 18,796,000 gallons of 190-proof alcohol for the war effort.[165] Bottling operations continued at a healthy pace during the war with Stagg third of seven in bottling activity. Churchill reports that Three Feathers, one of the blends introduced by Schenley during the war in an attempt to eke out supplies of rapidly dwindling aged whiskey, was mixed and bottled at Stagg. Three Feathers, blended from 35% aged whiskey and neutral spirits made from potatoes became one of the most successful blends on the market thanks to an intense advertising campaign.[166] Wartime industrial alcohol production no doubt ceased quickly after August 31, 1945 when the government cancelled all its contracts with the distillers, but whiskey production was slow to return with grain supplies severely rationed until the late 1940s.

By far the biggest physical change at the distillery during the war involved the construction of a new two million dollar dry house capable of processing huge quantities of stillage into feed by-products. On July 29, 1943 the *New York Times* reported on a new nineteen million dollar government initiative to encourage more production of distiller's dry grain, as it was sometimes called, and identified the George T. Stagg plant as one of the first four to receive a grant for dry house construction. At $553,000 it was the largest.[167] In August, Carl Kiefer reported that when completed, Stagg would have the capability to process 250,000 gallons of spent grain daily and to produce sixty million tons of dried feed annually.[168] A September 20, 1943 photo shows workers preparing the site for the building's footings. The huge, three-story facility with its reinforced concrete frame and tile-block curtain walls was completed in 1944.

1946 through the 1950s: A Last Period of Construction and Expansion

With the end of the war, Schenley initiated a period of repair, rebuilding, and modest new construction at many of its plants to refit them for whiskey production. In its Annual Report for 1951, Schenley announced that its modernization program at Stagg was complete. The changes at Stagg were modest compared to the massive 1930s changes but nonetheless significant. Between 1945 and 1948, using Stagg's and Schenley's practice of retrofitting and reusing older structures, a former case and bottle storage building (NHL 45) was expanded with a two-story addition and outfitted as Stagg's principal regauge facility. Here, barrels from various warehouses

[163] "Dickel Distillery Operating," *Remarks of Merit*, May 1939.
[164] *New York Times*, August 24, 1943, 29.
[165] "George T. Stagg Co." Typewritten report dated June 1, 1945 in Buffalo Trace archives.
[166] Churchill, 174.
[167] "Distillers to Make Feed," *New York Times*, July 29, 1943, 23.
[168] *New York Times*, August 24, 1943, 29.

were brought for gauging, dumping and storage in large metal tanks until needed for blending and/or bottling. The annual report for 1950 reported on new equipment for the bottling facility. Probably this coincided with the creation of a second bottling house on site in Building 3 (NHL 6) which perhaps more than any other exemplifies the policy of adaptive reuse exhibited at the plant. Beginning life about 1880 as a free warehouse for the Carlisle Distillery, Building 3 had been adapted by Schenley for a blending facility by 1936. With a substantial new one- and two-story addition on its east end and an overhead conveyor linking it to the nearby Case Shipping Building, it became Bottling House B about 1950. A new modern government office was built in 1948-1949 and a maintenance shop between 1949 and 1951, both designed with Mid-century Modern features that typified some of Schenley's construction of this era. New equipment was also provided for the mill and the power plant.[169]

As soon as grain quotas were lifted in 1948 or 1949, George T. Stagg and many of Schenley's plants went into high gear, racing to replenish aged whiskey stocks seriously depleted during the war. As noted early in this narrative, Schenley responded to the news of hostilities in Korea with even more frantic production efforts. Warehouses R/S and T/U were rushed to completion in 1950 and 1951 adding 200,000 barrels to the distillery's storage capacity. With war-time rationing of construction materials a thing of the past, a successful formula for fireproof warehouse construction on hand, and no time to waste, these warehouses replicated Warehouses L through P built at Stagg between 1935 and 1940.

In November, 1952 after fifty-five years at the distillery, Albert Blanton retired as president of the George T. Stagg Co. and director and vice-president of Schenley Industries. He had managed to steer a successful course for the distillery through the unbelievably difficult Prohibition period allowing it to emerge at its end as one of only a handful of operational distilleries nationwide. Together with Lewis Rosenstiel and Carl Kiefer at Schenley Industries, he had guided its growth and development for another twenty years as the industry was reinvented after Repeal. Rosenstiel, who attended and spoke at Blanton's retirement party spoke of his "wisdom and leadership" and his success achieved through "fifty-five years of making a quality product." As a tribute to Blanton, the distillery was renamed the Albert B. Blanton Distillery in his honor.[170]

Less than a year later in June 1953 the George T. Stagg Distillery marked another milestone. The distillery became the first in Kentucky to produce its two-millionth barrel of whiskey since Repeal. Schenley marked the event with a huge $30,000 celebration and a public relations blitz. With government permission, Warehouse V, the world's only single-barrel bonded warehouse, was rushed to completion in order to house the barrel in appropriate splendor. The handsome little brick and stone building, designed with a glass front protected by an openwork Art Deco-style aluminum screen, quickly became a tourist attraction and the subject of a post card. On June 23, 1953 a group of three hundred important government, industry and business officials gathered to watch as the barrel of Old Stagg, one of Schenley's most successful brands, was placed in Warehouse V. The group came to celebrate and to underscore the important role played by whiskey distilling in Kentucky's economy. This distillery alone had paid out $7,500,000 in state taxes during the twenty years since Repeal, representing about six per cent of the total tax income for the state, as well as $446,321,958 in federal taxes.[171] The figures touted by Schenley as to dollars spent and quantities consumed in reaching two million barrels are quite sobering and serve to emphasize the enormity of the post-Repeal distilling industry. This is the data for only this one plant: shipping, more than $25,644,671; grain, $37,230,000 for 28,417,337 bushels; coal,

[169] Sanborn Map: Frankfort, Kentucky, Feb. 1925, new sheet 1940, sheet 31; "The Geo. T. Stagg & Geo. A. Dickel Distilleries," Site plan, ca. 1943; "Warehouse Premises for the George T. Stagg Company." Sept. 18, 1948.
[170] Lewis Rosenstiel, "Tribute to Col. Albert B. Blanton," *Remarks of Merit*, November – December 1952.
[171] "Schenley Celebrates 2 Millionth Bourbon BBL," *Beverage Retailer Weekly*, June 29, 1953, 1.

$2,029,308 for 689,243 tons; bottles and cases, $24,900,000 for 644,733,888 bottles and 33,600 tons of paper for cases; electrical power, $909,872; barrels, $32,000,000 for two million.[172]

Despite Schenley's 1950s problems with overproduction and its intense focus on getting the bonding period extended, production at the Stagg-Blanton plant remained fairly respectable. In 1952, the year the new $10.50 excise tax was introduced, whiskey sales plummeted and production dipped to 58,000 barrels. But from 1953 to 1958 the average annual production was 108,000 barrels. Four of Schenley's five best-selling brands were produced by Stagg. In 1953, Schenley began a huge advertising push to market Ancient Age, a Stagg product introduced in 1947 as the first straight whiskey not bottled in bond. By 1957 it had become the second best-selling straight bourbon on the market and the twelfth best whiskey seller overall. In 1969 to honor its success, the plant's name was again changed, this time to the Ancient Age Distillery. In 1958 the Dickel Distillery was moved to a new facility at Tullahoma, Tennessee.[173]

1960s to the Present: Years of Decline and Revival

The distillery went on to produce its three-, four- and five-millionth barrel in 1961, 1971 and 1981, respectively, but after about 1977 annual production figures were often about half what they had been in previous years.[174] With few exceptions, the plant remained and functioned very much as it had in 1953 when Warehouse V was built. Albert Blanton died in 1959, and Rock Hill was deeded to Schenley in 1961 by his widow, slowly becoming assimilated into the distillery property as space for offices. [175] Truck transport had been making inroads into railroad shipping at the distillery since the 1950s; the switch became complete in 1970 when the Frankfort and Cincinnati Railroad closed its branch line to the distillery due to lack of business.[176] At about the same time a huge new distribution center was completed at the edge of the property, the last significant new building constructed to the present.[177] The practice of adaptive reuse of existing buildings continued in the 1980s when the old depot became a bottling house for Blanton bourbon and the government office was utilized as an infirmary after the federal government ended its requirement for on-site storekeepers and gaugers.

By the early 1980s whiskey sales industry-wide were at their worst since Prohibition, and Schenley, since 1968 controlled by its owner, Glen Alden/Rapid American, put the distillery up for sale. In late December 1982 the distillery property and one brand, Ancient Age, were sold to the Ancient Age Distilling Co. With the input of Elmer T. Lee, master distiller, the company soon came up with a new concept – single barrel bourbon, a premium straight bourbon that would be bottled and labeled by hand in distinctive bottles from single barrel batches personally selected by the master distiller. Blanton's Single Barrel Bourbon, named for the plant's revered former head, was launched in 1984. Although Maker's Mark had been introduced as a boutique bourbon in 1958, it was Blanton's that first stirred up a market for premium bourbons and prompted the introduction of similar single-barrel and small-batch products by other distillers.[178]

Encouraged by the success of Blanton's, the Sazerac Company of New Orleans, a family-owned liquor business wanting to expand into the bourbon market, purchased the plant in 1992 and changed its name to Buffalo Trace Distillery in 1999. In May 2008 the six-millionth barrel of whiskey was distilled at the plant and was placed with much fanfare in Warehouse V to age. With the whiskey business once again in ascendance and in the

---

[172] Schenley Press Release in Buffalo Trace Archives dated June 23, 1953.
[173] Churchill, 187-189.
[174] Churchill, Appendix 1, 215-216.
[175] Franklin County Deed Book 170, 261, September 23, 1961.
[176] Churchill, 208.
[177] "Albert B. Blanton Distillery, Glen Alden Corp." Plan of distillery. Sept. 27, 1972.
[178] Churchill, 202- 209; "Blanton Bourbon: Historical Sketch," Unpublished manuscript, Kentucky Historical Society Library, Frankfort, KY; Chuck Cowdery, " Knob Creek Single Barrel Confirmed," The Chuck Cowdery Blog, chuckcowdery.blogspot.com/2010/09/knob-creek-single-barrel-confirmed.html (accessed January 31, 2012).

tradition of E. H. Taylor, Jr. and Albert Blanton, the company's leaders have made a major commitment to return the facility to the showplace it once was, welcoming visitors who tour the buildings and grounds to learn about the long and enormously important history of distilling on the site.

AN ANALYSIS OF THE STAGG DISTILLERY IN COMPARISON WITH OTHER DISTILLERIES OF THE POST-REPEAL ERA

The history sketched out above and a 2011 report prepared to assist in the task of evaluating the significance of the Stagg distillery have provided the basis for comparative analysis of the property. "United States Distilleries Operating after Prohibition: Their History, Site Development, Physical Character and Condition in Comparison with the George T. Stagg Distillery in Frankfort, Kentucky" gathered information on 113 distilleries in ten states. Together these sources show that four very large and increasingly powerful corporations dominated the whiskey industry from 1933 into the 1980s, early on establishing its big-business character and scale of operations. By 1940 the so-called "Big Four," National Distillers, Schenley Industries, Hiram Walker and Joseph E. Seagram & Sons, owned seventeen of the largest and most important whiskey distilleries in the business. These remained among their most important plants into the 1950s and beyond, even after they had acquired many others. By 1947, the Big Four controlled seventy percent of the whiskey supply, fifty percent of its production and 70 of the 152 registered distilleries nationwide. Their emphasis on "scientific distilling," using engineers and chemists to design and oversee their production and aging facilities and equipment, defines successful distilling of the era and is reflected in their operations. It is these plants that most clearly characterize the post-Repeal distilling industry.

The George T. Stagg Distillery is one of five Schenley distilleries included in this group of seventeen. Measured in terms of capacity, output, and product success throughout the 1930s through 1950s era it was one of Schenley's three flagship operations. Information gathered in the report documents that it is one of only four of the Big Four's seventeen facilities that retains close to a full complement of buildings from this time period. Two of these, Hiram Walker in Peoria, Illinois and Seagram's Calvert Distillery outside Louisville, Kentucky, were shut down in the early 1980s and sold. Today Hiram Walker is owned by Arthur, Daniels, Midland (ADM) and used for the manufacture of ethanol and neutral spirits. Although the majority of the historic buildings at this important plant are extant, its historic integrity has been significantly compromised. The scale of present operations has necessitated new construction and the introduction of massive exterior equipment both of which have greatly altered the physical character of the site. Seagram's Louisville distillery represents another model of post-Repeal construction – the all-new plant constructed on a new site. The exteriors of its buildings and its campus-like setting are intact, but the distilling equipment and piping systems connecting the buildings were removed as the property was subdivided and sold, lessening its integrity considerably.

Thirteen of the Big Four's seventeen plants have been completely demolished or seriously compromised by demolition, new construction, and/or destruction by neglect. These include many plants with a similar development pattern to the Stagg plant where a rich layering of history from both before Prohibition and after Repeal was once reflected in the long continuum of historic industrial buildings at one site. Among them are Schenley's two other flagship plants, the Joseph Finch Distillery in Schenley, Pennsylvania and the Old Quaker Distillery in Lawrenceburg, Indiana, both abandoned after Schenley was sold to Guinness in 1987. At each site a rather unsuccessful effort at establishing an industrial park has led to the use of a few buildings but the demolition or gradual ruin of most others. Schenley's Bernheim Distillery in Louisville, now owned and operated by Heaven Hill, was substantially altered in the late 1990s when a large, new production complex was erected on its constricted city site necessitating the demolition of a number of historic buildings. Schenley's James E. Pepper Distillery was listed in the National Register of Historic Places in 2009. While locally significant to the history of distilling in the area, it is a smaller scale facility than George T. Stagg and has lost a few of its important 1930s buildings. Seagram's Calvert Distillery in Relay, Maryland is owned by Diageo and

operated as a bottling and distribution center. Its production unit and several warehouses were demolished some time ago. Three of National Distillers seven plants in the group of seventeen have been demolished: Sunnybrook in Louisville, the Mt. Vernon Distillery in Baltimore, and the Carthage plant outside Cincinnati. The Large Distillery in Pennsylvania was long ago refashioned into a plant for Westinghouse, now abandoned. The other four, the A. Overholt- Broad Ford Distillery, R.E. Wathen in Louisville, and Old Crow and Old Taylor outside Frankfort, Kentucky retain some buildings but are in varying stages of destruction by neglect. All four have considerable architectural and/or historical significance and may have individual buildings eligible for the National Register, but they have lost their ability to convey the essence of a post-Repeal distillery.

This leaves the George T. Stagg Distillery and the former Seagram's distillery at Lawrenceburg, Indiana to represent the group. Both are operating distilleries with an extensive collection of historic resources and a similar pattern of development. Of the two, the Stagg facility is far more intact to the 1933 to 1940 period when the industry reinvented itself and most major post-Repeal construction occurred. It is also far more informative about the earlier history of distilling operations on the site and about how the pre-Prohibition infrastructure and building stock were integrated with the massive post-Repeal development. The Lawrenceburg facility was Seagram's first United States venture, purchased in 1933 from the Rossville Distilling Co. that had produced industrial alcohol at the plant before and during Prohibition. In 1910, Sanborn maps show a very large plant for its day with a daily capacity of 5,240 bushels, three fermenting rooms and four large grain storage tanks, each with a 50,000 bushel capacity. So Seagram was able to take advantage of this production capacity as it thoroughly modernized and rebuilt the plant in 1934. By 1936, Sanborn maps show a vastly different facility with huge, new, reinforced concrete warehouses, a new office building, a new boiler house and a vastly changed still house complex. In the late 1950s or early 1960s the plant was again significantly altered with the construction of a huge new still house complex, a new boiler house, and the demolition of many buildings from the pre-Repeal distillery as well as many more from the 1934 construction program.

Of the independent distilleries surveyed in the report cited above, only three, the 1933-1934 T. W. Samuels Distillery, in Deatsville, Kentucky, the Stitzel-Weller Distillery, built in 1935 in Shively, outside Louisville, and the Tom Moore/Barton Distillery in Bardstown, Kentucky retain a full complement of buildings from the historic post-Repeal era. T. W. Samuels and Stitzel-Weller are examples of the all-new distillery built on a new site. T. W. Samuels has been shuttered since about 1976 and many of its buildings are in severely deteriorated condition with collapsed roofs and rusting equipment. Stitzel-Weller ceased operations in 1992 and has had much of its equipment removed. With its metal-clad, wood-framed warehouses, somewhat old-fashioned equipment, and famous "No Chemists Allowed" sign, it is the foremost example of the post-Repeal distillery that espoused the "art" rather than the "science" of distilling. Tom Moore began after Repeal as a very small distillery rebuilt on the site of an even smaller pre-Prohibition plant. In 1944 the distillery was sold and renamed the Barton Distillery. During the late 1940s and 1950s it was dramatically enlarged with a new brick production complex, bottling, rectifying, and shipping facilities, and many new iron-clad, wood-framed warehouses. By 1960 there were twenty-nine at the site. Barton is most representative of the 1950s era of post-Repeal distilling. All the other plants established by independents in the decade after Repeal have either been partially or totally demolished or, in the case of the few operating plants, extensively altered in recent years with demolitions and/or new construction.

CONCLUSION

Based on the above analysis, the George T. Stagg Distillery Historic District is, of the 113 distilleries surveyed, a superlative example. It is the most intact representative of the seventeen distilleries owned by the Big Four, the four huge companies whose facilities so dominated the distilling industry after 1933. It is also the single best representative of a large group of whiskey distilleries developed in the 1930s that utilized substantial

components of pre-Prohibition distilleries as a base for modernization and expansion. It is a rare intact example of a distillery operating before, during and after Prohibition with substantial physical documentation of all three periods. As such it is able to clearly convey the changes and improvements that were made to the property and, by extension, to the whole industry as it was repurposed during the post-Repeal period.

The period of significance for the George T. Stagg Distillery dates from 1933 to 1953. This represents the active period of post-Repeal development at the plant during which the distillery was dramatically expanded following a building program rooted in the latest advances in scientific distilling. It documents the distillery's major role in the industry's war efforts during World War II, and it's repositioning after the war with a second period of new construction for peacetime production. In 1933, as the distilling industry prepared for Repeal, the first major physical improvements were made at Stagg in anticipation of massively increased post-Prohibition production. 1953, arguably the distillery's year of peak success, marked the end of twenty years of major construction that created the iconic distillery. In June of that year, the plant's two-millionth barrel of whiskey produced since Repeal was placed with much fanfare in newly constructed Warehouse V, the single-barrel warehouse designed to hold it. Stagg was the first Kentucky distillery to achieve this production milestone. Warehouse V was the last significant building constructed at the site until the 1970s. The distillery retains a very high degree of integrity to this 1933 to 1953 time period. Its extant buildings, structures, equipment and manufacturing processes are minimally changed from that time and very little new construction or demolition post-dates 1953.

The distillery's national significance derives from its exceptional ability to convey the nature of the architecture associated with whiskey distilling after Repeal, and particularly the architecture associated with the distilleries of the Big Four, the four huge companies that dominated the industry from 1933 through the 1950s. Its diverse collection of intact historic resources ranging in date from ca. 1880 to 1953 also provides a unique and unparalleled opportunity to study at one site the evolution of the building types, building materials, construction technology and the important interactions between government regulation and the physical plant. In sum, it is arguably the single best representation of the nationally significant post-Repeal distilling industry, an important and under-studied area in American history.

APPENDIX A: DISTILLERY BUILDING TYPES

The beginning of the modern distilling industry dates from the period of the 1870s and 1880s after the Civil War when newly initiated government control of the industry intersected with nationwide industrial expansion, the growth of railroad systems and technological innovations to create larger and more complex distilleries. Before this time, from the early years of the American colonies when distilling was first introduced, through the first half of the 19th century, distilling was, in most cases, a very small-scale operation conducted by the farmer-distiller or millers who operated a grist mill and distillery in tandem in one structure. New whiskey was generally sold in barrels straight off the still to local consumers and to wholesale dealers in nearby cities. The concept of aging whiskey to improve its taste was only slowly recognized. Before the 1870s, little warehousing existed at distillery sites.

The Federal government began its control of the industry in 1862 in order to help finance the Civil War. For the first time since 1818 an excise tax on beer and distilled spirits was enacted. A series of rapid tax increases soon followed and in 1868 the first regulations were issued governing a distillery's buildings and operations. From that time forward to the present day taxes and regulations have played an integral role in the development of the distilled spirits industry.

The building types associated with whiskey distilleries from the post-Civil War period through the 1950s are defined below. Building types are highlighted in bold and equipment associated with each type in italics. It should be noted that in terms of distillery architecture, technology and production no major differences exist between distilleries producing bourbon whiskey and those producing rye whiskey, the two principal whiskey types historically associated with the United States. Only their grain recipes differ, bourbon, by definition, requiring 51% corn and rye, 51% rye. Production and aging requirements are identical and, in many cases, distilleries produced both.

Production facilities: The core of the distillery is the building or buildings where grain and water are processed into distilled spirits. Often referred to as the **still house**, this building is frequently accretive in nature, typically a collection of rooms or contiguous buildings where the distinct steps in the production process occur. These operations include mashing, fermenting, yeast creation and distilling. The building is generally of irregular plan and several different heights to accommodate the necessary equipment for each operation. Sometimes in the very large post-Repeal distilleries separate free-standing buildings linked by external piping systems exist for some or all of these processes. Still houses both before and after Repeal were built of brick, stone (less common) or with metal-clad, wood-framed or steel-framed construction. Many are completely utilitarian in appearance. Some of the masonry buildings have considerable architectural detailing. This ranges from nineteenth- century American round-arched styling to American industrial modernism popular for industrial architecture in the 1930s-1950s.

Mash room or house: Mashing is the process in which grain is mixed with hot water and cooked, thus converting the starch in the grain into sugar. Until Prohibition, at some of the distilleries producing "hand-made whiskey," the grains and hot water were still mixed in small bushel-sized wooden *mash tubs* set up in a large open room. At others, mash was stirred by mechanical agitators and heated and cooled by steam and water coils. Increasingly in the early 20th century and almost completely after Repeal, a more modern, large-scale and less labor intensive method of mashing was introduced where large quantities of grain and water were processed in *cookers* and then dumped in *drop tubs* to cool.

Fermenting room or house: During fermentation the mash is mixed with yeast and over a period of about four days, the sugar in the mash is converted into alcohol, resulting in a product known as distiller's "beer." Fermenting rooms house wood or metal *fermenting tanks* which grew dramatically in size as distillery capacity

ballooned after Repeal. Some hold up to 125,000 gallons each. Quite a few large post-Repeal distilleries have free-standing fermenting houses.

Yeast room: The location where a distillery's particular strain of yeast is created and maintained in special *yeast tubs*. Usually the yeast room was a separate enclosed space within or adjacent to the fermenting room. In recent years, distillers have usually obtained their yeast from off-site suppliers who maintain a yeast line to the distiller's specifications.

Still house: The location where actual distilling occurs. Here fermented mash (beer) is fed through a *still* with resulting output of gaseous alcohol and 'spent beer" or "slop." By the end of the 19th century many distilleries used a *continuous still* for the first of the two distillations that typically occur in whiskey production. Others that prided themselves on their "handmade" product continued to use wood-fired, copper *pot stills* more closely associated with distilling before the Civil War. During distillation the gaseous alcohol is fed through a *condenser* to liquefy it and then into a second still called a *doubler* and a second condenser to further refine it. The still house is often the tallest part of the production complex designed to house the c*ontinuous stills* and *condensers* which are tall, columnar structures, often several stories high. Other major equipment associated with the still house includes a *beer well*, used to hold a batch of fermented mash before it is sent through the still, *slop tanks* for storing the spent beer and various other *water tanks* and *spirits tanks*.

Grain storage and processing facilities: From the post-Civil War period on, most, but not all, distilleries stored and ground their own grain. Pre-Prohibition **granaries** could be free-standing barn-like structures or a room attached to the production complex. Grain was prepared for the mashing process in the **mill room** where it was ground and stored in *bins* to await mashing. After Prohibition many of the larger distilleries built concrete **grain silos** or **grain elevators** to accommodate the huge quantities of grain needed for their dramatically increased production.

Power plants: By the 1880s distilleries typically used steam and hot water heated by *coal-fired boilers* for mashing, distilling and, sometimes, for heating warehouses. Some distilleries that elected to use pot stills heated their stills from below with wood fires. In smaller distilleries a boiler was sometimes located within the still house, but as plants evolved and grew in size a separate **boiler room** or **boiler house** was often attached at the outer edge of the production complex or built as a free-standing building. Associated with the boiler room was a tall *smokestack*. Boiler rooms, more than any other building type are likely to be of masonry construction. Stone, brick and, later, reinforced concrete were the most common building materials although all-metal and metal-clad, wood-framed buildings also existed. Many distilleries built after Prohibition have a free-standing building housing both a boiler room and a slop drying house (see below) in separate rooms.

Slop Disposal Facilities: Slop (spent beer) is a highly nutritious, thick, liquid by-product of distillation that has to be disposed of in some manner. Historically, slop was fed directly to livestock and many distilleries before Prohibition had extensive **livestock pens** and **barns** to support an associated livestock fattening business. Beginning in the 1890s slop drying equipment was developed and gradually introduced at the bigger distilleries allowing for the production of dry animal feed that could be more easily utilized away from the distillery. Early **slop drying houses** were generally small wood-framed buildings, often with metal cladding. After Prohibition, with increased production, dry houses became larger and were frequently constructed in association with the boiler house in a masonry building. Very large three- and four-story dry houses with extensive equipment including *shakers, separators, dryers* and *pressers* were built during World War II with government grants to process the huge amounts of slop generated as the distilleries churned out industrial alcohol for the war effort.

Cistern Room: New whiskey is sent to the **cistern room** after distillation where its proof is corrected with distilled water and it is loaded into barrels under the supervision of a government gauger. Beginning in 1868, a distiller was required to erect a minimum of two *receiving cisterns*, each capable of holding all the spirits produced in a 24-hour period, in a room or building set aside for that use. Regulations required that cisterns were to be connected to the condenser in the still house by color-coded pipes that were clearly visible along their entire run (see "piping systems" below). Later, government requirements became more explicit detailing construction of doors, windows, floors, walls and ceiling. From the 1880s on, cistern rooms were often free-standing structures frequently of masonry construction. Their windows were secured by bars before Prohibition and after Repeal usually with wired glass.

Warehouses: Distillers and consumers only gradually came to appreciate and value the taste of aged whiskey. Up until the post-Civil War era, most new whiskey was loaded into barrels and immediately shipped to wholesale liquor dealers. There was limited need for on-site warehousing except for short-term storage of aged whiskey in barrels awaiting shipping and/or unsold stock. When the Federal government first regulated distilleries in 1862, language stated that a distillery owner "may provide" a warehouse. It was to be used only for storing distilled spirits and after government approval it was to be designated a "bonded" warehouse of the U.S. with taxes to be paid as the product was removed. In 1868 the language was changed to read "shall provide" a warehouse. Warehouses were designated as "bonded" or "free," the latter providing storage for barrels or bottles of tax-paid whiskey.

Little information exists on **bonded warehouse** construction before the 1880s when for the first time the Sanborn Map Company's coverage extended to all the whiskey producing states. By that time warehouses were of two construction types: (1) wood-framed with corrugated-iron cladding and (2) masonry, generally brick with pilastered walls and much less frequently stone. Some were heated with steam with the thought that warmer temperatures speeded aging; others were not. Warehouses began as one- and two-story structures but by the 1880s many were three and four stories high with *hoists* and early *elevators* providing access to upper floors. Warehouses were initially constructed with many windows to provide needed ventilation and lots of natural light for moving barrels and checking for leaks. As mandated by federal regulation, all windows on the first two levels were barred and/or supplied with *metal clad shutters*. As with still houses, warehouses ranged from completely utilitarian structures with no architectural styling to well-designed masonry buildings with attention to such architectural detailing as corner quoining and arched window openings highlighted with stone trim.

The earliest warehouses were built with post and beam construction. Barrels were laid out on their sides in rows, generally stacked three rows high with wooden boards laid between each row. In 1879 the "patent rack" was invented in Louisville Kentucky. This was a rigid, grid-like storage system for whiskey barrels designed to improve ventilation and ease of handling. The use of *patent racks* quickly spread throughout Kentucky and more slowly to the rest of the country. By the 1890s patent-rack warehouse construction was the norm, used inside both wood-framed and masonry warehouses. *Racks* or *ricks* (the terms are interchangeable) extended upward continuously in a warehouse with loading aisles or full floors occurring every third tier. As elevators became more common, warehouses grew in height and overall capacity. By the 1910s, when the last warehouses were built before Prohibition, the largest masonry warehouses occasionally reached 30 tiers (10 floors) and over 50,000 barrels in capacity; wood-framed warehouses occasionally had 24 tiers (8 levels) and 35,000 barrels. *Plumb lines* for keeping the ricks in true, *steam pipes* and *fan houses* were associated with some warehouses.

After Repeal, the demand for warehouses increased dramatically as the scale of production was ramped up at the fewer, bigger distilleries that opened. For the first time, the biggest companies began building **fireproof**

warehouses, large four- to six-story buildings with a capacity of 50,000 to 100,000 barrels, flat-slab concrete frames, and brick or tile-block curtain walls with very small windows, powerful heating systems and sometimes air conditioning. Among the biggest companies, fire safety and an increased belief in climate-controlled aging prompted the change. Careful control of temperature and humidity led to a much more uniform product and obviated the need to rotate the barrels within the warehouse during the aging period, an increasingly costly practice with the rise of labor costs. At some of the smaller distilleries where wood-framed metal-clad warehouses of 10,000 to 20,000 barrel capacity were frequently still the norm, particularly in Kentucky, the pattern was to build many, with some sites having as many as 20 to 30 by the early 1950s. *Barrel runs*, systems of wooden or metal rails designed to move barrels more easily from building to building, were in place at some distilleries at least by the 1880s when they appear on the first Sanborn maps of distilleries. They continued to be added at distilleries after Repeal and are still in use today.

Bottling and shipping facilities: Throughout the 19th century distillers most commonly sold whiskey in barrels to wholesale and retail customers who then sometimes bottled it. Limited bottling of whiskey by distillers began as early as 1870 (Brown-Forman) and increased during the 1880s and 1890s with the introduction of semi-automatic bottle-making machines (the glass blower was eliminated but a worker still had to deliver the molten glass to the mold). The Bottled in Bond Act of 1897 was an impetus for the sale of bottled whiskey but not until 1903 was a fully automatic bottle-making machine invented resulting in mass production of bottles and rapidly declining bottle prices. By the 1890s, Sanborn maps begin to indicate a very few small **bottling houses** including one at George T. Stagg (there by 1894). By 1905 - 1910 bonded bottling houses were becoming more common although far from a standard feature. These were usually located in a warehouse or the production facility in an isolated area dedicated to that function. After Prohibition bottling houses were ubiquitous as the Federal government required all distilled spirits to be sold in bottles. The bottling facilities appeared in all shapes, sizes and materials. At the larger distilleries they tended to be long narrow buildings where increasingly automated, long production lines could be installed. Associated with the bottling houses were tank rooms and sometimes chilling rooms where the aged whiskey was stored prior to bottling. Empty and bottled **case storage buildings** were also common features frequently built adjacent to a railroad siding for ease of shipping.

Water systems: Distilleries required three separate water systems, one for the pure water used to create the mash and dilute the new whiskey to correct its proof, one for the heating and cooling water required for production, and a third for fire safety. Because of the demand for so much water, distilleries were frequently located adjacent to a river or stream which in the 19th century era of steamboat navigation also helped with distribution of product to market. *Springs*, small *streams* with pure water, and *artesian wells* were the principal source of water for whiskey production. Water used for steam heating, cooling, and fire safety was often pumped into *tanks* and *holding ponds*. After Repeal, as distilleries became increasingly large and complex, **pump houses**, **water towers,** and **water tanks** holding up to 200,000 gallons were common as well as elaborate systems of **hydrants** and **fire and hose houses**. Concrete **reservoirs** were also sometimes built. Up until the 1970s distillery wastewater, some at high temperatures, was frequently dumped back into an adjacent river or stream. Since that time, EPA requirements for treating and cooling wastewater have led to the use of cooling towers and aeration ponds.

Piping systems: From the time after the Civil War when cistern rooms were mandated by the government and aging warehouses began to use steam heat, distillery sites were crisscrossed by above-ground *pipes* carrying steam, pure water, cooling water, waste water, and new whiskey to various buildings on the premises. Beginning in 1868, Federal regulation required that all pipes be clearly visible along their entire runs and color coded as follows: red for mash and beer pipes, blue for pipes carrying low wine or other unfinished spirits from the condenser back to the doubler; black for new finished whiskey and white for water. As piping systems proliferated after Repeal additional designations and colors were added: brown for spent beer or slop, yellow

for fusel oil, aluminum for steam, orange for air and green for carbon dioxide. This color coding was abolished, probably in the 1980s, but remnants of the color coding sometimes still exist.

Transportation systems: The great majority of distilleries built from the 1870s on were located adjacent to a navigable river and/or a railroad which often provided the principal means for shipment of grain, new barrels and coal to the distillery and barrels of aged whiskey headed to market. In some instances private rail lines were constructed by the distilleries to connect them to the main railroad network. For many years roads often served as a secondary means of transport. Not until the end of the historic period in the 1950s did shipment begin to switch primarily to truck transport, now the shipping method of record. The extensive network of *railroad sidings* that laced through the larger distilleries after Prohibition had been removed in many instances. Only active freight lines that run by or through a distillery property remain. Very occasionally, as at George T. Stagg in Frankfort, Kentucky and the A. Overholt Distillery at Broad Ford, Pennsylvania, a small **railroad depot** would be built on site.

Miscellaneous support structures: Nineteenth- and early-twentieth century distilleries sometimes had a **cooperage** where barrels were made, perhaps a **blacksmith's shop** and/or a very few wood-framed **storage sheds.** After Repeal, as distilleries expanded in size, the number of storage facilities and other support structures often expanded correspondingly. In addition to cooperages, such facilities as **paint shops**, **carpenter's shops, machine shops, laboratories** and **garages** appeared either as attached rooms or as free-standing buildings. These ranged from wood-framed construction to brick, tile block and cement block.

Offices: From the 1870s on, many distilleries had a freestanding **company office building** which was frequently of masonry construction and often articulated with more architectural detailing than most of the other buildings. Pre –Prohibition distillery offices were usually small one- or two-story structures. After Repeal they were larger and were more likely to be set off from the other buildings with high-style design that either referenced or contrasted with the industrial architecture at the site. Federal regulation after Repeal required each distillery to provide a **government office** to serve as the headquarters for the various government officials assigned to the site. These buildings were typically small, utilitarian wood-framed or masonry buildings with little architectural detailing.

Employee support: After Repeal, Sanborn maps indicate various amenities for workers at some plants, particularly at Schenley Distillers' largest plants. Field restrooms, a recreation building, a club house and a hospital/clinic are found at some or all of these plants.

Dwellings: Housing is sometimes found on distillery property or in close proximity to it. It is most common at sites in remote rural locations and before Prohibition. **Workers' houses** when present are generally small one- or two-family wood-framed buildings often scattered around the distillery grounds. Occasionally multi-family housing is found in organized rows as at several of the largest Pennsylvania distilleries such as Gibsonton Mills and A. Overholt. New distilleries built after Repeal never had associated worker housing. A larger, finer **house for a distillery owner, plant manager or master distiller** was also present at some pre-Prohibition distillery sites. Only occasionally did management live at a distillery after Repeal.

APPENDIX B: FEDERAL REGULATION AND THE DISTILLED SPIRITS INDUSTRY

Excise Tax of 1791: Placed tax on the domestic manufacture of spirits for first time. Led to violent uprising culminating in Whiskey Rebellion of 1794. Tax repealed in 1802.

Excise Tax of 1814: Tax on distilled spirits revived to help finance War of 1812. Repealed in 1817.

January 1818- August 1862: Federal tax on whiskey was abolished during this period.

An Act to Provide Internal Revenue to Support the Government and to Pay Interest on the Public Debt - July 1862: Office of Commission of Internal Revenue established within Treasury Department to administer licenses, excise and income taxes created to fund Civil War. States were divided into districts with an "assessor" and a "collector" for each district. Distilled spirits and other commodities taxed. Whiskey tax set at twenty cents per proof gallon. Act required all distilleries to be licensed and for first time set detailed requirements for measuring whiskey output. Distilleries permitted to build warehouses constructed of "iron, stone or brick with metal or other fireproof roof" at their own expense. When approved by government collector, these were to be designated "bonded warehouses of United States" for use only for distilled spirits and were to be under custody of collector. Collector was to appoint one or more "inspectors" or "gaugers" in each district responsible for inspecting and gauging (measuring) whiskey before it was removed for sale. Inspector was to mark each barrel as to quantity and proof, date it and sign his name.

An Act to Increase the Internal Revenue - March 1864.
Tax raised to 60 cents per proof gallon on all spirits.

An Act to Provide Internal Revenue to Support the Government … - June 1864: Whiskey tax raised to $1.50 per proof gallon on all spirits except grape brandy on July 1, 1864 and on Feb. 1, 1865 raised to $2.00. All other major provisions remained same as in 1862.

An Act Imposing Taxes on Distilled Spirits and Tobacco, and for other Purposes – July 1868: Because illegal distilling activity became so common with high taxes, Congress reduced tax to fifty cents per proof gallon. One year bonding period was established allowing distiller to keep aging whiskey in bonded warehouse for one year before payment of taxes. Additional regulations required distillery to have bonded warehouse as well as a cistern room, both with detailed specifications. Pipes carrying mash, low wine, spirits and water were all to be painted designated colors and for first time "storekeepers" were assigned to each distillery to keep track of warehouse activity.

Internal Revenue Act - August 1872: Tax raised to seventy cents per proof gallon on all spirits.

Internal Revenue Act - March 1875: Tax raised to ninety cents per proof gallon.

Joint Resolution to proscribe the time for the payment of the tax on distilled spirits, and for other purposes – March 1878: Bonding period extended to three years prompting period of extensive new warehouse construction and increased production. *Warehouses built at O.F.C/George T. Stagg ca. 1880, 1881 and 1885.*

Revenue Act of August 1894: Changed loophole in previous taxing regulations that allowed tax on existing aging whiskey to remain at previous level when new tax put in place. Prior system had encouraged frantic overproduction of new whiskey in months before tax was raised. Tax raised to $1.10 per proof gallon on all spirits. After much lobbying by distillers, bonding period extended to eight years to help deal with glut of

unsold whiskey in their warehouses. "Carlisle Allowance" instituted the exemption from taxation of whiskey lost to evaporation during first four years of aging. Need for regauging by government inspectors created.

An Act to Allow the Bottling of Distilled Spirits in Bond – March 1897: In order to control common practice of selling adulterated whiskey, government with the encouragement and support of the makers of fine whiskey developed series of standards for whiskey "bottled in bond." It had to be "straight whiskey," at least four years old, all from one distillation season and from one distiller, aged in bonded warehouse and bottled at 100 proof. Government gaugers were to oversee bottling to insure compliance with standards. Government label was to indicate distillery and where distilled and bottled. Regulation gave boost to makers of fine bourbon such as O.F.C. and led to large increase in amount of bottled whiskey. Prior to this most had been sold in barrels to wholesale distributors and saloons.

Pure Food and Drug Act - June 1906: passed effective 1/1/1907. Established labeling standards for food and drug products. Straight whiskey lobby succeeded in using government regulation to gain edge over rival sector of trade producing blended whiskey which for first time required labeling as a compound, imitation or blend. Resulted in increased production and warehouse construction at distilleries producing straight whiskey. *O.F.C./George T. Stagg built large new warehouse in 1907.*

Taft Decision - 1909: President Taft signed legislation reinterpreting definition of whiskey in Pure Food and Drug Act. New ruling defined both straight and blended whiskey as whiskey but required extensive labeling to identify whiskey type.

An Act To provide further for the national security and defense by encouraging the production, conserving the supply, and controlling the distribution of food products and fuel. (Lever Food and Fuel Control Act) – August 1917: No foods, fruits, food materials or feeds were to be used in the production of distilled spirits for beverage purposes during the course of World War I. The President was authorized if necessary to commandeer any distilled spirits then in bond for redistillation for war purposes, although this power appears never to have been invoked. This act, for all essential purposes, marked the end of whiskey production until the end of Prohibition in 1933.

October 1917: Tax rate for medicinal whiskey set at $2.20 per proof gallon.

18th Amendment to the Constitution: passed by Congress in 1917 and ratified by necessary 36 states on January 16, 1919. Became law January 16, 1920. Called for prohibition of manufacture, sale, transport, import and export of intoxicating liquor for use as beverage.

May 1919: Grains, fruits, etc. prohibited from use in production of distilled spirits for beverage use.

An Act to enable the Secretary of Agriculture … to provide further for the national security and defense by stimulating agriculture - July 1919: Sale of distilled spirits for beverage purposes prohibited until end of World War I and afterwards until end of demobilization. In conjunction with May 1919 ruling, a way for supporters of Prohibition to prevent alcohol production until implementation of 18th Amendment.

National Prohibition Act – October 1919: Provided detailed rules and regulations for administering the 18th Amendment including placing enforcement of amendment with Treasury Department. Called "Volstead Act" for Andrew Volstead who authored legislation.

Beginning of National Prohibition – January 16, 1920: Volstead Act took effect. Production of spirits for beverage use prohibited.

Liquor Concentration Act of 1922: In order to insure better and more efficient security, act required all remaining whiskey stocks in country to be placed at a few bonded warehouse sites (about 40 total) designated by federal government. Concentration sites were assigned by permits which included authorization to bottle whiskey for medicinal use at distillery. *George T. Stagg Distillery was one of 11 Kentucky concentration warehouse sites.*

January 1927: Medicinal whiskey tax rate reduced to $1.65 per proof gallon.

January 1928: Medicinal tax rate reduced to $1.10.

August 1929: Government began issuing permits to a few concentration warehouse sites for very limited production of new whiskey for medicinal purposes. *George T. Stagg was one of 7 Kentucky distilleries to receive permit and four or five that actually produced whiskey. Production resumed in 1930 and continued intermittently to end of Prohibition.*

21st Amendment to the Constitution: Proposed by Congress on February 21, 1933 and ratified on December 5, 1933. Called for repeal of 18th Amendment. Prohibited transportation of intoxicating liquors across state lines.

Jan. 12, 1934: End of Prohibition. Tax rate of $2.00 per proof gallon set for all spirits. Industry history after December 1933 referred to as 'post-Repeal."

Liquor Control Act of 1934: First time bulk sale of whiskey in barrels prohibited. All whiskey was to be sold in bottles.

Federal Alcohol Administration Act of 1935. Congress established Federal Alcohol Administration within the Treasury Department to oversee the alcoholic beverage industry and to replace the Federal Alcohol Control Administration. In 1936 Administration was made an independent agency. Ban on sale of bulk liquor to wholesale and retail trade confirmed. Precise reclassification of liquors established.

Liquor Tax Administration Act of 1936: Complete rewriting of regulations and codes controlling liquor industry.

July 1938: Tax raised to $2.25 for all spirits except brandy.

July 1940: Tax raised to $3.00 for all spirits except brandy. Set to be temporary defense tax increase.

October 1941: Revenue Act increased tax to $4.00 and made that permanent rate.

January 1942: Beginning of government restrictions on whiskey production during World War II with requirement that all distilleries capable of producing industrial alcohol (190 proof) produce only that. Soon after, smaller distilleries were required to ship all their high wine product to larger distilleries for redistillation as industrial alcohol. Schenley invented "Schenley Packed Column" allowing for conversion of still for industrial alcohol production and made design available to all distillers.

July 1943: War Production Board initiated granting program to encourage construction of dry houses at distilleries for production of high protein animal feed to help war effort. Program targeted 34 distilleries with estimated production of 420,000 tons of animal feed. *George T. Stagg received$500,000, largest by far of first 4 grants issued.*

November 1942: Tax raised to $6.00.

April 1944: Temporary tax raise to $9.00. Made permanent in March 1947.

1945: End of federal contracts for production of industrial alcohol. Production of beverage alcohol resumed in limited quantities with restrictions on grain usage by distilleries.

1949: First year since 1942 that industry could arrange its production program without wartime and post-war production restrictions.

Revenue Act of 1951: Effective November 1, tax raised to $10.50 per proof gallon. Intended as temporary increase to help fund Korean War with rates to revert to $9.00 in 1954.

Excise Tax Technical Changes Act - August 1958: commonly known as Forand Act. Extended bonding period to twenty years. Result of years of intensive lobbying by large distillers including Schenley who had vastly overproduced in period leading up to Korean War when fearing government shutdown of industry as during World War II.

Bourbon Whiskey Designated as Distinctive Product of U.S. – May 1964: Recognized the distinctive nature of bourbon and prevented the importation of any product designated as “bourbon whiskey.”

June 1964: $10.50 tax rate made permanent.

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Adams, A.B. "The Distillation of Whiskey." *Journal of Industrial and Chemical Engineering* Vol. II, 1910, 34-42. Easton, PA: American Chemical Society.

"American Whiskey." www.ellenjaye.com Website with extensive reports and photos on visits to many old distillery sites in Pennsylvania, Maryland and Kentucky.

Benjamin Latrobe, Jr. Chapter of Society for Industrial Archaeology, Dennis Zembala, editor. *Baltimore: Industrial Gateway on the Chesapeake Bay*. Baltimore: Baltimore Museum of Industry, 1995.

"The Big Wine Deal." *Fortune.* September 1943, pp. 125-129+

Blanton, Albert. "The George T. Stagg Company, Leestown." Unpublished manuscript, Filson Historical Society, Taylor-Hay papers, Folder 443, 1-12, early 1950s.

"Blanton Bourbon." Unpublished manuscript at Kentucky Historical Society library, Frankfort, Kentucky.

Bradley, Betsy Hunter. *The Works: The Industrial Architecture of the United States*. New York: Oxford University Press, 1999.

Bready, James H. "Maryland Rye: A Whiskey the Nation Long Fancied – But Now has Let Vanish." *Maryland Historical Magazine* 85 (Winter 1990), 345-378.

Brooks, Carolyn. "United States Whiskey Distilleries Operating After Prohibition: Their History, Site Development, Physical Character and Condition in Comparison with the George T. Stagg Distillery in Frankfort, Kentucky." Unpublished manuscript, 2011.

"Brown Forman's Big-Time Bourbons." *Fortune.* November 1955, pp. 123-126+

Carson, Gerald. *The Social History of Bourbon.* New York: Dodd, Mead, 1963.

Christian, Ralph. J. "Burks' Distillery." National Register of Historic Places nomination, 1978.

Churchill, D. G. "Ancient Age through the Ages: The Whiskey History of Leestown, Kentucky, 1769-1982." Unpublished manuscript in collection of Buffalo Trace Distillery, Frankfort, KY.

Clark, Victor S. *History of Manufactures in the United States. Vol. I-III.* 1929 edition reprinted with permission of the Carnegie Institution of Washington. New York: Peter Smith, 1949.

"Compliments of E. H. Taylor Jr. Co., Distillers, Frankfort, Kentucky. Description of the O. F. C., Carlisle and J. S. Taylor Distilleries." Ca. 1885. Pamphlet at Filson Historical Society, Louisville, Kentucky.

Crowgey, Henry. *Kentucky Bourbon: The Early Years of Whiskeymaking.* 1971. Reprint, Lexington: University Press of Kentucky, 2008.

Darley, Gillian. *Factory*. London: Reaktion Books, 2003.

Downard, William L. *Dictionary of the History of the American Brewing and Distilling Industries.* Westport, CT: Greenwood Press, 1980.

"Fifty Years Have Brought Many Changes In Distilling Industry." *Louisville Times*, May 1, 1934, part 10.

Hall, Harrison. *The Distiller*, 2nd edition. Philadelphia: 1818.

Harper, Marilyn, project manager. "World War II and the American Home Front: A National Historic Landmarks Theme Study." Washington, D. C.: National Historic Landmarks Program, 2007.

High, Jack and Clayton A. Coppin. "Wiley and the Whiskey Industry: Strategic Behavior in the Passage of the Pure Food Act, *Business History Review* 62 (Summer 1988): 286-309.

Hill, H. P. "Data on the Construction and Operation of Modern Distillery Warehouses." *Spirits*, April 1934.

"Hiram Walker Digs In." *Fortune*, March 1939, 68-73+

Hu, Tun Yuan. *The Liquor Tax in the United States: 1791-1947*. New York: Columbia University, Graduate School of Business, 1950.

Insurance Maps of Whiskey Surveys, Kentucky, 1936. (updated to 1960). Sanborn Map Company. Atlas of original maps with pasted on corrections located at Filson Historical Society, Louisville, KY

Jillson, Willard Rouse. *Early Frankfort and Franklin County, Kentucky*. Louisville: Standard Printing Co., 1936.

Kerr, K. Austin. "Distilled Spirits." *Handbook of American Business History: Manufacturing – A Historiographical and Bibliographical Guide*, edited by David O. Whitten, 56-61. Westport, CT: Greenwood Press, 1990.

Kroll, Harry Harrison. *Bluegrass, Belles and Bourbon.* New York: A.S. Barnes and Co., 1967.

Landmark Preservation Services (Daniel Pezzoni). "An Evaluation of Kentucky's Historic Distilleries." Report Prepared for the Kentucky Heritage Council, 2000.

"Liquor in America." *Fortune*, October, 1934, 98-104+

"The Manufacture of Whisky in Kentucky: Modes of Distillation, Changes and Improvements During the Past Century." *Wine and Spirits Bulletin*, June 1, 1905, 22-25.

Marrus, Michael R. *Samuel Bronfman: The Life and Times of Mr. Sam*. Hannover, NH: University Press of New England for Brandeis University Press, 1991.

McGowan, Richard. *Government Regulation of the Alcohol Industry: The Search for Revenue and the Common Good.* Westport, CT: Quorum Books.

Mida's Directory of Alcoholic Beverages and Suppliers, 1938.

"Name, Schenley; Age, Three." *Fortune*, May, 1936.

"National Pulls the Cork." *Fortune*. October 1953, pp. 145-149+

Okrent, Daniel. *Last Call: The Rise and Fall of Prohibition*. New York: Scribner, 2010.

Ogg, Bryan. *Peoria Spirits: The Story of Peoria's Brewing and Distilling Industries."* Peoria, IL: Peoria Historical Society, 1996.

Pearce, Jon Ed. *Nothing Better in the Market.* Louisville, KY: Brown-Forman Distillers Corp., 1970.

Pezzoni, Daniel . "An Evaluation of Kentucky's Prohibition-era Bourbon Distilleries." Report prepared for Buffalo Trace Distillery, Inc., February 2001.

Pezzoni, Daniel. "George T. Stagg Distillery." National Register of Historic Places, listed May 2, 2001.

"Picks Liquor Warehouses." *New York Times.* Sept. 6, 1922. Proquest Historical Newspapers.

Purcell, Aaron. "Bourbon to Bullets: Louisville's Distilling Industry during World War II, 1941-1945." *Register of the Kentucky Historical Society,* Winter 1998, 61-83.

Regan, Gary and Mardee Haidin. *The Book of Bourbon and other Fine American Whiskeys.* Shelburne, VT: Chapters Publishing, 1995.

Remarks of Merit. (Schenley's in-house publication for employees) Various issues, 1937-1952.

Rice, S.L. *Established Rates of Kentucky Distilleries, Bonded and Free Warehouses, Cattle and Pens.* Indianapolis: The Rough Notes Company, 1892.

Root, Waverly and Richard de Rochemont. *Eating in America: A History.* New York: William Morrow, 1976.

Rorabaugh, W. J. *The Alcoholic Republic: An American Tradition*. New York: Oxford University Press, 1979.

Rosenbloom, Morris Victor. *The Liquor Industry*. Braddock, PA: Ruffsdale Distilling Company, 1937.

Sanborn Map Company. Miscellaneous maps and dates of Kentucky and Pennsylvania distilleries.

Sanborn Surveys of Whiskey Warehouses of Illinois, Ohio and Indiana, 1894. Sanborn-Perris Map Company.

Sanborn Survey of Whiskey Warehouses of Kentucky and Tennessee, 1894. Sanborn-Perris Map Company.

Sanborn Survey of Whiskey Warehouses of Kentucky and Tennessee, 1910. Sanborn-Perris Map Company.

Sanborn Surveys of Whiskey Warehouses of Pennsylvania, Maryland, Illinois, Indiana and Kentucky, 1936. Sanborn Map Company.

Sanborn Surveys of Whiskey Warehouses of Pennsylvania, Maryland, West Virginia, New York and New Jersey, 1894. Sanborn-Perris Map Co.

Scott, Berkeley and Jeanine. *The Kentucky Bourbon Trail*. Charleston, SC: Arcadia Publishing, 2009.

Seagram and the War Effort. Joseph E. Seagram & Sons, Inc., 1943.

"Seagram in the Chips." *Fortune.* September 1948, 97-101+

"Seagrams' Late Awakening." *Forbes*. February 1, 1973, 24-29.

Second Industrial Directory of Pennsylvania, 1916. Harrisburg, PA, 1916.

Siekman, Philip. "The Bronfmans: An Instinct for Dynasty." *Fortune*, November 1966, 145-149+

Spirits. October 1933 – July 1942. (trade periodical on distilling industry)

Taylor, Graham D. "From Shirtsleeves to Shirtless: The Bronfman Dynasty and the Seagram Empire," Business and Economic History Online, Volume 4, 2006. www.theBHC.org/publications/BEHonline/2006/taylor.pdf. Accessed January 8, 2012.

Taylor, Richard. *The Great Crossing: A Historic Journey to Buffalo Trace Distillery.* Frankfort, KY: Buffalo Trace Distillery, 2002.

"Ten Whiskey Concentration Warehouses Named in Kentucky." *Courier-Journal*, Dec. 9, 1922.

Veach, Mike. "General Bourbon History Timeline," www.bourbonenthusiast.com.

Veach, Mike. "Seagram's Timeline," www.bourbonenthusiast.com.

Veach, Mike. "Schenley Timeline," www.bourbonenthusiast.com.

Volunteer for Victory: How a Great Industry Enlisted for War. New York: Liquor Publications, Inc., 1943.

"Warehouse, Blending and Bottling." Joseph E. Seagram & Sons, Department of Education, 1945. (in-house training manual)

"Whiskey." *Fortune.* November 1933, 28-47+

"The Whiskey Rebellion." *Fortune.* June 1947, 141-143+.

Willkie, H.F. *Beverage Spirits in America.* New York: The Newcomen Society of England, American Branch, 1949.

Willkie, Herman F. and Joseph A. Prochaska. *Fundamentals of Distillery Practice.* Louisville, KY: Division of Education, Joseph E. Seagram & Sons, Inc., 1943.

Willkie, Robert T. and Rolland S. Mather. *Distillers' Grain Manual.* Louisville: Joseph E. Seagram & Sons, Inc., 1942.

Wilson, James Boone. *The Spirit of Old Kentucky.* Louisville: Glenmore Distillery, 1945.

Wine and Spirits Bulletin. January 1891 – December 1915. Various issues.

Wolf, Jean K. "Labrot and Graham's Old Oscar Pepper Distillery." National Historic Landmark nomination, 2000.

Zoeller, Chester. *Bourbon in Kentucky: A History of Distilleries in Kentucky.* Louisville: Butler Books, 2009.

Maps and Photographs

Buffalo Trace Distillery. Historical materials in company's possession:

Aerial photographs of distillery. 1930, ca. 1933, ca. 1949, 1951, 1958 and other historical photos.

"Albert B. Blanton Distillery, Glen Alden Corp." Plan of distillery. Sept. 27, 1972.

Construction photos #1 – 110 taken June 23, 1936 – April 20, 1937.

Floor plans of many of distillery buildings drawn in 1948.

"The George T. Stagg Co. Plot Plan." 1935.

"The Geo. T. Stagg & Geo. A. Dickel Distilleries." Site plan, ca. 1943.

"Warehouse Premises for the George T. Stagg Company." Sept. 18, 1948.

Description of the O.F.C, Carlisle and J.S. Taylor Distilleries. Pamphlet with eight views of distillery. n.d., ca. 1885. Collection of Filson Historical Society, Louisville, KY.

Messer Construction Company, Cincinnati, Ohio. Photos of George T. Stagg Company from Messer files, 1935 – 1943.

Sanborn Fire Insurance Maps of Distillery:

Frankfort, Kentucky, June, 1886, sheet 10
Frankfort, Kentucky, Nov. 1890, sheet 15
Sanborn Surveys of Whiskey Warehouses of Kentucky and Tennessee, 1894, sheet 52.
Frankfort, Kentucky, Sept. 1896, sheet 15
Frankfort, Kentucky, Nov. 1901, sheet 17
Frankfort, Kentucky, Sept. 1907, sheet 29
Sanborn Surveys of Whiskey Warehouses of Kentucky and Tennessee, 1910, sheet 73.
Frankfort, Kentucky, August 1912, sheet 31
Frankfort, Kentucky, Feb. 1925, sheet 31
Sanborn Survey of Whiskey Warehouses of Pennsylvania, Maryland, Illinois, Indiana and Kentucky, 1936, sheets 31 and 32.

Frankfort, Kentucky, Feb. 1925, new sheet 1940, sheet 31.
Insurance Maps of Whiskey Surveys, Kentucky, 1936, sheets 31 and 32 (corrected up to about 1960) Collection of Filson Historical Society, Louisville, KY.

Interviews (all conducted by the author)

Aldred, Kevin. Telephone Interview, June 12, 2010. 502 348-6401.
Chief Engineer, Buzick Construction Co., Bardstown, KY. Supplier of metal-clad warehouses to the distilling industry since 1937.

Foote, Edwin**.** Louisville, KY. January 11, 2011. 502 425-1144.
Former master distiller**.** Retired from the distilling industry in 1997 after working for about 35 years at Seagrams, Stitzel-Weller, and the Bernheim Distillery in Louisville.

Hall, David**.** Bardstown KY. July 12, 1910. 502 348-4884.
Retired director of preservation services for the city of Bardstown and Nelson County, Kentucky who in that capacity did extensive research on the distilling industry in the Nelson County area. Earlier, a government storekeeper-gauger in Kentucky during the late 1970s and early 1980s before Alcohol, Tobacco and Fire Arms phased out that position.

Lee, Elmer T. and Jimmy Johnson, Frankfort, KY. June 14, 1910.
Retired Master Distiller and Warehouse Supervisor, beginning in 1949 and 1936, respectively, at the George T. Stagg Distillery.

Sherman, Thomas. February 3, 2012. 502 587-1930.
President, Vendome Copper and Brass Works, Inc., Louisville, KY. Supplier of stills and other equipment to the distilling industry since 1904.

Veach, Mike**.** Louisville, KY. January 2, 2008. 502 635-5083.
Archivist at Filson Historical Society in Louisville, Ky. Formerly, as archivist for United Distillers, he organized the extensive corporate files acquired by Diageo as it purchased one large distilled spirits business after another. (Unfortunately these files are currently unavailable to researchers.)

Previous documentation on file (NPS):

__ Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
_X_ 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:

_X_ State Historic Preservation Office
__ Other State Agency
__ Federal Agency
__ Local Government
__ University
__ Other (Specify Repository):

10. GEOGRAPHICAL DATA

Acreage of Property: 50 acres

UTM References:

	Zone	Easting	Northing
A	16	686240	4231960
B	16	686660	4232240
C	16	686840	4231940
D	16	686520	4231760
E	16	686700	4231540
F	16	686500	4231360
G	16	686260	4231620

Verbal Boundary Description: The boundary of the fifty-acre nominated property is depicted on the 1:200 scale boundary map that accompanies this nomination.

Boundary Justification: The boundary encompasses the great majority of the historic distillery property that was associated with the George T. Stagg Distillery at the end of the period of significance in 1953. Excluded from the nominated parcel are two historic warehouses built in 1950-1951 that were sold off and redeveloped as office buildings in the 1990s resulting in extensive damage to their integrity. Several resources at the edge of the district which are presently associated with the distillery but which were constructed after the period of significance have also been excluded. These include two settling ponds and a parking lot immediately to the west, a large distribution center dating from the early 1970s on the east edge and the main entrance gates to the distillery at Wilkinson Boulevard constructed in 1998.

11. FORM PREPARED BY

Name/Title: Carolyn Brooks, Historic Preservation Consultant

Address: 1288 Bassett Avenue
Louisville, Kentucky 40204

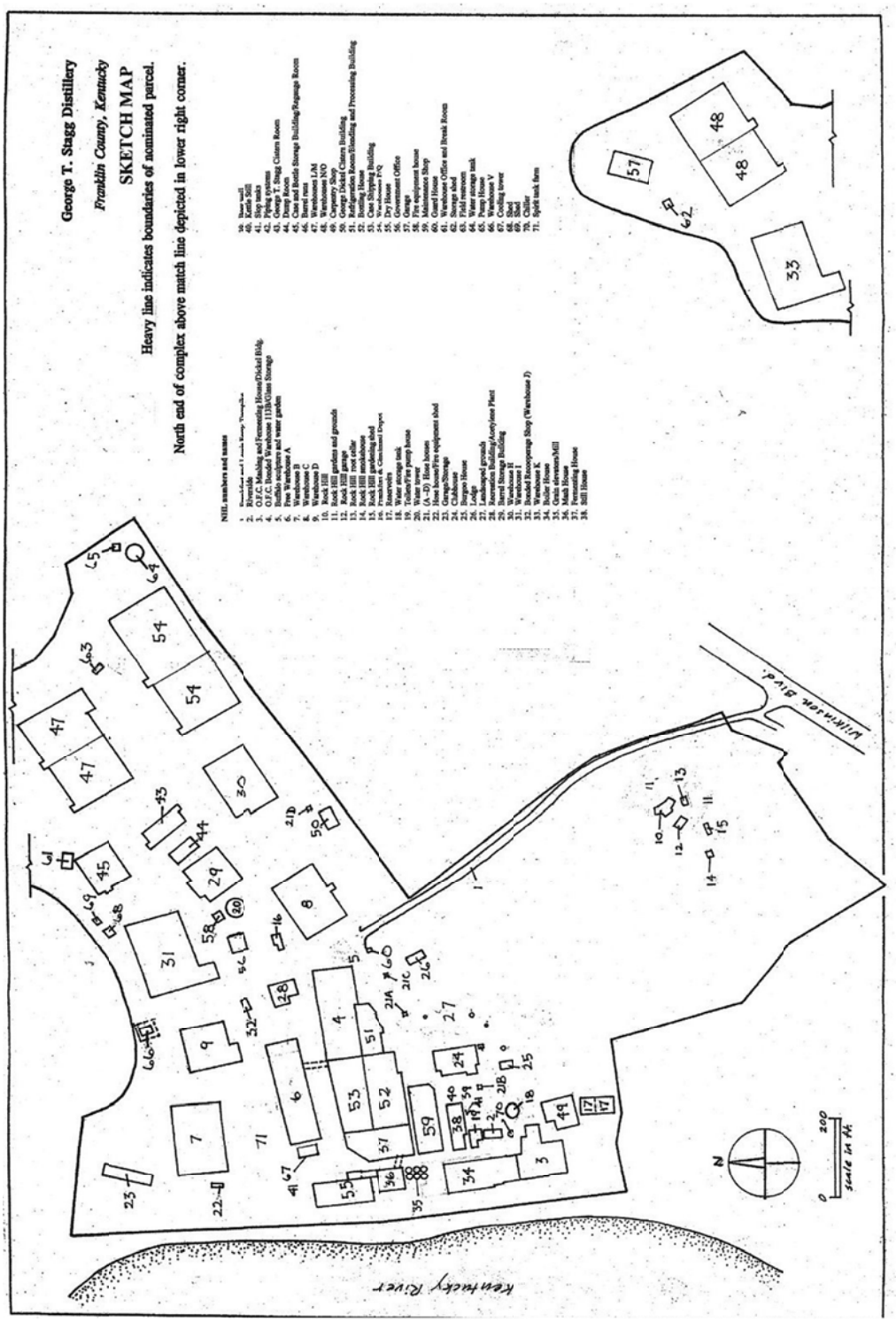
Telephone: 502 456-2397 (o and h)
502 744-8630 (c)

Date: February 29, 2012; revised July 2012

Edited by: James A. Jacobs, Historian
National Park Service
National Historic Landmarks Program
Historic American Buildings Survey
1849 C Street, NW, 2270
Washington, DC 20240

Telephone: (202) 354-2184

NATIONAL HISTORIC LANDMARKS PROGRAM
August 28, 2012



George T. Stagg Distillery, site plan and NHL boundary with resource key
Carolyn Brooks, 2012

Frankfort and Lewis Ferry Turnpike, facing north, 2010 (above)
Distillery from across the Kentucky River, facing north, 2009 (below)
Carolyn Brooks, photographer

Distillery facing east from roof of Dry House with Cooling Tower
in the foreground and spirit tank farm at left, 2011 (above)
Distillery facing northeast with Fire Hose House and Clubhouse in the foreground, 2008 (below)
Carolyn Brooks, photographer

Distillery, facing northeast with Warehouse C at left and Warehouses H and P at center rear (above)
Barrel runs facing northeast towards Warehouses K and N-O (below)
Carolyn Brooks, photographer, 2008

Boiler House, facing northwest (above)
Interior view, Boiler House, with 1950s boilers and coal hopper (below)
Carolyn Brooks, photographer, 2010

O.F.C. Bonded Warehouse 113B, east elevation, 2010 (above)
O.F.C. Bonded Warehouse 113 B, interior view, second floor, 2008 (below)
Carolyn Brooks, photographer

Warehouse B, facing northwest (above)
Warehouse B, interior view, third floor (below)
Carolyn Brooks, photographer, 2011

Warehouse C, facing northeast, 2008 (above)
Warehouse C, interior view, second floor, 2010 (below)
Carolyn Brooks, photographer

Warehouse D, west elevation, 2011 (above)
Clubhouse grounds, water feature facing south, 2008 (below)
Carolyn Brooks, photographer

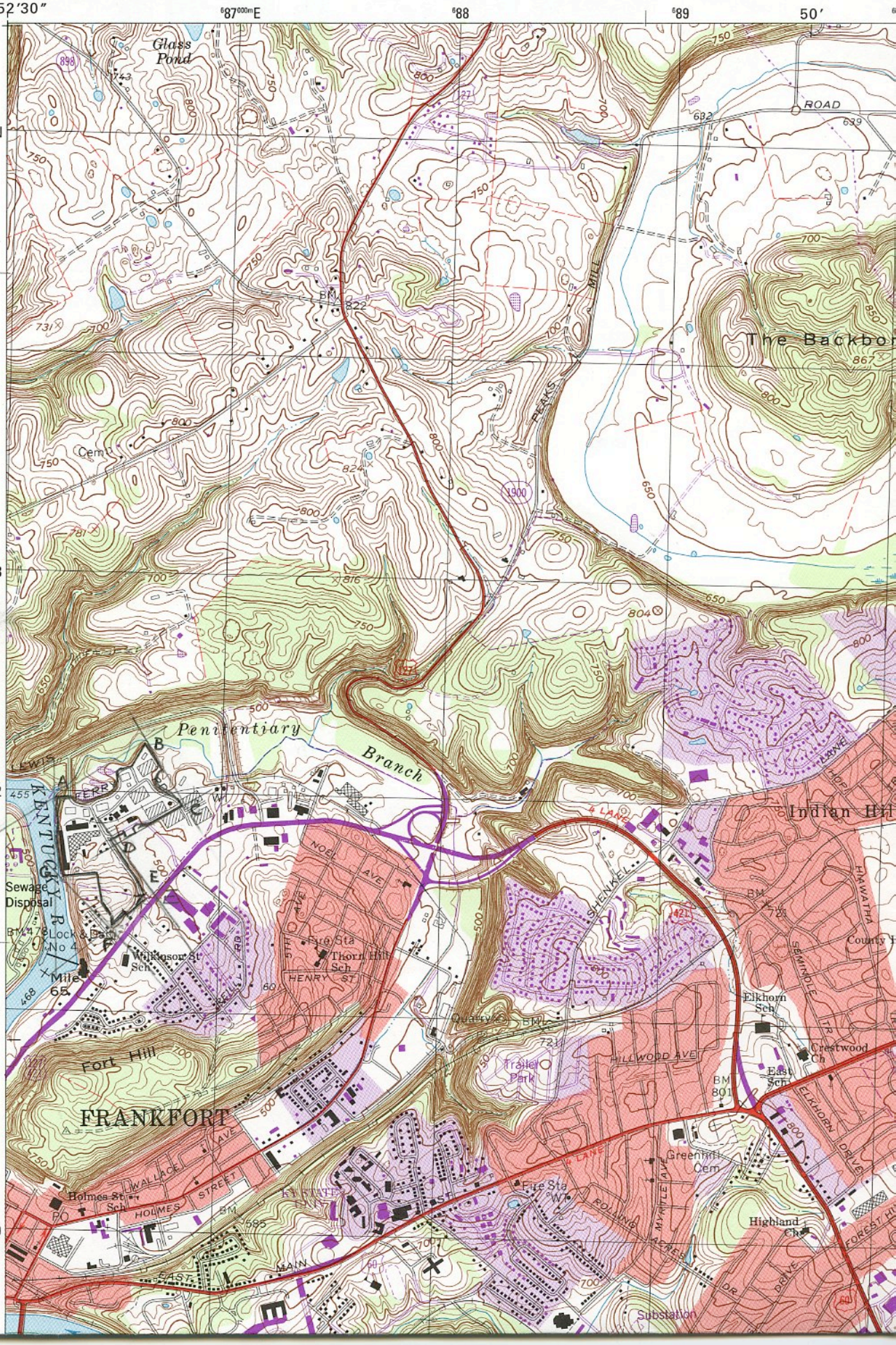
Clubhouse, facing south (above)
Clubhouse, interior view, first floor, screen between dining room and kitchen (below)
Carolyn Brooks, photographer, 2010

Fermenting House, facing southeast, 2010 (above)
Fermenting House, interior view, second-floor yeast room with original tubs, 2009 (below)
Carolyn Brooks, photographer

Still House, interior detail of condenser, 2010 (above)
Warehouse V, facing northwest. Warehouse V was constructed in 1953
to hold the two-millionth barrel of whiskey produced since Repeal, 2008 (below)
Carolyn Brooks, photographer

USGS
science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



George T. Stagg
Distillery
Franklin Co., KY
UTM References:
(Zone 16)

A. E686240 N4231960
B. E686660 N4232240
C. E686840 N4231940
D. E686820 N4231760
E. E686700 N4231540
F. E686500 N4231360
G. E686260 N4231620