

The Piazza Gin Building, with its ginning/pressing equipment, was moved in 1997 from Rodney, Mississippi to its present location on Frogmore cotton plantation in Concordia Parish, Louisiana. Concordia is just across the Mississippi River from Rodney. The two-story frame building was constructed sometime before about 1880 (due to the use of square nails), but its exact date cannot be determined. The present equipment is later than the building, but it is impossible to know exactly when it was manufactured and installed. Much of it bears patent dates of 1883 and 1884. The Munger double box press has to have been made and installed after 1890, because it has Birmingham stamped on it, and the company did not open a plant in that city until 1890. For the purposes of this nomination, the equipment will be given a c.1900 date. Despite the move and reconstruction of the bottom floor, the gin easily represents its significance as a very rare survivor.

Judging from collections of historic photographs, the Piazza gin appears to have been a fairly standard plantation gin building of its era -- i.e., a long, narrow, gable end building of two stories, with the ginning equipment on the second (ginning) story and the power plant below. As was also typical, processing consisted of two steps: removing the seeds from the cotton (the ginning) and pressing the cotton into bales.

The building's cantilevered balcony on the north side illustrates an earlier period of ginning technology than the present equipment. This balcony, which lacks a balustrade, was used to hand baskets of cotton from wagons below up to the ginning floor to be dumped into a hopper atop a gin stand. The present equipment provides for mechanical suction of the cotton to the second floor via a system of round ducts.

As would be expected from a utilitarian industrial building, the Piazza gin is not pristine from its original period of construction. Square nails can be found in the structure, the surviving clapboarding on the gable ends, and the windows. One suspects that originally the building was sheathed entirely in clapboards. Today most of it has a board and batten covering, presumably from generations of repairs and possibly remodeling. In addition, the badly rotted lower floor was removed and then reconstructed (using some of the original materials). Finally, the roof was taken down and re-assembled. The second story and the ginning/pressing equipment were moved intact.

The lower story contains the power plant which consists of a single drive shaft running almost the length of the building. It is driven by a single piston steam engine with a stroke of approximately two-and-a-half feet, located beneath an open lean-to on the south side of the building. The drive shaft contains several wooden belt drive wheels which connect with various steps in the ginning process above. One of the wheels is of iron, which is evidently a replacement. The end of the drive shaft connects with a screw thread mechanism which powers the cotton press in which bales are formed. Extremely steep narrow stairs provide access to the ginning floor above.

The boiler plant for the steam engine was not extant when the gin was discovered by the present owners. Immediately next to the steam engine is a small historic gristmill. Probably for domestic use, it was placed there to take advantage of the steam power.

The main floor (which is much taller than the first) contains an impressive array of equipment which provides for every step in the ginning and baling process. As was often the case, the equipment was purchased from various companies and combined on site to produce a single system. In this case the companies were the Gullett Gin Company of Amite, Louisiana and the Munger Gin Company of Texas (and later Birmingham, Alabama). The steam engine was manufactured by Frost Manufacturing Company of Galesburg, Illinois.

Representing a major technological innovation called "system ginning," the Piazza gin was state-of-the-art for its period. Cotton was sucked from wagons via a circular tin duct into a wooden Munger separator which is high above the surrounding machinery. The suction process was actuated by a fan within the duct system which was powered from the drive shaft on the lower floor. Cotton was being transported through the flow of air, and the purpose of the separator was to remove the excess air and force the cotton into the separator's hopper-like bottom. The cotton fed from the bottom of the separator into a two-tier system of conveyor belts with a wooden housing. The belts swept the cotton along into a pair of Gullett gin stands. The conveyor mechanism made it possible to regulate the amount of cotton going into each stand. Each stand is fabricated of magnolia wood and iron. Magnolia is a close-grained, strong wood considered suitable for hard industrial use such as ginning. A magnolia flower design is featured prominently on the wooden casings and the casting on the iron sides.

Each gin stand is a two-stage boxy affair. The upper portion, or feeder, encases a large wooden roller featuring rows of iron spikes. These removed leaves and other foreign objects from the cotton and forced it into the ginning mechanism below. Here a series of circular saw blades with iron ribs between removed the seeds. The teeth of the saw blades literally tore shreds of cotton away from the seeds. The

seeds then fell to the floor. The seedless cotton, now called lint, was forced from the two gin stands into a pair of tin battery condensers. The condensers are essentially large ducts that channel the cotton to the baling stage.

The baling operation was centered around a pair of deep wooden boxes mounted on a circular platform set at one end of the gin house. The platform is set flush with the ginning floor and is supported by a central iron post which allows it to rotate. It is almost as wide as the building, and when stationary, one large cotton box is on each side of the building. The box on the south side was fed lint from the condenser via a special feeder known as a tamper which *Atamped@* the cotton into the box. When the box was full, the platform was rotated 180 degrees, which brought the filled box on top of a screw thread press located in the floor below. It also brought the empty box from the other side of the gin underneath the tamper, for the filling process to begin again. The lint in each successive box was compressed upward into a normal size bale, which once complete, was released from the box using latches. The press was powered from the drive shaft on the ground floor, while the platform itself was rotated manually.

A signature feature of the gin building is a pair of large rooftop ventilators which extend several feet above the roofline. These functioned to release exhaust from the separator and the tamper.

THE MOVE

The Piazza gin had been abandoned for years in its former location and was badly overgrown. A plantation gin which also may have processed cotton for others on the side, it was located near the small hamlet of Rodney on a remote bend of the Mississippi about thirty minutes above Natchez. A thriving small river port in the antebellum period, Rodney was bypassed by the railroad in the late nineteenth century and entered a long period of decline, to the point where it is today typically referred to as a *Aghost town.@*

The gin was moved across the Mississippi River to Frogmore Plantation in Concordia Parish, where it presently serves as part of an educational museum/tourist attraction. The setting is appropriate because Frogmore is a historic cotton plantation which once would have had a similar gin. Today=s gin at Frogmore, located on another part of the plantation, is modern. Frogmore=s main house was listed on the National Register in 1980. Within the last two years the owners have moved various endangered plantation dependencies onto the property in an effort to save them and interpret cotton cultivation and processing to tourists. The gin is removed from the main part of the complex and stands fairly close to U.S. Highway 84. The attached sketch map shows the general layout of the property. Immediately south of the gin is a historic cotton storage building. To the north is a small house referred to as a planter=s office; it now houses the museum=s office and gift shop.

As noted previously, the second floor of the gin building and the ginning/pressing equipment were moved intact. The roof had to be removed for the move, and the first floor structure was removed due to severe deterioration. Its drive shaft was removed intact, as were the steam engine and gristmill. Once on site, the roof and first floor were rebuilt, the drive shaft put back in place, and the steam engine and gristmill positioned where they had been originally.

The present stairs on each gable end of the building were built to provide tourist access to the building to OSHA standards. The openings they access are original, and a pre-move photo shows the remains of a platform on the present west side (the side with the wide opening and the double box press). In addition, historic photos show gins with a wide opening, platform and stairs on at least one gable end.

ASSESSMENT OF INTEGRITY

In the opinion of the Louisiana State Historic Preservation Office, there are no serious integrity issues for the Piazza gin. It was moved to a compatible setting and is still within the context for its evaluation (the cotton-producing South). Although there is now a recreated plantation complex at Frogmore, the gin is located on the edge along the highway, away from the core of the complex (the main house and cabin area shown on the sketch map). Except for a reconstructed barn the acreage behind the gin is agricultural. Finally, the building retains its character-defining appearance (as explained above), and the ginning/pressing equipment is amazingly intact. The survival of such a resource in the face of twentieth century technological improvements and the mass replacement of gins which occurred in the 1930s and >40s is quite remarkable.

Significant Dates: c. 1880 (gin building)

C. 1900 (ginning/pressing machinery)
Architect/Builder: Gin stands: Gullett Gin Co., Amite Louisiana
Press: Munger=s, Birmingham, Alabama

Criterion A

The Piazza cotton gin is of regional significance within the South as an extremely rare surviving historic cotton gin. More specifically, as an example of a system ginning, it represents the remarkable technological improvements made in cotton ginning in the last quarter of the nineteenth century.

Cotton emerged as the principal cash crop in the plantation South during the nineteenth century largely due to Eli Whitney=s invention of the cotton gin in 1793. Although rather basic by today=s standards, Whitney=s gin was the first mechanical device to remove seeds from the cotton, an operation which previously was done laboriously by hand. A mechanical device, in short, made cotton a profitable cash crop.

A fairly standard system emerged for processing the cotton crop for market. Cotton was hand-picked and ginned on the plantation and then compressed into four or five hundred pound bales for ease of transport. In the early 1870s the typical plantation gin was still operating much as it had in the antebellum period. Hand-picked cotton was unloaded from wagons in baskets and handed up to the second floor of the gin where it was placed in storage bins. Power was provided by a mule tethered to a large crank set on the floor below. The cranking mechanism was connected with drive wheels, pulleys, and leather belts which powered the gin stands above. Men carried the cotton by the basketload from the storage bin to a hopper atop each gin stand. A separate crew usually carried the lint by the armload to the cotton press, which at this stage was often in a separate building. There they tamped it into the press box by hand and foot. A bale was then pressed into shape by means of a mule or mules turning a large wooden screw press mechanism. One account survives of a medium size ginning and pressing operation of the 1870s in Texas, indicating that the typical production per day, with a full crew and a long day, was only six bales. It was indeed a slow and labor-intensive process, often taking months to process an entire crop.

All this changed with the advent of a system ginning, in which a similar size operation could produce four to five bales an hour. System ginning, as described in Part 7 for the Piazza gin, represented what has been termed a technological revolution in cotton production and contributed greatly to a revitalized post-Civil War cotton industry. A key figure in the development of system ginning was Robert Munger, with manufacturing plants in Dallas and Birmingham. The system largely devised and perfected by Munger was a mechanized assembly line in which there was virtually no human contact with the cotton, and the ginning and pressing processes were unified. There were pneumatic tubes, conveyor belts, mechanical tamping, and importantly, a double box press which made it possible to produce bales continuously. Another improvement was the transition from mule power to steam power.

The foregoing technological advances coincided with a shift from individual plantation gins to large gins that serviced area farmers. These often could be quite large -- for example, with two batteries of gin stands and six stands per battery -- truly a large-scale industrial operation. Within this context, the Piazza gin was a relatively small affair with two gin stands and a double box press. Presumably it primarily serviced a plantation, but took in other customers as well.

Although cotton gins would have existed by the thousands across the South, extremely few historic examples (more than 50 years old) survive today, as was determined by contacting SHPO offices and other sources across the region. There are believed to be no surviving early mule-powered gins, and there are only two known steam-powered system gins -- the Piazza gin and a gin in Arkansas disassembled (including the machinery) and moved to Old Washington State Park in 1975. Experts in Texas reveal that there are a few historic twentieth century gins surviving there, but none are steam-powered. The exact number is unknown; all are abandoned but one; and some of these may have lost their historic machinery. Texas= most important example is the Burton gin, which opened in 1914 and is made operational once a year. Originally steam-powered, it was converted later to diesel power.

Early gins are so rare, virtually non-existent, because continuing technological improvements rendered them obsolete. For example, gins were replaced wholesale across the South in the 1930s and >40s due to the advent of plants with huge processing capacity and features such as bulk cleaning and feeding, hydraulic presses, diesel power, etc. Major changes occurred after World War II with the widespread shift from hand-picked to machine-picked cotton. Mechanical harvesting stripped the cotton plant, bringing with it a great deal more trash than hand harvesting (i.e., leaves, twigs, etc.). Removing this additional refuse required new machines and considerable re-tooling.

Against this background, the Piazza gin is indeed an extraordinary survivor. Every component is

there, except for the boiler with its smokestack and water tower. It and the gin at Old Washington State Park survive to represent the first generation of system ginning -- a system which revolutionized the cotton industry.

BIBLIOGRAPHY

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