

Mount Airy Furniture Company, 1896
Corner of Mount Airy and Factory Streets
Surry County
North Carolina

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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Heritage Conservation and Recreation Service
Department of the Interior
Washington, D. C. 20243

HISTORIC AMERICAN ENGINEERING RECORD

Mount Airy Furniture Company

NC-11

Name of Structure: Mount Airy Furniture Company

Date of Construction: 1896; numerous additions

Location: NE corner of Mount Airy and Factory Streets,
Mount Airy, Surry County, North Carolina
USGS Quad Map: Mount Airy South
UTM: 17.535300.4038540

Original Owner: Mount Airy Furniture Company

Present Owner: Mount Airy Furniture Company

Significance: Representative example of moderate-scale
furniture factories at the turn of the
century in North Carolina

Current Condition: Operating; no original machinery

Historian: Patrick W. O'Bannon

Date of Report: August 16, 1977

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MOUNT AIRY FURNITURE COMPANY

The furniture industry has played an important role in the economic development of North Carolina since the end of the Civil War, employing thousands and bringing millions of dollars into the State. The largest of the furniture manufacturers are located in the High Point region, but there are a number of factories of moderate size scattered throughout the Piedmont. Four such plants located in the small city of Mount Airy, just south of the Virginia border, in the late 19th century. Mount Airy Furniture Company, the first and largest of the four, is typical of these small scale operations.

Prior to the 1890's, Mount Airy had been the home of small tobacco factories. The arrival of the Cape Fear and Yadkin Valley Railroad in 1888 promoted this industry, and in 1893, there were 21 separate establishments in the area. But the Panic of 1893, combined with James B. Duke's Tobacco Trust, forced most of these operations out of tobacco. The large stands of hardwood timber in the region prompted some of these men to begin small woodworking and furniture plants.¹

Mount Airy Furniture began in 1895 as a partnership between John A. Yokley, Edward H. Kochtitzky, and Cullen R. Merritt. These young men, intent on making their fortune, had all recently arrived in Surry County. A. G. Trotter and J. C. Hollingsworth were initially involved, but soon dropped out of the business. W. E. Merritt, a local hardware merchant, served as a silent partner and advisory to the fledgling company.²

The company erected a 100x85 foot, two story frame building alongside the railroad tracks below South Street, and began production on April 23, 1896.³ Very little is known about the early years of the company. The plant had some machinery, possibly as many as 25 pieces, powered by a 40 hp steam engine. Shavings from the machines fed the boiler.⁴ Six men were employed in the plant, earning from 60¢ to \$1.02 an hour.⁵ C. R. Merritt and E. H. Kochtitsky worked in the plant, earning \$1 an hour.⁶

The company produced medium grade oak chamber suites, bedsteads, bureaus, dressers, tables, and desks. The first years were a struggle to acquire a market and a reputation. Fifty cents profit on a piece of furniture was considered adequate.⁷

Sometime during 1897, a cyclone destroyed the factory. O. H. Yokley, son of John Yokley, reported the privy ended up on a hill a mile and a half away. The company immediately rebuilt the plant.⁸

On November 15, 1897, Yokley, Kochtitsky, and Merritt dissolved their partnership and reformed Mount Airy Furniture Company as a corporation with a \$15,000 capital stock. It would appear that some \$8,000 of this money was used to rebuild the factory, as the reported capital stock for the company in 1898 was only \$7,000. In the transfer of ownership, the land and physical plant of the company were valued at \$14,000.⁹

The company prospered and expanded. In 1901, a 68x144 foot machine room was built. This two-story frame building, possibly built by a local contractor named Gant, housed the mechanical and cabinet making operations, while the old factory became the finishing, storage, and shipping departments.¹⁰

The machines in the new building were powered by a 150 hp Corliss steam engine housed with its boiler in a brick room attached to the building. The boiler was fueled by coal and wood scraps. The engine powered a line shaft running the length of the building beneath the floor. Leather belts passed through slots in the floor to the various machines.¹¹

The expansion of the physical plant increased the work force to approximately 125. These men worked a 60 hour week, producing the chamber suites which the company displayed at the manufacturers' exhibits in Chicago and Grand Rapids.¹²

The plant stored 1,250,000 board feet of lumber in its yard. This timber, mostly oak, poplar, and chestnut, came primarily from local sawmills contracted by Mount Airy Furniture. Oxen and horses hauled the rough cut wood to the yard from the outlying mills. Some of these teams were owned by Mount Airy Furniture, but the majority belonged to the sawmills. Lumber was also brought in by rail.¹³

The wood was stacked in the yard for air-drying, a process that could last as much as a year. Teams hauled the air-dried lumber to steam heated drying kilns on wheeled trucks. The steam was piped from the boiler and admitted to the kilns through jets in the lower walls. Once the moisture content of the wood had been reduced to between 4 and 6 percent, the trucks were wheeled into the cooling room.¹⁴

After cooling, the lumber was "rough milled." The various operations in this process reduced the lumber to the basic sizes required for specific pieces of furniture. Oak went into the fronts and tops of the various pieces, while less expensive woods, such as chestnut and poplar were used for the backs. Some veneering was incorporated into the line in about 1916, but no information has been located on the particulars of this department.¹⁵

Every machine operator worked from a "bill" which outlined the number and types of cuts to be made on his machine. The bills assured the proper number of pieces would be produced for each order and enabled a man to concentrate on the work at his machine while ignoring the rest of the line. If the bill was correct the correct pieces would find their way to the cabinetmakers on the second floor. ¹⁶

The first machines, 2 cut-off saws, cut the lumber to its rough length. The lumber arrived at the yard in lengths ranging from 12 to 16 feet. The operators of the cut-off saws judged their cuts by the irregularities in the wood, trying to eliminate these while attaining the most efficient use of the wood. After the cut was made, the pieces were placed by the off bearer, or tailboy, onto hand trucks and hauled to the 2 rip saws, which cut the pieces to within 1/4 inch of their finished width. From the rip saws the boards went to the jointer, which planned one faced to the board flat, allowing the remaining machines to make true cuts. ¹⁷

Depending on the requirements of the bill, the pieces continued through the machine room passing through the various machines. The planners cut the piece to a uniform thickness. Two moulders cut to finished size and cross section. The cutting heads of this machine could also make tongue and groove joints running the length of the piece. The bank saws cut various curves impossible on the other saws. Two double-spindled shapers finished the work of the moulders. Since the operators fed the wood directly into the cutting heads they were able to do detail work impossible on the roller fed moulders. A glue jointer made precision straight edges on the pieces, assuring the proper angle for assembly. ¹⁸

Various machines made the joints which would bind the pieces together. These included a dove-tailer, a boring machine, and a tenoner. Fancy trim work was done on a dado head machine equipped with 5 heads. This allowed the operator to cut 5 pieces simultaneously. The heads could also be disconnected and operated independently. A lock machine cut the holes for the locking mechanisms in the cabinets and chests. Several ¹⁹ large sanders smoothed the pieces before they went to the cabinetmaking room.

Many of the machines in the plant were fed by hand, a dangerous situation resulting in many accidents. Mount Airy had no hospital at the turn of the century, and when a man was hurt he was given first aid at the factory and sent to a doctor. No compensation was given for injury, and often the injured man only received a doctor bill. ²⁰

After passing through the machine room, pieces were placed in a hand operated elevator and raised to the second floor where the cabinet-making operations took place. In the center of the room workers glued the machined boards together forming the basic shell of the piece. The clamps for making up the large side and top pieces consisted of nothing more than a shallow

tray. The stock was placed in the tray, glued together, and wedges driven between the stock and the sides of the tray holding the piece firmly in place. The trays were stacked up in the middle of the floor and unloaded in the morning.²¹

The walls of the cabinetmaking room were lined with the work benches of the case-fitters. These men fitted out the various pieces, hung doors and installed drawers. They used rubber mallets to knock the pieces together.²²

Once assembled and fitted out, the entire piece of furniture was hand sanded and moved to the finishing building along a gangway extending between the second stories of the two buildings. The pieces were moved on hand trucks running over the gangway on light rails.²³

In the finishing room men filled and coated the pieces, hand sanding their work between coats. Varnishing was also done by hand with a brush. The completed pieces were lowered to the first floor storage area by another hand-operated elevator. On this floor the furniture to be shipped was packed, crated, and placed in railroad cars which loaded from the platform at the end of the building.²⁴

When the new plant went into production in 1902, the company's line consisted of 14 suites ranging in price from \$10.50 to \$35. Fifteen dressers were also produced, selling for between \$5.50 and \$16. W. L. Brewer designed the line.²⁵

Various outbuildings flanked the main buildings. These included a stable, commissary, store, various storehouses, and a small office built of stone. This office is the only one of these structures still standing.²⁶

The plant consistently employed approximately 125 men through the early years of the 20th century. These men were drawn from the surrounding area, often from poor mountain families. They were not craftsmen, and had to be trained in the use of the machines. Initially their work was crude, but in time they were able to master the various skills involved in the making of furniture, and today qualify as craftsmen.²⁷

The men worked 10 hours a day, 6 days a week, starting at 7 am and quitting at 6 pm. and took only a 45 minute lunch each day. Thus they accumulated an extra hour and a half of work each week, which allowed them to quit at 4:30 on Saturday. There were no electric lights in the factory until around 1909, and work ceased when the sun went down.²⁸

Wages seem to have run consistently below the state average for the furniture industry. In 1902 the highest paid men received \$2.02 an hour while unskilled workers earned 66¢ an hour. By 1909 the wages had been raised to \$2.75 and 90¢ respectively. Wages were paid out every two weeks.²⁹

Children were used wherever possible in the plant. They served as off bearers at all of the machines except the cut-off saws and the rip saws. The material turned out by these machines proved too cumbersome for the 12 to 14-year-old boys to handle. Boys also served as water bearers for as little as 25¢ an hour. They hauled buckets of water up and down the line to the men at the machines. There was a water bearer for each department of the plant.³⁰

Boys worked where the men were unable to. When one of the leather belts from the line shaft to a machine broke, as they often did, a boy went under the floor with a lantern and laced the belt back together. The low wages these children earned made them especially attractive to the management of the company.³¹

There were few conveniences for the workers and an organized safety program was unheard of. As mentioned above, electricity did not arrive until around 1909, and it is assumed that a rudimentary heating system, merely a number of steam pipes running along the walls of the building, also appeared at this time. A fire sprinkler system, connected to the city water mains, was installed in Mount Airy Furniture and its next-door-neighbor, Mount Airy Mantel & Table, around 1902. A 40,000 gallon water tank, standing 110 feet tall, supplied an auxillary water supply to the two plants until torn down in August 1975.³²

A primitive vacuum system picked up the shavings and sawdust directly from the machines, but there were many leaks in the system, and the boys had to sweep the areas around the machines and haul the scraps to the boiler.³³

With the opening of the new plant in 1902, sales jumped, and the factory soon reached its output capacity. Throughout the first two decades of the 20th century the company worked to improve its product and increase its reputation. The product improved as the workers became more adept at their jobs, and as the product improved the company's reputation began to grow. Further additions and improvements were made to the physical plant, although none of these have been documented. By 1913, 160 workers were producing \$350,000 worth of product on a payroll of \$50,000 in a plant valued at \$25,000.³⁴

In 1913, with John A. Yokley's suicide, W. E. Merritt became president of the corporation. In 1920 the corporation dissolved and the Merritts, Yokleys, and Kochtitzkys formed a partnership, with the Yokleys as the dominant partner. By 1923 the plant employed 260 workers and had been converted from a combination of steam and electric power to electricity, although the boiler continued to supply steam to the kilns and heat in the winter.³⁵

As it now stands Mount Airy Furniture bears only an external resemblance to the old plant. The buildings are the same, and the production line follows essentially the same route, but the interiors have been remodeled to accept modern machinery.

From an examination of contemporary studies on wood-working it would appear that Mount Airy Furniture represents a typical moderate-sized furniture company. Like many other small-town, family-dominated concerns, documentary evidence is very scarce, and the owners are hesitant to allow an outsider to dig through old corporate records. As a result, this paper has been pieced together from a wide variety of sources, none of which were of any real depth.

Footnotes

1. William Franklin Carter Jr. and Carrie Young Carter, Footprints in the "Hollows" or Surry County and Her People (Elkin, North Carolina: The Northwestern Regional Library, 1976), p. 92.
2. Interview with Hugh Meritt, Mount Airy, North Carolina, 21 July 1977.
3. Sanborn Insurance Company Maps, Mount Airy, June 1896, sheet 4. Mount Airy News, 23 April 1896.
4. Mount Airy News, 16 April 1896. Sanborn Map, June 1896.
5. Twelfth Annual Report of the Bureau of Labor Statistics of North Carolina for the Year 1898, (Raleigh: Guy V. Barnes, 1899), p. 63.
6. Interview with John Rose, Mount Airy, North Carolina, 21 July 1977.
7. Mount Airy News, 23 April 1896. Rose interview.
8. Mount Airy Times, 21 May 1971, p. 11C.
9. Surry County Record of Corporations 1886-1907, p. 61. Fourteenth Annual Report of the Bureau of Labor and Printing of North Carolina for the Year 1900, (Edwards and Broughton and E. M. Uzzell, Raleigh, 1901), p. 140. Surry County Record of Deeds, Book 33, p. 296.
10. Furniture World, 16 (December 4, 1902): 9. Rose interview.
11. Mount Airy News, 11 July 1901, p. 3. Sanborn Map, February 1905, sheet 9. Rose interview.
12. Sixteenth Annual Report of the Bureau of Labor and Printing of North Carolina for the Year 1902 (Raleigh: Edwards and Broughton, 1903), p. 183. Furniture World 14 (26 December 1901): 41.
13. Sanborn Map, 1905. Rose interview.
14. Rose interview.
15. Ibid.
16. Ibid.
17. Ibid. Rudolph Willard, Production Woodworking Equipment (Raleigh: North Carolina State University Department of Industrial Engineering, 1970), p. 4-1.

18. Rose interview. Willard, pp. 5-1 to 8-1.
19. Rose interview. Willard, pp. 11-1 to 18-1.
20. Rose interview.
21. Ibid.
22. Ibid.
23. Ibid.
24. Ibid.
25. Furniture World 16 (4 December 1902): 9.
26. Sanborn Maps.
27. Rose interview.
28. Rose interview.
29. 14th and 23rd Annual Reports of North Carolina Department of Labor and Printing.
30. Rose interview.
31. Ibid.
32. Rose interview. Mount Airy Times, 8 August 1975, p. 1.
33. Rose interview.
34. 27th Annual Report of the Bureau of Labor and Printing of North Carolina for 1913 (Raleigh: E. M. Uzzell & Company, 1914), p. 170.
35. Merritt interview. Surry County Record of Incorporations, Book 3, p. 93. Printing for North Carolina for the Year 1923 (Raleigh: Mitchell Printing Company, 1924), p. 92.

Bibliography

Carter, William Franklin Jr., and Carrie Young Carter, Footprints in the "hollows" or Surry County and Her People (Elkin, North Carolina: The Northwestern Regional Library), 1976.

A county history with a brief mention of the conditions which resulted in the organization of the furniture industry in surry.

Furniture World 14 (26 December 1901): 41 and 16 (4 December 1902): 9.

Two very brief mentions of the company in an industry journal.

Merritt, Hugh, Mount Airy, North Carolina. Interview, 21 July 1977.

Related to C. R. and W. E. Merritt. Was able to provide some information as to his relatives' activities in the company.

Mount Airy News, 2 January 1896, 18 June 1897, and 11 July 1901.

The first are the only contemporary newspaper accounts found dealing with the original plant, while the second is the only contemporary clipping dealing with the 1902 addition.

Mount Airy Times 21 May 1971; 8 August 1975.

A paragraph outlining the company's history, and a short article on the tearing down of the large water tank.

Reports of the Bureau of Labor of North Carolina 1897-1924.

Provide information on the number of workers and their wages, but very little of any value on the physical plant.

Rose, John, Mount Airy, North Carolina. Interview, 21 July 1977.

An invaluable discussion with a gentleman who started working for the company as a twelve-year-old in 1902 and continued for 60 years. One of the few remaining old-timers, his memory was excellent, and, where possible to verify the facts, was totally accurate.

Sanborn Insurance Company Maps, 1896-1929.

Good pictorial representation of the company's expansion over the years. One of the few sources which give any information on the physical plant.

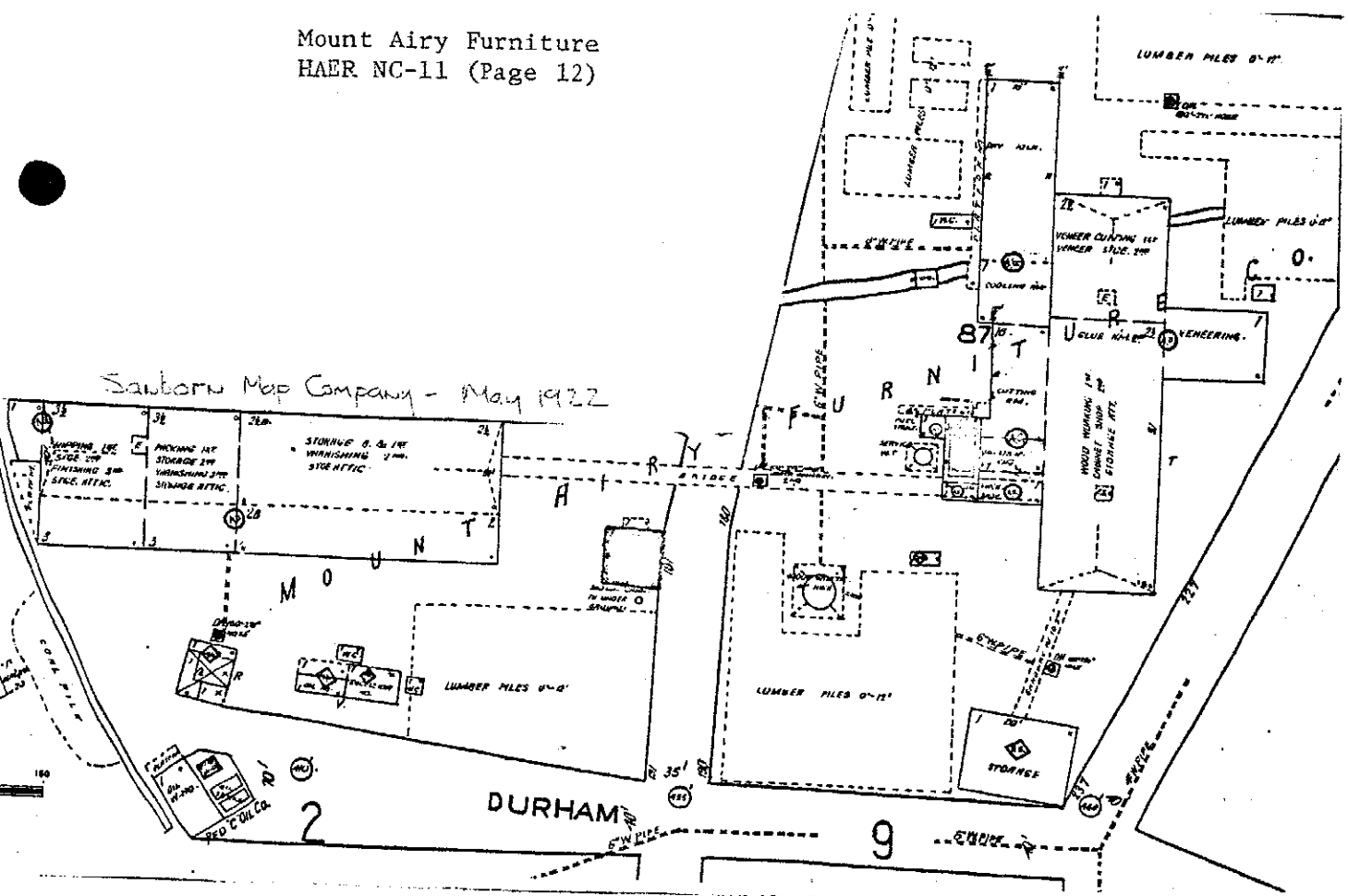
Surry County Records.

Provide information as to the many guises the company took over the years, along with some scraps of information on the plant itself.

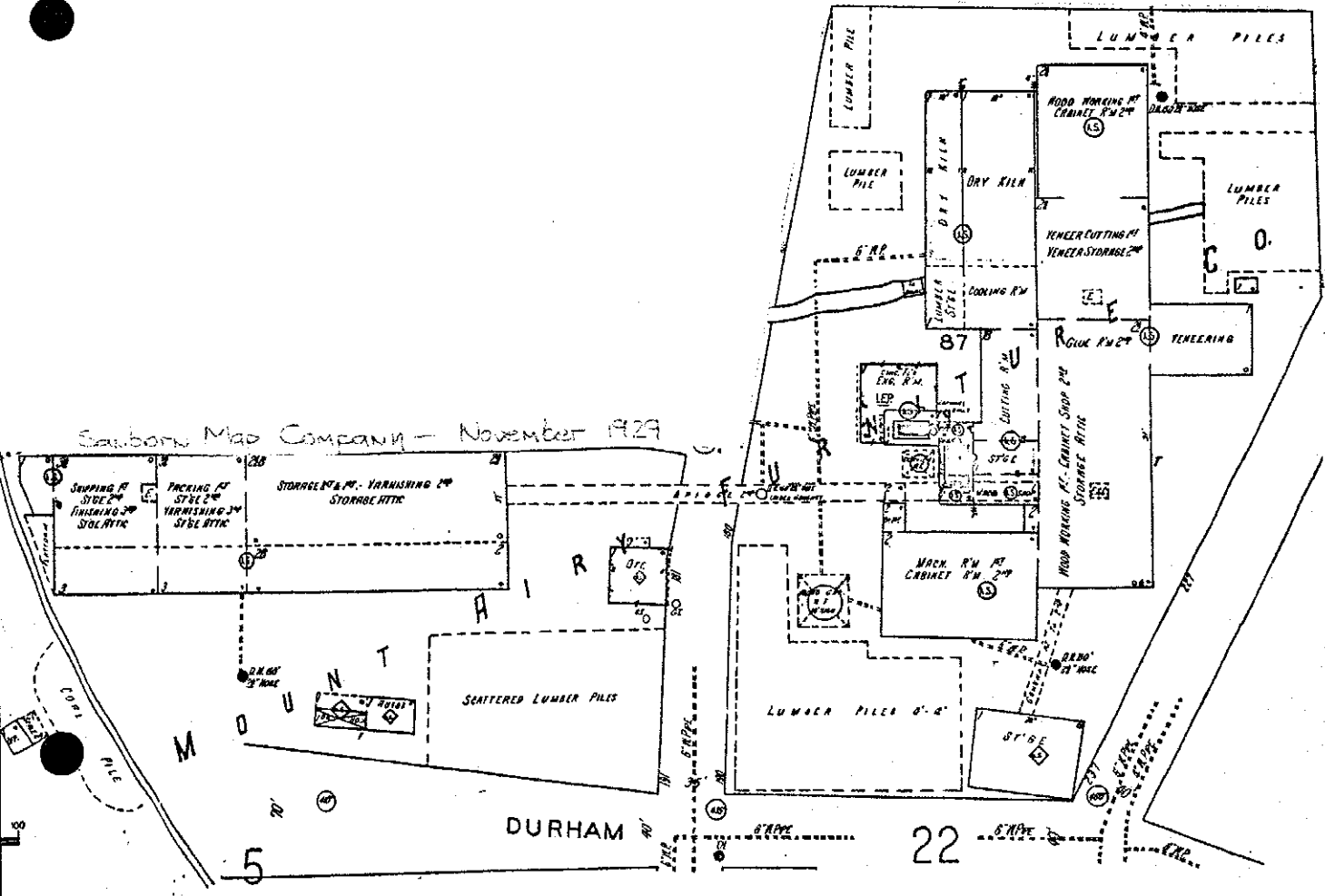
Willard, Rudolph, Production Woodworking Equipment (Raleigh: North Carolina State University Department of Industrial Engineering), 1970.

A textbook on modern technology consulted to acquaint the author with the wide variety of woodworking machines. The machines perform the same functions as their earlier models.

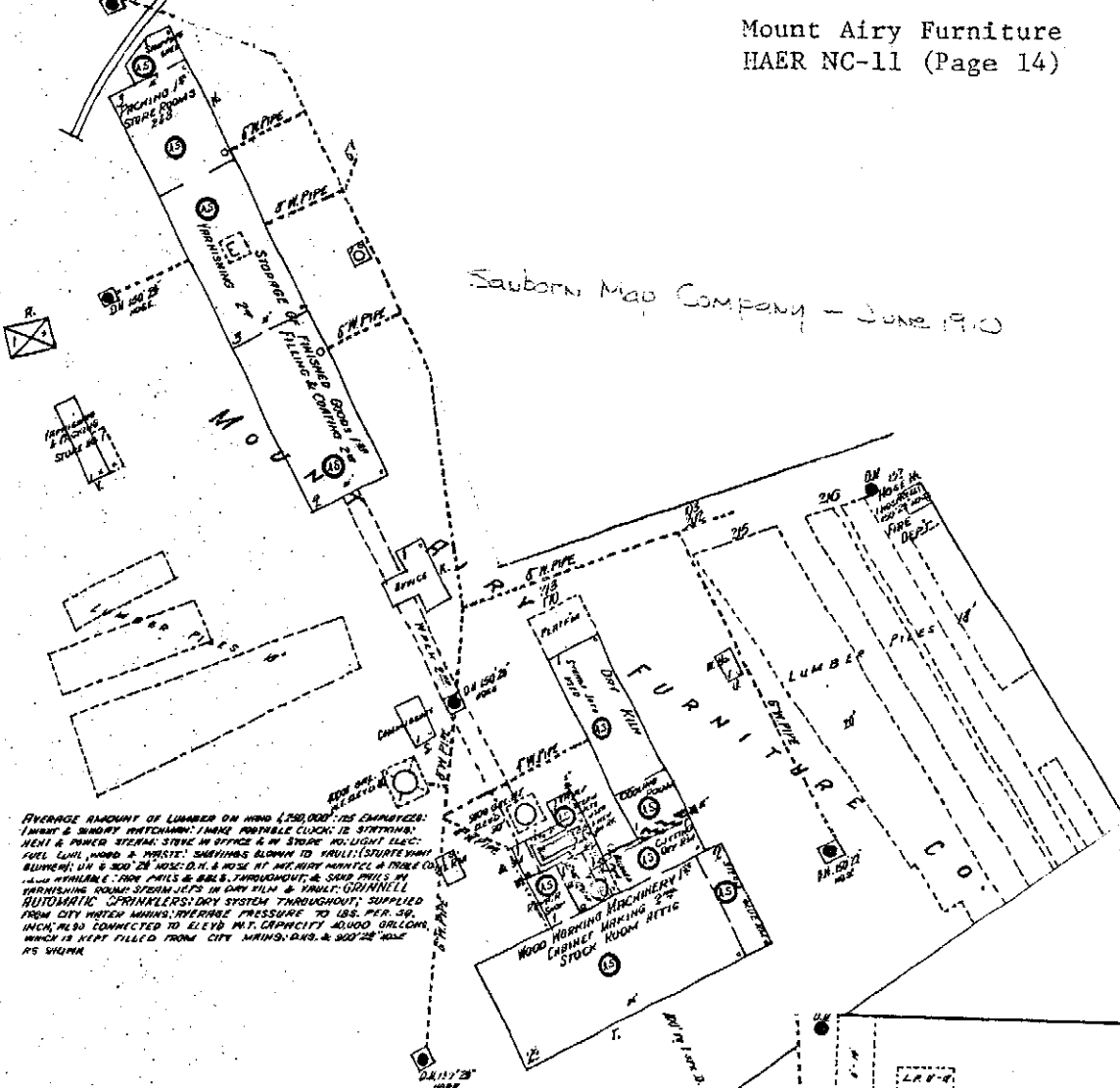
Sauborn Map Company - May 1922



Sauborn Map Company - November 1929

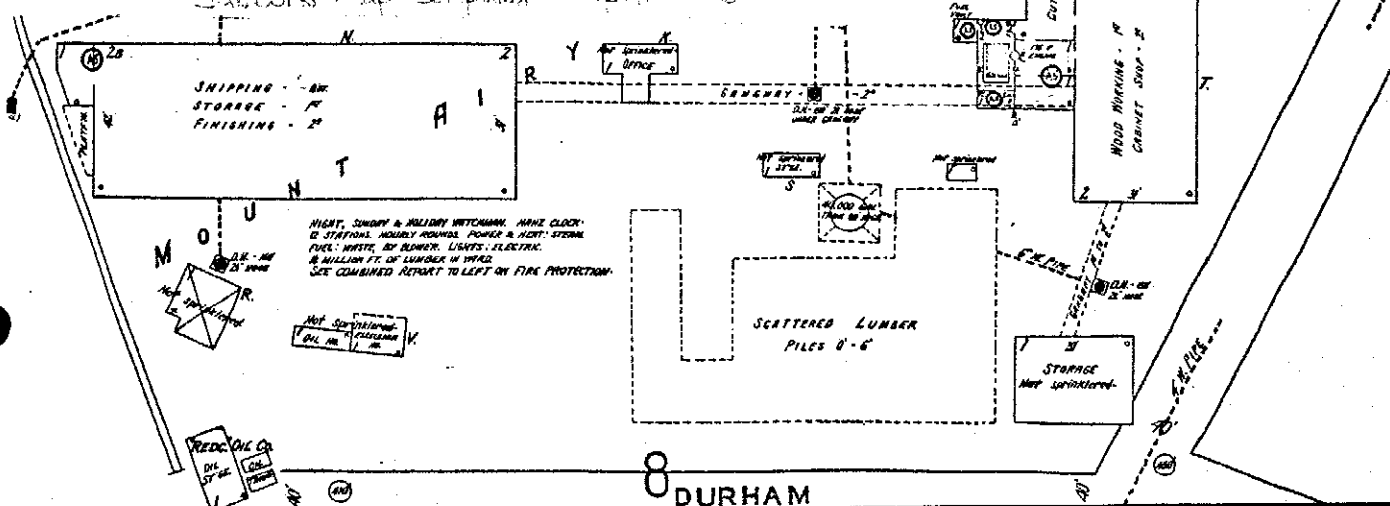


Sauborn Map Company - June 1910



AVERAGE AMOUNT OF LUMBER ON HAND 1,500,000 - 175 EMPLOYEES:
 NIGHT & SUNDAY WATCHMEN: THREE WATCHES CLOCK IN SYSTEM;
 NIGHT & POWER SYSTEM: STOVE IN OFFICE & IN STORE; NO LIGHTS; (ELECTRIC)
 FUEL: LUMBER & WASTE; SMOKEING BLOWING TO WIND; (STURTEVANT)
 BURNERS; UN & 300' 24" HOSE; D.H. & HOSE AT MOUNT AIRY MOUNTAIN & MOUNTAIN CO.
 AVAILABLE: FIRE PILES & B&B, THROUGHOUT; & SAND PILES BY
 PORTLAND CEMENT; STOVE IN OFFICE & WIND; (GODINELL)
 AUTOMATIC SPRINKLERS; DRY SYSTEM THROUGHOUT; SUPPLIED
 FROM CITY WATER MAINS; AVERAGE PRESSURE 70 LBS. PER SQ.
 INCH; ALSO CONNECTED TO ELEVATED CAPACITY 40,000 GALLONS,
 WHICH IS KEPT FILLED FROM CITY MAINS; 400' & 300' 24" HOSE
 RE 5/8 INCH

Sauborn Map Company - April 1910



NIGHT, SUNDAY & HOLIDAY WATCHMEN, HAVE CLOCK
 IN STATIONS, HOURLY ROUNDS, POWER & HEAT; STOVE
 FUEL: WASTE, BY BURNER, LIGHTS: ELECTRIC;
 1/2 MILLION FT. OF LUMBER IN WARE
 SEE COMBINED REPORT TO LEFT ON FIRE PROTECTION