



FURNISHED HOUSES FOR RENT.

A few **Furnished Houses** remain unrented in Pinehurst. Desirable parties, giving satisfactory references, can secure these homes at reasonable rates.

There are also **Suites for Light Housekeeping** and **Single Rooms** for those who obtain table board at the Pinehurst Casino.

For the security of both invalids and pleasure seekers, cases of pronounced Consumption will under no circumstances be allowed admission.

Address for Illustrated and Descriptive Circulars, and for other information,

CHARLES D. BENBOW, Superintendent, Pinehurst, N. C.



PRODUCT OF THE PINE.

Interesting Description of the Manufacture of Turpentine and Rosin.

Many of the long-leaf pines that now stand in our woods present a queer appearance to the stranger from the North, the trees having been utilized for obtaining turpentine,—one of the main staples of the old North State. The naval stores of North Carolina formed at one time a very important item in the reports of the export statistician, and if at present that source of revenue is greatly reduced the turpentine distiller and lumberman have themselves to blame for the reckless abuse of one of the finest and most useful trees the United States calls its own. However that be now, the way turpentine is produced is interesting enough to be followed up somewhat in detail, the more so as there are quite a number of abandoned stills in the neighborhood of Pinehurst. One is about a thousand yards below the nursery, another will be passed on the way to McKenzie's mill-pond, and several others are as easily reached and quite as easily found, as large piles of rosin indicate their former locations.

The long-leaf pine, *pinus australis*, Miller, is a specific southern tree, the territory of which extends from Southeastern Virginia to Florida, and through the Gulf states to Louisiana and Texas. It is rarely found 150 miles beyond the sea coast. It grows from sixty to ninety feet tall, with a trunk from two to four feet in diameter, and prefers sandy loams where it forms enormous forests, almost to the exclusion of any other tree besides the oak. The manufacture of turpentine

dates back to the oldest settlers, who made quite an income by tapping the trees. By 1768 a very profitable industry was established by the production of the naval stores—that is, turpentine, spirits of turpentine, tar, pitch and rosin, most of which were sent to England. The introduction of the copper still in 1844 led to a largely increased yield of volatile oil, and more stills were established at the seaports.



A BOXED TREE.

Then the manufacturers of India rubber goods called for great quantities of spirits of turpentine; the consequence of which was the extension of the turpentine orcharding to the south and west of its original limit. The civil war made a radical end to all production of turpentine in the South for a time, and the turpentine stillers of France and other countries tried to supply the demand, at prices five or

six times their usual range. After the war the industry was taken up again, but not so extensively as formerly, yet the reports of 1891 show exports of rosin and turpentine to an aggregate value of over \$8,000,000.

The methods of extracting the turpentine vary in the different countries. Here the trees are "chipped"—that is, chips are cut through the bark into the wood on the side of a tree, and at the lower end a small hole called a "box" is cut to catch the sap. The value of the pine as a timber tree is not enhanced by the chipping, but the tree itself is exhausted before its time and sacrificed to an early death.

To employ a still to good profit a turpentine orchard usually consists of about 4000 acres. Such an area is divided into sections of about 10,000 "boxes" each. The work begins in the earlier part of the winter, with the cutting of the boxes. They are cut eight to twelve inches above the base of the tree and about seven inches deep, slanting from the outside to the interior of the trunk, and have a capacity of about three pints. After that the ground is laid bare around the tree for a distance of three feet and all combustible matter is raked together and burned, to avoid danger of the tree catching fire during the turpentine operations. But just this practice of burning and the easy-going way it is done very often results in fires of enormous extent, and more forest trees are sacrificed by those conflagrations than by the boxing or any other cause.

In early spring, when the sap begins to flow, the work of chipping is started. The surface of the tree above the box is laid bare according to certain rules, about one inch deep. During the time from March to October or even November this chipping is repeated as often as the turpentine ceases to flow freely and the height of the chipped part is increased about two inches every time. The accumulated rosin in the boxes is removed to a barrel by a dipper of peculiar shape.

In a virgin orchard about seven dips are made that will yield about forty barrels of dip, or soft turpentine, each time, for every 10,000 boxes. During the dog-days of July and August most turpentine is gathered. The crude rosin that sticks to the tree is scraped off the chip with a narrow keen-edged scraper attached to a long wooden handle. It is called scrape or hard turpentine. The "virgin dip," as the dipping of a first season is termed, always commands highest prices. A barrel of dip (240 lbs.) yields six and one-half gallons of spirits of turpentine, while a barrel of scrape brings only three gallons. During the following years the number of dips is steadily decreased to only three dippings in the fourth year. After that time the orchard is usually delivered into the teeth of the omnivorous saw mill.

The distillation of spirits of turpentine demands the greatest of care to avoid large losses. The still has to be heated beyond the melting point of crude turpentine, and a very fine stream of luke-warm water is conducted from the top of the condensing tub into the still, and allowed to continue until the end of the process. The end is indicated by a peculiar noise of the boiling contents of the still. The skill of the operator is now shown in the regulation of the water stream. After the process of distillation of the spirits of turpentine is finished and the fire is removed the contents of the still are drawn off by a tap at the bottom. This molten rosin is strained through wire-cloth and then through coarse cotton-cloth into a large trough, from which the barrels are filled. Such a barrel contains 280 lbs. It is a tedious process throughout, and the compensation is no longer high enough to induce many people to go into this business.

The long-leaf pine is a restorer of health and vigor as is no other tree, and many an invalid enjoys his life once more after breathing the ozone of our pines.

Long live the pine!

OTTO KATZENSTEIN.