

**South Carolina Mountaineer Made Speedy Turbine 150 Years Ago
But Failed to Recognize Importance of Discovery;
Mill Still Stands in Resort Forest**

(Special to the Herald)

Tryon, N.C., June 4. – The advent of the turbine, that small but high speed piece of machinery that makes possible of present-day extensive high speed electric lines, was delayed more than a hundred years because a South Carolina mountaineer failed to recognize the importance of his inventions. By the same token the Gosnell family of the upper part of Greenville County is short of hundreds of thousands of dollars it would now have if its ancestor had realized the importance of his discovery, for one of the Gosnells, his first name has been forgotten, built a perfect turbine to turn his grist mill about 150 years ago.

The mill was found recently by surveyors in Blue Ridge forest, a South Carolina mountain resort of 18,000 acres, and the attention of engineers called to the system used to obtain power from a fast falling branch of North Saluda river. Inquiries among the older mountaineers brought to light the fact that the mill was built by a man named Gosnell nearly a hundred and fifty years ago. Old timers can remember when it was still run by a Gosnell. Most of them, however, hadn't thought of the old mill for years.

The ancient Gosnell selected a place where the Saluda branch runs sharply down the mountain side and constructed a small one-room mill. Not a piece of metal was used in building the structure except iron bands around the drive shaft, which is of wood, and pieces of iron in the "buckets" of the turbine.

Doors still hanging, can be moved with a single finger, so perfectly do the wooden hinges work, the hard locust withstanding the elements for more than a century.

Not a belt or a cogwheel was used by Gosnell in his mill. Seeking the maximum amount of power, he discovered what learned engineers found out years later. He knew that the conventional undershot or overshot wheel was limited in delivery power to the diameter of the wheel. To get much power and high speed, one must have a large wheel and many belts and cogs to increase the revolutions of the mill. Gosnell began to work on something more complicated to the present generation, but what probably appeared simpler to him. He built a flume down the mountain side, the water finally running into a pipe line hollowed from locust logs. How he made the wooden pipes, 10 to 16 feet long, is a mystery, but there they are. In the last pipe he cut a hole and inserted noir buckets. Below, a matter of some 18 inches, Gosnell placed a wooden wheel flat on the ground and inserted iron buckets around the inside of the rim. The wooden shaft in the wheel he ran straight up to the millstones, eliminating belts and pulleys.

How long it took him to figure out the necessary ratio in buckets will never be known but he had a perfect working piece of machinery that did not come into general use until the early part of the 20th Century.

A prominent engineer, looking at the mill a short time ago, declared that so far as is known there is only one other mill in the country like it. The other is in the Smithsonian Institution in Washington and is regarded as a remarkable piece of machinery. Gosnell is not the only one who had the idea but neither profited.

Since it was discovered the mill has been visited by hundreds of persons. It is on the Blue Ridge Forest-Greenville road and can be reached by motor or bridle paths from the Blue Ridge Forest clubhouse on the top of Hogback Mountain.

Contributors' Note: The span of 150 years from 1927 would place the Gosnell mill in the year 1777, which is rather improbable.