

## MILL OPERATIONS

The machinery of the pioneer mills were simple, often only one pair of millstones, but sometimes two pairs of millstones were found in the mill.

Most early water wheels were enclosed inside a building or under a roof to protect the mill from the winter's snow and ice.

The local mill was similar to the local bank. Often working on a percentage basis, the miller not only processed the farmer's grain, he created a market for the surplus product, whether it was raw corn, feed grain, or corn meal.

The miller was paid for his services of milling by collecting a toll, or a fraction of the grain brought into the mill for grinding. The average toll varied between 1/16th and 1/8th of the grain. The owners of early grist mills were usually prosperous men, and like most of the population at that time, the majority of the millers were farmers.

Grist mills had a fixed stone which was cemented in place, and the other stone was the runner stone that was fastened to the shaft that drives the mill. The grain was fed through the center by a simple auger that is part of the shaft. The grain then was simply ground as it ran down toward the outside of the stones. The gap between the surfaces of the stones gets smaller as it gets closer to the rim. The coarseness of the meal is adjusted by changing this gap.

The miller placed the grain to be ground in the funnel-like hopper above the pair of millstones, after first taking out his toll.

The weight of the flowing water turned the water wheel, and large gears turned smaller gears which made the shaft turn faster.

The shaft turned a vertical spindle, upon which spun the grinding stone just above, but not quite touching, an identical stone set stationary in the floor of the mill.

Both stones had a pattern of grooves cut into their faces. As one stone turns above the other, their grooves cross much like scissor blades. Grain falling through the hole, or "eye", in the runner stone was cut apart as it passes between the two stones. The miller could adjust the distance between the stones to regulate how finely the grain was ground. The milled grains moved around the cover that is over the stones, until it falls through a hole into the meal chest. From there it could be scooped up into a packed in a sack.