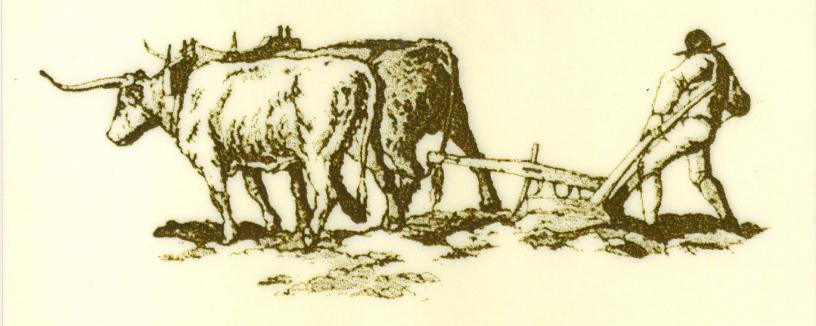


Preparing the Ground

PLOWING

Cutting, lifting and turning over soil in a farm field in preparation for planting. Seeds cannot easily grow in ground that has not been prepared. Small patches of garden can be dug with a shovel. Large fields for farm crops must be plowed.

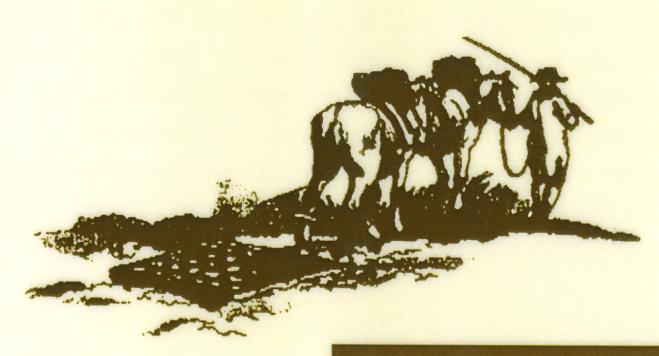
Plowing creates furrows, almost like shallow parallel ditches. As the plowshare cuts into the soil, the moldboard of the plow lifts the soil and leaves it on one side.



HARROWING

After plowing the soil is still in large heavy clods. The farmer breaks the clods up by running a heavy harrow across the field. He does this more than once, crossing the field first in one direction and then across.

Early harrows were just large tree logs with untrimmed branches, or logs with brush tied to them. Later harrows were wooden, square, and fitted with either wood or metal spikes on the lower side. All-metal harrows replaced wooden ones and disc harrows eventually replaced the spiked ones.



A FARMING DICTIONARY

Raising Crops



SOWING

The planting of seeds in the ground. The oldest sowing technique is "broadcasting." The farmer walks along the field and systematically flings a handful of seed on the ground. This process is quite wasteful and inefficient, for some parts of the field will get heavy concentrations of seed and others will be too sparse.

Then came mechanical seeders. They fed the seeds out more economically. The first were hand operated, and the farmer had to walk the field carrying the seeder. Later models were pulled by a horse or a tractor.

Some seeds, like those of corn, need to be buried or covered by soil. For centuries farmers poked holes in the ground with a stick, dropped the seed in and closed the hole. Mechanical corn "drills" perform the same tasks but faster.

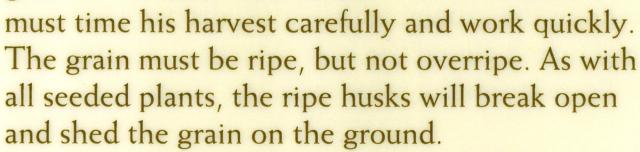
CULTIVATING

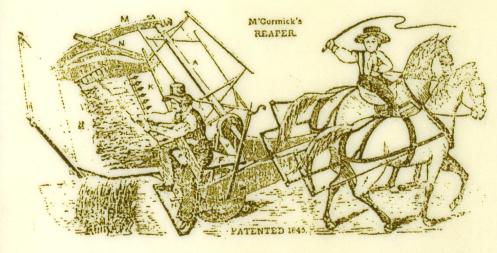
Potatoes, corn, and other crops that need to be planted in rows do better if they are cultivated while they are growing. This kills weeds that compete with the plants. Cultivating can be done by hand, with a hoe or with a wheeled cultivator. Farmers do not cultivate grain crops, like wheat and oats. Densely planted grain crops discourage some weeds, and a cultivator could not pass through the field without damaging part of the crop.

Harvesting Grain Crops

REAPING

Reaping is the process of cutting the ripe stalks of grain in the field. The farmer

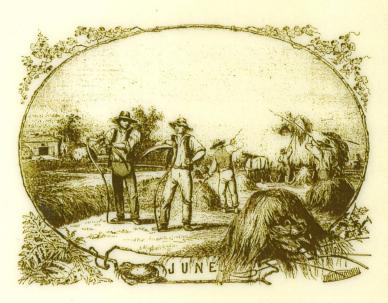




The earliest farmers used short hand-held sickles to cut the grain stalks near the ground. The scythe and

the grain cradle were more efficient but still required back-breaking human labor. The horse drawn reaper really speeded up the process.

MOWING & HAULING HAY



Mowing is the cutting or reaping of hay.
Farmers used sickles, scythes and grain cradles to mow hay.
The horse-drawn mower came along in the 1800s.

After cutting they dried the hay in the field before storing it in a hay mow. Women, children and hired hands turned over the hay with rakes several

times before it was dry enough. Then they raked it into piles and loaded it on wagons using hay forks.

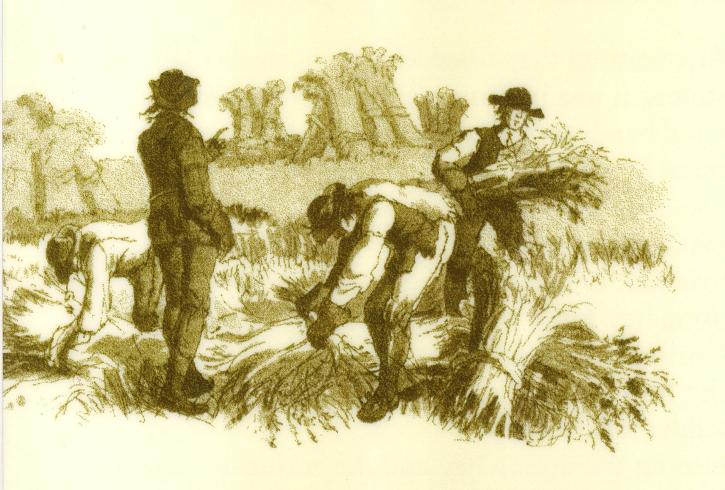
During the 1800s the horse-drawn hay tedder mechanized

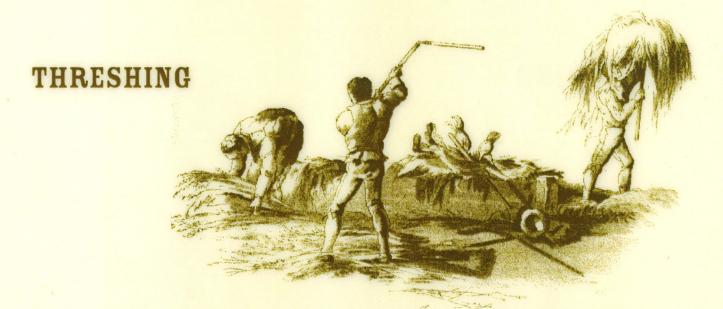


turning the drying hay and the automatic hay loader required only 2 laborers in the field.

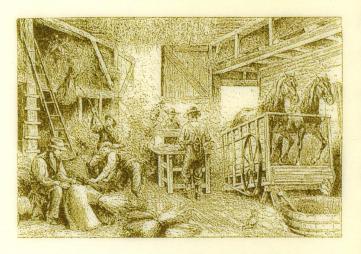
BINDING & SHOCKING

Before automated binders were added to horse-drawn reapers the binding of grain was also done by hand. Women and children raked the cut grain into neat bundles or sheaves and bound each with twine. They then placed a number of bundles together and stood them upright to make a "shock." They left the shocks in the field to dry.



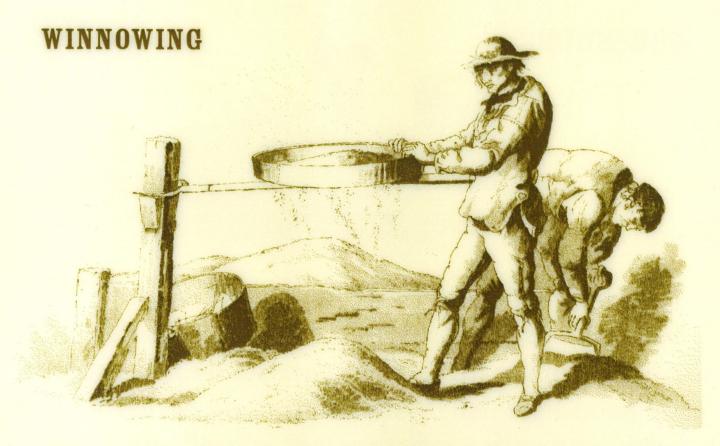


Threshing separates the grain kernels from the husks and stalks. It requires a beating action to break open the husks. For centuries farmers used the hand-held flail. Manual threshing of this year's crop with just flails might take all winter.



Horse-power and new inventions mechanized the process in the 1800s. The action now took place inside a wooden cylinder where teeth on a revolving drum

beat the grain heads. The stalks were pushed out the front of the portable thresher and the heavier grain fell below. The farmer threshed his entire harvest in days instead of months.



Winnowing cleans the grain after threshing. Sieves are used to separate bits of husk and straw mixed in with the grain. The grain falls through the mesh of the sieve. The husks and straw remain. This time consuming process was automated with the invention of the hand-cranked fanning

mill. Mills were already available in the colonies by the early 1770s. They were in widespread use in Somerset County throughout the 1800s.

