

subjected to the constant discomfort of dirt sticking in their hair and on their skins; let their quarters be warm, and especially avoid the annoyance of cold currents sweeping through cracks in boards or undersills on the windward side of barns; let the air they breathe be well ventilated, for no animal can do well that is taking foul or dirty air into the delicate tissues of its lungs fifty thousand times every twenty-four hours, or at every inspiration. Good wholesome food is cheaper than such as is poor or mouldy. It is more economical to feed in well constructed racks and boxes, than for animals to tread their food under foot, lie upon it, or mix it with mud. Feed often, regularly, and in small quantities, that the food may not become unpalatable by lying long in the animal's breath. Always have a good supply of pure water at hand in the yard. And remember the old saying that "one foot of boards (for shelter) is equal to one pound of beef."

Avoid the common error of trying to winter many animals on little food. By this error much food is consumed with no increase of growth. *A few well-fed animals will manufacture a far greater amount of flesh with the same feed,* and they will command a much readier market. We recently visited a small farmer whose whole herd of cattle was only eight; yet we are confident that they would sell for more money than any sixteen of the herds of most of his neighbours. He never tried to see how near he could come to starving them to death without doing it, and did not attempt to feed them on moonshine and sawdust.

Save manure. As wind is to the sailor, water to the miller, steam to the manufacturer, and money to the banker, so is manure to the farmer. Draw it out and spread it in winter, and early rains will soak it into the soil, and mix it with the particles of earth better than the finest harrow, and the clay of the soil will hold all the enriching portions, as the water charged with the liquid parts flows over it.

A place for everything, and everything in its place, will save many hours of searching, many weary steps, and much vexation every year. The tools should not only be in the room, but every one in its place, where the hand may be always laid on it in a moment. For this purpose they should always be hung up against the wall, and be neatly arranged. Nearly every tool can be hung on a spike or pin, or between two large nails. If hung perpendicularly, they will occupy less room, and may be quickly taken down and replaced. In order that each tool may be always in its place, the plan devised by Townsend Sharpless of Philadelphia, is the best. Hang each tool in its position; then draw its outline accurately on the board with pencil or chalk; then with a brush dipped in some dark colored paint, make a distinct representation of the shape of the tool. These outlines will not only show where the tool should be put, but show at a moment if any has been left out of place. The consciousness that there is such a tell-tale in the tool-room, will stimulate any careless labourer to return everything which he takes out.

Let all broken or injured tools be repaired by the farmer if he can do it, and by the mechanic if the farmer cannot; paint such as need painting and let all be ready for the active season on the opening of spring.

### WINTERING BEES.



**GREAT** drawback to successful bee culture is the loss they sustain in the winter. In all latitudes South of New York city, where the snow seldom falls to last over a day or two, we think the hives may as well remain out upon their stands, as the weather in such climates is not so cold as to do them much injury. Bees, when the hives are prosperous, will stand a few days of very severe cold weather, provided that the sun shines warm enough, once a week to warm the hives, and cause the frost which accumulates frequently at the tops of the combs to melt and run down.

It is a good plan, when hives are left all winter upon their stands, to remove the small boxes in the supers, and fill the upper sections of the hives with fine hay, packed in rather closely. We now refer to any hive that is constructed in two parts, or those that have doors on their backs to allow a set of small boxes to be slid in, in which the bees stow their surplus honey. The moisture generated by the bees will ascend through the holes leading to the supers, and become collected in the hay. In the spring it will be found in a wet and slightly mouldy condition, and may be thrown out as waste litter.

Some apirians bore an inch hole near the tops of their hives, in order to allow the moisture to pass away. We never approved of this plan, as a vast deal of cold air must be constantly circulating up through the hives.

All hives left out upon their stands in winter, should either be raised up to allow a circulation of air beneath them, or once in three or four days, the dead bees around the passage ways should be cleared away, as an accumulation of bees at the entrances in the winter will sometimes become saturated with the melting snow or rain, and close up the passages by freezing, which will smother the bees, when they have no other means of ventilation. A long goose quill is an excellent thing to run into the passages to remove the dead bees.

We recommend the placing of short pieces of boards, a foot wide, up against the hives, so as to prevent the sun shining into