THE NOBLE FARMER.

"Agriculture is the most healthy, the most useful, the most noble employment of man."—GEORGE WASHINGTON.

What hero from the battle strife,
With palms of victory crown'd,
Fame's clarion-music in his ear
From earth's remotest bound;
What ruler o'er a nation's love
In majesty sublime.
The first the greatest in the realm,
A king in freedom's clime,
Returns to rural hunts to watch
His ripning green-fields wave?
A blessed gladness in his heart
That glory never gave.

Who, 'mid his acres broad and green,
Where plowshares break the sod,
Prefers in sylvan toils to walk
With Nature and with God?
There was but one who thus retired
From conquests, love and pride,
For which Ambition hath so oft
In madness striven and died.
There was but one—dost ask his name?
'Neath fair Italy's sky
Go find Cincinnatus' tomb,
And heed its answering sigh!

Cheese Making.

The following article on cheese making prepared by a gentleman of California, published in the Sacramento *Union*, is worthy of the perusal of many of those engaged in that business in this Territory, and if some of them will follow the instructions therein set forth, they will furnish a better article of cheese for market than heretofore:

As cheese is beginning to assume an important position among the agricultural products of this State, it is probable that a condensation of the various reports on the subject of cheese-making contained in the last published volume of "Transactions of the California State Agricultural Society" will be both useful and interesting to many of our readers.

The reports in the book are from the dairies of Steele Brothers; G. P. Laird & Brother; Hutchinson & Greene; Hancock Brothers, and John Q. Stevens. But one of these from the Messrs. Steele Brothers, of Punta Reyes, give any statistics in regard to the number of their stock and the quantity of cheese made. They had during the year 1859 two hundred and sixty-one cows calved; of these one hundred and sixty-three were milked through the season, three died, and seventy-one were left to raise their own calves, and forty-eight were brought up otherwise, making one hundred and nineteen calves raised. The dairy work required the labor of nine men at wages averaging $27 per month. The produce was 59,887 pounds of cheese, yielding $14,931 77, or within a fraction of 25 cents per pound; $712 41 worth of butter, and $841 50 worth of hogs.

The reports are unanimous that the milk should be "renneted" as soon as it comes from the cow, or else that it and the cream that rises should be heated to about the same temperature as it is when it leaves the udder, say ninety-two to ninety-five degrees; and heat applied should never be less than eighty-eight and seldom over one hundred degrees, excepting only under peculiar circumstances. The greater the degree of heat the sooner the curd comes, but there is danger that it will mature too fast—so fast that it cannot be cleaned of the whey, and that the whey will be milky and carry off many of the butter globules with it, and greatly diminish the richness of the cheese—as to quote Mr. Stevens: "Experience has proven that if the milk is set below eighty degrees the whey will be white, and a great deal of oily particles will pass off with it, and the same effect follows a temperature much above blood heat." The whey should become clear like water.

All the parties use calf's rennet to set their curd, but there is considerable diversity of opinion in regard to the proper manner of preparing it. The Steels and Lairds first fill the rennets with salt; and then pack them with more salt in air tight cans, until a day or two before they are wanted for use, when a can is opened and the rennets cleaned with as little water as possible, and then put into a keg of cold water. Hutchison & Green do not give their method of keeping (probably being near a large market they buy them in a dry state, as wanted,) but when preparing, they soak each one forty-eight hours in two quarts of wine, and then bottle the liquor for use. These gentlemen say that "a good rennet will make from three to four hundred pounds of cheese, whereas a poor one will not make over fifty pounds." This discrepancy, we assume, could scarcely exist if they were all carefully prepared, at home. Hancocks do not use salt on their fresh rennets, but clean them with a cloth without water, and then dry them on stretchers. For use, they put to each three pints of a saturated solution of salt and water.

Stevens has a still different method. He prefers rennets from calves only four or five days old—(who eats the veal?)—and salts and dries them without any scraping or washing. In preparing for use, a gallon of water containing as much salt as it will dissolve, is put for each rennet, letting them stand in it a few days, rubbing them daily, and wringing them hard when taken out. After this they are resalted and dried again for second use, but are never so good or strong as at first. Mr. Stevens says he makes enough of the liquor at one time to last him the whole season, and keeps it in a cool place, in a stone jar.

As each of these dairies is noted for its good cheese, it seems that it makes but little difference how the rennet is preserved, or what particular mode is adopted to prepare the liquor from it, so that the one is kept sound and clean, and the other pure and strong, but all agree that there is sufficient variation in the strength of the liquor, even when two parcels are apparently made precisely alike, to render it absolutely necessary to test, by experimenting on a small quantity of milk, the strength of each making, before using it in the cheese vat, or otherwise there would be great danger of spoiling the curd. Therefore, we conclude that Mr. Stevens' plan of making a large quantity at once should probably have the preference, as with the strength of your rennet liquor once known, and with a thermometer (another absolute necessity) in the milk, there is scarcely a possibility of an error or a disappointment.

Almost every cheesemaker has some peculiarity about his vat and each thinks his own is the best, and our friends whose reports we are using are no exception to the rule. The Steels have a very good and economical one. It is a tin vat so set in a wooden one that a liquid will flow under and around it, and the milk is heated by pouring water between the two. Stevens also has similar vats, except that his outside or wooden one stands on legs and "has a sheet iron bottom, with another similar piece of metal fastened on in a half circle, with a door at one end and a pipe at the other, forming a sort of furnace, in which a little dry wood soon produces the necessary heat." The Lairds use steam, and have perforated steam boxes the length of the vat, whilst the Hancocks, who "do not warm the milk at any season because the rennet is added before it has time to cool from the cow," cook their curd by heating water and then putting the curd into it folded in cloths.

There did not appear to be any difference of opinion about the proper time to commence cutting or breaking the curd, nor as to how long that operation should take. The breaking should commence "after the milk has begun to coagulate," and "the whey shows a disposition to segregate," and begins to make its appearance around the edge of the vat," and the curd has become "tough enough not to whiten the whey," and "sufficiently solid not to adhere to the fingers." To which directions may be added the further one of Mr. Stevens, that whey should always be clear and not white like milk; butter globules should not be floating on the top of it; nor should infinitesimal particles of curd be, to any considerable extent, suspended like insects through it; nor, on the other hand, should the curd be allowed to get so far the start as to become a conglomeration of small lumps, each with a particle of whey fast within it, and each lump so seperate and distinct from any other that to get the whey out each must be broken by itself. The cutting and breaking necessarily takes an indefinite period, as all the whey must be gotten out, and with as little friction as possible on the curd, and before the latter becomes sour—from three quarters of an hour to an hour and a half is the usual time required; and the operation is performed with a tin or wire cutter (ten or twelve inches square and divided into half or three-quarter inch meshes) made for the purpose, or with the hand, or with both cutter and hand.

Now, after the whey is all out, and before the curd commences to sour, comes the process of cooking or scalding, the principal art in which is to raise the heat very gradually, until you see but few, if any, smooth lumps in the curd, and when, if it is pressed down in the vat or taken between the teeth, it will "squeak," and if compressed in the hand, and it suddenly opened, the curd will spring elasticly, in the manner of a new piece of silk, or similar substance, held in the same way. It seldom takes more than half an hour to cook curd sufficiently, and the heat may range from ninety-five degrees in cold, to one hundred and twenty in warm weather. Steeles apply one hundred and three in Winter and one hundred and ten in Summer; Lairds, from one hundred and four to one hundred and ten; Hutchinson & Greene use only ninety-six degrees; Hancocks, one hundred and ten; and Stevens, from one hundred and ten in moderate to one hundred and twenty in very warm weather. After this cooking the whey is drained off, either by raising one end of the vat and opening a gate at the other, or else by dipping the curd on to a cross-bar frame, with small interstices covered by cotton or grass cloth.

The breaking up and salting of the curd follows next, and here we find more discrepancy than in any other part of the manufacture. The Lairds use three and a half pounds of salt to each hundred pounds of curd, whilst Stevens use but one and a quarter pounds, and the five dairies reported average two pounds ten ounces. The Steeles, Lairds and Hutchinson & Greene break the curd and mix in the salt as soon as it is cool enough to handle comfortably; the Hancocks stir the salt in immediately after scalding, and Stevens does not touch it until it is perfectly cold. All, however, agree that after it is salted it should be put to press as soon as possible after it is cold—some of them even commencing to press before it is cold; though this seems to be of doubtful propriety, being open to the objections not only that the cloths are likely to stick, but also the buttery particles, being fluid from the heat, the power of the press will be more likely to force them out of the cheese.

Having now got our cheese to press, we have only room left to say that it may stay there from twenty-four to forty-eight hours; that all the reports agree that annatto boiled in ley is used to too great an extent, to give skimmed-milk and other poor cheese a rich yellow color; and that red pepper boiled in the butter or oil found floating on the whey, is the best thing to use on the rind to polish it and render it impervious to the assults of flies and other insects.

Curing, Smoking, and Keeping Hams.

Alexander Brooks, of Tioga county, New York, in a communication to the *Rural New Yorker*, in 1859, on keeping hams, says:

I tried keeping hams and shoulders in salt, and also in grain, but they would dissolve the salt or mould in the grain. I then tried keeping them in pounded charcoal with no better effect. I next tried dry ashes, but unless the hams were very dry when put up they would taste of the ashes. I then tried sewing them up in coarse cloth and white washing them several times over, as I had seen them in that condition in market; but they did not keep well—would either mould or the lime would crack and the flies get in.

For a number of years I have adopted a new method and never failed to keep them sweet and free from mould or flies. I prepare a sack for each ham. A yard square of good sheeting is sufficient for a good sized ham. After the hams are smoked, and before any flies have infected them, I put them up, one in a sack. I take sweet hay, and cut it (in a cutting-box) about one inch long, and fill in the sack and around the ham, so that the ham cannot touch the bag. Tie a cord around the open end and hang them up in the smoke-house or some cool, dry place, and they can be kept any length of time; the bag and hay will keep away the flies and allow the moisture to escape so they will not mould.

Hams should always be well cured before they are smoked. I have seen several good recipes in the *Rural* for curing hams. The following is my method, and I have often been asked how I could keep them through the summer and have them of so fine flavor:

RECIPE FOR CURING HAMS.—To one gallon of water take one and a half pounds of good salt, one half pound of sugar, and half an ounce saltpeter—to be increased in this ratio to any quantity required to cover the hams. As soon as your pork is cold cut out the hams and pack them closely in your cask. Sprinkle each layer lightly with fine salt—put on a weight and pour on the brine immediately, and before the juice of the ham has escaped. It will require from four to six weeks for the salt to strike through, according to the size of the hams. It will be necessary, perhaps, to add a little salt on top of the hams; sometimes, if they are very large, they absorb so much of the salt as to leave the brine so weak it may sour. It would be well to take them up after they have been in a week or two, and examine them, and if necessary add a little more salt. Great care should be taken not to salt too much, as by doing so you lose the flavor of the ham, and but just enough should be used to keep them. As the ham absorbs the salt from the brine it should be fed by adding a little salt on the top, and the hams should be well struck through. When the hams are large I take out the flat bone and cut off the round socket bone with a chisel, leaving always the large bone. With care I never have failed to keep hams sweet.

HOW TO MAKE A SMOKE-HOUSE.—Having given you my method for curing and keeping hams, let me add my plan for a smoke-house. No farmer should be without a good smoke-house, and such a one as will be fire-proof and tolerably secure from thieves. Fifty hams can be smoked at one time in a smoke-house seven by eight feet square. Mine is six by seven, and is large enough for most farmers. I first dug all the ground out below where the frost would reach, and filled it up to the surface with small stones. On this I laid my brick floor, in lime mortar. The walls are brick, eight inches thick and seven feet high, with a floor on one side two feet wide. The door should be made of wood and lined with sheet iron. For the top I put on joice two by four, set up edgewise and eight and a half inches from center to center, covered with brick, and put on a heavy coat of mortar. I built a small chimney on the top in the center, arching it over and covering it with a shingle roof in the usual way. An arch should be built on the outside, with a small iron door to shut it up, similar to a stove door, with a hole from the arch through the wall of the smoke-house and an iron grate over it. This arch is much more convenient and better to put the fire in than to build a fire inside the smoke-house, and the chimney causes a draft through into the smoke-house. Good corn cobs or hickory wood are the best materials to make a smoke for ham. The cost of such a smoke-house as I have described is about twenty dollars.

A Prolific Grape-Vine.—A poor woman in the county of Santa Barbara, California, has but one grape-vine. This bore, in 1857 five thousand bunches of grapes—each bunch weighing over a pound—yielding her the handsome sum of four thousand dollars. When a girl, on leaving Monterey for her present home, she picked up a vine cutting to drive her mule. This cutting she planted on her arrival, and after the laps of seven years such is the result.

[For the Deseret News.

A TREATISE ON HORTICULTURE.

BY EDWARD SAYERS.

PLANTING ORNAMENTAL, FOREST AND FRUIT TREES.

The planting ornamental trees around our dwellings, in the street, by the way side, and for shelter for cattle in the pastures is most esentially necessary; this kind of improvement is also of the greatest importance to the culture of fruit trees, which are often much injured by the cold cutting winds, early in the spring, when the trees are in blossom; and by such cold blasts a crop of fruit is often lost which might be saved under the more genial protection of ornamental trees to break off the strong currents of sweeping winds.

Trees are also necessary, and claim the attention of every intelligent person for their special use of modifying the surrounding atmosphere to a more healthy, pure state, (particularly in cities) by inhaling the superabundant portion of impure gases, and giving out pure gases morecongenial to the constitution. To this may also be added, that ornamental trees and plantations give a fine feature to the improvement of the surrouding country, and are a sure guide to the intelligent traveler, of the onward progress and refinement of the people, while the lone house has no claim on his attention, and marks an isolated spot devoid of congenial association.

"Plant trees and they will grow while you are sleeping," was the just and elegant expression of Sir Walter Scott, and there is no place the remark can be better applied, than in this country where the eye scans over miles of mountainous fields and valleys without a grove or plantation to relieve the mind from sameness or give a variety or freshness to the distant scenery.

To accomplish the desired end, of successfully planting ornamental trees, it will be necessary that young seedling trees are raised in nursery rows, and transplanted out the following seasons, in rows from 2 to 3 feet apart, in order to make good, handsome plants for final transplanting.

It will be well for nurserymen, and those interested in raising young trees, to import the seed of different varieties of hardy forest trees from the States, for this purpose. The Maple, Elder, Ash, Buttonball, Butternut, wild Black Cherry, Chesnut, Lime and other deciduous trees will most probably answer a good purpose. The different varieties of evergreens as the Pine, Hemlock, Spruce and other evergreens will also most probably, in time, form a part in ornamental plantations, although at the first beginning, it is likely that evergreens will not thrive well, when exposed too much to the sun, etc., but so soon as groves and plantations, of deciduous forest trees are established, the evergreens may then be mingled in such groups to good advantage.

The native forest trees, as the Box Elder, Maple and Cottonwood and other hardy varieties, will answer a good end to plant in groves to shelter better varieties until the young trees are well established.

In forming ornamental plantations, the planters should have an eye to the future as well as the present. In the first place, no tree can be considered as ornamental but such trees as will be adapted to the climate and location, and form a healthy and free growing tree. The second consideration should be, that the trees planted will serve some useful end, as timber, fire wood, and other useful purposes.

For planting streets and side walks, road sides and avenues; the Box Elder, Maple, Buttonball, Locust, etc., will most probably answer the best purpose, and it will be well if such plantations could be so managed that a long line be planted of one kind—this has in many places in the States been carried out to an admirable effect, particularly with the different varieties of Maple, Locust and other varieties adapted to the location.

The mingling of fruit and forest trees together in order to give shelter and encourage the healthy growth of good varieties of fruit around houses, will most probably be a good system to adopt. The lone tree and those that are planted a distance apart never make much progress in this country when much exposed, and as shelter is so essential, the system of close planting may be adopted, until the trees become too thick when those of an inferior quality may be cut down for fire wood.

To accomplish this end, native plums, peaches, the different varieties of mulberries, may be mingled with good varieties of grafted fruit to serve for a present supply of fruit, until the better varieties are in a bearing state, when a thinning out may be done as before hinted.

Seedling apples, apricots, pears, peach and plum trees may be planted in groups among grafted trees, and such trees may be grafted at convenient seasons, to form a good collection. A few scattering trees, of the Buffalo berry, Hawthorn, Service berries, etc., may be planted to give a sprinkling of native fruit, until the better kinds are in bearing.

In a new country like Utah, it is a good policy to cultivate such kinds of fruit as come into bearing in a short time, and retain it until a better variety is determined upon to take the place of those in bearing; for the want of this precaution, many bearing trees have been headed down and grafted with varieties no better than the seedling stock, at the expense of the loss of fruit to the owner for two or three years.

It is unquestionably the desire of every person to have *good fruit*, but it is much better to have rather inferior varieties for a while, until the good varieties are in a bearing state, than to dispense with fruit altogether.