

the lever. Then the front end of the lever is carried round towards the wire, this draws up the wire 3 or 4 feet towards the post. Then hook the other chain on one of the hooks in the lever on the other side of the post, and carry the lever back again, this gives three feet slack to the first chain, and draws up the wire 3 feet more; hook up the first chain again tightly, and swing the lever round toward the vice again, and hook up the second chain, and so on until the wire is sufficiently tight. The end of the wire is then wound round the end post say five or six times, and fastened; all the wires are drawn up in like manner. This machine does the work quickly and easily, and will draw the wires on a trellis 100 rods long sufficiently tight.

A stake six feet long with a notch in the top, is set on the ground between each of the posts, and the upper wire put in the notch; this keeps the upper wire six feet above the ground, its entire length. Next take the number 18 wire and run it from the lower to the upper wire, once in 2 feet, the whole length of the trellis. These upright wires are to tie the vines to in training them. Mr. Chapin says he finds by experience, that it would be better, and cheaper in the end, to place the upright wires only one foot apart, so as to have one to train the bearing wood to, and one to train the vine to for the next year's fruiting. This keeps the new canes, each year, separate and between the bearingwood. This will increase the expense of the trellis \$10.61 an acre, making the whole cost of the trellis \$45.77. Instead of these upright wires, two more No. 12 wires can be placed equi-distance between the upper and lower wires. Making the cost of the trellis in this form \$34.90 an acre. This is \$10.76 cheaper than the other form of trellis. Experience will determine which of the two ways is the better one. Mr. Chapin is fully satisfied, from his experience, that his manner is by far the best, and in the end much the cheapest. His plan certainly involves much less labor in tying up the vines, trimming training and laying them down in the fall, and putting them up in the spring.

#### Laying down the Vines.

To lay them down, the top wire is unwound from the end posts, and taken from the notches in the centre posts, but not from the stakes this swings the upper wire, upright wires and vines, over to the ground the whole length of the trellis. The weight

of the wires hold down the vines. The lower wire, and base vines remain on the trellis. The vines should be well trimmed before they are laid down. In this way it is but little work to lay them down or to put them up in the spring. The other form of trellis cannot be laid down in this way. They are taken from the trellis at the time of trimming, in the the fall, and laid down on the ground, and ends covered with dirt, or boards, and then tied again to the wires in the spring.

#### Culture.

The year the vines are set out, the land should be planted with some low crop, if planted at all, and well tilled through the summer. But one vine should be allowed to grow from each root. This vine receiving the whole force of the root, will be large and strong in the fall. The last of November, it should be cut back to about *one foot above the ground, the height of the lower wire on the trellis, that is to be.* The joints will be very short on the vine near its base, and the buds very close to each other, so that the buds will be nearly opposite to each other, a foot above the ground, from which the horizontal vines will grow the next year.

The vines should be covered with dirt at the time of shortening and uncovered in the spring. The trellis should be built in the spring of the second year, before the vines make much growth. But two buds should be allowed to grow, and those from as near the lower wire as possible. All below should be rubbed off through the summer.

#### Modes of Training.

These two vines are trained each way on the lower wire, and tied to it, from time to time, as they increase in length. After reaching 6 feet, the distance given to each vine on the trellis, it should be turned up, and trained to one of the upright wires. All the laterals should be pinched off beyond the second leaf. If the land is in good condition, and well tilled, and vines well cared for, the canes will be as large as a man's finger in the fall, and the vines able to mature a moderate crop of fruit the next year. The last of November these vines should be cut back to the lower wire, and the vines left on the trellis for the winter.

In the spring of the third year, one or more vines will start from each of the joints in the base vines. Enough of these should