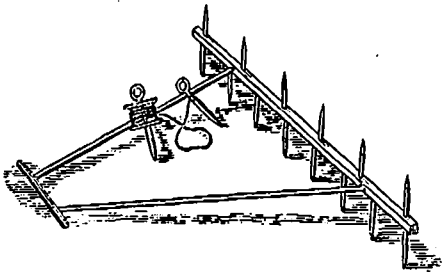




HALF of the beauty of a vegetable garden depends on having the rows, which extend from end to end, without reference to cross walks or the length occupied by any particular kind of vegetables, as nearly straight as possible. To thus lay it out, providing at the same time for rows of the different widths apart, the implements shown are needed. The first is the common iron reel with line, used

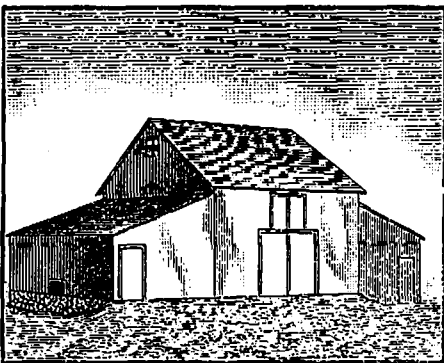


for guiding the other implement, namely the marker, in its first trip across the garden. If after one or more rounds of the marker any material deviation from a straight line is observed in its course it is well to again stretch the line to correct this.

This marker is a simple affair to be drawn by hand and which can be made by anyone who has a few good tools and the lumber. On one side the marking teeth should be one foot apart on the other $1\frac{1}{2}$ feet apart. By using the full markers sowing to each mark and by skipping one or more of the marks regularly in sowing, rows of any distance apart from one foot up may be had.

A Cheap Method of Increasing Barn or Stable Room.

BELOW we show a cheap method of increasing the scanty barn room of many farms. The addition consists simply of a lean-to added to either end of an ordinary barn; these may be used for stables, for storing implements, wagons, etc., for a shop, or various other purposes. The artist has represented them as having each a small door, but for housing implements larger doors will be necessary. Windows might also be added, and other changes may suggest themselves. The cut is intended simply as a hint of the possibilities of such additions. The capacity of a barn may be nearly doubled, while the expense need not be heavy. Floors may be added or not, according to the uses to which the addition is to be put. Such additions are preferable to

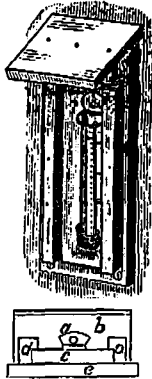


separate small buildings for the reason that they are more sheltered from storms and winds, are more convenient in doing chores, and may be utilized for storing grain, hay, etc., in productive seasons.—*Rural New Yorker*.

Thermometer Box.

At the side of our green-house entrance door we have a convenient arrangement for handling the thermometer in the winter. This is shown by the engravings opposite, the lower one of which is a cross sectional view as seen from the bottom looking upwards. Here *a* is the thermometer attached to

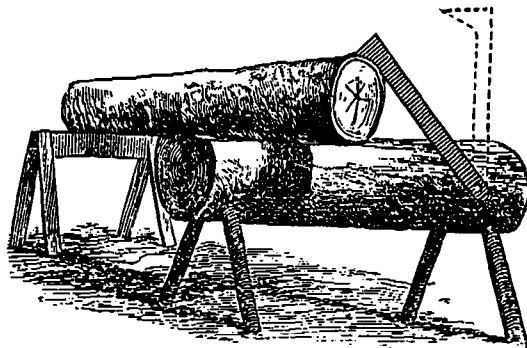
the upright board *c* on the top of which and slanting is attached the roof *b*. On the board marked *e*, which is the base of the whole, being secured to the building by screws, are two flange pieces, *d d*. Into these flanges the piece *c*, holding the thermometer and having the roof piece as alluded to,



may easily be slid. Then when one desires to consult the thermometer at night by reaching out and taking hold of the roof piece the parts *a, b, c* in one, slip up and can be brought quickly to a light inside the door to be read and then returned. The wind has no chance to blow away or otherwise disturb the thermometer.—*Popular Gardening*.

How to Hold A Log.

THE illustration below shows an effective device for holding a post or stick of timber while it is being hewn or sawed. A "horse" is made of any good pattern with either rough or sawed timber.



To this is pivoted a "dog" or hook of iron or steel as shown in the engraving. The hook is driven into the log to be held in place, and is readily liberated by a few taps from below. Such a device can be made by any blacksmith, and may be light or heavy as desired.—*American Agriculturist*.

OUR rural readers should not fail to attend their Institute meetings this winter. Time and money cannot be put to better use than the acquirement of knowledge, which is power, and securing interest in one's own occupation, which means contentment.

THERE is always plenty to be done from now until spring preparing for the season's work. Seed that will be needed in the spring can be secured, manure hauled out and applied, machinery repaired, harness overhauled and repaired ready for work and the summer's supply of wood gotten up. Good planning in January will facilitate good planting in April.

WHEN you put a kerosene lamp in your cellar to warm it set a joint of stovepipe over it and lay a tin plate or the like over the upper end, taking care not to have it tight enough to interfere with the draught. The pipe will be hot as long as the lamp burns, radiating the heat in all directions, while an open lamp merely sends a hot current upward, leaving the bottom of the cellar as cold as ever.

A GOOD way to preserve fence posts is to let them get thoroughly dry, and then with a can of cheap kerosene and a whitewash brush, give the lower third of the post (the part that goes into the ground)

two or three liberal applications of the oil, letting it soak in well each time. Posts so treated will not be troubled with worms or insects of any kind, and will resist decay to a remarkable degree. This is considered the simplest, easiest, cheapest and best method of preservation.

THE manure crop is of great importance at this season. Every shovelful should be saved and go to the heap. Keep all manure piles well made and compact and if too hot (which may be learned by running a stick into the interior) make the pile anew, bringing what was in the centre to the outside. Some good, artificial fertilizers will generally pay to use with yard manure. Many believe that it is a convenience and an economy to haul out the manure and spread it as soon as a waggon-load is gathered.

THE following remarks by a contemporary have the right ring about them:—Show us a man who patronizes agricultural papers and likes them; who writes for them giving his experience for the benefit of his fellows in return for what he gets from them, and we will show you a man who respects his calling. He who is afraid of being known as a farmer, or feeling that he is known as one and is ashamed of it, is the man who is not only lacking in self-respect, but in respect for the noblest calling on earth. In this land of farmers, who, but farmers, should be leaders in independence and manliness of character and conduct?

SPEAKING of his success with small fruit a prominent fruitgrower gives his experience as follows:—a big pile of manure is the fruitgrower's bank; to raise strawberries successfully the ground must have rested the year previously as a summer fallow; three or four varieties of grapes are better than a larger number, and by constant care one acre of well-managed grapes will give more return in dollars than twenty in grass or grain; grapes do not pay as well as strawberries, but they pay 200 per cent. better than common farm crops; currants will bear fruit for twenty five years and not lose their vigor; to succeed, a man must know his trade, be vigilant and honest, with not too great expectation to get rich all at once.

EVERY farmer should devote a portion of his land to a garden as its importance for health, pleasure and profit cannot be over-estimated. Take the best piece of ground—not too large—plowing several times, tilling as well as you know how, using both manure and chemical fertilizers, and making everything grow at high pressure speed. Have the plot oblong, with long parallel rows, using a horse as much as possible. Leave here and there a row unplanted at first, for tomatoes, cucumbers, melons, and squashes, to occupy the ground when earlier vegetables are gone. Cultivate or make a home market. Many vegetables may profitably be dried, evaporated or preserved in glass. Seed raising often pays; so does a hotbed, by the sale of strong early plants; and cold frames, enabling you to supply your customers with winter vegetables as well as summer.

To those who are bothered with rats in their barns and don't know how to get rid of them the following devices which have been successfully tested are given. Take a large brass kettle, fill it about two-thirds full of bran or meal, place where the rats will be apt to find it, give them free access for a few days, then take out the meal and put about the same quantity of water in the kettle, covering with buckwheat hulls, which will float on the water. The rats will jump in, swim a while, and go to the bottom always leaving room at the top for more. Another good method is to catch one in a trap alive, fasten a small bell around his neck, and let him loose, or singe him in a fire; or cover him with gas tar and let him loose. They will say "good bye" in short order and visit someone else. Another method is to put a few guinea hens with the flock of barnyard fowls and the rats will quit, as they will not stay, so it is said, where guinea hens are kept.