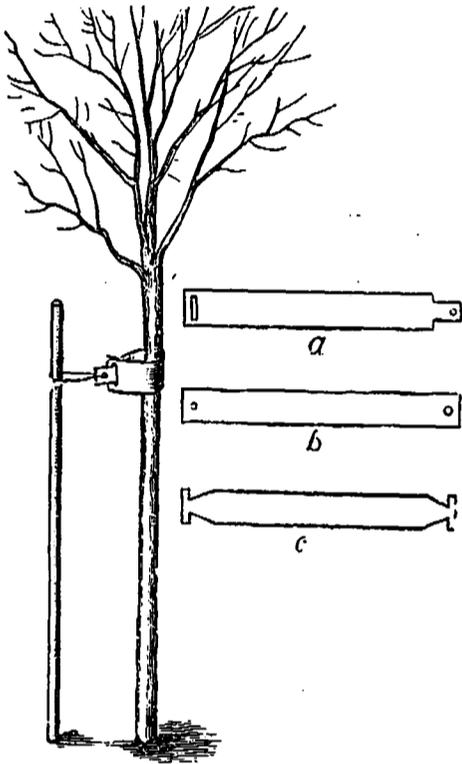




Staking Young Trees.

Young trees set last spring or in the autumn, if in an exposed situation, should be staked up, and if this matter has been neglected it should now receive prompt attention, as the constant moving to and fro by the wind not only causes the tree to grow out of the perpendicular, but strains and often checks the bark, not infrequently girdling the tree where it continually grates against the frozen ground, all of which should be avoided. The general plan of staking is shown in our illustration, and three forms of bands are also exhibited. They are best made



from old rubber boots or shoes cut in strips seven inches long and from one to two inches wide; but in the absence of rubber thin leather may be used. In either case connection may be made with the stake with No. 12 annealed wire. Of course, the stake should be located upon the windward side of the tree, and when large trees are set, two or three stakes should be used. In all cases the band should be large enough to contain two years' growth of the trees without pressing, and unless in a very exposed situation, in two years from setting, a tree should be so firmly established as to dispense with further support.

How to lay Plank Walks and Stable Floors.

If the reader will study the grain in the end of the planks in any walk, or as represented in Figs. 1 and 2, it will be seen that in the first the grain forms successive cups or gutters, which catch and

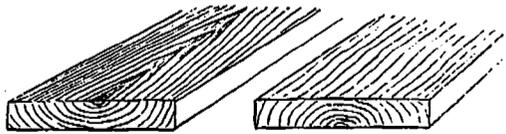


FIG. 1. WRONG WAY. FIG. 2. RIGHT WAY.

hold the rain water, which causes the plank to decay quickly. It will also be seen that the same grain as it runs along the face of the plank makes long, sharp splinters, which in rain and shine soon warp up and endanger the feet, and tear the dresses and are unsafe in many ways, besides rotting out the planks so much quicker. Now turn this same plank over, as shown in Fig. 2, and it will be seen how each close grain makes a little roof over its fellow, and all liquids percolate through the loose grain and drain away, allowing the plank to dry

quickly, while the splinters are nowhere to be seen. Planks and boards should therefore be laid properly as in Fig. 2, and not as in Fig. 1.—*American Agriculturist.*

A Sled with Wheels.

ONE of the most useful implements that can be brought upon a farm or market garden is a small sled. The one shown in Fig. 1, is six feet long, three feet wide and fourteen inches deep—that is, the plank of which the runners is made is fourteen inches wide. It differs from ordinary sleds only in having two wheels attached, as shown in the en-

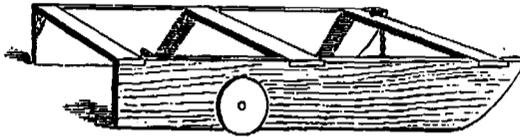


FIG. 1. WHEEL SLED.

graving. These wheels are made of oak and turn upon an iron axle which passes through both runners. An axle made of hard, tough wood would do as well. The wheels "drop" two inches below the runners, and a person who has never used a sled with them on has no idea how much easier they make it run.

One like that shown in Fig 2 runs even easier than the other. The wheels are smaller, but in line



FIG. 2. IMPROVED WHEEL SLED.

with the runners, and travel in the same track, and then there is no axle stretching across between the runners. The wheels are oak, two inches thick, same as the runners, and they may be tied with heavy scrap-iron if desired. The fore ends of the runners are shod with iron or hickory. Such a sled may be used for drawing in corn-fodder, hauling manure on the garden, carrying harrows, plows, etc., about, and other similar work.

NOTHING will purify and keep a stable so clean from odors as the free use of dry earth, and every one keeping horses or cattle will find it pays to keep a heap of it at hand, to be used daily.

WINTER is the time for splitting out fence posts, but they should be seasoned for at least a year before they are used. Only one side need be dressed, and this should be done before the posts are put away to season; fresh wood cuts the easier. The successful farmer looks at least one year ahead, and will prepare this winter the posts he needs a year hence. Posts for post-and-rail fence can be, and should be, mortised this season. Coat the ends of posts with paint, or at least with oil.

THE farmer who raises wheat, or oats, or rye, largely, and has not stables fitted with manure gutters and reservoirs, will do well to use straw liberally for feeding. If enough is used, it will absorb nearly all the liquid manure. The liquid manure will hasten the decomposition of the straw more rapidly, converting it into a valuable fertilizer. Without the straw or some similar substance, the decomposition of the liquid manure is so rapid as to be destructive, and a part of its value is lost. Straw is a very imperfect conductor of heat, hence, when it is used liberally for bedding, much less food is consumed in the production of animal heat, and the animals are healthier and thriftier.

JANUARY is the proper time for the most important of all garden work—the protection of what are supposed hardy plants. It matters not however hardy a plant may be considered, it needs protecting in our climate. It is true, many forms will en-

dure the rigors of our winters; that is, they will live without protection. But they will not thrive luxuriantly, neither will they live long and bloom, if left to care for themselves. For the herbaceous border and tender shrubs, a liberal mulch should be provided. Cover your beds of bulbs, of all kinds, with coarse manure three or four inches deep. In the spring rake away all that has not rotted, and fork the ground over carefully so as to incorporate the manure well with the soil, which will at the same time be made light, without injury to the fine roots. Follow this plan up, and your bulbs, plants, and shrubs will give you flowers far beyond your conception of their possibilities.

THE following receipt for the prevention of rust on farm implements when not in use, will be found invaluable: Melt together a pound of lard and a lump of resin, the size of an English walnut, using only heat enough to melt the resin, which will take place soon if it is broken fine. By wrapping the resin in a piece of brown paper, and striking it gently with a hammer, smooth stone, or other hard substance, the resin may be readily broken, and, by carefully opening the paper, may be added to the lard with ease. When the resin is completely melted, stir the mixture well, and set aside to cool, keep it covered to exclude the dust. Any article of iron or steel, even delicate machinery, covered with this—moving the article slightly, to cause the composition to enter all crevices—no matter how thin the coating, will be completely protected, and the mixture prove itself a complete anti-rust. Boys will also find it capital to apply to their skates, bicycles, sled runners etc., when they are put away for the season.

THE value of sulphur as a disinfectant should be well known. By burning it, the sulphur is oxidized and becomes a most acrid and poisonous vapor known as sulphurous acid. This acid quickly destroys all kinds of germs, whether of mould, mildew, and other kinds of minute fungi, or of those organisms which cause disease in plants and animals. The germs of all the contagious diseases of farm animals are destroyed by exposure to the fumes of burning sulphur, and wherever these diseases have appeared, or are expected to appear, they may be avoided by closing the buildings and fumigating them with sulphur wrapped in paper moistened with kerosene oil to make it more inflammable, screwing up the paper and lighting one end. The papers, for safety, should be put in an iron pot or pan. One ounce of the sulphur will be sufficient to fumigate and disinfect a small poultry house, and a pound will serve for a large stable or barn. The building should be tightly closed to retain the fumes, the cattle, of course, being removed meanwhile, and the sulphur should be burned in several places over the floor so that every part of the building may receive a full share of the disinfectant. As the salt known as hyposulphite of soda consists of sulphurous acid united with the base, it is a useful internal disinfectant, and as its action on the internal organs is safe, it is usually given as a preventive to the animals which have been exposed to infection or contagion.

Libe Stock.

CLOVER hay can be used to good advantage as a food for swine. It is not merely nutritive but goes far towards keeping the animals in a healthful condition during the winter months when green food cannot be obtained or supplied. The very coarsest should not be used, but only the tops or finer ends of the hay, which is run through a cutter, making the pieces about an inch or half an inch long. In feeding, enough of this to make a "mess" is taken, corn-meal, bran, or corn and oats ground together, is put in to enrich it, when the whole mass is well soaked down with water, adding a little salt, and then fed. The pigs eat it with a relish, and thrive on it. Some swine-feeders merely have the hay finely cut and then supply the pigs with it dry or merely moistened with water and then made appetizing with some salt, but while the animals will consume a large quantity prepared in this manner it is a rather wasteful way of feeding it.