

Stone Fence Posts.

Cedar fence posts are becoming expensive, and at no very distant day a substitute must be found for them. Cedar is a tree of exceedingly slow growth and only thrives well in peculiar situations. It is hard to say that it is capable of cultivation with any prospect of obtaining gain. We believe no attempt has been made to cultivate cedar for the purpose of raising timber, and it is obvious that no one will embark in the enterprise, as an ordinary lifetime would be required for the trees to grow of sufficient size to be used for posts. In this country no one is willing to wait some scores of years for a crop.

Of late cedar has come in demand for quite a number of purposes aside from furnishing fence posts. Almost all the telegraph poles in the country are cedar, and the demand for them for this purpose in the future promises to be immense. Considerable cedar lumber is also sawn into shingle and materials for cooperage. Much is used for piling and for furnishing protection against the action of water. It is now proposed to use cedar for pavements, as ordinary woods go to decay so quickly when placed in contact with the moist earth.

It is true that other sorts of wood can be used to tolerable advantage for fence posts, though nothing has been found to be the equal of cedar, which has a large number of qualities that especially fit it for the purpose of sustaining a fence. It is very durable, even when exposed to situations where it is alternately wet and dry. It is one of the lightest woods known, and accordingly it can be easily transported and handled. The sticks are ordinarily very straight, so that they require very little preparation for posts. The wood is easily split with a saw or with wedges.

It is evident that the supply of good material for boards will outlast the supply of good material for posts, and that at no distant day a substitute must be found for wood. In some European countries iron has been used for supports of telegraph wires and panels of fences. With iron so high and land so cheap, it is hardly likely that we shall have iron fence posts in this country to any considerable extent. Most likely the substitute for wood will be stone. For more than a century granite fence posts have been used in some parts of New England with the very best results.

We have in many portions of the west quarries of stone that are singularly adapted to forming fence posts. The stone is ordinarily impure limestone, very easy to split, and lying in horizontal layers of about the thickness required to form a single post. These deposits are generally very near the surface of the ground so that little labour is required to open up a quarry. The stone requires no dressing, and holes for nails are very easily drilled in it. No expensive tools are required to split the stone.

The advantage of stone posts is permanency. Once in place, they are good for many generations. They are only liable to injury from breakage, and this liability is very slight. Experience has shown that stone posts are less liable to be destroyed by breakage than wooden posts are by fire. Of course, the labour of preparing and hauling stone posts is greater than in the case of those of wood but the work can ordinarily be done when farmers have little to do, and in many instances stone posts can be obtained for less money than wooden posts.—*Chicago Times*.

Construction of Barns.

A correspondent of the *Country Gentleman*, after submitting for criticism the contemplated plan of a barn, asks the following questions:—How large ought hay sheds to be? (1) How large ought ventilator tubes to be? (2) Ought they to be tight all the way till they pass out of the roof? (3) Should the ventilator tube be closed about tightly where it passes out of the roof, or should the open and unoccupied space under the roof also communicate with the outside ventilator? (4) My plan (liable to change) now is 48 feet square, with cellar for cows and sheep; next above, horse-stable, granary and carriage floor, and above this a threshing floor 16 feet wide, with bays each side 16 feet each; cellar, 8 feet high (clear); intermediate story, 8 feet 8 inches (clear); upper story 20-feet posts. I send a little sketch of the arrangement I have in mind of the three floors. I should be glad of criticisms and suggestions, but be assured I shall not be surprised or mortified, however little attention you may give it. I am convinced that the economy of a square, or nearly square building, is not generally appreciated, but there may be some disadvantages. (5) How shall I strengthen the great beam on the north side of north bay, and on the south side of south bay, to prevent their being pressed outward in the middle by the pressure of hay—by a long brace from about the middle of the cross-sill to near the top of the posts, or by cross-beams? (6) What is the best style of roof for such barn—would not what is called the French style (plain) be

more expensive and render more difficult the arrangement of the ventilator tubes and track for car of horsefork? (7) I have seen a five-eighths iron rod put up for track—is it as good as any? (8) How are the floors of horse-stables constructed so that the filth does not go through? (9) What is the method of carrying water to cattle in their stalls? (10) Have I posts enough in my plan—16 feet from post to post, each way, and in each story? (11).

These are answered in succession thus:—1. The common size is about 20 by 30 inches inside. They should be planed smooth to allow the hay to slide easily, and should be slightly smaller at the top, and gradually enlarge in descending, which prevents danger of the hay lodging. 2. Ventilator tubes will be large enough if one-half or two-thirds this size. 3 and 4. There should be openings into the ventilators from the upper part of the hay loft, if the barn is tight, to allow any vapors from the hay to pass off. These vapors will pass into the ventilator and escape (and the fumes from below will not pass through these openings and into the loft), if the ventilator cap is placed at the top, like that represented in fig. 1, and in section by

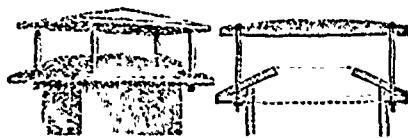


Fig. 1.

fig. 2; it is made of plank, except the four iron rods at the corners. 5. There is economy in building nearly square, both in material and in the retention of heat in winter; the disadvantages are, a want of light for the central portions, and more difficult side-ventilation. 6. If the posts are stiff enough, all the necessary bracing or ties may be placed in the floors above and below; but if not, cross timbers or iron rods may be used. The pressure against the side walls is comparatively slight, where hay is stored within, as the mass is held together by its fibrous texture, and does not settle, like earth or sand, with resistless force against them. 7. The French, or gambrel roof, is a saving of board siding, by substituting shingle roof instead, and it holds a greater cubic content for the material. When builders are familiar with this mode of constructing the roof, it would be attended with no difficulty—otherwise we would recommend the common and simpler form, as there is no great advantage in the former. 8. If the rod or bar is firmly supported, the precise form is not important. 9. It is well to have good, tight-matched floors, but no well-managed barn will ever emit much foul odor from the basement. Manure, if allowed to remain within doors, should be supplied with a sufficient amount of some kind of



Fig. 2.

absorbent, (straw, muck, dry loam, road dust, &c.) to prevent all offensive smell. If this cannot be accomplished, wheel all the manure out into the yard twice a day. The odor of manure injures the building, corrodes harness, hurts the animals, wastes the manure, and indicates neglectful management. 10. Water may be conveyed to cattle by pumping it into horizontal troughs; or by underground pipes, with sufficient head; or by the method represented in fig. 3, all the tanks being connected by covered curved pipes. When water is poured into one, it will fill all alike. It is important to secure the pipes from freezing. 11. Yes, if the cross-timbers are strong enough and are well supported by braces—the strength depends on braces, ties, sufficient timbers, &c., as well as nearness of posts. It would be well, however, as buildings are commonly made, to provide the basement with at least double the number of posts.

The sketches of the plan of the barn do not represent the details; so far as we can see from these outline sketches, the design appears to be good in its leading features. The three-story barns, like this, will be likely to undergo considerable modification as the horse-fork and horizontal hay-carrier come into more common use.

The Farmer's Tool-house and Workshop.

A farmer can never fully appreciate the usefulness of a good set of tools and a workshop, in which he can on rainy days, or in the winter season, repair his farm implements in many cases, or make useful articles to be used on the farm, and become expert in the use of planes, saws, bits, drawing-knives, &c. On nine farms in ten in the United States, probably, all the edge tools to be found consist of an old saw, not filed within ten years; a rusty auger, with handle-loose; one or two gimlets, made half a century ago, and an axe, in pretty good order from sheer necessity, to be able to cut wood enough to keep from freezing in the winter season. Every good farmer should

have a room in some outbuilding where a stove can be placed in the winter, in which he can do any little jobs that one may be able to do who is not a practical mechanic. After this workshop is provided he should purchase a fair assortment of good tools, as follows:—Fine and coarse teeth saws, two or three augers, of different sizes; bits of five or six sizes, with brace, to be used in the place of gimlets, being much better; several planes, drawing-knife, files of different sizes, a vise, hatchet with a broad out, nail hammers, large and small—a small sledge-hammer, weighing about two pounds, and other things that will occur to him when purchasing. A cooper's shaving horse is a very useful thing to have in such a workshop; also different sized wrenches, with which any nut on the iron-work of farm implements may be removed.

Let any young farmer supply himself as above stated, and in two or three years he will be surprised at his advance in the use of such tools and his ability to repair many things that are generally sent to the blacksmith or wheelwright to mend. He should always provide in advance hardwood timber, cut in the most convenient sizes or such uses as he may require it, so that if he wants to repair an implement, he can instantly find just the piece of wood needed and seasoned. A man who accustoms himself to the use of good tools and brings up his boys to use them, may frequently repair his farm buildings quite as well as a carpenter. Suppose that a roof is to be shingled—any man of tact who is accustomed to the use of the hammer and chalk-line can do it. So it is with clapboarding—a little care in lapping and keeping the courses level, and any farmer can do it, or frame a small out-house, if he has suitable tools and has had some practice. Every farmer knows how very often something upon his premises becomes "out of order;" how frequently he has to go or send "to the village," from one to five or more miles distant, to have some little thing done that he could do in a few minutes if he were properly prepared for it. For instance, he commences haying; the weather is fine, and he is anxious to cut all the grass he can on that day. He works an hour or two, and a bolt in the machine becomes loose, a nut having come off, which is lost. He is not accustomed to swear much, but on this occasion he uses pretty rough language, as the machine must be idle the rest of the day, in order to go to town and have a new nut made.

Now, suppose that this man had provided extra nuts and bolts for his mowing-machine, as every farmer ought to do—that is, those that are liable to break or get loose and be lost—in such case his detention would have been but a few minutes. This provision of extra bolts and nuts, extra plough-shares, hoe and hay-fork handles, &c., comes in as a consequence of forming the habit of keeping a good supply of workshop tools and looking ahead in regard to farm labors. Farmers can often, on rainy days, employ hired men in their workshops in helping repair some implement. It is very bad management for a farmer to have nothing for his farm hands to do in wet weather, and something should be prepared for them on such occasions. The good farmer will always look ahead, and have something that his help can do profitably when they cannot work out of doors.—*New York World*.

Right vs. Left Hand Ploughs.

A correspondent writes as follows to the *Ohio Farmer*, on the comparative merits of left and right handed ploughs, evidently favoring the former:—

Nearly every farmer in this neighborhood uses a left-hand plough. Why is this so? Is it because the left hand has any advantage over the right? I have never found out what this advantage was, but I claim the right hand has more than one advantage over the left. One is in breaking a colt; a man generally wants to hitch a colt on the off side, and with a right-hand plough the colt will soon learn to follow the furrow; then when he has learned to turn at the end, if the nigh horse is a single-line horse, the single line can be put on him, the colt jockeyed off, and all will go well.

But with a left hand plough the colt is put on the land, with nothing to keep him to his place but a jockey stick, and he will go just where he pleases—sometimes in and sometimes out—picking the best place to walk, of course, and it is impossible to make a straight furrow. Another is, in finishing up a land, there should be three narrow furrows left, and in ploughing the third from the last furrow, there is barely room for a horse to walk on the land; with a right hand plough a person can keep the nigh horse on the land by using the line, but with a left hand plough the furrows are mostly made so crooked that the horse can neither walk on the land nor in the furrow all the time. When the strip is of a width all along, the off horse can walk in the furrow easier than on the land, and there is where he will walk. It always seemed to me, when I was ploughing this furrow with a left hand plough, that I ought to have two jockey sticks—one before and