

row well; but a plough may cut a shallow furrow well, but will not cut a deep one so well, and turn it well.

The surest way is to purchase it on trial, for your manner of adjusting a plough and of ploughing, and your team, are all so different from some one else who pronounces the same kind of a plough the most perfect implement in the world, that you cannot by any possibility operate it in any satisfactory manner. If a plough which you do not desire to purchase. And as different ploughs are calculated for ploughing different kinds of soils, and for cutting a furrow of given depth, it is always better to purchase it on trial. In order to do good work, the skillful agriculturist will keep on hand different kinds of ploughs, adapted to all the several kinds of ploughing, and to the different kinds of soils. A good plough is one the shape of which is such, that the draft will be as light as possible, that it will turn a furrow-slice well, whether five or eight inches deep, and will maintain any form of furrow hold easy and glide along as smoothly as a goose on the water.

In striking out a land, the first furrow always requires much more strength of team to turn it than is required after one furrow has been turned. And the draft of a plough needs a different adjustment with the clevis, usually, to run at the same depth in striking out a ridge, and in ploughing after two or three furrows have been ploughed. Therefore, adjust the plough to cut a very shallow furrow, and go twice in one place for the first time round. In order to strike out a back furrow straight, plant not less than three stakes in a row, and if the distance is very great, there should be more than three. The beauty and excellence of ploughing are, to keep the furrows of uniform depth, and as straight as a line. He who cannot take a team alone, and strike out his land and finish them and adjust and re-adjust his plough to suit all circumstances, and perform a good job, cannot be a complete ploughman.

Every farmer knows that when a field is ploughed by going around it and turning the furrows outward, all the soil is thrown at each ploughing nearly a foot towards the outside of the field. And by this mode there is a strip of ploughed ground at each corner on which the team turns which is so trodden as to injure it very much, and in the middle there is always a dead-furrow, upon which little or nothing will grow. A far better way is to begin to plough in the middle of a field, and back-furrow the whole in one land. Ploughing a field by beginning in the middle is the neatest way in which a field can be ploughed. The only difficulty is to get started correctly. The first step is to find the middle. Then measure from the middle to the side of the field, then measure the same distance on the ends of the field to the middle and here start your plough, running a straight line to within the same distance from the opposite end; here turn to the right and make a back furrow. In this way plough the whole field, keeping the distance on the ends and sides equal, and the furrows perfectly straight and of uniform width. In order to have the field finished alike on all sides. By ploughing in this manner there will be neither ridges nor dead furrows; nor will any of the ground be trodden upon by the team in turning at the corners. A field can be ploughed in less time, and with greater ease, and will produce a better crop than when divided into several lands.

Cheap Barn.—Plan Wanted.

EDITOR CANADA FARMER.—I have recently become the owner of a farm of 100 acres, of which about 20 acres are bush. My barn is the most ill-contrived structure that I ever saw, and I want to abolish it. In building another, I should like, if possible, to get the benefit of the experience of some one who knows the difference between a good and a bad barn. I shall be able to get a basement by digging into a side-hill. I can not afford to lay out any more money than is quite necessary. I want a good-looking building, but do not wish to sacrifice looks to utility and cheapness. Will some brother-farmer give me their idea about it?

Lambton Co., Ont.

AGRICOLA.

Burning Charcoal

The value of charcoal as fuel or for other purposes around a country residence, is almost wholly ignored. Nevertheless once its value has been recognized and experienced, there are few persons who have the means of procuring a supply that will ever afterwards be without it. The very best kind of charcoal for a wood fire that can be had, are half charred brands from a coal pit. These take fire very quickly, and give out a great heat. Charcoal is an excellent fuel for summer time, and a few pieces burned in a water-bottle made for the purpose, will heat water for domestic purposes with the greatest convenience, and without smoke, either with or without doors. For farm and smith work it is a better fuel than any other. It is not necessary, at least to have his blacksmith's forge in his tool house, where he may make a bolt, mend a chain, or repair any iron

work of his machinery in a few moments, saving both money and time, which is now more than money. To burn the coal is a very lazy business. Any wood may be used, but hard maple, beech and yellow birch make the best coal. Pine makes a soft coal that is much liked by blacksmiths, but the coal from soft woods burns quickly and leaves a very light ash. One cord of wood well burned will produce 40 bushels of coal.

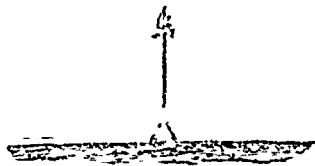


Fig. 1

To burn a pit, one must first clear off a hearth by leveling a space of ground 24 to 30 feet square, removing stones or other impediments. In the centre of the hearth a round, straight pole, (a small balsam fir or spruce, trimmed smoothly, is just the thing) is erected and set loosely in the ground. A quantity of dry kindling wood is heaped around it as shown in the accompanying sketch (Fig. 1). Around the pole the wood, cut three or four feet long, but all equal lengths, is arranged in a circular pile, standing on end in a gradually increased sloping direction, as seen at fig 2. Upon the first rank a second is placed, taking care as the wood is raked, to fill in all vacant places with small or split wood. A third rank is placed upon the second, and the heap is then trimmed smoothly by laying small wood or limbs until a conical pile is made with a surface as nearly smooth and even as possible. It will be obvious hereafter that much depends upon this smooth finish. The wood is then covered all over with a layer of leaves, raked up in the woods, or short litter from the stables, about six

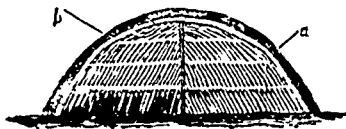


Fig. 2

inches thick. Pea straw is an excellent covering, but damp hard wood leaves will be found the best of all. This must be perfectly well done. Then a layer of fine loam free from stone, neither sand nor clay—the surface soil from newly cleared good land, with much vegetable matter in it is best—is laid compactly and evenly upon the leaves and smoothed off with the shovel. A long handled shovel is used for this work, and when large pits are made, a stage is used to throw the earth on first. The position of the layer of leaves is seen at fig. 2, a, and of the layer of earth at b; the dark line down the centre is the space left where the pole is drawn out after the covering is all done. The covering of earth of course is commenced at the bottom, and it generally follows closely on the covering of leaves—that is sufficient if the latter is kept a foot in advance of the former. When the pole is withdrawn, a shovelful of live coals of wood is thrown down the centre of the pit on to the kindling wood at the bottom, and when it is fairly on fire the central space is filled with long thin pieces of dry pine, and the top of the pit is by-and-by closed with leaves and earth like the rest. Air-holes are opened at the bottom in various places, to draw the fire to those parts that are not coaling rapidly enough, and these are carefully watched and closed when their purpose is served. The object is to keep a smouldering fire at a low heat, sufficient only to char the wood without burning it. If too great a heat is allowed in any part, there will be a lot of ashes there and no coal. This is soon learned by experience. As the pit burns down it shrinks; the covering falls in spots, and if it is not watched, it may burn away in a few hours. To provide for this, a supply of



Fig. 3

small cut wood and chips from the woods, with leaves, are kept on hand. Every morning and night the pit is dressed. The dressing consists in looking for these weak spots, removing the covering, filling the gaps with fresh wood and chips, beating these down with the shovel, and covering with fresh leaves and earth. The whole pit is thus gone over, and it gradually shrinks into the shape seen in fig. 3. After about 16 days the pit takes this shape. It is

“prodded” with an iron rod to find out where any uncoaled wood remains, and an air-hole is opened by thrusting the shovel handle into the pit at that place until the fire is drawn there, and the process of charring restored. Now is a critical time. The pit is kept compact and free from cavities by constant dressing; the completion of the coaling is hurried where it is slow, and where by trying it with the rod the coal is found to be sufficiently burned, the covering is made perfectly close and air tight. It depends on this how many brands are left, but generally the brands will be found as useful as the coal; and if the coal is not to be sold, it matters not if a larger proportion of brands than usual is made. When finished, the pit is covered closely, all the air holes and cracks are closed, and the coal allowed to cool. The heat, however, is such for some time, that if air is admitted the coal will ignite. What coal is wanted, is raked out of the pit through the covering with a rake having iron teeth about nine inches long, and the covering is immediately replaced. A pail of water should be kept on hand to quench any fire that may revive in the coal raked out. When the fire is totally extinguished, the coal may be stored in a closed shed for use.

Not the least value of charcoal is in its desodorizing properties, and a few pieces placed in a refrigerator, or upon meat or poultry in summer time, will keep it sweet for a week in very hot weather. For filtering water, it is also of the greatest value.—Cor. Country Gentleman.

WORTH FOR DRILLING BARLEY.—Prof. Wrightson, of Worcester, said, in a debate which followed the reading recently, of one of Lawes' experiment papers, that he had himself grown barley, and had got neighboring farmers to grow it, by sowing it at wider intervals than usual. Instead of 8 inches he made the alternate drill rows 16 inches apart. In that way, of course, seed was saved, and he was surprised to find that the yield per acre was not diminished in consequence of the course which he pursued. Others had followed the system with equal success.

THE EFFECTS OF LIME.—Lime improves the quality of any grain crop grown on land to which it is applied. The grains have thinner skin, are heavier and give more flour. The flour is said to be richer in gluten, but there is much difference of opinion on the subject. It is said to hasten the ripening of wheat, but our experience is quite different on this point, as we have known it to delay the ripening of grain crops. A more marked improvement is produced in both the quantity and quality of the Spring-sown than of the Winter-sown crops. It hardens the straw of cereals and prevents it from falling down under the weight of the ear. Potatoes, turnips, peas, beans, rape, colza, and all the brassica tribe, are greatly improved by lime. On flax alone it is injurious, diminishing the strength of the fibre. Hence, in Belgium flax is not grown on limed land until seven years after the lime has been applied.

CUTTING ALDERS.—A Country Gentleman correspondent says with respect to the time of the year for cutting black alders to prevent them sprouting again:—Many kinds of bushes will not sprout if cut in the latter part of summer. It is an old saying, that bushes cut in the old of the moon in August, will not sprout. I have tried it with good success generally; but what we call white bush will sprout, and I have sometimes thought grow more thrifty. In regard to black alders, I have cut them at all seasons, but prefer to cut them in March or April, before the frost is out of the ground. As they usually grow on moist and marshy land, the frost holds them fast, and the grass and fern sprakes are not then in the way, so that a man can cut a third faster than in the latter part of summer, and time is not so valuable. The philosophy of cutting alders in the spring is this: The sap will run profusely from the stubs and they bleed to death, so they have not strength to grow sprouts.

DRILLED VS. HILL CORN.—The New York Tribune instructs an enquiring correspondent after this fashion:—Drilling corn, i. e., raising it in continuous rows about 3 1/2 feet apart, and a stalk once in about six inches in the row, undoubtedly gives more corn and more stalks to the acre than planting in hills three feet apart each way, for the very simple reason that it is practicable to raise more plants in drills than in hills. If the plants are six inches apart, we will have as many on an acre as we would if we planted seven kernels in hills. Seven kernels are too many in one hill, but when six inches apart in rows, the roots have a much better chance to find food, particularly during the early growth of the crop, and this is important. Where the land is in good condition, and few weeds or foul plants are expected, drilling is the best method, and will give 60 bushels about as often as hills will give 50 bushels to the acre. There is a machine for planting in drills, which will plant about eight acres in a day used by one man. If the ground is hilly, or much infested with foul plants, such as quack-grass, hills are more convenient as being susceptible of cultivation both ways by horse power; the land can be much more perfectly tilled. High farming alms or drills and two of the best farmers this country ever had—John Johnston, near Geneva, and A. B. Dickinson, formerly of Steuben Co., N. Y.—both practiced raising their corn crops in drills. But they were in the habit of planting corn on clean land, preferring to kill weeds while raising crops that required less manual labor and admitted of more horse work.