

for hay. It will also be well for our friends to remember in discussing the grass question that we cannot stick to one kind alone for all purposes. The advocates of this or that variety—orchard grass or whatever it may be—may also take a hint that we need all the kinds we have for various purposes.—*Germantown Telegraph.*

Orchard Grass.

Orchard grass, or cocksfoot is regarded by those who have given it a fair trial, as one of the most valuable grasses grown. If cut at the proper time and well cured, it is nutritious and greatly relished by stock.

Soil.

There is no variety of grass grown that is so well adapted to all kinds of soil and situations. Its name would imply that it must be grown in the shade, though it does well in orchards where no other grass succeeds, yet it is no less valuable in the open fields, be the ground light or heavy, wet or dry, unless it be on uplands during a severe drought. If a farmer desires to seed but a single field to orchard grass, it would be advisable to select rather wet ground.

When to Sow.

It should be sown in the early spring. Though, like timothy and clover, it does better sown alone than with a growing crop, yet it may be sown with a crop of growing wheat before the frost is out of the ground in the early spring. Though we do not advise mixing different varieties of grasses for meadows, yet if it must be done, there is no variety that is better than this to mix with red clover. They arrive at maturity nearer at the same time than any other two varieties. I believe it better to leave out the clover and sow more orchard grass seed. I would not use less than two bushels per acre. D. L. G. will see his mistake in sowing so little seed during the coming summer. If less than two bushels be used, the stalks will be coarse, and the grass will grow in tufts instead of forming close, even sod. Its permanency in a meadow is superior to that of timothy, it arrives at maturity much earlier, and yields two good crops of hay. A crop may be cut for seed, and a second crop gathered; but if left until the seed is ripe, like timothy grass, the stock has become woolly and almost worthless. Another trouble in allowing the seed to ripen is that it is apt to get scattered and mixed with other meadow grass, which, on account of its early maturing nature, should be guarded against. The seed is saved and prepared for market the same as that of the Kentucky blue grass, white top and blue top. The amount of seed from an acre varies so greatly, as with other grasses, that we can give nothing like a definite answer to that question.

For Pastures.

Besides the value in the meadow, there is no variety superior to it for pasture. It makes an early start in the spring, is permanent, will bear close and constant cropping, and is of good quality. If sown for pastures, it should be mixed with other varieties, for the reason that it does not, when alone, make a thick, close, and compact soil, which is desirable in the pasture. It will greatly improve the stand of orchard grass to go over the field early in the spring with a harrow, and if it can be obtained without much trouble, add half a bushel more seed to the acre.—*Ohio Farmer.*

HUNGARIAN GRASS-MILLET.—Hungarian grass so closely resembles millet in every respect, that there is practically no difference between them as farm crops. The seed of each is so like the other that they are indistinguishable. The habit of growth of both is alike, and the only difference by which one can be distinguished from the other, by an unscientific observer, is in the closeness of the panicle, or head. A peck of seed per acre is generally sown, but as the fodder is more valuable when fine, twelve quarts per acre would give a closer, and, consequently finer herbage. It must not be sown till danger of frosts has disappeared, and warm, dry weather has appeared. It is originally a tropical plant, and loves warmth, and can resist drought very well. It should be cut before the seed has formed, and cured as hay. It is quite possible, by sowing early, that is about the 10th of May, to follow it with a crop of corn for fodder; or the fodder corn might, perhaps, be better followed by millet sown in July. Fodder corn should be sown in drills, and cultivated. It does not yield so well sown broadcast. Potatoes, in hills, should be planted twenty to thirty inches apart. Varieties having small tops, as Early Rose, should be planted at the shorter distance apart, and those with large tops, as Peachblows, the wider distance. Where the soil is clean, drill planting is preferable, but otherwise it is better to plant in hills, and cultivate both ways.—*N. Y. Times.*

Rural Architecture.

Designs for Barns—(Continued.)

Design IV.

My plan of a barn is somewhat of the English style—but perhaps none the worse for that—and I have seen none in this country to surpass it. The diagram, fig. 2, is of suitable size for the accommodation of forty animals, 40 feet wide and 100 feet long, exclusive of a one-story lean-to for corn cribs (X Y) 15 feet square. In the main building adjoining the cribs are two rooms—F for small grains, E

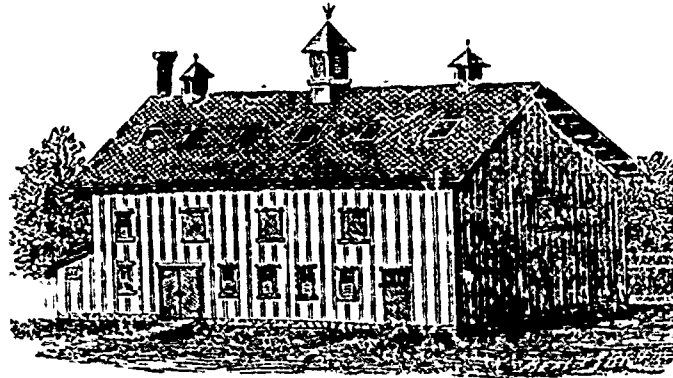


Fig. 1.—Barn for Short-horns.

for a steaming room—each 15 feet square, and a room for pump—and boiler, if one is used,—15 by 10 feet, C. Then comes a waggon-way through the barn, 10 feet wide. Next come the stalls for cattle, of which there are eighteen, each 10 feet wide and 8½ feet long; then a six-foot alley, which uses up the length of the barn, with the exception of nine feet, which is divided into a stall (T) 10 feet wide, for a bull, a smaller stall (U) for a young bull, a space (V) 10 feet wide for hay coming down from chamber above, and a box stall (W) 14 feet wide for the cows to calve in. The alley behind the cattle pens (N) is 5½ feet wide; the

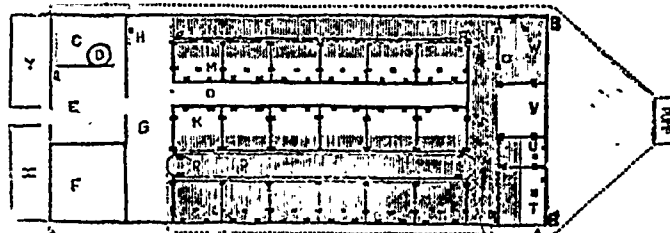


Fig. 2.—Ground Plan.

alley O is 4½ feet wide; and the alley P, 5 feet wide. I lay a floor of brick running lengthwise the barn in all the alleys, and extend the same three feet up each stall, laying them lengthwise of the stall. The remaining part of the stall I fill with clay, or good soil well beaten down. I lay a curb, either of plank or stone, behind all the stalls, somewhat higher than the causeway, and depress the last three rows of bricks next the curb, so as to form a channel behind where the cattle stand; and towards this the floor of the stall has a sufficient pitch to carry into this channel all liquids. The centre of the pathway is also somewhat higher than the channel. These channels lead into drains, which connect with a tank outside the barn. I put a feed-box of cast metal on each side of the stall, and in the centre place a hay-rack in the shape of the letter V, the point or angle projecting into the stall, so as to be convenient for two animals, one on each side.

The stalls L are for suckling calves; the stalls opposite (K) are for their dams, and the stalls M for other cattle. The stalls for calves are closed by gates opening in the middle, and swinging back to the stall posts on the other side of the alley, so as to throw both into one. When through with the calves, they can be driven to their proper places, the half gate closed, and there will be no further trouble with them;

the alley way is then left clear. Of course these stalls can be used for other purposes if desirable. In the front of the stalls for cattle there is a feed-box on each side, and hay-rack in the centre; also a door hinged above the feed-box to admit feed from the alley. In fig. 3 is shown the construction of roof, for durability and the most room for hay.

Fig. 3.

A great point in this barn is the economy in the bedding. The cattle lie on a dry, clean bed; the calves are kept two together, easily suckled and returned to their places, making no trouble to turn out the cows, as the barn is perfectly clear. The channel throws off all urine into grates put in to receive it, and it is at once carried by drain pipes into a tank clear of the barn. The drain pipe should not be less than five inches. I prefer stench traps for grates; they receive all sediment, and can be easily cleaned out twice a week. You thus have the liquid in the tank, which is often wasted in other barns, for putting on the manure pile, where its utility will soon be discovered. You also have the barn clear of all effluvia arising from decaying litter under the cattle—an important item in raising good stock.

You can make the barn of any length you require, every ten feet in length provided for six cattle. Any number of windows can be put in on either side of the building. I prefer plenty of ventilation in hot weather, but like the windows closed up in cold weather, when the barn is well drained and free from any unpleasant smell.

You can put an engine in the pump room to shell and grind corn, cut hay, and pump water into a cistern put up to feed the engine and water the cattle. The hay cutter is put up in a chamber convenient for the hay, which, after being cut, comes down a spout into the room E below. This room can be used for steaming, by fixing a pipe from the boiler into a steaming tub. This system I prefer where good cattle are to be raised, as experience teaches me.

In the perspective view, the squares in the roof are plates of

glass, put in the same as shingles or slates.

Directions for Building a Smoke-house.

A smoke-house should always be built of stone or brick, if possible; at least, the first four or five feet from the ground should be so, especially if wood be burned for the household fires, since then there is almost absolute safety from fire, and the bottom may then be used for storing ashes. It will require about six square feet to hang an average ham. The cross-bars, into which are driven the hooks for hanging the hams, should be about eighteen inches apart, and the hooks the same distance apart thereon, or say, seven hooks to each bar. A house ten feet square will, therefore, hang about fifty hams in each tier; the upper tier should be two and one-half feet above the lower. The lower tier of hams should not be less than six feet from the ground. Your lower crossbars will be eight and one-half feet from the ground; the upper one, eleven feet, and, if you choose to put in a third tier, this one will be thirteen and a-half feet from the bottom, which will give the height of your building. This will be a good proportion, and if only one hundred hams are required, the lower tier of crossbars may be omitted, which will give a greater distance from the fire to the meat.—*Western Rural.*