

straw must be used. I find that it takes about one covt. of straw to one hundred bricks, of the dimensions given in your last, which were very correctly stated.

You were about right also as to the expense, the walls being supposed one foot in thickness, which is substantial enough for a two-storied house. A barn which I have built has the walls eighteen inches thick. It need hardly be remarked that the cost will vary according to the price of labor and other local circumstances.

I shall add such remarks as at present occur to me respecting the mode of proceeding. A box or mould is to be prepared of the dimensions you state, as also one for bevelled bricks for arches, &c. We temper the clay by the aid of horses. A place is scooped out about fifteen inches deep, twenty-five feet long, and half that in width.—Into this the clay and water is thrown, and a boy mounted on one horse and leading another, walks them backwards and forwards until every part is thoroughly kneaded, another person, the meanwhile, throwing in the straw in very small quantities at a time. Sometimes a circular ditch is made, for a horse to go round in, after the fashion of a cider mill. You may save labour in obtaining the clay by ploughing it up on a spot whence you intend taking it. The bricks are set to dry in loose or hollow walls, similar to those used in common brick yards. The foundation for a wall of this description should be laid with stone and mortar, and raised a few inches above the level of the ground. The bricks are to be laid in the same material of which they were made, instead of in mortar. And here it will be proper to point out the advantage of making these squares or bricks, over the older fashion of cob-walls. In constructing the latter, it is necessary to wait for each successive layer of the material to dry, before another can safely be added, lest the wall should subside unequally, and out of form, and the length of this delay depends on the state of the weather. With the bricks, the artificer proceeds uninterruptedly, and with much greater security against any such accident, and his building may be completed with all that celerity so generally desired by inhabitants of America. When the walls are quite dry, the last finish is to be given them by a good coat of plaster, made of lime and sand, and not of clay, though this is sometimes done. You will then have a dwelling of a most durable description, and as handsome as you choose to make it. It will be intimately superior to a frame house, being, both warm in winter and cool in summer—so much so indeed that underground cellars, for the purpose of preserving articles from frost and heat, may be altogether dispensed with; and most people in this neighbourhood find their underground cellars to be a great nuisance, and a cause of damp and vermin.

If I were to add that this description of house is as good as one of brick or stone, many would think it was saying a great deal, considering how cheap it is in comparison. But my firm opinion is, that it is very superior in healthiness and comfort to the best brick houses, and to most sorts of stone ones. Every one knows how very porous burnt bricks are, and what a quantity of water each one will drink up when plunged into it fresh from the kiln. From this it happens that the damp is continually making its way from the outside inwards. Unburnt clay, on the contrary, has nothing of this imperfection, and I could give the most incredulous person a convincing proof of this, by exhibiting to him the opposite condition of the paper on two walls in my own house, one built of each material.

But it is time to draw this communication to a close, which I shall do with wishing success to your useful labours, and hoping that your paper may soon rival and surpass any of the kind on this Continent.

I am, Sir, yours,

THOS. SHEPPARD.

Sheppard's Tavern, Yonge Street, 26th January, 1843.

### SLINKING OF CALVES.

"The most common cause of abortion in cows," says White, "is improper feeding during the winter and spring, before they are turned to pasture. The filthy pond-water they are often compelled to drink, and feeding on the rank fog-grass of October and November, especially when covered with hoar frost, are likewise frequent causes of miscarriage. I remember a farm near Berkeley, in Gloucestershire, which afforded a striking proof of the injuries of stagnant pond-water, impregnated with dung and urine. This farm had been given up by three farmers successively, in consequence of the losses they sustained through abortion in their cattle, their not being in season (that is, not conceiving), red water, and

other diseases. At length Mr. Dimmery, after suffering considerably in his live stock for the first five years, suspected that the water of his ponds, which was extremely filthy, might be the cause of the mischief. He therefore dug three wells upon his farm, and having fenced round the ponds to prevent his cattle from drinking there, caused them to be supplied with well water, in stone troughs erected for the purpose, and from this moment his live stock began to thrive, became uncommonly healthy, and the quality of the butter and cheese made on his farm was greatly improved. It should be observed, that on this farm the cattle were regularly fed with good hay during the winter, and kept in good pasture in summer; so that there cannot exist a doubt that the losses sustained by Mr. Dimmery were entirely attributable to the unwholesome water the animals were compelled to drink."

"In order," adds Mr. White, "to show that the accident of warping may arise from a vitiated state of the digestive organs, I shall here notice a few circumstances tending to corroborate this opinion. In January, 1783, all the cows in the possession of farmer D'Euruse, near Chandvillers, in Picardy, miscarried. The period at which they warped was about the fourth or fifth month. The accident was attributed to the excessive heat of the preceding summer; but as the water they were in the habit of drinking was extremely bad, and they had been kept upon oat, wheat, and rye straw, it appears to me more probable that the great quantity of straw they were obliged to eat in order to obtain sufficient nourishment, and the injury sustained by the third stomach in expressing the fluid parts of the masticated mass, together with the large quantity of water they probably drank while kept upon this dry food, was the real cause of their miscarrying. A farmer at Charentin, out of a dairy of twenty-eight cows, had sixteen slip calf at different periods of gestation. The summer had been very dry, and during the whole of this season they had been pastured in a muddy place, which was flooded by the Seine. Here the cows were generally up to their knees in mud and water, and feeding on crowfoot, rushes, and the like. Part of the stock had recently been brought from Lower Normandy, where they had all been affected with indigestion by feeding upon lucerne, from the effects of which they had been relieved by the operation of paunching. In one, the opening made was large enough to admit the hand for the purpose of drawing out the food; the rest were operated on with a trocar. In 1783, all the cows in the parish of Beaulieu, near Mantes, miscarried. All the land was so stiff as to hold water for a considerable time; and as a vast quantity of rain fell that year, the pastures were for a long time, and at several periods, completely inundated, on which the grass became sour and rank. These, and several other circumstances which have fallen under my own observation, plainly show that keeping cows on food that is deficient in nutrition, and difficult of digestion, is one, if not the principal, cause of their miscarrying. It is stated by Mr. Handwin, that feeding in pastures, when covered with white frost, has been observed to occasion abortion in these animals."

From the Farmer's Cabinet.

### ROTATION OF CROPS.

Mr. Editor—In your very valuable paper I have found contained much valuable information on the subject of Agriculture; from the application of which, in many instances, I have realized immense benefit. One question, however, of paramount interest to farmers, still remains unsettled, and that is—What system of rotation of crops should be adopted, with a view to immediate profits and the continual improvements of the soil? I have carefully remarked many experiments which have been made in my own neighborhood, in this particular branch of husbandry, and among the many instances of failure, there has been one of success, which it is my present purpose to communicate, for the benefit of such as may see proper to improve the hint. The example to which I refer is that of an old practical hard-working farmer, who commenced in the world as a day laborer, and who is now worth at least one hundred thousand dollars, not taking into the account many heavy pecuniary losses he has at various times sustained. This man when thirty years of age, by the avails of his industry, added to a small legacy, was enabled to purchase and pay, in part, for a farm of one hundred and thirty acres of land, one hundred of which was under cultivation, but in a very low state. The farm is altogether upland, with a soil composed of loam, clay and sand, in chief of which the latter preponderates, the former being least considerable. When he commenced farming, he adopted a particular system of rotation, of