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THE FARMER'S ADVOCATE.

The State of Agriculture in England.

BY PROF. J. P. SHELDON.

There are symptoms now of better times. The seasons seem to be mending their manners, for on the whole this year has been better than last, as last was better than several previous ones, in the weather department. We are taking heart against foreign competition, and no longer consider it is going to do us the harm it promised to do; this is because American and Canadian beef is coming in very gingerly this year, no longer flooding our markets as it threatened to do. Our crops are improving coincidently with the weather, and the fertility and condition of the land are clearly being restored from the effects of the last five or six years' drenching with rain. Cattle are healthier than they were a year ago, and sheep have forgotten to go rotten. Prices of all kinds of bovine and ovine stock are far better than they were a year ago. Beef is worth ninepence and mutton elevenpence a pound ; that is, the farmers are making these prices of the best qualities of both. Cheese is worth sevenpence and butter seventeenpence a pound-again to the farmer.

The marked improvement that has taken place in the condition of things in general in the agricultural world, goes a long way to prove that it is almost wholly to the wet and cold seasons that we must attribute the long series of disasters that have befallen farmers in this country. It is now a settled conviction amongst us that with a tolerable climate, we can meet not unsuccessfully whatever foreign competition may come against us. Our chief losses are the sequel of the reduced fertility and stock-carrying capacity of the land, and of the ruined condition of the cereal crops on account of too much rain. Forage crops have been bulky enough of late years, and by accident some of them have been well harvested; there has been for the most part plenty of grass in the pastures, and the root crops have been fairly abundant ; there has, in fact, been bulk enough of all kinds of stuff that the soil will throw up, and farmers have farmed their land as well as the weather would let them all the while ; but we have had to contend agains the inferior quality of everything. Cattle and sheep did not thrive, and cows milked poorly, while their milk yielded badly, on the pastures ; and they could scarcely keep body and soul to. gether on forage in the winter. All this was owing to want of sun and excess of rain, both of which militated against vigour and condition both in the animal and vegetable world. But there are symptoms of better times. The quality of the crops is greatly improved. The aqueous grasses in the pastures are giving place to better ones once more. There is a good profit on grazing this year, and dairy-farming promises to pay as it has not done since '75 or '6. Stock-rais ing has paid tolerably well all along, where men went in for a good stamp, but now it is paying, and for years to come will pay, exceedingly well. The number of cattle goes on diminishing in the country, and the same may be said of sheep ; yet our population goes on increasing, and must be fed from somewhere; we may look, therefore, for large profits where men raise their own cattle and sheep and fatten them. The capital of farmers has become much smaller, and great numbers are in very low water, while not a few have been ruined outright. Credit, however is reviving with the promise of better seasons, and it is to be hoped that due consideration and assistance will enable men to get their heads well above water once more. The worst, we may say, is over. The disease, as it were, is gone, and what the patient wants now is strength. This can only come of good nursing and with the lapse of time. Given these things, and a sound constitution, the recovery will be satisfactory

and bloodshed in the land; for the country has been passing through a crisis that would easily have bred a revolution half a century ago. And it has passed through it with exemplary patience and silence. I think you Canadians have reason to be! proud of your old mother country, who can still stand up under such a strain as that of our recent agricultural depression. "There is life in the old dog yet," and "while there is life there is hope !"

Feeding Cottonseed Meal.

About six or seven years ago I began to feed cottonseed meal to my cows, and have continued its use ever since. My cows are kept for making butter, and it is necessary to be careful of the ef fect of the feed both upon the quality of the butter and upon the health of the cows, so that it required a long time and careful noting of effects to learn what I have discovered in regard to this feed. In the first place it may be said that it cannot be compared with corn or any other feed, excepting for the purpose of estimating or fixing a mixed ration for an animal; just as we cannot compare beef with potatoes, or butter with bread, excepting so far as to proportion the quantity of one to be used with the other in our ordinary diet. No person can consume beefsteak or essence of beef solely, and remain healthy; and no more can one feed only cottonseed meal and keep his stock in good order, excepting for a short time when finishing them for the butcher. This will be obvious when we con-sider the nature of this highly concentrated food. Although cottonseed meal contains a great deal

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Cottonseed meal equals 91.3 per cent. of nutritive equivalents.

Corn meal equals 82.7 per cent. of nutritive equivalents.

But we must not lose sight of the fact that cottonseed contains nearly five times as much albumnoids as corn meal, and right there is its most important characteristic to the feeder, because therein it becomes analogous to the flesh meat of human food.

Nitrogen cannot be used in the animal economy in anything like the quantities in which carbon can, because a very large portion of carbon is needed for the sustenance of vital heat; and if nitrogenous food is too largely given, it unduly enriches the blood, and produces an excessive strain upon those organs whose office is to remove excess of nitrogen from the system—chiefly the kidneys. In feeding cows too largely with cottonseed meal October, 1882

Hints and Helps.

Burying Cabbage.

As the season is arriving for the gathering of cabbage, a few hints on the method of burying them whole may be of benefit to our readers. Cabbage should be gathered in November. They are not injured by being frozen a number of times; on the contrary their flavor seems to be much improved thereby. The manner in which they are covered is shown in figures 1 and 2. Select a dry spot of ground (if it is underdrained so much the better) on which water will not stand during winter. This selected, dig a trench two feet wide



and six inches in depth, in which scatter straw (rye of wheat is best) three inches in depth, on which stand the cabbage, top downward, 2 or 3 inches apart, until the trench is full, when straw is scattered around the head and part of the stem. This done, cover with earth from 4 to 8 inches in depth, according to the exposure. By placing boards at the side, as shown in figure 2, rain will be prevented from washing away the dirt; or by packing the dirt by striking upon it with the shovel blade the same point will be gained. Break off a number of the outside leaves and free the roots from dirt before burying.

How to Thatch Roofs.

Rye straw threshed with a flail and kept straight, with the short or broken straw raked out, is the best material to use; but good wheat or even oat straw will make a good roof. The roof is made ready for thatching by nailing strips of board, say one by two inches, across the rafters, putting them a foot apart. The pitch should be steep, say a "third pitch," in builders' terms, to ensure a water-proof and durable roof. The straw should be cut to a uniform length, and care taken to have it straight and all right. The sketch shows how the roof is prepared for the straw, and the manner the courses are laid. For convenience in handling I prefer laying the straw in bundles

It is well for this country that free trade has enabled us to supply the people with food at a cheap rate. But for this we should have had riots

then, we might expect the circulation to be unduly stimulated; and this is precisely what happens, and it appears very quickly in an increase of milk and cream, and, if anything goes wrong, in an attack of garget. In pigs and horses it appears as congestion of the brain, which we call staggers. Now I know this, because I have experienced it, and therefore maintain that for horses and pigs cottonseed meal is a most dangerous food, and should never be given; besides, they do not want it, having other feeds that are better. For cows and sheep it is the most valuable feeding stuff we possess, if given in moderation, just as I find a beefsteak is the most valuable food for a man; but it will not do to consume it voraciously, or all the time, to the exclusion of starchy food, as bread, potatoes, rice, &c.

After several years' feeding, I have found one quart of cottonseed meal-free from husk-one quart of corn meal, and one of bran, to make the best and safest feed-ration, given twice daily, for a cow in full milk. The husk of cottonseed is indigestible, and will make trouble very surely if fed to a cow. When I say bran, I mean either rye or wheat, but I like rye best. The effect of cottonseed on the butter is to harden it, to give it a good texture, and a fine, nutty flavor. Linsced meal has quite the opposite effect, and palm-nut meal will make the butter soft and greasy too, although it largely increases the butter. But it is necessary to watch a cow very closely when feeding cottonseed, and never to give any of it within two months before calving, or within ten days afterwards, and then begin gradually. Two ounces a day is quite enough for a calf under six months old, and indeed I have never yet found it of any advantage to a calf, while it can have corn and oats and bran; I avoid using it for any animals except cows, or for fattening a beef animal.-[H. S. in Country Gentleman.



that will average about six inches in thickness. The band should be quite close to the upper end, the one which is fastened to the cross strip. The best way to fasten the bundles is to take a few straws from each bundle, after they are laid on the cross strips, and pass them over the next one laid and under the strip, and over again, then adding more straw from the bundle jnst tied. In this way a common rope is made until the end of the course is reached. In thatching, nail or spike the slats or laths to the rafters about one foot apart, allowing the thatch to be about three feet long from the band, more or less, according to the length of the straw.

A Novel Horse Power.

Among recent inventions we find an improved horse power that is simple, durable, and cheaply constructed, and has less friction than machines now in use. The device is shown in the annexed engraving, in which A is a horizontal shaft journaled in two posts, and B is a vertical king post to which the main power wheel is secured, and it is revolved by horses attached