

were worthless—probably either would be improved by cooking. Punctuality in the time of milking is a matter of great importance. Cows are very nervous, and any shock to a cow is very readily seen in her milk; therefore she should be gently treated. He closed by calling the cow one of the best gifts of a kind Providence to the human family."

KEEPING MILK SWEET.

The *Southern Farmer* says that a teaspoonful of fine salt or of horse radish in a pan of milk will keep it sweet for several days. Milk can be kept a year or more as sweet as when taken from the cow, by the following method: procure bottles, and as they are filled, immediately cork them well and fasten the cork with pack thread or wire. Then spread a little straw in the bottom of a boiler, in which place the bottles with straw between them until the boiler contains a sufficient quantity. Fill it up with cold water, and as soon as it begins to boil draw the fire and let the whole gradually cool. When quite cold take out the bottles and pack them in sawdust in baskets, and stow them away in the coolest part of the house.

Field Department.

WILL DRAINING PAY?

Mr. Johnston says he never saw one hundred acres in any one farm, but a portion of it would pay for draining. Mr. Johnston is no rich man, who has carried a favorite hobby, without regard to cost or profit. He is a hard working Scotch farmer, who commenced as a poor man, borrowed money to drain his land, has gradually extended his operations, and is now reaping the benefits in having crops of forty bushels of wheat to the acre. He is a grey-haired Nestor, who, after accumulating the experience of a long life, is now, at sixty-eight years of age, written to by strangers in every State in the Union for information, not only on drainage matters, but all cognate branches of farming. He sits in his homestead, a veritable Humboldt in his way, dispensing information cheerfully through our Agricultural papers and to private correspondents, of whom he has recorded one hundred and sixty-four who applied to him last year. His opinions are, therefore, worth more than a host of theoretical men, who write without practice.

Although his farm is mainly devoted to wheat, yet a considerable area of meadow and some pasture has been retained. He now owns about three hundred acres of land. The yield of wheat has been forty bushels this year; and in former years, when the neighbors were reaping eight, ten, or fifteen bushels, he has had thirty and forty.

Mr. Johnston says tile draining pays for itself in two seasons, sometimes in one. Thus, in 1847, he bought a piece of ten acres, to get an outlet for his drains. It was a perfect quagmire, covered with coarse aquatic grasses, and so unfruitful that it would not give back the seed sown upon it. In 1848 a crop of corn was taken from it, which was measured and found to be eighty bushels per acre; and this, because of the Irish famine, corn was worth \$1 per bushel that year; this crop paid not only the expense of drainage, but the first cost of the land as well.

Another piece of twenty acres, adjoining the land of the late John Delafield, was wet, and would never bring more than ten bushels of corn per acre. This was drained at a great cost, nearly thirty dollars per acre. The first crop after this was eighty-three and some odd pounds per acre. It was weighed and measured by Mr. Delafield, and the County Society awarded a premium to Mr. Johnston. Eight acres and some rods of this land, at one side, averaged ninety-four bushels, or the trifling advance of eighty-four bushels per acre over what it would bear before these insignificant clay tiles were buried in the ground.

But this increase of crop is not the only profit of drainage; for Mr. Johnston says that, on drained land, one-half the usual quantity of manure suffices to give maximum crops. It is not difficult to find a reason for this. When the soil is sodden with water, air cannot enter to any extent, and thence oxygen cannot eat off the surfaces of soil particles and prepare food for plants; thus the plant must, in great measure, depend upon the manure for sustenance; and, of course, the more this is the case, the more manure must be applied to get good crops. This is one reason, but there

are others which we might adduce, if one good one were not sufficient.

Mr. Johnston says he never made money until he drained; and so convinced is he of the benefits accruing from the practice, that he would not hesitate (as he did not when the result was much more uncertain than the present) to borrow money to drain. Drains well made, endure; but unless a farmer intends doing the job well, he had best leave it alone, and grow poor, and go out west, and all that sort of thing. Occupants of apparently dry land are not safe in concluding that they need not go to the expense of draining; for if they will but dig a three foot ditch in even the driest soil, water will be found in the bottom at the end of eight hours; and if it does come, then draining will pay for itself speedily.

We know a young farmer in Canada who sold one half his farm to raise money to under-drain the other, and now sells twice as much crops as he did before.

FALL PLOUGHING.

It is now becoming understood that it is of great importance to the agriculturist to manipulate the soil as much as possible. This is not done merely in order to render it more smooth, level and tillable, but also to expose the particles of which the soil is composed to the ameliorating influence of the atmosphere. This both disintegrates the soil and assists the decomposition of the mineral elements of plant food it contains, by bringing them in contact with oxygen. Added to this is the acceptability of the soil to absorb ammonia from the atmosphere and the rains and snow falling upon it, which, if not taken in at once when presented, soon again evaporates. The frosts and snows of our winter seasons are to a great extent storehouses of plant food.

Such is theory. Now for practice. In my own experience I have always found that land intended to be sown with spring grain is certain to yield heavier crops and of better quality if it has been well ploughed the previous fall and left in the rough state exposed to the frosts of winter. The same thing accords with my observations, and has been especially exemplified this season. I have on many occasions noticed adjoining fields or adjoining farms, the crops on which materially differed in appearance and yield, although the soil and rotation followed have been almost alike, and on a hasty inquiry found that on those fields carrying the best crops the land had been fall ploughed, while the others had not.

Another advantage is gained by fall ploughing, that is not to be overlooked, and that is that the land so worked is always the first to become dry and warm in early spring, which is due to its being more absorbent. This enables the seed to be sown earlier and the young plant to gain a strong foothold and more vigorous growth before the dry weather comes, than it can do on land that has remained in a compact and solid state all winter for want of having been fall ploughed. This is especially the case with barley, which, unless it can grow on land so well tilled as to give a deep and mellow seed bed, and the brand comes well forward before the now usually prevalent dry weather of May comes on, is almost sure to suffer greatly. For spring wheat, which rather like a more compact soil, the use of a good two-horse cultivator in spring, to prepare the seed bed after fall ploughing, is more general, and saves both time and labor at a season that is usually both a short and busy one.

There still remains another advantage to be gained by fall ploughing, especially on bare stubbles and land that has borne crops that are more or less liable to the attacks of insect enemies. Most insects that prey upon our field crops are kept in existence and their numbers increased from year to year through their larvae burying themselves in the earth a short distance from the surface, and there either hibernating or assuming the pupa state. In either case they are protected from the changes of temperature to which they would succumb if exposed above or very near the surface. The occasional warm sunshine followed by severe cold being more fatal to insect life than actual freezing. Fall ploughing done after these pests have entered the soil will usually turn them up to the surface and being unable in the state they are in to re-enter the earth, their life goes out of them.—*Extract from Country Gentleman.*

A local editor assures the kind lady who sent him a mince-pie, with the request to "please insert," that such articles are never crowded out by a press of other matter.

Paper cuffs—Newspaper attacks.

Poultry Department.

HOW TO GET PLENTY OF FRESH EGGS.

Mr. E. Dwight, of Hudson, Michigan, considering the question, "How to get plenty of good flavored fresh eggs with little trouble," says:

"Once, thirty years ago, I was troubled just as my neighbor now is. I fed my hens plenty of corn, and got but few eggs. I reasoned upon the matter, and happened to think that the constituent parts of milk and the white of eggs were much alike. Now, it has long been known to milkmen that wheat middlings and bran are about the best of any feed to make a cow give milk; why not then the best to make the hen lay eggs? I tried it, and since then have had no trouble. My mode of preparing the feed is no mix about five parts of bran with one of middlings. In the morning I wet up with water about five quarts of the mixture in a large tin pan, taking pains to have it rather dry, though all damp. This I set in a warm, sunny spot, south of their shed, and they walk up, take a few dips, don't seem to fancy it like corn, and start off on a short hunt for something better, but always come round in a short time for a little more from the dish of bran. There is little time during the whole day but what one or more are standing by the pan, and helping themselves.

I am careful to mix for them just as much as they will consume during the day. At night, just before they repair to the roost, I usually throw them a very little shelled corn, well scattered, so that each one can get a few kernels. If your hens don't incline to eat this feed at first, sprinkle a little Indian meal upon it. I would like to have all try my plan who complain of not getting eggs, and I think they will never be sorry.—*New England Farmer.*

AGRICULTURAL SOCIETIES

should do more than to hold an annual fair to properly effect their purpose. They should assemble their members in convention at least annually to prevent abatement of interest in the cause of agriculture. At these conventions those questions with which farmers are most familiar should be discussed in such a style as would engage the attention, and perhaps the participation of the humblest delegate. A successful dairyman may be ignorant of grain culture; the most skillful stock-raiser may be unacquainted with the grasses; invaluable water power may not be utilized from want of oral instruction; much valuable practical and experimental knowledge may be withheld from the public because possessed by those who are unwilling to write for agricultural papers, but would be willing to address a convention of their fellows.

I am aware we have in every community croakers who have pleasure in decrying all united efforts of this kind. Fortunately such men are of little weight.—They are those who would shout "politics" if they saw a professional man in an agricultural convention. Or those who will critically watch the progress and result of a neighbor's experiment, and if the experiment succeeds, will sagely remark, "Oh, it costs more than it is worth!" but if it fails they assert with wisdom greater than prophetic kin: "I told you so." Such creatures or social incubi that the world has supported since the flood, and I may abuse them roundly, for they will never know it unless they, perchance, see it in some borrowed agricultural paper, and then they will be the last to observe how exactly the cap fits their own thick skulls.

A young couple in Connecticut became acquainted on the 4th of July, were married on the 5th, and a few days after the husband published an advertisement warning all persons not to trust his wife on his account.

"What do you ask for that article?" inquired an old gentleman of a pretty shop-girl. "Two dollars." "Ain't you a little dear?" "Why," she replied, blushing, "all the young men tell me so."

An Alabama paper published the following notice: "Married, at Flintstone, by the Rev. Mr. Windstone, Mr. Nehemiah Sandstone and Miss Wilhelmuna Whetstone, both of Limestone." Look out for brimstone next.

Culinary Department.

As many oatmeal mills are now in operation in the country, and producing a good article, we give the following directions for using it for those who feel inclined to try:—"Put a quart of boiling water and a pint of milk in a small kettle, and as soon as it comes to a boil stir in the oatmeal, leaving it rather thin; three or four handfuls will suffice for the quantity of milk; add a pinch of salt and let it boil until the meal will smash easily between the fingers. Then remove from the fire at once and serve hot on a deep plate. The milk should never be poured over it as it spoils both milk and porridge to do so; but it should be in a bowl and quite cold. Then the spoon should go first to the porridge, then to the milk, then to the mouth. In this way it is rich.

But far ahead of this is oat cake. It is prepared by mixing a quart of oat meal with sufficient water to make it thick, and a half a tea cup of butter. It is quite a trick to work oat cake—to work it and bake it without its crumbling. Nevertheless it can be done with a little practice and patience. After working it thoroughly it should be rolled about the thickness of a soda biscuit in sheets about a foot or six inches square. These sheets are put in the oven and left until partly baked, being careful not to let them brown. They are then taken out and stacked away on the shelf for use. When wanted for breakfast a sheet is taken and put in a toaster and browned nicely on both sides. It is then sent to the table hot, and each guest breaks off such a sized piece as they wish. It is buttered with sweet, fresh butter and eaten. A king would not ask for a better breakfast than a piece of oat cake, a fresh egg and a good cup of coffee.

AYRESHIRE CATTLE.

Chas. Shepard, Ogdensburg, N. Y., writes to the *Live Stock Journal*:

"My experience in raising cows strictly for the dairy is, that the more Ayreshire blood in the grade, the more the product of butter and cheese from our ordinary pastures. For twenty years I have discarded all bulls in my herd except full-blooded Ayreshires, purchased sometimes at fancy prices—say \$3000 for a bull calf."

OLD CLOTHES.

Sneer not at old clothes. They are often made holy by long sacrifices; but careful foldings away, that they may last until the dear ones are provided for. If many an old coat could speak, what tales it would tell of the noble heart beating underneath.

Yonder rusty garment would repeat the struggles of a devoted father, whose son is earning laurels at the college hard by. How he counted his farthings, and choked down his pride, that his boy, his noble boy, might yet do him honor.

That faded shawl, folded tightly over spare shoulders! Year after year has thy mother cleansed and mended, and laid it carefully away (as she called it) "good as new," that her blue-eyed daughter might have an education. And the mother smiles over the dim, dusky-patterned ribbon and prim old merino, that were cleaned up to enable her to buy Bessie a pretty bonnet and a dress such as she deserved.

O, that blessed self-denying, aspiring poverty. Hallowed be the old cloaks, old coats, aye, and old shoes, when such love points to them as monuments.

More than one bright and shining light, let us tell you, owes its brilliancy to old clothes; more than one star in literature, philosophy, and science.

—A good instance of "sharp practice" is that of a man in Ohio, who was acquitted of murder on a plea of insanity. He had secured his lawyers by giving them a mortgage on his farm, but now repudiates the mortgage on the ground that he was insane when he made it, according to the showing of these same lawyers.

The *Nashua Post* says: "An unsophisticated Norwegian in northern Iowa put a pound of gunpowder in his coat-tail pocket the other day, and after taking a hearty smoke put his pipe on the top of the powder. Although it didn't quite kill him, his wife mourns over his awful end."

A San Francisco editor thus addresses an Oakland brother: "You wallapus, you itchy yod-orlute, you bogus hammochysos, you—you Oaklander."