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OFFICIAL SERIES.

# THE FARMERS' JOURNAL,

AND

Transactions of the Board of Agriculture

OF

## LOWER CANADA.

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### CONTENTS.

(General.)

FARMERS' JOURNAL.—(*Editorial Matter*;) Application of the Sciences to Agriculture ; Grazer and Breeder ; Poultry Yard ; Rural Architecture ; Enquiries and Answers ; Foreign Agricultural Intelligence , Obituary, and Critical Notices, &c.  
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N. B.—Communications received before the 15th of each month will appear in the ensuing Number.

*"O! fortunatos nimium, sua si bona norint,  
Agricolos! quibus ipsa. procul discordibus armis,  
Fundis humo facilem victum justissima tellus."*  
VIRG. GEO.

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- Progress and encouragement of Agriculture in Canada, illustrated by the Provisions made for its encouragement in other countries by James Anderson, F. S. S. A., late of Petite Cote, County Essex, C. W.....

## D E C E M B E R .

Winter is approaching, and winter is the season for laying in stores of knowledge, for reading, for reflection, for laying plans for the coming year, for fixing on what crops to cultivate, what fields to drain, what land to reclaim, what improvements to make, and to arrange as to the most convenient mode of setting about these necessary operations in due season. We must now also set about cutting, drawing, preparing and storing the yearly supply of fence timber. By the end of the month we ought to have accounts settled as nearly as possible, and a correct inventory should be taken of cattle, implements, and farm furnishings of every description and copied into a book kept for the purpose. And many a farmer will have some leisure to indulge in studying the general principles of agriculture, and the practice in the most advanced countries and districts, and to consider in how far such principles and practice can be adapted to his own locality. He must now consider what land he has to drain, and the most economical method of proceeding with the work. He must consider again and again the circumstances of his locality and neighbourhood, so as to enable him to arrange as to his future management, and to settle whether he cannot introduce some change or modification of culture better suited to his actual circumstances. He may find it profitable to extend the culture of a particular crop, or to introduce a new one, for which there may be a greater demand and more ready sale. He may settle to leave in pasture some portions of his soil most likely to profit by it. He may think of introducing new blood, and plan a method by such means of improving the stock of the farm. Now is the time for repairing the buildings and fences, for completing our provisions for shelter, and care must be taken that stock shall not lose condition this month, as, if so, it will be difficult for them to recover it. Above all things, if possible, provide a straw and root cutter, for by such means, your roots and fodder will go much further than if used uncut; as by this latter method, there is always very considerable waste. Bank up your cellar when necessary, to exclude frost. Draining may be practised when practicable, and reference is made to the articles in the journal for special direction on this subject. Draw and split fencing timber against the busy season in spring. Thrash out as required for feeding and bedding.

Feed off your hogs as the slaughtering season approaches, and see that the animals on the farm are regularly fed, keeping in view, whether for keeping or for the butcher. See that your working stock are kept warm and comfortable, and that they do not lose in condition during the winter, so as to require unnecessary forcing to fit them for spring work. Fill your ice house the first opportunity.

Collect leaves, and muck for winter filling for pens' yards &c., &c. You cannot err in having a superabundant supply. Complete your fall ploughing, if the ground should still remain uncovered. Keep your poultry warm, and feed, if procurable, with gravel, lime, and chopped meat or offal of any kind, if you expect to continue to have a supply of eggs during winter. Endeavour to have your yearly supply of wood cut as early as possible, so that you may commence leading it home over the earliest snows. We must be careful, by every means, to provide an ample supply of manure to keep up the fertility of the farm. We must take care that no part shall be wasted by negligence or improvidence. We must take care to husband our resources, so as to return to the soil as nearly as possible in proportion to what is abstracted from it. We sell off a large proportion of the produce to the cities or elsewhere: and if we persist in doing so for a length of time, without returning to the soil an equivalent, we will impoverish our farm in proportion as we persist in such improvident practice; and though we may attempt to supply the deficit by the use of artificial manures, we shall find that we are only further exhausting our soil, as artificial manures, too frequently operate rather as stimulants than restoratives, and leave the soil in a worse condition, after a crop, than before their application. They stimulate production, but only at the expense of the staple ingredients of the soil. For instance, the whole amount of the produce sold into cities is generally, in this country, lost to the land which produced it. But, if under a systematic arrangement for their reciprocal benefit, the manures produced from its consumption were carefully husbanded and returned to the crop bearing lands of the country, the citizens would still have the benefit, and the loss to the soil in fertility would be almost inappreciable. At all events, it could be kept up to an average by a very slender addition, easily supplied by the industrious collection of waste materials—the leaves of the forest, or the fertilizing additions furnished in abundance by the swamp, or any waste surface in the neighbourhood.

The preservation of new soils from exhaustion, and the restoration of exhausted soils, are objects of the first importance. It is needless to talk of improvements of theoretical pretension, whilst we neglect what is of such easy accomplishment, and of such self evident utility. It is unreasonable from time to time to hear men deploring the depressed state of the country, and its want of progress, when its first, its greatest interest is comparatively neglected. The substantial progress of this country for many a day to come must be based on, and be commensurate with its agricultural improvement. It is needless for men to dream disconsolately or affectedly about theoretical progress based on false and shadowy expectation; how is it that shrewd, sensible men can be found who do not at once realize to themselves the self evident truth: *that the substantial progress of the country must rest on the steady improvement, and abundant produce of its agriculture.* This truth cannot be too strongly impressed on Legislators and Producers. On this plea we rest our claim for attention to our *New Drainage Bill for Canada*, which is awaiting the advent of the coming Session. All parties are interested in the increase of the surplus agricultural produce.

of their country. So there is not an individual in this country who is not interested in the passing of that measure, and its speedy adoption into practice. We may seek in vain for any man so blinded by ignorance and prejudice as to stand up on the floor of the House of Assembly, and have the effrontery to take the unpatriotic course of opposing a measure having for its object to provide for the increase of the surplus produce of his country.

J. A.

At the opening of the month the weather was changeable, cold and broken. It continued dark, wet and cold up to the 12th when we had a few nights of severe frost with snow and rain storms. We refer to our list of prices for market information.

## THE GREAT TILE-DRAINER.

HIS HISTORY—HIS FARM—HIS PRACTICE—AND HIS FEEDING.

Mr. John Johnston, near Geneva, N. Y., at one time esteemed a fanatic by his neighbours, has come of late years to be generally known as "the father of tile-drainage in America." After thirty years of precept and twenty-two of example, he has the satisfaction of seeing his favourite theory fully adopted, and to some extent practically applied throughout the country. Not without labour, however, nor without much skepticism, ridicule and controversy has this end been attained; and if, now that his head has whitened, and his course all but run, he finds himself respected and appealed to by persons in every State of the Union, he does not forget that it has been through much tribulation that he has worked out this exceeding great weight of glory. Mr. Johnston is a Scotchman, who came to this country thirty-nine years ago, and purchased the farm he now occupies on the easterly shore of Seneca Lake, a short distance from Geneva. With the pertinacity of his nation he stayed where he first settled, through ill fortune and prosperity, wisely concluding that by always bettering his farm he would better himself, and make more money in the long run than he could by shifting uneasily from place to place in search of sudden wealth. He was poor enough at the commencement; but what did that matter to a frugal industrious man, willing to live within his means and work hard to increase them? And so with unflinching zeal he has gone on from that day to this.

### HIS FARM.

His first purchase was 112 acres of land, well situated, but said to be the poorest in the county. He knew better than that, however, for although the previous tenant had all but starved upon it, and the neighbours told him such would be his own fate, he had seen poorer land forced to yield large crops in the old country, and so he concluded to try the chances for life or death. The soil was a heavy gravelly clay, with a tenacious clay subsoil a perfectly tight reservoir for water, cold, hard-baked, and cropped down to about the last gasp. The magician commenced his work. He found in the barn-yard a great pile of manure, the accumulations of years, well rotted, black as ink, and 'as mellow as

an ash-heap.' This he put on as much land as possible, at the rate of *seventy-five loads to the acre*, plowed it in deeply, sowed his grain, cleared out the weeds as well as he could, and the land on which he was to starve gave him about twenty-five bushels of wheat per acre. The result was, as usual attributed to luck, and anything but the real cause. To turn over such deep furrows was *shar folly*, and such heavy dressings of manure would not fail to destroy the seed. But it didn't; and let farmers remember that it never will; and if they wish to get rich, let them cut out this article, read it often, and follow the example of our fanatical Scotch friend.

This system of deep ploughing and heavy manuring wrought its results in due time. Paying off his debts, putting up buildings, and purchasing stock each year to fatten and sell Mr Johnston after seventeen years of hard work at last found himself ready to incur a new debt, and to commence laying the drains. Of the benefit to be derived from drainage he had long been aware; for he recollected that when he was only ten years of age, his grand-father, a thrifty farmer in the Lothians, seeing the good effects of some stone drains laid down upon his place had said, "Verily I believe the whole airth should be drained." This quaint saying made a lasting impression on the mind of the boy, that was to be tested by the man, to the permanent benefit of this country.

Without sufficient means himself, he applied for a loan to the Bank in Geneva, and the President knowing his integrity and industry, granted his request. In 1835 tiles were not made in this country, so Mr. Johnston imported some as samples, and a quantity of the "horse-hoe" pattern were made in 1838, at Waterloo. There was no machine for producing them, so they were made by hand and moulded over a stick. This slow and labourious process brought their cost to \$24 per thousand, but even at this enormous price Mr. Johnston determined to use them. His ditches were opened and his tile laid, and then what sport for the neighbours! They poked fun at the deluded man; they came and counselled with him, all the while watching his eye and intelligent face for signs of lunacy; they went by wagging their heads and saying "Aha!" and one and all said he was a most consummate ass to put crockery under ground and bury his money so fruitlessly. Poor Mr. Johnston! he says he really felt ashamed of himself for trying the new plan, and when the people riding past the house would shout at him, and make contemptuous signs, he was sore-hearted and a most ready to conceal his crime. **BUT WHAT WAS THE RESULT?** Why this: that land which previously was sodden with water and utterly unfruitful, in one season was covered with luxuriant crops, and the jeering skeptics were utterly confounded that in two crops all his outlay for tiles and labour was repaid, and he could start afresh and drain more land; and that the profit was so manifest as to induce him to extend his operations each succeeding year, and so go on until 1856, when his labour was finished, after having laid 210,000 tiles, or more than fifty miles in length! And the fame of this individual success going forth, one and another duplicated his experiment, and were rewarded according to their deserts.

It was not long after the manufacture of the first lot of tiles that a machine was contrived which would make them quite as well, and faster; and by its aid they were afforded at quite as low a price as after an English machine was imported. The horse-shoe tile has been used by Mr. Johnston almost exclusively, for the reason that they were the only kind to be procured at first, and on his hard subsoil, finding them to do as well as he could wish, he has not cared to make new experiments. He has drains that have been in function for more than twenty years without needing repair, and are apparently as efficient now as they were when first laid. In soft land, pipe or sole tiles would be preferable, or if horse-shoe were used they should be placed on strips of rough-board,

to prevent their sinking into the trench bottom, or being thrown out of the regular fall by being undermined by the running water. He had not used the plough for opening his trenches for the reason that all his work has been let out by contract, and the men have opened them by the spade: charging from twelve and a half to fifteen cents per rod for opening and making the bottom ready for the tile. The laying and filling was done by the owner.

## HIS PRACTICE.

His ditches are dug only two and a half feet deep, and thirteen inches wide at the top, sloping inward to the bottom, where they are just wide enough to take the tile. One main drain, in which are placed two four-inch tiles set eight inches apart, with an arch piece of tile having a nine-inch span set on the top of them, was dug three and a half and four feet deep, and this serves as a conduct for the water from a large system of laterals. Drains should never be left open in winter, for the dirt dislodged by frequent frosts so fills the bottom that it will cost five or six cents per rod to clear them; and, moreover, the banks of them become so crumbled away that the ditch cannot be straddled by a team of horses, and thus most of the filling must be done by hand. Mr. Johnston in dressing a field commences at the foot of each ditch and works up to the head. He opens his mains first, and then the lateral or small drains, but he lays the tiles in the laterals and fills them completely before laying the pipe in the mains. The object of this is to prevent the accumulation of sediment in the mains which would naturally be washed from the laterals on their first being laid. By commencing at the foot of each ditch and working upward, he can always get and preserve the regular fall, which may be dictated by the features of his field, more easily than by working toward the outlet. A little practice teaches the ditchers how to preserve the grade almost as well as if gauges were employed; but before laying the tiles, the instrument is applied to test the bottoms thoroughly. The necessity of this precaution will be apparent to any one who reflects that if a tile or two in the course of a ditch be set much too high or too low at either end, the water quickly forms a basin beneath and around, sediment is washed into the adjoining pipe and ultimately even the whole bore is filled and the drain stopped. When this happens it will be indicated after a time by the water appearing at the surface of the ground above the spot—drawn upward by capillary attraction. In such a case the ditch must be re-opened and the tile re-laid.

## WINTERING FARM STOCK—HORSES.

The care of the domestic animals is among the first in importance and continuity of the winter labors of the farmer. He must be "on hand," early and late, in the stable and stock-yard—horse, sheep, swine and poultry look to him for food and protection. A considerable portion of the warmer season is employed in preparing their winter sustenance—in cultivating and harvesting a supply of food against the inclemency of the winter. The one is a season of ingathering, the other, of scattering abroad;—youthful Summer boards, that aged Winter may consume, and it is thus in all the varied concerns of life, if wisely ordered. The latter season is now upon the farmer—the supply gathered with so much care and labor, must now be given out to his dependants, from day to day, and from hour to hour, as their necessities require. A wise economy in the care of stock is of the first importance, for the thrift of the



animal and its consequent profits are best studied when its comfort is cared for by a just attention to every want, in a timely, liberal and yet not wasteful manner.

We propose to offer hints bearing on this subject—timely hints—reminders of the neglectful—instructors of the ignorant, (but how few there are who do not *know* far better than they *do* for their stock,) and shall commence with that usually first brought to the barn—the horse.

The horse is one of the most valuable servants of the farmer. His health and comfort, and consequent ability to labor, are worthy of particular attention. Good stables, warm, but light and well ventilated, go far to promote this end. Proper care and cleanliness, and regularity in feeding, are also necessary. Hay and oats are the best and most available food of the horse, and are mainly depended upon for this purpose. Other grains and fodder, also roots and fruit, may sometimes be employed to advantage. Straw, cut or chopped, and meal of rye, corn or barley, or a mixture of these, wet and mixed with the straw, are frequently used with fair results. They furnish a cheaper food for horses when hay is very costly, in proportion to grains, as is sometimes the case. Carrots are the best roots for horse feed, and are thought to be of great service in promoting the health and keeping up the appetite. Potatoes and turnips are sometimes used, but they should first be cooked, and then tend to fatten rather than strengthen a horse. Apples are readily eaten, and those who have given them to their horses speak favorably of their effects.

As a steady food for the horse, hay and oats are the best, unless particular care with other food is given to their feeding and management by one skilled in the business. To those who employ hay and oats, we would commend an occasional change from oats to carrots, apples, etc., as such will be relished by the animal, and promote his health and power to labor. Instead of grain twice or three times a day, give one feeding of them, and try sometimes a feed of cut hay or straw and meal, for animals like to change from one kind of food to another as well as human beings.

Regularity in the hours of labor, of feeding and rest, are always desirable. Plenty of pure water should be supplied at least twice a day, and it would be of service to the horse could it be brought to a lower temperature than merely below the freezing point. When brought in from work, warm with exertion, the horse should be rubbed down and then blanketed; but we would not blanket a horse in a good stable, as a general rule, except in extremely cold weather. When standing out of doors while in harness, horses should be blanketed, and give a place sheltered from the wind, if possible; many horses are ruined from negligence in this respect.

In the care of horses, a few farther points may be hinted upon. A sharp toothed curry comb is the dread of a fine-skinned horse, and the brush and straw whip will answer the same purpose much better, if used as frequently as they should be. Mud should never be suffered to dry upon the legs of a horse, it is the cause of half the swollen legs, scratches and other affections of the feet, with which they are afflicted. Want of air, light and cleanliness; poor hay and insufficient or indigestible food, are all fruitful sources of disease—and a proper attention to those points will be of far greater service in restoring and keeping up health and vigor, than the thousand and one medical nostrums so often relied upon. Proportion the food, in amount and character, to the nature of the service required, and your team will not fail you, but will keep in uniform order, and be ready in the spring for the steady work when called for, and so important to the prosperity of the farmer.

These hints are intended to apply mainly to working horses—to those kept upon the farm for the ordinary purposes of the same. Colts and horses not in

use, will not require the same amount of care, but their comfort and thrift should receive careful attention, as their future value depends largely upon the foundation now laid.—*Country Gentlemen.*

IMPORTANT DISCOVERY.

Quite recently, while walking in the garden with the Hon. J. W. Fairfield, Hudson, N. Y., he called my attention to the small stakes, which supported the raspberry canes. The end in the ground, as well as the part above, was as bright as if lately made, but he informed me that they had been in constant use for twelve years? Said I, "Of course they are cyanised?" "Yes," he replied, "and the process is so simple and cheap that it deserves to be universally known, and it is simply this: One pound of blue vitriol to twenty quarts of water. Dissolve the vitriol with boiling water, and then add the remainder.

"The end of the stick is then dropped into the solution, and left to stand four or five days; for shingle three days will answer, and for posts six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box for the reason that any barrel will be shrunk by the operation so as to leak, instead of expanding an old cask, as other liquids do, this shrinks them. Chloride of zinc, I am told, will answer the same purpose, but the blue vitriol is, or was formerly very cheap, viz., three to six cents per pound."

Mr. Fairfield informed me that the French government are pursuing a similar process with every item of timber now used in ship-building, and that they have a way of forcing it into the trees in the forest as soon as cut, ejecting the sap and cyanizing it all on the spot. I have not experimented with it but Mr. Fairfield's success seemed to be complete.

The process is so simple and cheap as to be within the convenience of every farmer, and gardener even, and I therefore thought it so valuable as to warrant a special notice of it.—R. G. PARDEE.

COST OF LIVING TEN YEARS AGO AND NOW.—An inquirer asks: "Is the value of money reduced, or the supply not proportionate to the demand, or is it speculation that has produced such a rise in the necessaries of life? This, with the increase of rents in as great a ratio, shows even with employment the struggle among the masses." He gives the following table of prices at two periods in New York:

	1849.	1859.
Flour.....	\$5 00 a 5 75	\$5 00 a 9 00
Wheat.....	1 18	1 80
Corn.....	74	86
Rye.....	79	88
Oats.....	35	55
Mess Pork.....	12 25	28 25
Prime Pork.....	10 00	16 00
Hides B. Ayres....	9½ a 10	26½
Coffee, Java.....	7 a 9	14¾
Cotton.....	5 a 8½	10 a 14

**ELORA FAIR.**—The second monthly fair at Elora is advertised for Tuesday the 4th October last. The experience of the first fair, a month before, was most encouraging, in regard to the attendance of buyers; and the position of the village, backed as it is by a fertile and well-settled country, warrants an expectation that its market will soon take high rank in the West. A correspondent writes that a large supply of stock is looked for on Tuesday. We wish this monument every success, and pray earnestly for its extension to other localities.

### THE APPROACHING WINTER—NECESSITY OF PREPARING FOR IT—A SEASON OF UNUSUAL SEVERITY PREDICTED.

The first snow of the season fell on Friday night; on Saturday morning the ground was completely covered, but as there is not any frost, it is likely to melt away in a short time. Farmers have now received sufficient warning of the necessity of providing shelter for their stock, and securing their root crops and fruit against the coming frost. Many persons suppose that young stock don't require much shelter, and that they will do very well in the field or straw yard, but this is a mistake, which has a very injurious effect on calves and colts, and causes many of them to become stunted and ill-thriven. In raising stock of any kind it is necessary to take the greatest care of the young animals, for if they are neglected in the beginning of their days, and the early stages of their growth, the very best feeding cannot afterwards make up for such neglect.

It has been satisfactorily proved that stock which are comfortably housed in winter, require much less food than those which are exposed to cold, and this fact should in itself be sufficient to point out the importance and economy of shelter. Some farmers provide shelter for their horses and cattle but allow their sheep, swine and poultry to shift for themselves. The Agricultural Fairs which have been recently held in every part of the Union teach useful lessons in the management of all the domestic animals. The successful competitors had all wintered their stock well, there was not one example of a premium being awarded for an animal which had been neglected in winter. The prize sheep and swine had all been well sheltered and supplied with plenty of food, and even the poultry had been carefully housed and their wants properly attended to.

In the few days that will elapse before the rigors of winter commence, much may be done towards providing for the wants of all kinds of stock. There are but few stables so comfortable as not to require some alteration or improvement—few cattle sheds proof against the storm. Hogs are remarkably fond of warmth, and very sensitive of cold, consequently they require warm houses and plenty of dry litter in which to roll themselves and be secure against the cold. A few years ago, the Rev. William Huxtable informed the Royal Agricultural Society of England, that he had discovered the "Pig Secret," and that the true method of fattening these animals was to provide them with good shelter and plenty of litter and to keep them asleep except at feeding time. He floored the feeding yard with narrow, sharp slats, so that the hogs could not stand on them without hurting their feet. This caused them to return to their beds the moment they were done feeding. He said that by treating the hogs in this way and supplying them regularly with food in which fat or grease of any kind is mixed, he can fatten them much sooner than by any other system of management.

We are not much inclined to pay attention to the prediction of weather pro-

phets, but there are some indications of the approach of a severe winter, which are worth noticing. We learn from the newspapers that, a few days ago, countless multitudes of grey squirrels appeared on the banks of the Merrimac. They crossed the Mississippi at that point in myriads, and worked their way along the river until they reached Cape Girardeau. They crossed the river at that place, and overspread field and forest in immense numbers. Their route was marked as by a devastating storm—trees were girdled and fields destroyed—millions of them were killed by the farmers. Old French settlers predict a severe winter, as it was noticed in 1334 and 1852 that immense droves of squirrels suddenly made their appearance, followed by intensely cold weather. It is supposed that they came from northern regions where the winter commences early. It is always well to be prepared for the worst, and farmers should make good use of the time which yet remains, and provide comfort and shelter for their stock from the cold weather which is approaching. Fodder of all kinds should be carefully preserved.

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### FLAX CULTIVATION.

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The want of new objects of culture for the purpose of varying or modifying our rotations has often been felt by many of our best farmers, and it is certainly somewhat strange that flax has not been more grown in England. Its cultivation presents many advantages. No doubt it requires the land to be in good condition, but may be assumed to be the normal state of a well managed farm. Then the land must be kept very clean, while the flax crop is growing; and having been so kept, flax forms an excellent preparation for wheat, this was shown decisively by the late Mr. Warness, of Norfolk, who regularly grew heavy crops of wheat after flax. Then the straw and seed together render the produce of an acre of flax highly remunerating; perhaps the difficulty of disposing of the flax straw is the main obstacle to the extension of flax growing in England; for to reduce the straw into the flax of commerce is not suitable to the business of the farm. That is a manufacturing operation. But with a more general growth of flax, scratching mills and markets for the straw would grow up in various localities, within easy reach of the agricultural districts. Hitherto its growth has been entirely local. Even in Ireland the growth of flax seems to be almost confined to one province. Thus from a recently issued return, showing the acreage under flax in Ireland in 1858 and 1859, we learn that in Ulster there were in 1858, 81,355, and in 1859, 130,258 acres of flax grown, while in Munster in 1859, there was only 1,733 acres, in Leinster, 1,793 acres, and in Connaught, 2,532 acres. In the four provinces there was a total increase of flax of 41,470 acres grown in 1859 over the growth of the preceding year. It appears however, that the growth of flax in Ireland has been declining for several years, and that in 1851 the lowest point was reached.—*Lilwall's Mercantile Circular*,

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### STEAM PLOUGH TRIAL AT ALBANY.

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The correspondence of the *N. Y. Tribune* in reference to the Annual New York State Exhibition held at Albany, has the following:—

The excitement when the steam plough moved across the field last evening,

shows, as straws do, which way the wind blows. The machine is Troy built, upon the plan of Mr. Ann, carries its own track, and is guided by a steering wheel forward, that moves a pair of guide wheels. The firemen ride at the rear of the horizontal boiler, as upon a railroad locomotive; the ploughs, four in number, are hung behind. In travelling across the field, and up a steep grade, the machine stopped, we understood for want of steam, and had to wait for a waggon load of wood to come alongside, during which the crowd became so dense that it required considerable coaxing to get room enough to proceed to the outer part of the enclosure, where the ploughing was to be done. At length the ground was reached, the ploughs let down, and a little opening obtained to go ahead between the two walls of men curious to see how oxen and horses are to be superseded by steam power in ploughing. The ground is a soft loam, strongly sodded, and the plough only marked the ground here and there, but did not turn over handsome furrows. The general verdict was, that as far as this trial was concerned, steam ploughing was a failure. We regret this, as it leaves a bad impression upon the minds of many who will probably have reason hereafter to change their present impression upon this method of disintegrating the soil. The machine was in operation, though not ploughing, again to-day, and drew a great crowd.

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#### DRAIN TILE—NUMBER PER ACRE.

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J. Herbert Shedd gives the following rule, in *The New England Farmer*, for calculating the number of drain-tile required for an acre;

“In estimating, to include main drains, divide 48,000 by the distance apart in feet. Thus: if the drains are to be 30 feet apart.

$$30 \overline{) 48,000}$$

1,600 the number required.

“If forty feet apart,

$$40 \overline{) 48,000}$$

1,200 the number required.

“The percentage of tile to be used in the main drains varies with the length of the laterals and with their distances apart. The above given rule supposes the laterals to be 40 feet apart, and to have an average length of about 400 feet each.

“If it is required to know how many tiles would be used for lateral drains only divide 43,560 (the number of superficial feet in an acre) by the distance apart. Thus: for lateral drains, 36 feet apart,

$$36 \overline{) 43,560}$$

1,210 the number required.”

When you know the length of a drain, provide a tile for every foot, since, after deducting for breakage and bad tiles, a thousand in number will just about lay a thousand feet in length.

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#### AGRICULTURAL PROGRESS.

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Agricultural societies and farmers' clubs are exceedingly useful; but their value unquestionably might be materially enhanced. The annual meetings and

exhibitions in the provinces are now being held in rapid succession, but we regret to find that the speeches delivered on such occasions have not been so enlightening to the agricultural mind as could be desired, or what was intended by the origin of societies of the kind. Political views have been propounded more extensively than practical farming ideas. Now and again, we do get hold of an exclusive agricultural talker; but we do not very frequently meet with a Pusey or a Mechi. Landlords are too fond of politics at such gatherings, and their tenants are either unwilling to reveal their farm worth or too uneducated to be able to do so. The Whitby anniversary, of last week, was a favorable exception. There some good and interesting subjects to the agricultural world were remarked upon; and, among others, that of machinery, the economizing of time and labor, the value and application of guano and other manures. These are all topics of great moment to the farmer. We coincide with Mr. Chapman, F. R. S., who so ably presided at the Yorkshire meeting alluded to, that there is less to be cared for foreign competition than for that at home. All progress in England begins and ends with individuals, or at least with the combined efforts of individuals. On the continent, generally, it rests with the government, or nothing is done. It behoves us, therefore, to take advantage of all improvements which the efforts of others have introduced. Some other aid than human labor must be brought to feed our increasing population. There are twenty-eight million mouths in the united kingdom depending upon the farmers at home for sustenance, and their wants can only be supplied by increased production. We can but slightly add to our acreage, but there is hardly any limit to our power of production, and that, too, at diminished cost, if the agriculturists would but avail themselves of the means which the invention of man, and the providence of God, has placed at their disposal. Mr. Pusey has stated, and he is an acknowledged authority, that the application of machinery to the main branches of farm labor, taken together, has effected a saving of outgoings, or an increase of incomings, of not less than one-half. That machinery has given to farming what it most wanted, not absolutely indeed, but comparative certainty. These are not idle opinions passed upon mere speculative theories, but they proceed from a high authority, of unquestionable impartiality, and are the result of deliberate calculations founded upon actual practice. Fifteen years ago there was only one portable threshing machine in the county of Norfolk; now there is hardly a parish without one. There can be but little doubt that as steam has superseded other modes of conveyance both by sea and land, so its extended introduction into agriculture will supersede other ordinary means of cultivation. Not that it will drive out labour—far from diminishing the employment of the laborer, it will give, in various ways, an increased demand for it, as well as add to the production of food. Let us now hastily glance at a few of the advantages to be derived from the improvements in farming implements. By means of pipe and the drainage-plough the land may now be thoroughly drained for less than 25s per acre, instead of £5 or £8 a few years ago. By using the horse-hoe the farmer may have his work done for 6d to 9d per acre more effectually than by hand labor at 3s. A thrashing machine, worked by steam, will cost 7d per quarter for corn, against 3s 5d, the expense of the flail, while, at the same time, the increase in the yield will be at least five per cent. The reaping-machine will cut down corn at a third of the cost, and one-twentieth part of the time of the sickle. But there is another improvement more easily attainable than these expensive machines. It is an established fact that one horse in a cart is better than two in a wagon; those farmers who use one-horse carts save half of the horses those farmers use who string on three or four horses to their wagons and dung carts. In a public trial at Grantham it was proved that five horses in carts beat ten horses in wagons by two loads. While on the subject of horses,

it may be mentioned that in the south the practice of clipping and singeing horses is becoming very general. The medical men in London, whose horses are exposed to all weathers, in winter almost invariably singe them. Farm horses should be clipped early and gradually. You may easily test the benefit of this by trying one horse clipped and the other unclipped. But of all the novelties of the last fifteen years which have created the greatest revolution in agriculture, artificial manures is the most important; and at the head of these is guano. The history of guano into this country is somewhat curious. It was perhaps about twenty years ago when a few casks were sent from Peru to London, consigned to Messrs. Gibbs, but without any particulars to lead to a knowledge of its value. After laying some time in the docks, increasing expense and giving out no very agreeable odor, it was taken away and actually thrown into the sea. Its worth ought to have been known: for in a work called "The Natural and Moral History of the East and West Indies," printed in England in 1640, translated from the Spanish of Joseph Acosta, it is stated, after alluding to birds with fine plumage, "there are other birds, which serve to no other use but for dung, and yet perchance they are of no less profit. The people send boats to the island for the dung for there is no other profit in them, and this dung is as commodious and profitable, as it makes the earth yield abundance of fruit." The author adds this moral:—"I have considered this, wondering at the providence of the Creator, who hath so appointed that all creatures shall serve man. They call this dung guano, whereof the valley hath taken the name. The first cargoes of guano arrived in 1342, and from that time to 1850 there were sold 350,556 tons, or about 40,000 tons a year. From 1850 the annual sales gradually increased, reaching in 1856 to 325,005 tons—upwards of three millions sterling. Since then the sale has fallen off, partly owing to the increase of price, and partly owing to the fall in the value of wheat, the farmers being unable to buy so largely, and the price has varied. In the first eight years it ranged from £10 to £15 per ton; in 1833 it was £9 5s. From that time till July 1857 the price gradually advanced, till it reached £13; it is now £12, to which it was reduced in 1858. The present stock of guano in England is about 200,000 tons that may be relied upon as genuine; and it is estimated that even at the present consumption of 250,000 a year it will last for some generations. Of 213,000 tons sold in 1848, it was estimated that wheat carried off about 148,000; and preserved for turnip and other lands 65,000. The Scotch are extensive purchasers, no less than 53 cargoes going to Scotland. Two thousand tons were sent to Belgium last week. When fish has been very plentiful it has been put upon our sea-coast land. At Yarmouth the scales of the herring, as well as all the injured or refuse fish, are mixed with salt and sold at about 4s per ton. If the sewage of towns could be made available for agricultural purposes, it would confer a great benefit; but of this more anon.

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**KEEP STOCK WARM.**—Farmers do not pay sufficient attention to the warmth of their stock, but suffer them to roam about in the open air, exposed to the inclement weather. The amount of exercise is another most important point to attend to. The more an animal moves about, the quicker it will breathe, and the more starch, gum, sugar, fat, and other respiratory elements it must have in its food; and if an additional quantity of these substances is not given to supply the increased demand, the fat and other parts of the body will be drawn

upon, and the animal will become thinner; also, as before observed, every motion of the body produces a corresponding destruction of the muscles which produce that motion. It is, therefore, quite evident that the more the animal moves about, the more of the heat-producing and flesh-forming principle it must receive in its food. Hence, we see the propriety of keeping our cattle in sheds and yards, and not suffering those (particularly which we intend to fatten) to rove about, consuming more food, and wasting away more rapidly the various tissues of the body already formed, and making it more expensive and difficult to fatten them.

### ATTEND TO THE MANURE HEAPS.

TAKE care of the manure and the crops will take care of themselves, is as true and as well worthy of being iterated and reiterated as Poor Richard's familiar proverb, "Take care of the pennies and the pounds will take care of themselves." More manure and better, should be the watchword of every farmer.

There is a very general impression, that passing food through the body of an animal increases its value as manure. Now, if we are to understand by this that it adds something to it that it did not possess before, it is a mistake. A given weight of the liquid and solid excrements is worth more as manure than the same weight of the food, at equal degrees of dryness, consumed by the animals from which they are derived. But it must be remembered that one hundred pounds of dry food eaten by an animal furnishes only forty pounds of dry matter in the liquid and solid excrements. In other words, there is a loss in feeding, of sixty per cent. This loss consists principally of carbon—an element of little value as manure. This forty pounds of dry matter is worth as much for manure, or nearly so, (there being a little loss of nitrogen, phosphates, &c.) as the one hundred pounds of dry food; and of course one hundred pounds of such manure would be worth much more than one hundred pounds of the food from which it was derived. It is this fact that has led to the impression that feeding food to animals increases its value as manure. The liquid and solid excrements of animals living on clover, for instance, would be a more appropriate food of wheat and other cereals than the clover itself; and if carefully preserved, would furnish very nearly as great an amount of those elements most required by the wheat.

It cannot be too often repeated that the value of the manure depends, primarily, on the composition of the food eaten by the animals. "You cannot make a whistle out of a pig's tail." neither can you make good manure out of an old straw stack. You may rot it down, or feed it to animals; but it is straw still. "But cannot you make it valuable by mixing other manure with it?" Certainly. If you use it for absorbing the liquid of animals living on better food you make the heap of manure more valuable,—and the practice is a good one, and much to be recommended. But the straw is straw still. If you have a purse of pennies, and you mix with them a quantity of gold dollars, you make the purse more valuable; but the gold dollars do not add to the intrinsic value



of the pennies. It may be more convenient to carry them mixed together; but if the gold dollars were in one pocket and the pennies in another, you would have just as much money as though you had them all in one pocket. So it may be more convenient to mix the good manure with the poor. The latter may absorb and retain those substances which would otherwise drain away or fly off; but the mixture contains no more fertilizing elements, and would be no more valuable as manure, than if the good and the poor manure had been carefully preserved and applied separately. Unless the substances from which the manures are derived contain the necessary elements, it is vain to expect to make a valuable manure from them by any known process of feeding.

The manure from poultry is more valuable than that from hogs, while the latter is generally more valuable than that from horses or from cattle or sheep; and many persons seem to think that different animals have different powers which, in some mysterious way, affects the quality of the manure. This is not the case—at least to any appreciable extent. The droppings of poultry are the most valuable from the fact that fowls live on richer food, and the liquids and solids are voided together. So of the hogs and other animals. If the food were the same, there would be little if any difference in the value of the manure. One hundred pounds of hay, eaten by a horse, an ox, or a sheep, would furnish manure, differing perhaps in quantity, but of precisely the same absolute value. To have good manure, then, we must feed the animals on food containing a sufficient amount of fertilizing ingredients. We are anxious at the risk of being tedious, to impress this fact on the minds of our readers.

In feeding animals, we should not only consider what will produce the most meat, but also what will furnish the richest manure. For instance, Indian corn may fatten an animal as rapidly, as oil-cake, but the manure from oil-cake-fed animals is much more valuable than from those fed on corn. Ordinary meadow hay may fatten sheep as well as clover hay (though we somewhat doubt it), but the manure from the former is much inferior to that from the latter. Oil-cake, peas, beans and red-clover are among the best foods that can be used, not only for their nutritious qualities, but as also furnishing rich manure.

Another point should not be overlooked. It should be our aim to grow those plants as food for stock which impoverish the soil but little, and clover, peas and turnips are, on this account among the best.

Having got the manure, our next object must be to prevent its valuable elements from being washed away, or from being dissipated by too rapid fermentation. On most farms, more loss is sustained from the former than from the latter. On this account, the water from the building should never be allowed to run into the manure-yard. All that falls on the heap itself, can be absorbed by the judicious use of straw and waste matter. But as more water falls at some seasons of the year than is required by the manure, and not enough at other times, it would be a great advantage to have a tank into which the drainage could run when the water is in excess, and from which it could be pumped back when it is deficient. Few people have any idea of the value and convenience of a good manure tank. Water has the power of retaining a large quantity of ammonia, and the judicious use of the drainage in the tank will prevent much loss of this most valuable ingredient of manure.

Some good farmers in this vicinity are abandoning the practice of plowing in clover for wheat. They break up the sod ground for corn; clean the land as much as possible with this crop; then sow barley, followed by wheat the same fall. And they find, of course, much benefit from manuring the wheat, either by ploughing in the manure before sowing, or applying it as a top-dressing.

Such a practice allows the manure to remain in the barn-yard during the summer, and, by proper management, it can be reduced to "spit manure," with little or no loss of ammonia. Such manure, so fermented that it can be cut with a spade, will not weigh more than one-half as much as if it had been used in the fresh, unfermented state, and, of course, the cost of hauling, spreading, &c., would be reduced one-half. Such manure, too, acts quicker, and would afford the wheat plants abundance of nourishment in the fall, and give them a good start, which is a very important consideration.

Manure applied to spring crops should be thoroughly decomposed, or it has little immediate effect; and if the weather proves dry and hot, unfermented manure is as often injurious as useful. We are well aware that there is among practical farmers, as well as among scientific writers, much diversity of opinion on this point. If we plow in fresh manure, all the food of plants it contains is retained in the soil, and will ultimately exert its maximum effect. On the other hand, as manure is usually treated, there is great loss from rapid and injurious fermentation, and more especially from bleaching. *But this loss can be avoided.* Before manure can be useful to any crop, it must be thoroughly decomposed—either in the heap or in the soil. Plants cannot live on organized, or partially organized matter. It is their function to convert the crude, inorganic matter of earth and air into organized matter, capable of supporting animal life. Plants can no more live on organized matter, than animals can live on the crude alkalis, acids and gases of which plants are composed.

Manures, to act immediately, therefore, must be well rotted—and in this case, as in all others, "time is money." The relative advantages of applying manure to wheat in the fall, or to spring crops, involve points which we cannot now consider. During the summer, fermentation proceeds rapidly, and it is easy to get manure well rotted for fall use; but it is difficult to get manure made in winter sufficiently decomposed for immediate application to spring crops.

The four principal agents in fermentation, are light, heat, air, and moisture. Other things being equal, those substances which contain the most nitrogen ferment the easiest. On this account, good manure will rot sooner than poor. Compression, by excluding the air, retards fermentation; an *excess* of water, from the same cause has the same effect. If the heap was *perfectly* dry, no fermentation would take place. This, however, never happens in practice; but the heap is often too dry, and then the manure "fire fangs," with great loss of ammonia. The reason heat is evolved during fermentation, is owing to the oxygen of the air uniting with the carbon and hydrogen of the manure, forming carbonic acid and water—a given quantity of carbon and hydrogen giving out just as much heat as though burned in a stove. This nascent carbonic acid has a beneficial effect on many of the ingredients of the manure, rendering them more soluble.

The principal object in preserving manures, should be to let the heap ferment slowly—not so rapidly as to drive off the ammonia. To accomplish this, the hog and cow manure, which ferment with difficulty, should be mixed with the horse and sheep manure, which have, when unmixed in a loose heap, a tendency to enter into rapid and injurious fermentation. The heap, too, should be kept compact, by allowing sheep, hogs and cattle to trample it. It must also be kept moist, but not too wet. To provide the necessary moisture at all times, it is of great advantage to have a good tank for the drainage. The liquid in the tank should be kept saturated with plaster (sulphate of lime), which when in

solution, will convert the volatile carbonate of ammonia into the fixed salt, sulphate of ammonia, and thus prevent loss. This effect will be produced not only in the tank, but when the sulphated liquid is pumped on the heap, the carbonate of ammonia in the heap also will be converted into a sulphate, and retained.

On every farm there is much refuse matter, which, when decomposed will not only make a good manure, but will also help to absorb the liquid which would otherwise drain off and be lost. Every thing of this kind should be added to the heap.—*Genesee Farmer.*

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## Horticulture.

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### RENOVATING OLD APPLE ORCHARDS.

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“WHAT can I do with my apple trees?” asks a Suffolk correspondent: “they are old trees in an old orchard. At one time their fruit was good and fit for market; but now, and for many years past, they are cankered and mossy, and weak, and their fruit is for the most part unsaleable. My gardener says that this has been caused by neglect of pruning scientifically. Is this so? What is meant by pruning scientifically? I am rather afraid of so great a word from the mouth of a man, although a worthy young fellow, seems to me to have nothing scientific about him. And besides I remember being told when in Normandy that although the fruit trees in that Apple country, when pruned upon scientific principles, were beautiful specimens of art, yet that they had the fault of bearing little fruit.”

We fear that our Suffolk friend will find little favor in the eyes of those gardeners who believe that all manner of virtue resides in a pruning knife and narrow saw, and whose greatest pride is to cut their trees into wonderfully regular forms. And yet he is justified in his apprehensions: for there can be no doubt that more harm is done by over-pruning, which is too often meant by “scientific” pruning, than can arise from leaving trees to the undisturbed operations of natural processes. In the latter case indeed fruit may be small and bad; but in the former it is as likely to be altogether absent, while the health of trees is irretrievably ruined.

There is no branch in gardening in which experienced or fanciful persons do more harm than in pruning. They seem to forget that fruit trees are grown for the sake of their fruit and not as objects of decoration, and that three ends, and three only, are to be gained by the operation; that is to say, increase of quantity, improvement of quality, and better ripening. Nothing but skilful pruning will effect these purposes; unskilful, in which is to be included unnecessary pruning, has a directly opposite tendency. In short, the golden rule in this case is NOT TO PRUNE AT ALL IF IT CAN BE AVOIDED. Pruning, however, is unavoidable; but it should be had recourse to as little as possible.—As to overpru-

ing, it is we repeat far worse than no pruning at all. One thing is certain, that the more Apple trees are pruned the less they bear ; and the same may be said of pear trees.

The author of one of our best practical works, having described how an Apple tree should be managed for the first three or four years, remarks, "after this nothing more will be necessary than to look them (the trees) over from time to time, cutting out carefully any superabundant branches that may appear, particularly those which have a tendency to injure the proper figure of the head, or are likely to become stronger than the rest : these latter, if suffered to remain, will injure any description of tree, whether it be a standard, an espalier, or whether it be trained against a wall. This is the best advice that can be given to those who have the management of Apple tree in an orchard. It is like the worthy Mr. GASSE's instructions to "let them alone." But our Suffolk correspondent's trees are in a state of ruin. They seem to be like the Devonshire trees, which Mr. BELFIELD describes "with heads tangled and matted together so as to set both sun and air at defiance ; live wood struggling for existence amongst the dead, and all hoary with Moss and premature old age.

With such trees the pruning knife and saw must be used unsparingly ; and if that is what our Suffolk correspondent's gardener means by "scientifically" we agree with him. Not that there is much science in the operation. The first thing to do is to cut down to the quick every dead branch, limb or spur ; they can do no good, and are mischievous on account of the interruption they offer to the sun and air, which are as necessary to the tree as to the gardener. Until that has been done live wood should remain untouched. *Secondly*, as soon as the dead wood is gone, and the gardener can see *distinctly* what he has to work upon, he should prune out every shoot that whips or crosses or rubs against another, so as to leave plenty of room between the shoots ; a foot is not too much.

In doing this the weakest shoots should be removed. *Thirdly*, all the thinning having been done, the end of each branch should be stopped by removing more or less of it according to its strength. *Fourthly*, after the stopping all loose bark and Moss should be scraped off the branches and main stem with the blade of an old hoe or some such blunt edge, and the scrapings should be burnt. In this way alone can insects with their eggs be destroyed with certainty. Such scrapings can do no harm ; and in addition to the removal of insects it enables the tree to breathe more freely, a very important matter, for the living bark is as much a portion of an Apple tree's lung as the leaves are. This done, skill can go no further, and it is only necessary afterwards to leave the tree to its vital powers ; watching however how the new shoots grow, and cutting out from time to time all such as in any way whip, chafe, or cross each other.

In these remarks the state of the soil is not noticed. If however there is any doubt about its being thoroughly drained, that also must be carefully looked to, for no apple trees can retain their health in waterlogged ground. Neither can they prosper when soil is exhausted of all its nutritive matter. When that is the case weak manure, such as plenty of decayed leaf-mould, burnt weeds, or any similar material should be employed. Strong ammoniacal manure is to be avoided.—*Gardener's Chronicle.*

## EARLY RIPENING GRAPES.

To those of our readers who have *Isabella* or other grape vines that do not ripen their fruit, we commend the experiment of F. ABORN, Esq., of Augusta-Maine, as given in the *Maine Farmer* :

“ A few years since, a neighbour of mine had a vine in his garden. The ground was kept rich and it had the whole garden to gather nourishment from but it would not bear, and he told me that if I would dig it up I might have it. I did so, and pulled it apart, and made four roots of it. I then dug holes snug to my cellar wall just large enough to put in an old barrel without heads, one in each hole, into which I put some leather scraps, a few bones, and rich earth, and then set a root into each barrel. The grapes of these vines have got ripe, while those having the advantage of a wide, rich border, are like those the fox couldn't reach.

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GRAFTING—NEW FRENCH MODE.—Cut the grafts at the usual period, save them for future use, and when time and leisure come, take a subject—any tree, any bark—cut out a bit of bark with a little of the wood, with a knife as keen as a razor ; then cut a bud as exactly as possible of the same size with a bit of the wood ; fit bud to stalk, and tie it lightly over with woolen yarn (on account of its elasticity), apply all over it with a small brush, collodion. This immediately forms an elastic skin over the whole, and perfectly excludes the air—which by all other modes of grafting or budding is not perfectly excluded. This is the whole secret. We think it would be best to cut out of the subject, a bud, and fit the new bud to that spot exactly.

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PREPARING CUTTINGS.—Now before hard frosts set in, gather cuttings for next spring's use. Take them from the currant, gooseberry, grape vine, and from such ornamental shrubs as the syringa, tartarian honeysuckle, deutzia, &c. ; bury them in light dry soil, either in the garden or cellar, and let them be until the spring.

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## Ladies Department.

## DAILY WORK.

BY CHARLES MACKAY.

Who lags from dread of daily work,  
 And his appointed task would shirk,  
 Commits a folly and a crime ;  
     A soulless slave—  
     A paltry knave—  
 A clog upon the wheels of time.  
 With work to do and store of health,  
 The man's unworthy to be free,  
     Who will not give,  
     That he may live,  
 His daily toil for daily fee.

No ! let us work ! We only ask  
 Reward proportioned to our task !  
 We have no quarrel with the great—  
     No feud with rank—  
     With mill or bank—  
 No envy of a lord's estate.  
 If we can earn sufficient store  
 To satisfy our daily need,  
     And can retain,  
     For age and pain,  
 A fraction, we are rich indeed.

No dread of toil have we or ours,  
 We know our worth and weigh our powers ;  
 The more we work, the more we win ;  
     Success to trade !  
     Success to spade !  
 And to the corn that's coming in !  
 And joy to him, who, o'er his task,  
 Remembers toil is nature's plan ;  
     Who, working, thinks,  
     And never sinks  
 His independance as a MAN !

Who only asks for humble-t wealth,  
 Enough for competence and health :  
 And leisure when his work is done  
 To read his book  
 By chimney nook  
 Or stroll at setting of the sun ;  
 Who toils as every man should toil,  
 For fair reward, erect and free,  
 These are the men—  
 The best of men—  
 These are the men we mean to be.

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SCIENCE OF MILKING COWS.—It is a matter of great importance that the milk should all be drawn from the cow's udder. Careful experiments made in England show, according to a report recently published, that "the quantity of cream obtained from the last drawn cup from most cows, exceeds that of the first in a proportion of twelve to one." Thus a person who carelessly leaves but a teacup full of milk undrawn, loses in reality as much cream as would be afforded by four or six pints at the beginning ; and loses, too, that part of the cream which gives the richness and high flavor to the butter.

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### DRESS FOR A COUNTRY GIRL.

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In the *Ohio Cultivator* for June 1st, there is an article by a Tennessee girl upon the dress of country girls. The writer recommends a sort of peasant garb very simple, comfortable and pretty, for those who are so fortunate as to live without the pale of Miss Flora McFlimsey's fashionable circle—in the free, glad, blessed air of the country, where people can consult their own comfort without interfering with their neighbour's tastes.—After reading the above mentioned article, I filled with a desire to sit down and chat awhile to the *Cultivator* Girls, and to tell them some of my ideas about this important matter of dress. But I am a busy little body, (d'ont leave out that *little* now!) and have so many cares and duties to look after in my family, that I cannot always enjoy a pen-talk when I wish. I am seated at last, however, after a hard day's work, and as the little folks are quietly floating upon the waves of sleep, I fancy we will have a cozy little time all to ourselves. So dear girls, d'ont make a stranger of me, but let me come into your circle and be one of you, while we freely express our opinions, and chat familiarly together.

If you could have seen me in my short dress and pantalets to-day, as I officiated as laundress, dairywoman, and housekeeper in general, you would have been convinced that I put the theory I am about to lay before you, into practice ; so d'ont hoot at the idea of my discoursing upon the dress-reform question, because I appear to you this evening in long skirts, crinoline, and other cityfied paraphernalia.

I will tell you what I think. I believe in dressing *according to circumstances*

—If we wish to “brush the dew from the grass” in a morning ramble, let it be done with good thick shoes, warm stockings, and skirts short enough to allow us a country girl's privilege of romping and frolicking at our will. If we have morning work in the kitchen or milk room, if it is washing, baking or cleaning day, do let us be independent enough to lay aside the troublesome *trails* and awkward hoops, and appear upon the scene of action properly equipped for the performance of our duties in a neat, prompt and comfortable manner. Just so, if we are going into the woods or a berrying, nutting or botanizing excursion, or to the river fishing, let us go prepared to enjoy ourselves in a comfortable garb, that shall not be in the way as we clamber amongst the rocks, wander through the bush and briars, or wade into the stream.

But in the afternoon, girls, when the kitchen work is all done, the dinner dishes washed, and we have prepared ourselves for an hour or two's sewing before tea, I am sure we look better in our own mirror, as well as to father and the boys, to don the lady-like dress, not too long, but reaching to the slipper toe, and expanded to a moderate size.

A wreath about the head is the prettiest ornament we can wear, and with a neat collar, a black silk apron, and a bit of work in your hand, you appear trim, graceful, industrious and pretty; while, with your peasant garb in the afternoon sitting room, you would seem the same country hoyden who romped through the meadows, or scrubbed the back porch in the morning. Just so with children.—When about their morning play, little girls are more comfortable, and better prepared for a vigorous exercise of the muscles, and con taut horror of fastidious mothers, “dirt”—if they are clad in a pair of little brothers out-gown panties, or a pair of dark colored drawers, “run up” for the occasion, than they can be in their pretty pink or white dresses and embroidered aprons, in which they look so sweetly afterwards.

Our Fannie—a healthy chubby pet of three years—was about all the morning dressed in a suit of Master Charlie's cast off clothes; and although she looks a little rough, she enjoys clambering up and down the steps, or over the wood pile, and revels among her “dirt pies” with a gusto seldom ever experienced by children kept in constant fear of soiling their clothes. After dinner, every day, she is bathed and sent into the cool, dark parlor, where, with a cushion for a pillow, she enjoys such a refreshing nap upon the floor as only a healthy child, wearied with play, knows of, and upon awakening, she is dressed for the afternoon, and you would scarcely recognize her in her low-necked, short-sleeved dress, and pretty apron, embroidered pantlets and hooped skirt.

D'ont run and hide, girls, when some of your village beaux happen around at the back door of a morning, to grind a scythe, or borrow a rake. Never fear their dislike for a “bloomer.” If they are sensible young men, they will readily admit the propriety of your working dress; and when, after the labors of the day are over, and they knock at the parlor door, and make their best bow as they present themselves for an evening call in ‘Sunday fixus,’ they will admire you the more in your tasteful attire, for having seen you adapt yourself so easily to circumstances.—*Ohio Cultivator.*

### ABOUT DRYING APPLES.

October and November are the best months for drying apples, and the well ripened, choice Fall varieties are by far the best for the purpose. Some people have an idea that anything (in the shape of an apple, big enough to pare, cut and co-



re, let the flavor be what it may, is just as good for drying as another. We beg leave to correct this error. It is just as important to have a good apple to dry as to eat raw, cook or bake. To those, therefore; who want good dried apples, we offer a few suggestions.

1. Let your apples be of good size, fair in shape, choice in flavor—sweet or tart, as you may prefer: both are good for a variety of purposes. They should be gathered without bruising; laid by till nearly ripe, but not quite ripe; pared with a machine—if you have a good one—and quartered, or half quartered, according to the size of the fruit, or the use to be made of the article when dried.

2. Let the work be done as rapidly as possible, for the fruit may ripen too fast after beginning to do them, and keep the cutting and coring up with the paring; for the moment the open flesh of the fruit becomes exposed to the atmosphere, or heated, it begins to lose its aroma, moisture and flavor, all to the damage of its quality when dried.

3. If you choose to string them, which may be done, or not, as you prefer, do it as soon as you can. We should not dry thus, preferring wire-rakes for the purpose. Then, instead of hanging them up by the side of the house, in the sun, or in the kitchen, where millions of flies will alight upon and live on them for several days, put them in a kiln, or drying-room, with a heat of a hundred degrees of thermometer. Let the kiln be ventilated at the bottom and top, to pass off the exhaling moisture, but not enough to make a perceptible draft through it.

4. When the drying heat has sufficiently closed the pores of the cut fruit to prevent the escape of its aroma, the heat may be modified ten or twenty degrees and so continue until they are sufficiently cured for storing away, which may be known by breaking a few pieces, and the absence of any moisture in the flesh, showing fermentation.

5. When sufficiently cured, pack them away in small bags or sacks, not closely crowded in, but as they will naturally fill; tie them closely, and hang them to nails on the side of a dry room. They will thus keep indefinitely, or till you want to use them.

A well selected apple, properly pared, cut, cored and cured, is one of the best luxuries of the table; while indifferent varieties, carelessly worked up, strung and dried in the kitchen, half covered with flies, fused with the steams of cookery dust, and the accumulations and exhalations of an open and disordered living room, are not fit to eat, nor even to sell. We have seen apples dried after the latter fashion even in the households of otherwise tidy people: and to those who are in the habit of doing so, we say, try the other plan, and if they do not acknowledge it a better way, in every possible use an apple can be put to, call upon us for the difference in expense.—*Agriculturist*

**PRESERVING SQUASHES.**—It is presumed that the squashes have been gathered ere this, and put in a cool, dry place, where they have the heat of the sun during the day, and are protected from frosts at night. When freezing weather approaches they should be removed to a room having a dry atmosphere, and at a temperate warmth. A room above the kitchen is not a bad place in most instances. Great care should be observed in handling, as a very slight injury inflicted may cause the speedy decay of the whole fruit. There is no conceivable reason why every farmer in the country should not enjoy the luxury of superior squash pies during the whole winter, and if he raise enough, they may grace his table in March or April. A proper regard for these precautions will without doubt secure so desirable an end.—*Hartford Homestead.*

**REMEDY FOR THE BITE OF MAD DOGS.**—A Saxon forester, named Gastell, now of the venerable age of 82, unwilling to take to the grave with him a secret of so much importance, has made public in the *Leipsic Journal* the means which he has used for fifty years, and wherewith he affirms he has rescued many human beings and cattle from the fearful death of hydrophobia. Take immediately warm vinegar or tepid water, wash the wound clean there with, and then dry it; then pour upon the wound a few drops of hydrochloric acid, because mineral acids destroy the poison of the saliva, by which means the latter is neutralized.

**BROWN BREAD BISCUIT.**—Two quarts of Indian meal, a pint and a half of rye, one cup of flour, two spoonfuls of yeast, and a table spoonful of molasses. The yeast should be quite sweet. Let it rise over night.

**TO MEND BROKEN CHINA.**—Take a very thick solution of gum Arabic in water, and stir into plaster of Paris until the mixture becomes a viscous paste. Apply it with a brush to the fractured edges, and stick them together. In three days the article cannot be broken in the same place. The whiteness of the cement renders it doubly valuable.

**ANOTHER.**—With a small camel-hair brush, rub the broken edges with a little carriage-oil varnish, and if neatly put together, the fracture will harden immediately.

Mr. Rosenstiel, of Freeport, Ill., finds that by using his French Merino bucks on his South-Devon or Leicester ewes, he gets a more profitable flock, and he esteems those flocks nearly as highly as his thorough-bred Merincs, and much more than the pure scotch-Devon.

Cattle standing in cold muddy yards, exposed to the weather, consume about twice as much as those in sheltered stables kept clean and littered, and free from accumulations of manure.

To remove rust from knives, cover them with sweet oil well rubbed on, and after two days, take a lump of fresh lime, and rub till all the rust disappears. It forms a sort of soap with the oil, which carries off all the rust.

There are several good ways of keeping cabbages during winter, by burying them out of doors. The difficulty is, it is hard to get at them during winter without damage to those left. The following plan appears to avoid this difficulty: Cut the head from the stump, and pack close in a sack, taking care to fill up all the vacancies with chaff or bran, and keep in a dry cellar.

Tomatoes baked the same as apples, and eaten with salt, pepper and butter, are excellent. Also eaten with sugar and cream.

**THE FARMERS' JOURNAL.**  
**MONTREAL RETAIL MARKET.**

December 1859.

		DONS & COURS.			
		s.	d.	a.	s. d.
<b>FLOUR.</b>					
Country Flour, per quintal .....		14	0	a	15 0
Oatmeal, per quintal .....		10	6	a	11 0
Indian Meal, per quintal .....		0	0	a	0 0
<b>GRAIN.</b>					
Wheat, per minot .....		0	0	a	0 0
Oats, per minot .....		1	10	a	2 0
Barley, per minot .....		3	0	a	3 1
Pease, per minot .....		3	3	a	8 6
Buckwheat, per minot .....		2	9	a	3 0
Indian Corn, yellow .....		3	0	a	3 0
Rye, per minot .....		0	0	a	0 0
Flax Seed, per minot .....		5	6	a	6 0
Timothy, per minot .....		9	6	a	10 0
<b>FOWLS AND GAME.</b>					
Turkeys, (old) per couple .....		5	0	a	7 6
Turkeys, (young) per couple .....		0	0	a	0 0
Geese, (young) per couple .....		4	0	a	6 0
Ducks, per couple .....		2	6	a	4 0
Ducks, (wild) per couple .....		3	0	a	8 0
Fowls, per couple .....		2	6	a	3 0
Chickens, per couple .....		0	0	a	0 0
Pigeons, (tame) per couple .....		1	3	a	2 0
Pigeons, (wild) per dozeu .....		2	6	a	3 0
Partridges, per couple .....		0	0	a	0 0
Woodcock, per brace .....		0	0	a	0 0
Hares, per couple .....		0	0	a	0 0
<b>MEATS.</b>					
Beef, per lb .....		0	4	a	0 9
Pork, per lb .....		0	5	a	0 7
Mutton, per quarter .....		5	0	a	7 0
Lamb, per quarter .....		2	4	a	0 0
Weal, per quarter .....		5	0	a	12 3
Beef, per 100 lbs .....		35	0	a	40 0
Pork, (fresh) per 100 lbs .....		30	0	a	40 0
<b>DAIRY PRODUCE.</b>					
Butter, (fresh) per lb .....		1	0	a	1 3
Butter, (solt) per lb .....		0	9	a	0 10
Cheese, per lb, skim milk .....		0	0	a	0 0
Cheese, per lb, sweet do .....		0	0	a	0 0
<b>VEGETABLES.</b>					
Beans, (American,) per minot .....		0	0	a	0 0
Beans, (Canadian) per minot .....		7	6	a	10 0
Potatoes, (new) per bag .....		3	9	a	4 0
Turnips, per bag .....	6.	0	0	a	0 0
Onions, per bushel .....		0	0	a	0 0
<b>SUGAR AND HONEY.</b>					
Sugar, Maple, per lb, (new) .....		0	4 1/2	a	0 5
Maple Syrup per gallon .....		0	9	a	0 0
<b>MISCELLANEOUS.</b>					
Lard, per lb .....		0	8	a	0 9
Eggs, per dozen .....		0	11	a	1 0
Halibut, per lb .....		0	0	a	0 0
Haddock, per lb .....		0	3	a	0 0
Apples, per barrel .....		10	0	a	20 0
Oranges, per box .....		20	0	a	22 6
Hides, per 100 lbs .....		0	0	a	0 0
Tallow, per lb .....		0	4 1/2	a	0 5
<b>BREAD.</b>					
Brown Loaf .....		0	11	a	0 0
White Loaf .....		0	9	a	0 0