

Draining.

Select early fall for the purpose, when harvesting is over and you have some leisure time on your hands, also when any extra assistance may be procured at reasonable wages. The investment will soon repay itself in larger crops of better quality, and a generally healthier tone throughout the land. Like most everything else, the best method, viz., tile-draining, though dearest at first, is the least expensive in the long run. Place the tiles at a depth of from three to five feet below the surface. Four feet is a very good average. The deeper the drain, within certain limits of course, the greater range of surface will be affected, and consequently the fewer and farther apart the drains to be dug. At the depth mentioned, in ordinary soil, not too muggy or damp, twenty to forty feet may intervene between drains. If tiles are considered too expensive, or if they cannot be procured, stone may be used with great advantage; indeed a little care in construction will render a stone drain quite as durable as our mode of tiles. Observe simply that a clear channel, straight as possible, be left through the drain, and that the stones be very compactly adjusted so as not to slip or give way before top or side pressure; also that the crevices be sufficiently close to exclude the surrounding soil. When neither tiles nor stone can be readily obtained, use wood—anything sooner than nothing. Cedar or hemlock is the best material for this purpose, either of which will well repay itself ere it decays. Inch boards will be found amply sufficient, and the drain may be made either square or V shaped. If the boards receive a slight coating of coal-tar before being covered, they will last considerably longer. Of all three systems of course boards are cheapest and tiles dearest, temporarily speaking, but in the end this order will just be reversed.

Marketing Grain.

No. 1 wheat should be bright and clean, and should weigh the required number of standard pounds per bushel. No. 2 is grain that from imperfect cleaning, or other causes, does not come up to the standard of No. 1. No. 3 is still more dirty and light, and "Rejected" is such grain as from dampness, thrash, and other causes, will not grade as No. 3.

A part of the profits of warehousemen and dealers comes from raising the grade of the grain they buy or receive, by careful drying and re-cleaning. Prices this season must rule low. Advice from all parts of the world report the wheat crop as being excellent. California and Oregon has an immense surplus, and from most of the great wheat growing districts, and particularly European points, the return will be large; hence there will not be a great demand for American wheat for export. Thus it behooves the western farmer especially that no grain be sent to market but that in the best possible condition.

Every bushel of grain, of whatever kind, sent forward from the farm in anything but the most merchantable condition, costs the farmer a loss precisely in accordance with the freight on and the handling of the trash contained, the cost of re-cleaning, and the added depreciation in value from reduction in the weight of the standard bushel; added to this the lower price obtained, from the general inferior appearance of the grain from all these causes combined. Add together, the whole amounts to three or four times the cost of careful re-cleaning at home.

Threshers, who in fair to good grain, always work by the bushel, of course wish to make as much measure as possible, by rushing the grain through, often imperfectly threshed, and of course full of dust, dirt, straw and light grain. The first four causes constitute a dead loss to the farmer, whether he re-cleans or not. The light grain, if sold with the good, always causes depreciation in quality more than enough to counterbalance its weight. Thus the farmer really has no one to blame if he allows it to be so. A little intelligent supervision will obviate all but the latter evil of light grain. This may be made right by re-cleaning; for, if the grain be conscientiously threshed and cleaned, still a dead loss must ensue to the farmer if he allows the grain to go from him without re-cleaning, since all the light grain and trash, inseparable from the best machine work, counts as nothing to the miller who makes the flour. Retained at home, this is all available as feed in some shape, and will pay the cost of re-cleaning with a heavy percentage added. It will indeed pay alone in the freightage of the trash, since this never realizes the transportation charges; these charges are no inconsiderable item, when thousands of miles are estimated. Thus he saves in the light grain, and consequent freights, which light grain counts for nothing in the markets of the world. So he saves in the enhanced value of clean grain—the most important of all. Last, but by no means least, he has the satisfaction of knowing that he is reaping enhanced profits honestly earned, by sending his produce to market in the best possible condition.

Care of Poultry.

W. B. Bentley, of the Southern Poultry Journal, says:—The success or failure of a breeder of poultry depends more on this point than all others. In all lines of business we know it is he who applies himself that succeeds, and certainly poultry raising is no exception to the rule.

We also find that those persons who have a strong liking for a particular trade or business, are the ones who take the lead in their line, and I believe this to be especially the case with poultry breeding, and that a person who thinks it hard work to care for his fowls, had better "sell out," as he can find more profitable investment for his money.

In order to obtain the best results in raising chicks it is necessary to feed at least four or five times a day for the first few weeks, and never less than three times during the first year. The old stock do not usually need feeding over twice

a day, though this will depend much on the range they have, at this time of the year—during the moult—they need extra care.

I might itemize by giving an account of just how I feed, but I do not think it necessary, as what is the best and most economical in one section of the country might be out of the question in another, and then, too, I believe that the man who tries to raise chickens by rule—following some other person's plan—shows that he does not understand his business. Of course we can help each other by giving the results of experiments, &c., and we can all learn much by reading the experiences of others, but it is from our own observation and by our own experiments that we are best educated.

One thing that cannot be reiterated too often is the necessity of giving fowls plenty of pure water—there is no doubt that the lack of this is frequently the cause of cholera—and keep their houses clean. Don't let their droppings accumulate week after week, and month after month, under the roosts, but clean them out daily. You will find it but a small job if you have a wide board about six or eight inches below the roosts. The greatest pleasure to me in keeping rows is to have them look nicely, and by keeping them clean and feeding and watering regularly, you can always have them in good condition. It is said that "a thing of beauty is a joy forever," so let us to obtain the most pleasure (to say nothing of profit) give our chickens the best care, and we shall find ourselves amply repaid for our trouble.

Why the Wheat Crop Failed.

About the last of June reports were frequent of the failure of the wheat crop in parts of Minnesota, Iowa and Wisconsin, but they were very contradictory as to the cause of the failure. A number of dispatches published in the St. Paul and Milwaukee papers, and now collected before me, show that the damage was very great, especially in Western Minnesota, and that many fields were ploughed under before harvest time. The drought which was so noted in the early summer in the Eastern States prevailed more or less in this section of country, and had much to do with the unfavorable reports; while later when rains came there was a good deal of rust; but it is also very evident, from the dispatches, that wheat insects did an unusual amount of harm. The Corn-bug prevailed, as it generally does during a drought; but the less known and less easily observed work of three other insects was even more disastrous, as my own correspondence shows. The stalks were sapped and weakened—First, by the Hessian Fly (*Cecidomyia destructor*, Say), an insect often mis-called "weevil," which works at the lower joints and forms its flaxseed-like pupae in furrows on the outside of the stalk, generally within the sheath; second, by the American Meromyza (*Meromyza americana*), a little greenish maggot, which bores inside the stalk and generally causes it either to break or to wither or weaken near the head. The ears were also bleached and shriveled by the orange maggots of the Wheat Midge (*Cecidomyia tritici*), also often mis-called "weevil." All these insects were more disastrous than usual in that region, and I may send you something more detail concerning them.—C. V. Riley, Racine, Wis., Aug. 14.

Sheep in the Fall.

Old, experienced sheep men will not need the advice which follows, unless they have gone through life with their eyes shut; but young farmers, who are not yet too old to learn, may profit by it. Keep your sheep in good condition during the fall. If pasture has been good, they will now be in good condition, generally, and the owner must keep them there if he would profit by the business of sheep raising. I know by experience, that after killing frosts come and wither the grass, sheep will decline unless fed a little something extra. The grass, after frost, is not nearly as nutritious as before. Give a little grain once a day, feed pumpkins, turnips, or any other green food at command—anything to keep up the growing thrifty vegetable season. I cannot impress this point too closely. Sheep must be kept up during the fall months, in order to winter well and easily, and become a source of profit to the owner. Especially does this advice apply to breeding ewes. If they are permitted to run down until they are coupled with the ram, they are hard to serve, and not by any means sure. Then the progeny are, evidently greatly influenced by the condition of the ewes at and succeeding impregnation. Every careful sheep owner will adopt such methods as will improve his flock. Some men will spare no expense in procuring a ram, but at the same time pay no attention to improve through the ewes. One is just as important as the other. Indeed, I prefer the sheep reared by a careful man who keeps them at all seasons in the most vigorous condition, even though the blood on the male side may be inferior.

Sheep do not pay very well now unless they are good. Poor sheep are a loss any time, and especially at this time. Common sense prompts every man, then, to cull his flock. Take out the poor, the maimed, the halt, and the blind, and Spartan-like, sacrifice them to the good of the commonwealth. Those that from some cause or other have dropped back a little in condition, should be separated from the flock and especial care given them. Dispose in some way of all that are not worth taking especial pains with, and thus have your flock at the beginning of winter, composed only of the best, and they in the best possible condition. Take the word of an old sheep man, who assures you that the next crop of wool and the lambs will fully demonstrate the wisdom of such a course.—Ohio Farmer.

The New York Graphic says the display of fruit by the Dominion of Canada, at the Centennial, was the best in the whole Exhibition.

Stock Items.

A correspondent of the Country Gentleman sends that paper the following recipe for preparing a mixture to kill ticks on lambs:—One lb. of arsenic, 1 lb. of sulphur, 1 lb. of potash. Take a boiler large enough to hold six pailsful of soft water; heat to a boil with the above mixture; add one gallon of soft soap, then stir until all is dissolved, when it is ready for use. To apply, I use a pint oiling can with a spout; put carefully on by opening the wool around the whole body. The operator's hands should be free from cuts. I have used the above for many years with success for a flock of 100 sheep.

For the benefit of hog traders, we give the following table, showing the quantity of corn required to produce a pound of pork, and the price of pork, which seems to be governed by the relative price of corn:—When corn costs 12½ cents per bushel, pork costs 1½c. per pound; corn 17c. per bushel, pork 2c. per pound; corn 25c. per bushel, pork 3c. per pound; corn 35c. per bushel, pork 4c. per pound; corn 50c. per bushel, pork 6c. per pound. Whether these figures are approximately correct or not, they will serve as a basis, at least for careful calculations.

A correspondent of the London Agricultural Gazette traced the change of opinion with regard to hay in his own neighborhood:—Years ago the practice here was almost invariably to feed the milking cow on hay alone; then some few dairymen began to give those cows that had lately calved two or three pounds of linseed cake per day; then some of the poor grass land on the dairy farms began to be broken up, and some mangles were grown. Now the rule is often to cut up straw and partly hay, and mix with pulped mangles, and give each cow four or five pounds of cake or meal, or both.

Pork.

The American Agriculturist has the following:—How many people inveigh against pork! "As unfit for a Christian to eat as it is for a Jew." "The source of all the scrofula in the country." "Unhealthy in every form, and promotive of all sorts of diseases." Forty years of pork-eating has led me to a very different view of the matter. No form of animal food, except locusts or grasshoppers, is so easily reared. No flesh of any domesticated animal is so flavorful, none so rich, none so delicate, none so white and beautiful, and none takes salt and smoke so well. The fat can well be substituted for lard for most uses. Fresh, or salted, or smoked, or rendered, it is unequalled. Pork is no food for babes—that I admit, nor for sedentary dyspeptics. It may be too hearty for delicate females, but it is real men's meat. There is no disagreement between salt pork and hard work; if anything goes wrong, depend upon it, the pork is not seasoned with sweat enough.

The Centennial Canadian Horses—List of Prizes Awarded.

The Judge was Mr. Parrington, the English Judge, a Yorkshire Squire, who was deputed to inspect the Canadian animals, and to award one gold medal to the best light horse and one to the best heavy horse, and as many silver and bronze medals as he judged the merits of the animals would warrant. The following is the list:

GOLD MEDALS.

William Clarke, Greenwood, Ont., Warmambie, 15 yrs.; thoroughbred stallion. T. & J. Little, Sandhill, Ont., Young Wonder, 5 yrs.; agricultural stallion.

SILVER MEDALS.

John White, Milton, Ont., Terror, 10 yrs.; thoroughbred stallion. Chas. Ealison, Clinton, Ont., Glenelg, 4 yrs.; thoroughbred stallion. Jas. & David Boag, Ravenshoe, Ont., an agricultural mare. Jas. McDonough, Carloss, Ont., Fanny, 7 yrs.; agricultural mare. William Long, Lansing, Ont., Royal Tom, 4½ yrs.; heavy draught stallion. M. A. Burgess, Weston, Ont., Honest Sandy, 4 yrs.; heavy draught stallion. Jas. & David Boag, Ravenshoe, Ont., Jean, 7 yrs.; heavy draught mare. Jos. P. Fisher, Benmillar, Ont., Pat Malloy, 6 yrs.; agricultural stallion. J. C. Sanderson, Galt, Ont., Duke of Newcastle, 5 yrs.; agricultural stallion. Jas. Somerton, Exeter, Ont., Glory of the Dominion; agricultural stallion. Andrew Somerville, Huntingdon, Que., British Splendor, 12 yrs.; agricultural stallion.

BRONZE MEDALS.

Jas. McSorley, Jarvis, Ont., Young Cumberland. A. Somerville, Huntingdon, Que., Gladstone, 6 yrs.; heavy draught stallion. Chas. J. Douglas, Oak Ridges, Ont., Marquis, 6 yrs.; heavy draught stallion. Jas. & David Boag, Ravenshoe, Ont., Dun Donald, 3 yrs.; heavy draught stallion. Jas. McDonough, Carloss, Ont., Scotsman, 4 yrs.; heavy draught stallion. Edmondson & Snyder, Brantford, Ont., Lord Fergus, 2½ yrs.; heavy draught stallion. Jeffrey Bros., Whitby, Ont., Dash, 4 yrs.; heavy draught stallion. W. H. Hurdman, Ottawa, Ont., Black Bess, 9 yrs.; heavy draught mare. John Snell, Raglan, Ont., Dash, 2 yrs. George Doidge, Columbus, Ont., Empress, 4 yrs.; heavy draught stallion. Alex. McEwan, Ashton, Ont.; a black mare, 5 yrs. Wm. Hurdman, Ottawa, Ont., Farmer's Fancy, 3 yrs. T. K. Hicks, Mitchell, Ont., Lord Logan. Wm. Long, Lansing, Ont., Emperor and Lord Zeland; carriage stallions, matched team. Wm. Boyd, Toronto, Ont., Tom and Bill. William Gerrie, Dundas, Ont., Polly and Fan. H. Kennedy, Birr, Ont., mare and gelding. George Currie, Ingersoll, Ont., mare and gelding.

Bro. Walter Brett, secretary of Grange 106, intends delivering the first of a series of winter lectures on Agricultural Chemistry, at Grove Grange, No. 353, in School House 27, London township, on Tuesday, 24th October, at 7 p. m. Subject—Oxygen. The public are invited to attend. A collection will be taken up to defray necessary expenses. We hope that members of the Order and farmers generally will give Bro. Brett, who is unquestionably deserving, a hearty support.

Ladies' Department.**Household Economy.**

AN ESSAY BY SISTER ISABELLA LANDRUM, AILSA CRAIG.

The true economy of housekeeping is simply the art of gathering up the fragments so that nothing be lost—I mean fragments of time as well as material. Nothing should be thrown away as long as it is possible to make use of it, however trifling that use may be; and whatever be the size of the family, every member should be employed either in earning or saving money. Every moment of time should be improved, for time is money. When there is no labor for our hands, literature, in the shape of books, or magazines, is so cheap that we can gain valuable information to help us in practising economy and carrying out our plans.

Every young lady should know how to sew and knit; stockings are cheap, but it is good economy to knit them. Cotton and woolen yarn are both cheap, and stockings knit will last twice as long as a great many cheap articles purchased.

It is wise to keep an exact account of all you expend, even of a paper of pins. This answers two purposes: it makes you more careful in spending it, and it enables you to judge precisely whether you are living within your income or not. No false pride or foolish ambition to appear as well as others should ever induce a person to live one cent beyond the income of which he is certain.

If you have two dollars a day wages, if possible let nothing but sickness induce you to spend more than one. If you are about to furnish a house do not spend all your money, be it much or little, in doing so. Let not the beauty of one thing, or the cheapness of another, tempt you to buy unnecessary articles; nothing is cheap which we do not want. It is only by experience you can tell what will be the wants of your family. Next to the knowledge of what we must get is how to keep it. That house only is well conducted where there is a strict attention paid to order and regularity, to do everything in its proper time, to keep everything in its proper place, and use everything for its proper end; a place for everything, and everything in its proper place. Neatness, tastefulness and good sense may be shown in the management of a small house as well as in a palace. Economy is generally despised as a low virtue, tending to make people ungenerous and selfish; this is not true. The man who is economical is laying up for himself the permanent power of being useful and generous. True economy is a careful treasure in the service of benevolence, and where they are united respectability, prosperity and peace will follow.

How Girls Can Learn to be House-keepers.

Begin with your own things and your own place. That is what your mother will tell you if you rush to her, enthusiastic with great intentions, and offer to relieve her of half her housekeeping. Don't draw that little bucket of cold water to have it poured back upon your early zeal. Reform your upper bureau-drawer; relieve your closet pegs of their accumulation of garments out of use a month or two ago. Institute a clear and cheerful order in the midst of which you can daily move, and learn to keep it. Use yourself to the beautiful—which is the right—disposing of things as you handle them; so that it will be a part of your toilet to dress your room and its arrangements while you dress yourself, leaving the draperies you take off as lightly and artistically hung or as delicately folded and placed as the skirts you loop carefully to wear or the ribbon and lace you put into a soft neatness about your throat. Cherish your instincts of taste and fitness in every little thing that you have about you. Let it grow impossible to you to put down so much as a pin-box where it will disturb the orderly and pleasant grouping upon your dressing table; or to stick your pins in your cushion, even, at all sorts of tipsy and uncomfortable inclinations. This will not make you "fussy"—it is the other thing that does that; the not knowing, except by fidgety experiment, what is harmony and the intangible grace of relation. Once get your knowledge beyond study, and turn it into tact—which is literally having it at your fingers' ends, as I told you—and order will breathe about you, and grace evolve from commonest things and uses and belongings, wherever you may be; and "putting things to rights" will not be separate task-work and trouble any more than it is in the working of the solar system. It will go on all the time, and with a continual pleasure. Take upon yourself gradually—for the sake of getting them in hand in like manner, if for no other need—all the cares that belong to your own small territory at home. Get together things for use in these cases. Have your little wash cloths and your sponges for bits of cleaning; your furniture brush and your feather dusters, and your light little broom, and your whisk and pan; your bottle of sweet oil and your spirits of turpentine, and piece of flannel to preserve the polish, or restore the gloss, where dark wood grows dim or gets spotted. Find out by your surely growing sense of thoroughness and niceness the best and readiest ways of keeping all fresh about you. Invent your own processes; they will come to you. I shall not lay down rules or a system for you. When you have made yourself wholly mistress of what you can learn and do in your own apartment, so that it is easier and more natural for you to do it than to let it alone, so that you don't count the time it takes any more than that which you have to give to your own bathing and hair-dressing, then you have learned enough to keep a whole house, so far as the cleanly ordering is concerned.—St. Nicholas.

If industry is no more than a habit, it is at least an excellent one. If you ask which is the real hereditary sin of human nature, do you imagine we shall answer pride, or luxury, or ambition, or egotism? No; we shall say indolence. Who conceives indolence will conquer all the rest. Indeed, all good principles must stagnate without mental activity.