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RURAL NOTES.

THE best way of ripening a cheese room is by hot water pipes laid around the walls. By this means the warmth of the room is sustained in all parts alike; whereas, if a stove is used, some of the cheese will be too warm, and the rest too cold.

THERE are some portions of Ontario this year, and notably the western counties, in which very little rain fell throughout August and September. The ground was hard and unworkable, and consequently we may expect to hear of a decrease in the area of fall wheat.

THERE is much need of more experiments to find better remedies for injurious insects. Success in the discovery of such remedies that shall be at once good, cheap and safe will tend to make science popular, and endowments for research much easier and more frequent than ever before.

It is true beyond any doubt, that underdrainage mitigates the effects of a dry season. A drained soil is always loose and porous, and no matter how little the rainfall it seldom bakes hard. The reason is that the air circulates freely through it, as temperature and atmospheric pressure vary, and thus it readily absorbs the dews and moisture which are never entirely absent from the earth's surface in the night season.

DRAINING is work that can be taken up or laid down and finished piecemeal, providing one goes the right way about it. And the right way is to begin at the outlet, making the drain as deep as the lay of the land allows, so as to secure a good fall. It may be finished in sections of fifty or a hundred feet, providing that care is taken to make the inlet safe, and that a record of levels and measurements is kept. In this way the work may be carried on as opportunity is given.

It is a grievous disappointment to the farmer to find that the late ripening crops, which he hoped would make up for him the loss on his wheat, have been blasted by an untimely frost. But such are the fortunes of men who till the soil, and nothing remains but to begin afresh. Every day of the fall that can be spared for such work should be employed in getting the land ready for next year's crops. The land ploughed now will be all the mellowed when the frosts of winter are over.

THERE are complaints of the prevalence of rot in potatoes this year. Wherever it has appeared great care requires to be taken in storing the crop. A dry cellar is the best place, provided that it is well ventilated. It is also advisable, if there is any appearance of rot, to sprinkle the

potatoes with dry, air-slaked lime. This speedily arrests the disease, and will generally keep the potatoes safe and healthy throughout the winter. Cut straw, scattered in layers through the heap, is also of great benefit.

ONE old method of clearing a house of rats is to catch a rat alive, and, after scorching his hair with a taper, to let him loose again. It is said that the smell of the singed hair will cause every rat about the premises to migrate. A writer in the *American Cultivator* has found a very successful plan to be to smear one or two of the rats with tar. He tried the experiment eight years ago, and has not been troubled with the vermin since. Rats are said to abhor tar, and it is worth something to know that they abhor anything.

THE plants of a meadow, says the *Agricultural Gazette*, live in harmony, on the unmanured, open park, having nothing to fight for in a state of nature; but toss them a bone, ground fine, or any other choice bit, and their harmonious companionship terminates at once. Every act of improved cultivation occasions instant war. A grass likes the best that can be got. It will swallow soda, but not when it can get potash. As a general principle, all manures tend to drive out weeds by increasing the better herbage.

It may be too late to give any advice as to what is best to be done with corn hurt by the frost, but if too late for this year it will be in good time for a future one. The best thing that can be done is to cut the crop at once, and set it up in shocks. In this way the stalks will retain their nourishment for the seed for a considerable time; whereas, if they are left standing in the hill, exposed to sunshine and drying wind, the corn will make no further growth. The ill effects of the freezing are greatly mitigated by slow and gradual curing in the shade of the shock.

IN selecting corn for seed, it is a safe rule to pick those ears which are filled out to the very ends, and are large and long and heavy. But this year, especially, farmers should have a care to pick none but ears that have been untouched by the frost. If these can't be found in your own fields, you must look for them elsewhere. But be sure that you get a good article, and that you get it before the advent of winter; and, having got it, see that it is properly cared for. If exposed to the storms of winter, its vitality may be destroyed, and the chances for next year's crop be ruined.

THE factory system, applied to cheese-making, has afforded great relief to the women folk of the farm. The creamery system would give them another and still greater measure of relief, and it

should be encouraged in every possible way. Why could not the creamery system of butter-making be taught in our Agricultural College? The work could be efficiently and economically done, and the sending out of 100 or 120 students each year, with an acquired knowledge of butter-making on the creamery system, would have an excellent effect. The drudgery of butter-making ought to be abated, if the wives and daughters of farmers are to share in the general march of progress. Why should a farmer provide himself with every labour-saving implement for use in the fields, and deny to his wife and daughters the benefit of labour-saving processes in the house and dairy?

THE great majority of foals are dropped in the spring and early summer months, although there seems an increasing number of mares bred in the fall. As many farmers are situated, it seems that fall dropped colts would be preferable to those dropped in spring. Many farm mares which have to labour hard during the summer have little or no work during the winter, and could better suckle a colt during the leisure time. Colts dropped late in the spring often have a hard time during the first winter; more so than would an unweaned foal. The latter would be in good shape to go on grass in the spring and would come to the second winter a strong, lusty fellow well able to care for himself on dry food. There is rather less regularity in mares coming in season in fall, and some think them less likely to stand to service than in the spring. Usually, however, stallions are less called on for service in the fall and ought to be more sure.

THE clipping of a horse no doubt adds much to his general appearance, and in the summer season is cooling to the system, but as the practice is extended to the winter months, it becomes a cruel nuisance. Nature ordains that all animals shall throw off their old coats and take on new, but she does this as a means of protection. When the horse begins to shed, it answers perfectly to remove the surplus with a brush, and, with the trimming of the hair above the hoofs, the animal will soon be smooth and shining in appearance, with everything in good order for hardships. But, however, when the clipping is done at that period that demands all the covering possible, the horse is liable to cold, and even pneumonia and consumption, just the same as would happen to an individual that makes the change to summer clothing in winter. The advocates of clipping claim that it is superior to the wearing of shaggy hair, which permits of the skin being always wet, and that the horse is more liable to disease than when clipped, but then, again, the horse in his wild condition seems to possess the shaggy coat, especially in damp and cold situations, which refutes the claim,

FARM AND FIELD.

THE FENCE PROBLEM.

It is rarely worth worrying over the problems in agriculture which apparently loom up in the future. From past experience we have noticed that by the time the expected difficulty confronts us its solution is rendered easy through the inventions, researches and discoveries of the period. To some extent this is true with regard to the problem of fencing material for our farms. As the supply of material in the older States has decreased, farmers have learned to do with fewer fences than would formerly be thought possible. Barbed wire and hedges are supplying the fencing material of the west. Really, the greatest difficulty just at present is with the transition from herding stock to putting in enclosed pastures which is now occurring in some of the western territories. When the increase of cultivated crops makes it necessary to fence stock in enclosed pastures, it involves an enormous amount of fence building in a short time. Say what we may against the barbed wire, this is likely to be the popular fence in the far west for many years to come. Hedges require time, and, under the intensely cold winters of the treeless plains, alternated with fierce summer droughts, the hedgerow soon becomes ragged and a poor protection against stock. If old prices had been maintained, the barbed wire would still have steadily grown in popularity. With the reduction in price recently made, this style of fence will soon distance all competitors. Boards, posts and rails will not be entirely superseded, but they will be used only to supplement the wire, and give it more the look of a fence of the olden time, except in the few remaining sections where lumber is still reasonably cheap.

So far as looks are concerned the less visible the fence appears the better it is. How the wily farmers in new and especially in wooded settlements criss-crossed their land with crooked rail fences into five or ten-acre lots has always been a mystery to us. They were born to habits of industry and perseverance unknown to the present generation. Grim necessity is a hard taskmaster. In many localities these same fences, so laboriously made years ago, are now being removed, and the removal effects even a greater improvement in the landscape than their original construction. In long cultivated farms, we still have a great many remains of former fences, the owners of which would like to clear them away, but cannot always find time and help to do the work. An old fence now is pretty sure to be filled with rubbish, piles of stones on rocky land, bushes, trees and weeds of all kinds. To remove these sometimes requires nearly as much work as the original clearing of the soil from forest. A farmer who had several such old fence rows to clear out, recently remarked that his problem with fences was not how to get more, but how to rid himself of what he had. This is true in many older portions of the country, and especially where stock has been mainly kept by pasturing. It is a slovenly system at the best, encouraging the growth of weeds, as the pasture is rarely mown to destroy them.

In the near future we shall undoubtedly learn to do with a much less amount of fencing than we have needed heretofore. Farmers are beginning to learn that the after-feed on meadows and the new seeding on stubble are worth much more to lie on the land than to be close cropped by cattle. If pastured at all it will be so late in the season that few or no crops will need to be fenced from stock. Such fences as are needed in the interior of the farm should be constructed when possible, so that they can be easily moved and

reset wherever wanted. One hundred rods of movable fence will make a fair sized lot on most farms, large enough at least for the stock that will ordinarily be kept under any system. If pasturing is not to be abandoned altogether, except on cheap lands, it will be retained in connection with partial soiling. With movable fences the farmer can hurdle his cattle and sheep, feeding them with extra rations sufficient to rapidly increase the fertility of the soil. The plan of restoring fertility by keeping stock on land, giving them nothing more than they can pick from its thin and innutritious herbage, is too much like a man trying to lift himself up by his boot straps.

Few stone walls will be built in the future except on road or line fences or on unusually rocky farms. The strong point that they will last forever, is really the most serious objection to them. In many places where land is growing in value, stone walls are being taken down, and the ground they occupied turned into cultivated fields, besides destroying the thistles that they almost invariably harbour. Stone fences, though apparently cheap, acquire such an amount of labour, as to make them as dear as any. The great bulk now standing was laid when labour was much less expensive than at present. When stone walls become shaken by frost, as most always happens in northern latitudes, it usually requires more expense to relay them than was given for their original construction. Hence they are generally neglected, and their tumble-down condition is often the most serious drawback to the neat appearance of the farm, as they are themselves an obstacle to the best style of modern farming.—*The American Cultivator.*

THE GOOD OF CLOVER.

J. M. McCullough concludes a paper on clover, in the *Iowa Homestead*, with the following:

"If possible, clover should precede and follow every crop. Every uncultivated field and all unoccupied land should rest in clover; and the wealth of the country would be improved if the wild grasses and weeds were forced to give way to clover, for we know that noxious gases and vapours are continually rising from the earth. Some of them are from decaying vegetable or animal matter, and some of them are miasma. All are offensive to the smell, and injurious to the health of man. Clover, by means of its chemical powers, not only absorbs these gases and feeds upon them, but freely gives out oxygen, which unites with them, and oxydizes or destroys them, and in this way cleanses the tainted air. Because of this salutary effect of growing clover upon the air, we say of people who live in affluence and luxury, 'They live in clover.'"

HOW A PASTURE IS MADE.

In Great Britain, Holland, and in some of the best dairy districts in this country, land is selected for a pasture as it is for any particular crop. Regard is paid to its adaptability to produce a large amount of fine rich grasses. The soil or sod is prepared to receive the seed, which is selected with special reference to the production of grass to be eaten while it is in its green state. Great pains are taken to render the soil as productive as possible. Water is supplied or drained off as the wants of the land require. Weeds and bushes are exterminated or kept in subjection. Fertilizers are applied as they are to land devoted to cultivated crops. Loose soils are rendered more compact by the use of the roller, and very heavy soils are loosened by the employment of the harrow or scarifier. Most farmers in this country, however, neglect all these things. Land is not selected for a pasture. If it is too rocky,

broken, or difficult to cultivate; if it is too wet or too dry to produce good crops of corn, grain, potatoes or roots, it is devoted to pasturage. Land is selected for other purposes, but the land for pasturage is what was rejected as unsuited for any other use. Sometimes a piece of land originally productive is devoted to pasture purposes. If this is the case it is generally after it "has been cropped to death." It is first planted to corn for several years, then sown to grain for a period equally long, and then laid down to grass suited for mowing purposes. After the crop of grass becomes so light that it scarcely pays for the work of cutting, the farmer concludes that the only thing he can do with the land is to devote it to supporting stock during the summer when he expects to make the most out of them. There are no evidences of beneficent design in most of the pastures in this country. They are the work of chance or neglect.—*Times.*

SELL WHAT YOU CAN.

Farmers should look over their stock at this season of the year, and not keep stock all winter to be fed and housed at a considerable cost, only to find when spring comes that it is worth no more, and perhaps less, than it was in the fall. This rule applies not only to cattle and sheep, but to poultry. Moreover, the principle may be applied to crops. Where a reasonable profit can be obtained by selling the crops of the fields and orchards in the fall, it is better to sell them than to hold for higher prices. There is always a risk in keeping, for prices may not rise, and the crops kept may be badly affected by atmosphere or other causes not considered. So far as live stock is concerned, it is pretty certain that next spring will see lower prices than at present prevail. Meat is still very dear, in spite of the glowing crop reports from all parts of the land; but as the people begin to realize the extent of the crops they will clamour for lower prices, and a decline must eventually come. Money realized for stock or crops now, and deposited safely, will draw interest, and can neither die nor decay, whereas the live stock may do the one or the crops the other.

The wise and well-to-do farmer is not he who has a great surplus of stock or crops on hand. Success is as much due to selling at the right time as in buying at the right price. Reasonable profits and prompt returns should be the rule of the farmer, who, just as surely as a merchant, will find it well not to keep any kind of salable material too long on hand.

DESTROYING WEEDS.

I have never found any difficulty in covering any vegetable growth, with the different ploughs I have used in the past forty years, and I have farmed on both light and heavy soils. Any of the newer chilled cast-iron ploughs I think may be made to answer. I am now using the Wiard. If the growth is short, any good plough will turn it under; if it is tall, a heavy chain or weed-hook will do it as well. I plough under clover and rye when it is two or three feet high with the aid of a log-chain attached to the plough, so that not a vestige of any green thing is seen above ground. If I could not depend on having a perfectly clean surface after ploughing, I would give up farming, for without this thorough result, there would be only a constant and unsuccessful struggle. I have never found the least difficulty in having a thorough fallow when I want one.

It is often denied that perennial weeds can be thus destroyed; but in every case when I have been able to ascertain the facts, it is because the work had been imperfectly performed, or because too long intervals were allowed to elapse between

the successive ploughings. If after the weeds are turned under, they come to the surface in less than a month, the ploughing must be repeated oftener. If they appear in a week, the work must be repeated in less than a week. A neighbour destroyed in one season the quack grass which covered a large field, but he went over it as often as once a week. If he had slacked, or let the weeds peep, he might have worked at it unsuccessfully for fifty years to come. This mode will not do for slipshod farmers, and it would save them labour not to begin or undertake it.—*Acer, in Country Gentleman.*

HOW TO FORETELL WEATHER.

The Farmers' Club of the American Institute has issued the following rules for foretelling the weather. If farmers and others whose business is out of doors and depends upon the weather, will study them closely, they will be able to guess the weather more accurately than Wiggins or Venner:

First.—When the temperature falls suddenly, there is a storm forming south of you.

Second.—When the temperature rises suddenly, there is a storm forming north of you.

Third.—The wind blows from a region of fair weather toward a region where a storm is forming.

Fourth.—Cirrus clouds always move from a region where a storm is in process to a region of fair weather.

Fifth.—Cumulus clouds always move from a region of fair weather to a region where a storm is forming.

Sixth.—When cirrus clouds are moving rapidly from the north or the north-east, there will be rain inside of twenty-four hours, no matter how cold it is.

Seventh.—When cirrus clouds are moving rapidly from the south or south-east, there will be a cold rainstorm on the morrow, if it be summer, and if it be winter, there will be a snow storm.

Eighth.—The wind always blows in a circle around a storm; and when it blows from the north the heaviest rain is east of you; if it blows from the south the heaviest rain is west of you; if it blows from the east the heaviest rain is south; if it blows from the west the heaviest rain is north of you.

Ninth.—The wind never blows unless rain or snow is falling within one thousand miles of you.

Whenever heavy white frosts occur, a storm is forming within one thousand miles north or north-west of you.

THEORY OF CROP ROTATION.

It is now generally admitted that rotation of crops is rendered necessary, not as formerly supposed because the soil becomes exhausted of some necessary element, or becomes unwholesome for that particular plant, owing to poisonous excretions left by the roots, but because insects and diseases accompany the plant which are special to it, the eggs or spores of which are left in the soil to attack the same crop in the next following year with hundredfold increase of numbers and power. Prof. Bessy, of the Iowa Agricultural College, shows how this is the case with smut, which grows up through all the interior of a wheat plant, and finally develops its spores within the bran casing of the grain, filling it not with flour, but with innumerable black, stinking seeds of the parasite, which when set free float out and stick fast to sound grains of wheat, and also to particles of the soil, where they lie ready to enter into the circulation of the next year's growth of wheat-plants, unless killed by steeping the polluted seed in blue vitriol solution and drying off

with lime. As to the polluted soil, it is purified from the contamination only by using it for some other crop on which the smut-plant cannot take hold.

SOME THINGS THAT SCIENCE DON'T TEACH.

In scalding a hog, does science teach that if the water is a little too hot the hair will not slip, that it is set, and must be shaved off with a knife? Every farmer should know these things, and they must be taught. Do any of the graduates in any agricultural school know that in building a stack of grain or hay, it must be kept full—est in the middle, and well trod down? Do they know how to tie up and shock wheat? Do they know how to whet a scythe? Do they know that if the blade is whetted up and down, it will not cut off the straw clean, as it should be whetted from the heel to the point? Do they know how to lengthen or shorten the plough gear, so that the plough will not cut too deep or shallow? Do they know how to put up a rail fence, so that some of the rails will not project at the corners to snag the stock? Do they know how to put up a stone fence so it will stand, and that the long rocks ought to be put crosswise the fence to act as braces, and if this is done it will not tumble by settling? Do they know how to square a house? Science teaches them that the square of the hypotenuse of a right angled triangle is equal to the sum of the squares of the two sides; but they have never seen the application of this rule; thus they build a house pointing every way but the right way. Experience teaches us that with a ten-foot pole a house can be squared in five minutes. We measure eight feet on one sill and make a notch, six feet on the other sill and make a notch. If the ten-foot pole just reaches from notch to notch that corner is square. The other three corners treated in the same way will be square, and also the house.—“*Old Farmer,*” in *Southern Planter.*

DOES FARMING PAY?

The Providence *Democrat*, in answering this question, tells of a young farmer in that State who thought it did not pay, and therefore went to the city to look for a situation where he could make more money. He consulted an acquaintance, who had a good position in the city, and they compared notes. The farmer had supported his family on a hired farm, fed and clothed them well, but had only put by \$50 during the year. The clerk, whose family is not as large, had lived very prudently upon a salary of \$8 per day, and had accumulated a debt of \$75 in the same length of time. Nearly every dollar of his pay could be accounted for in house rent, car fare, food, fuel and necessary clothing, and the debt was caused by a purchase of needed furniture. It is unnecessary to state that the farmer returned to the farm with a different idea of the profits and of farming.

SOMETHING WORTH TRYING.

Thousands of weeds can be gathered during this month, and if dumped into chicken yards may be turned by the fowls into a good fertilizer. Three or four dozen fowls will pulverize a good many tons of vegetable rubbish during the fall, if given the opportunity. They are even better pulverizers of such stuff than hogs, though many people don't know it. Bog hay, marsh weeds, salt hay, potato tops, straw, corn stalks, buck-wheat straw, turnip tops, etc., are available, and, what is better still, the work gives the fowls employment and keeps them out of mischief.

HINTS FOR THE HOUSEHOLD.

POTATO PUDDING.—Two pounds of potatoes boiled and mashed, one-half pound sugar, one-half pound butter, six eggs, one nutmeg. Bake quick.

TAKE a white china plate and spread a thin covering of common lard over it; place it on the floor or shelf infested by ants, and you will be pleased with the result. Stirring them up every morning is all that is required to set the trap again.

After the dust has been thoroughly beaten out of carpets, and they are tacked down again, they can be brightened very much by scattering corn meal mixed with salt over them, and then sweeping it all off. Mix the salt and meal in equal proportions.

A PRETTY new jacket for housewear is gathered at the waist in the back and has a ribbon belt, which, beginning at the gathers, ties across the front precisely like the belts of the large wraps; in fact, the English description of this garment is “a dust cloak cut shorter.”

THERE is a way of using the small strips of crazy patchwork, to be found in the houses of many women, who, without sufficient deliberate wickedness to make a whole quilt, have yet had the naughtiness to think of it. They may be used to trim the ends of mantle scarfs and toilet covers.

To whiten flannels; a solution of one and a half pounds of white soap and two thirds of an ounce of spirits of ammonia dissolved in twelve gallons of soft water, will impart a beautiful and lasting whiteness to any flannels dipped in it, no matter how yellow they may have been previous to their immersion. After being well stirred around for a short time the articles should be taken out and well washed in clear cold water.

BOIL one smoked beef tongue until thoroughly done; when cold grate it fine. Take the yolks of four hard-boiled eggs, mashed fine, add two table-spoonfuls of olive oil to the eggs, beat well; then a dessertspoonful of made mustard, half a teaspoonful of salt, pepper to taste, and about a quarter of a pint of good vinegar; beat the dressing well; when the salad is wanted, mix the dressing with the beef tongue. This makes a nice sandwich.

TAKE small cucumbers and let them lie for thirty-six or forty-eight hours in a brine that will make them as salt as you like them for eating. Take two quarts good cider vinegar, with cinnamon red-pepper and horseradish to taste; boil hard for fifteen minutes, then throw in the pickles and put enough vinegar to cover them. Let them scald, not boil, set back and keep hot until they are green, then pack in jars. Scald fresh vinegar in the proportion of one pint of sugar to a gallon of vinegar, pour over them and seal tight.

A DRESSY little apron for afternoon wear can be made by taking a piece of cheese-cloth twenty-nine inches long by twenty-one wide, and after hemming the sides, fringing out the bottom to the depth of four inches; a couple of inches above the fringe draw the threads for two more, and run in either satin or ottoman ribbon of light weight. If the ribbon is pink, embroider in the left hand corner above it a spray of wild roses in natural colours in outline stitch. If blue, corn flowers are pretty. At the top of the apron make two small gores so that it will fit smoothly, and after binding with the cheese-cloth, tack on a piece of the ribbon long enough to tie in a bow at the back. For one it requires one yard of cheese-cloth and three of ribbon, two inches wide. The design for embroidering can be drawn or traced with a pencil from something else. These aprons are very pretty for fairs or little presents, and are both inexpensive and quickly made.

GARDEN AND ORCHARD.

A BACKWARD GLANCE.

BY ANNIE L. JACK.

The fruit and flowers are garnered, and we are now able to look back upon the season's work and see its *pros* and *cons*, its advantages and failures. It has been rich in garden lore, in experience and in pleasure, with now and then a wave of disappointment that threatened to overwhelm us. The strawberries were magnificent. Shall we ever forget the size of "Sharpless" and "Lincoln" or the flavour of "Cumberland" and "Bidwell"? Then the roses have been superb; from the multitude of "Hybrids" to the delicate "Tea," how we revelled in their beauty and fragrance. Then came the later fruits, and the flowers that bloom with them—stately dahlias and queenly lilies, while the gorgeous autumn flowers were a gleam of beauty among the apples, pears and grapes. How ruddy and luscious the apples that ripen in August! I hope every one that plants even a garden will put in a Tetofsky; and of pears, the Duchess and Flemish Beauty seem the hardiest here. The grapes were a marvel of fruitage. I wish, Herman, we had some satisfactory method of saving them until spring. Fifteen varieties fruited with us this season, but we found none of finer flavour than "Eumelan" and one of Charles Arnold's seedlings, sent to us for a Delaware, but turned out something larger, hardier, and as fine flavoured. We have often wished to know its name, but the earnest originator has passed away and perhaps we shall never know. "Othello" is a great acquisition to this Province. It is a heavy cropper, and a fine, dark grape, while the fact that we have had experience of its being improved by frost is, in itself, of great importance in this short-lived summer land; for the "Othello" will hang upon the vines, fresh and rich in its dark purple juices, after the leaves of the vine are withered by a frost that will destroy the "Concord" and other hardy sorts. Our plants are housed for the winter, blooming; and looking at the blooming Chrysanthemums we feel a pang of regret. Last spring, when in New Jersey, a well-known florist gave us a new seedling of this flower. We prized and cherished it and carried it through many difficulties home in safety, but, in July, we set a pretty dark-eyed Canadian to hoe among our flowers; she took the rank growing plant for a weed that the leaf resembles, hoed it up, and the pieces were scattered with other rubbish. Ybs, we were disappointed and the sight of our other Chrysanthemums makes us think of this one we valued most. But such things will happen in the best regulated gardens, and we cannot expect to escape without some losses and failures, even with the best of care and intention.

LEGENDARY NAMES OF WILD FLOWERS AND PLANTS.

We take from an interesting lecture of the Rev. Mr. Tuckwell, of Somersetshire, England, what he says about the names of plants derived from the legends and traditions connected with them. Many curious bits of myth and history reveal themselves as we excavate down to these old meanings. The Peony, or healing plant, commemorates the Homeric god Peon, the first physician of the gods, who tended the bellowing Ares when smarting from the spear of Diomed. The Centaury is the plant with which the centaur Chiron salved the wound inflicted by the poisoned arrow of Hercules. The Ambross, or Wormwood, is the immortal food which Venus gave to Æneas and Jupiter to Psyche—the Sanskrit *amrita* which Kehama and Kailyal quaff in

Sonthey's splendid poem. The Anemone, or Wind-flower, sprang from the tears wept by Venus over the body of Adonis, as the Rose sprang from his blood. The Daphne, Syringa, and Andromeda tell their own tales. The last, which you may find in the peat-bogs round Shapwick Station, is due to the delicate fancy of Linnaeus, who first discovered and named it, blooming lonely on a barren, rocky isle, like the daughter of Cophous, chained to her sea-washed cliff. The Juno Rose, or tall white lily, was blanched by milk which fell from the bosom of Juno, the tal being transferred in Roman Catholic mythology to the Virgin Mary and the Milk Thistle. The yellow Carline Thistle is named after Carl the Great (in Mr. Freeman's county I must not call him Charlemagne), who, praying early for the removal of a pestilence which had broken out in his army, saw in a vision an angel pointing out this plant as a Heaven-sent cure. The Herb Robert healed a disease endured by Robert, Duke of Normandy, still known in Germany as *Ruprecht's plague*. The Filbert, though this is disputed, commemorates the horticultural skill of one King Philibert. Treacle Mustard, a showy crucifer, resembling the Wall-flower, was an ingredient in the famous Venice treacle, compounded, as you will remember, by Wayland Smith to treat the poison sickness of the Duke of Sussex. The word treacle is corrupted from the Greek *theriacum*, connected with wild beasts, whose blood formed part of the antidote. It was first made up by the physician to Mithridates, King of Pontus, and is still in many parts of England known as Mithridate Mustard. The Flower-de-luce, or *fleur-de-lys*, is the flower of King Louis, having been assumed as a royal device by Louis VII, of France, though legend figures it on a shield brought down from Heaven to Clovis, when fighting against the Saracens. It is probably a white Iris.

Not a few strange superstitions and beliefs are embalmed in well-known names. The Celandine, from *Chelidon*, the swallow, exudes a yellow juice, which, applied by the old birds to the eyes of the young swallows who are born blind or who have lost their sight, at once restores it. The Hawkweed has the same virtue in the case of hawks. The Fumatory, *fume-terre*, was produced without seed by smoke or vapour rising from the ground. The Devil's-bit is a common Scabious, with a pre-morse or shortened root, which was used so successfully for all manner of diseases that the Devil spitefully bit it off and forever checked its growth. The Eyebright, *cuphrasy*, was given to cure ophthalmia.

"Michael from Adam's eyes the film removed,
Then purged with euphrasy and rue
The visual nerve, for he had much to see."

The Judas tree, with its thorns and pink blossoms, was the tree on which Judas hanged himself. The Mandrake gathered round itself a host of wild credulities. It was the Atropa Mandragora, a plant nearly allied to the deadly Nightshade; but with a large forked tuber, resembling the human form. Hence it was held to remove sterility, a belief shared by Rachel, in the Book of Genesis, and was sold for high prices in the middle ages, with this idea. In fact, the demand being greater than the supply, the dealer used to cut the large roots of the White Byrrony into the figure of a man and insert grains of wheat or millet in the head and face, which soon sprouted and grow, producing the semblance of hair and beard. These monstrosities fetched in Italy as much as thirty gold ducats, and were sold largely, as Sir T. Brown tells us, in our own country. It was thought that the plant would grow only under a murderer's gibbet, being nursed by the fat which fell from his decaying body; hence it formed an ingredient in the love-

philtres and other hell-broths of witches, and, as it was believed that the root when torn from the earth emitted a shriek, which brought death to those who heard it, all manner of terrible devices were invented to obtain it. The readers of Thalaba will remember the fine scene in which the witch Khawla procures the plant to form part of the waxen figure of the Destroyer. I have seen the plant growing in the Cambridge Botanical Gardens. It is not uncommon in Crete and Southern Italy. Its fruit is narcotic, and its name is probably derived from *mandra*, an enclosed, overgrown place, such as forms its usual home.

WHEN AND HOW TO PLANT ORCHARDS.

In many sections orchards will be planted during the fall. Spring and fall are the seasons usually set apart for starting orchards, and each has its advocates. At the south an intermediate season is usually selected; midwinter being a favourable time with horticulturists at the extreme south. Spring in most sections is believed to be the best time for planting out the stone fruits. In climates where the winters are long and severe, or where alternate freezing and thawing is of frequent occurrence, the transplanting of fruit-trees ought unquestionably to be accomplished during the early spring. In many localities fall planting is not only permissible but preferable, for at that season there is more leisure time, and then, too, it is the fitting season for taking up seedlings and rooted layers for stocks.

There is nothing more important in starting an orchard than the selection of a favourable site. It ought to have a medium position as regards exposure and influences of the season. Where winters are uniform in temperature and cold spring frosts do not prevail, the main object is to guard against high winds from the east and north, which injure the blossoms and blow off the fruit before it is mature. This is best done by a belt of woods or a hill, or a border of rapid-growing trees planted simultaneously with the setting out of the orchard. When late spring frosts prevail a high location with a northern exposure is best, for a cold locality keeps the fruit-buds back until the frosts are past. Where the winters are variable, as in some portions of the west, select elevated, dry firm soil, rich enough to produce a solid, well-matured growth.

The character of the soil must also be considered. Penty, or mucky and damp, cold and spongy soils are unfit for fruit orchards of any kind. As a rule apples and pears thrive best on dry, deep, substantial soil, between a sandy and a clayey loam in which occurs a considerable proportion of lime. The most enduring peach orchards, it is believed, are those grown on dry, sandy loams. Generally speaking the plum delights in a rather stiff, clayey loam, though some sorts succeed well on light soils. The cherry thrives on a light, dry, warm soil. In orchards where apples, pears, peaches, plums, etc., are planted promiscuously, a sandy loam with a sandy clay subsoil is the best. Under all circumstances the soil for an orchard should contain lime, potash and a fair proportion of vegetable mould.

It is essential that the soil be deep and in good tilth. The selection of varieties should be influenced by the wants and circumstances of the grower. Large orchards, for profit, ought to be made up of well-tested varieties that have been proven in similar localities and soils. Whatever the variety, low, stocky trees are to be preferred to tall, slender sorts.

The usual arrangement of orchard trees is in the square form, in rows the same distance apart and an equal distance between each tree. A common mistake is that of setting the trees too

near together. In apple orchards thirty feet from tree to tree, in all directions, is a safe rule. Standard pears require about twenty-five feet. Peach-trees are preferable at one year old from the bud and should be set say fifteen feet apart. Standard cherries are generally set about the same distance advised for peaches and may be transplanted at one year old from the bud, and should not be over two years. Plum trees are usually planted about fifteen feet apart; trees two years old from the graft are recommended for orchard standards. Quinces require about twelve feet space and ought to be at least two years old from the layer or bud.

All trees ought to be transplanted as soon as possible after having been lifted from the nursery. All broken and mutilated roots should be removed with a sharp knife, and enough of the previous season's growth of branches cut back to preserve a proper balance between the stem and the roots of the tree.

The ground having been previously prepared by ploughing and placing in good tilth, holes may be dug wide and deep enough to admit the roots carefully spread out in natural position. The tree must not be set deeper than it originally stood. Fine earth should be filled in about the roots and trodden down with the feet, more earth filled in, more firming down of earth, and so on until the excavation is filled. When the ground inclines to be dry, it is an excellent plan to dip the roots in thin mud and use water for settling down the earth. If the trees are in exposed positions secure them by a stake or two. Mulching is very generally approved of for newly set trees; it keeps the ground moist and warm and prevents the growth of weeds.

HOW TO LAY OUT AN ORCHARD.

It often happens that one must lay out and plant an orchard without assistants. Mr. G. F. Mumma, an Ohio horticulturist, has a device of his own, which greatly simplifies the task. Even with help, the old way of first staking off the ground is laborious, and takes a great deal of sighting to get the stakes in range. Moreover, when the hole is dug, the setting is to be done by ranging again. Mr. Mumma's plan is to take twine like that used by nurserymen in packing trees, and stretch it across the place where the end trees in the rows are to stand. Mark the twine at the place for the corner tree, by sticking in a pin, bending it to keep it from falling out. Next, measure on the line the distance the trees are to be apart, putting a pin in each place where the end should be. Before removing the line, put a small stake or stick in the ground, at the spot indicated by each pin. Now stretch the line the way the rows are to run, commencing at the corner, and endeavouring to make the rows as near at right angles as possible with the line of end trees. When the line is stretched, count the number of pins to the other end of the orchard, but put in no stakes at the pins except at the last one. Go back to the other corner, and measure that side likewise. Now stretch the line across the other end of the rows, and by means of the pins get the proper distances apart. If these agree with the first end stakes, put in stakes here as at starting. The ground is now ready for work. Stretch the line along the first row, and wherever there is a pin put in a stake; throw the line back, and dig the holes; when all in the row are dug, bring back the line and plant each tree at a pin. Continue in this manner until the orchard is planted; when done, your trees will range as straight one way as another. The person should be careful not to get the line wet, or it will not measure correctly.

GRASS OR CULTIVATION FOR ORCHARDS.

If fruit trees after they have attained a size sufficiently large for bearing fruit can be made to do as well in grass as when cultivated, it is obvious that it will be much less expense to seed to grass and save the cost of cultivation. But that would not be all the advantage obtained. It is well known that cultivation is likely to injure many of the large roots of the trees. This is the greatest objection to cultivating among large trees. It is desirable that the roots should penetrate the soil near the surface in all directions, since the surface soil is the richest; but if cultivation is practised the roots which approach the surface are continually torn and injured and kept from approaching the surface. If the soil is cultivated among large trees, the cultivation should be very shallow, so as to injure the roots as little as possible. By frequent top-dressing with fertilizers it is believed that the trees will do equally as well in grass as when cultivated. Pasturing sheep or pigs in the orchard is a good method of disposing of what grass grows, and enriching the soil. The pigs and sheep will also eat that fruit which falls prematurely, and they destroy the larvæ of the codling moth contained in it. If, however, the grass is allowed to grow, it is best to cut it two or three times during the summer, and let it remain on the ground to mulch and enrich the soil. In regard to whether to cultivate an orchard or not, it may be said that if trees are young, they should be cultivated to promote their growth; but if the trees are large, they need not be cultivated, but may be seeded to grass and top-dressed.—*Correspondence Practical Farmer.*

GARDEN GLEANINGS.

Mr. W. F. Brown—the well-known "Waldo" of *The Ohio Farmer*—gathered from his garden this summer a sheaf of notes of exceptional interest and value:

"For the first time in all my experience as a gardener my early peas were injured by frost, but it was not on account of excessive cold, but because the preceding week had been so very hot. I had often had peas up when the mercury would fall to 8° or 10° above zero and the ground freeze solid without injuring them, but the first week in April this year the mercury reached 80° in the shade for several successive days, and when on the 11th it fell to 20° the change was too great.

"I believe that the best way to manage an asparagus bed is to make plank edges and raise the bed a few inches each year till it is a foot higher than the level of the garden. The best yielding bed I ever saw was managed in this way. It is surprising through what a mass of manure and earth asparagus will force its way. Three years ago I accidentally made my hot-bed so that one end of it lapped over the asparagus. I put on eighteen inches of manure and about six of earth, but the asparagus come through it all and made the largest stalks I ever grew.

"We have had trouble to get old plants to grow, and have been short of rhubarb for the past three or four years, and last spring, remembering that twenty years ago I had been successful in growing from seed, I determined to try it again. On the 23rd of May I sowed a row 200 feet long, and I have now fine, thrifty plants, plenty large enough to furnish stems for pies, and I think we shall have no lack of this delicious vegetable—or fruit, I hardly know how to classify it—for years to come. It is a much cheaper and easier way to get a start with it than buying old roots.

"I have never found a variety of beans so prolific as the small Lima. We have a plat of them in the garden, from which we have been using

through the summer, and have saved a gallon to the square rod of dry beans from them, which is at the rate of twenty bushels to the acre, and they are now loaded with mature beans, but not dry. I have no doubt that from fifty to eighty bushels per acre could be grown of them. We do not plant the large Lima, for we find these fully equal to them in flavour, doubly prolific, three weeks earlier, and much easier to shell. We grow also the Dreer's improved Lima, and find it much better than the old sort.

"I believe I have learned the easiest way to grow a family supply of celery. We, this year, filled our old hot-bed frame, three feet by twelve, with celery plants, setting them about eight inches apart each way, making sixty plants in the frame. It has grown splendidly, and as fast as it grows we fill in with earth, so that it is bleaching nicely. I believe that it would have done as well if planted closer, say one hundred plants in the frame. The advantage is that it occupies but little space, is not much trouble to cultivate, and requires much less water to moisten it than if planted in the usual way, with the rows six or eight feet apart, besides a much smaller quantity of earth for banking it up for bleaching, and of course less labour to do it. If one has not a hot-bed frame, he can set boards up at the edges of a bed in the garden, and manage it in the same way. Boards a foot wide should be used, and very cheap refuse lumber will answer for the purpose.

"We made a failure with Hubbard squashes this year on account of the insects being so much worse than usual, but still recommend planting them late, among the early potato vines, as the surest way to secure a crop.

"Each year that I try it convinces me more fully of the benefit of fall ploughing in the garden, and we expect this year to plough and manure several acres. We plough first, and then spread the manure, and take pains to open the furrows so as to drain off all the water, and then when spring comes we work fine without re-ploughing, and get a seed bed about as near perfection as is possible."

GOOD FRUIT AND A GOOD NAME.

One thing above all others some fruit-growers dislike to do is to thin out nice specimens from peach, pear or plum tree, to insure growth. We were conversing recently with a prominent and successful horticulturist, and in passing through his peach orchard he remarked that he had just thinned out the peaches one-half and that he should probably go over the ground again. His rule is to leave no two peaches nearer than six inches from each other on the same twig or limb. It does seem wasteful to pluck off specimens of the fruit that have already attained good size, but this is the only way by which the best fruit can be grown.

This leads us to consider the question of reputation among fruit-sellers. This gentleman was one who has dealt largely in fruit, shipping several thousand barrels of apples within the last few years to Europe, and he claimed in the long run it will be better to market only large first-class fruit and thereby gain a reputation. A man's mark goes a good ways in selling fruit. Let marketmen find out that a man ships only the best quality, unless in barrels marked otherwise, and his goods will always be in demand, but, on the other hand, if it be known that he is not particular in his shipments, that he fills the middle of the package with third-rate fruit and the outside with first-class, his goods will go abegging. In such a mixed package or barrel the poor fruit always brings the better down to its level, the better can never pull the poorer up.—*Springfield Republican.*

HORSES AND CATTLE.

QUACK DOCTORING OF FARM STOCK.

Half of the people in the world consider themselves fully capable of prescribing for every ill that the flesh of beasts is heir to; and just in proportion to the littleness of their knowledge of other subjects, their own estimation of their abilities as "hoss and cow doctors" rises. Men who have no more idea of what anatomy is than a mule has of revealed religion, and who would imagine physiology some new-fangled remedy for "hoss colic," are certain that by surveying a sick animal with one eye closed they can locate its disease, without a single failure.

These people kill more animals than they cure. It is simply awful to seriously consider some of the doses they force down the throats of helpless brutes. If the patient were perfectly healthy to start with, in half the cases the treatment would cause death in twenty-four hours. It is a wonder that people will allow such disgusting medicine to be administered. They assuredly cannot fail to perceive that such concoctions must work more harm than good. When a domestic animal is taken sick they seem to bid adieu to sense and intelligence, and place their whole trust in some quack—the more ignorant the better. They do not know anything about the brute anatomy, have no idea what organs are affected or how they are affected, nor have they the remotest inkling of the proper remedies. Half are willing and honest enough to admit their ignorance, but the other half hide their ignorance by the assumption of superior and transcendent wisdom. The first half, instead of availing themselves of the services of some good veterinary surgeon, call on the second half to prescribe for their animals. The concoctions administered are appalling. Strong syrup of tobacco, lye by the quart, carbolic acid, turpentine by the pint, etc., are given to horses for the colic. Their bellies are rubbed with a chestnut rail; a peck of salt is placed on the animal's rump and dissolved with cold water. The animal is trotted back and forth over a twenty acre field. While it lies on its side its belly is kneaded with a number ten boot. If it dies, as it is very apt to do, the doctor is not to blame, for colic is hard to cure. If it gets well the doctor gets great credit, for he has effected a wonderful cure. The doses administered for the colic in horses are equalled or exceeded by the mixtures given for other diseases or to other beasts. All manner of animals are bled and blistered without mercy. They are given poisons and exposed to numberless barbarities.

There is very little excuse for this, because in almost every case a competent doctor of veterinary medicine can be had. If the intelligent treatment of sick brutes were an impossibility, turning them over to the tender mercies of ignorant quacks could be winked at. But in this age of intelligence, when veterinary medicine is a well developed science, and practised by men who reflect honour upon their calling, people who will persist in employing egotistical asses to prescribe for brutes, deserve to sustain those frequent losses of animals that follow such treatment, and in addition public censure for their parsimonious cruelty.

This often proceeds from unmitigated stinginess. The well qualified doctor probably charges something for his services, and rather than pay it some mortals will cause their brutes to suffer untold misery and run the risk of their dying. But oftener I think it raises unfounded doubts of the value and efficacy of the science of veterinary medicine. They do not believe that professional "horse doctors" really know anything; they believe they are quacks and humbugs. To tell

people that they are mistaken will not convince them. The trouble is, that in this, as in religion, they must test it themselves. They cannot know whether or not there is anything in veterinary practice until they have employed a competent physician. If they would do so they would probably be convinced that such men are not professional humbugs.

HYGIENE FOR HORSES.

Dr. C. E. Page gives the *Medical and Surgical Journal* some suggestions on keeping horses in health, which are not only in agreement with the best teaching, but sustained by his own and others' experience:

"The custom of working and exercising horses directly after eating, or feeding after hard work, and before they are thoroughly rested; baiting at noon, when both these violations of a natural law are committed: these are the predisposing causes of pink-eye, and of most diseases that affect our horses. Keep the horse quiet, dry, warm, and in a pure atmosphere, the nearer out-door air the better, and stop his feed entirely at the first symptom of disease, and he will speedily recover. It has been demonstrated in tens of thousands of cases in family life that two meals are not only ample for the hardest and most exhausting labours, physical or mental, but altogether best. The same thing has been fully proved in hundreds of instances with horses, and has never in a single instance failed, after a fair trial, to work the best results. An hour's rest at noon is vastly more restoring to a tired animal, whether horse or man, than a meal of any sort, although the latter may prove more stimulating.

"The morning meal given, if possible, early enough for partial stomach digestion before the muscular and nervous system are called into active play; the night meal offered long enough after work to ensure a rested condition of the body; a diet liberal enough, but never excessive; this is the law and gossip of hygienic diet for either man or beast. I have never tried to fatten my horses, for I long ago learned that fat is disease; but I have always found that if a horse does solid work enough he will be fairly plump if he has two sufficient meals. Muscle is the product of work and food; fat may be laid on by food alone. We see, however, plenty of horses that are generously—too generously—fed, that still remain thin, and show every disposition of being undernourished; dyspepsia is a disease not confined exclusively to creatures who own or drive horses. But for perfect health and immunity from disease, restriction of exercise must be met by restriction in diet. Horses require more food in cold than in warm weather, if performing the same labour. In case of a warm spell in winter I reduce their feed, more or less, according to circumstances, as surely as I do the amount of fuel consumed. I also adopt the same principle in my own diet. The result is, that neither my animals nor myself are ever for one moment sick."

OBSERVATIONS ON CRIB-BITING.

A crib-biter in a stable has a most unpleasant and disagreeable appearance. Opinions differ whether crib-biting should be regarded as a habit, or a disease, or a vice. Our observations on this point are as follows: We imagine it generally arises in horses in poor condition, and that, in the first instance, the habit is acquired from an effort of nature to get rid of the gases collected in the stomach, and in these cases it may or may not commence from irritation. We have not known a fat horse to take to crib-biting by standing next to another affected with it; but a lean

horse that is difficult to get fat may do so. This habit, when once acquired, and when the animal is in condition, will seldom or never be left off; but the same diseased action and tendency to flatulency will still continue. We do not think that horses inhale the air in crib-biting; we consider it an effort to expel air. We never saw a horse make a gulp or attempt to swallow air. Whether any air is expelled from the stomach in crib-biting we cannot determine, but think there is some portion, and that the principal noise is from the fauces. The construction of the fauces and stomach of a horse render the exudation of air a difficult process, and we have seen horses nearly choked by a sudden rush of gas up the oesophagus, but this effect was probably caused by the noxious quality of the gas. The distention of the stomach of the animal in crib-biting depends we consider, on the gases given out from the food; as a proof of which, the hindering a crib-biter from this habit will not always prevent this distention. We all know that many persons of sedentary habits are peculiarly liable to dyspepsia and flatulency, and we must all have experienced the unpleasant sensation attending it. How are they relieved? By exercise, or by giving an agent to dispel these gases. So it appears to be with horses; and we have observed that, when crib-biters are on long, slow, regular work, they crib less. We have seen many cases in which crib-biters, being debarred from their habit, have fallen away in flesh, and others in which the animal has been much more liable to colic; and we think that in many crib-biters the habit is necessary to the health of the animal. We usually see crib-biters thin, but we think that proceeds more from a diseased action of the digestive organs than from the effect of the habit, and their being poor is no proof that crib-biting makes them so. When a crib-biter continues in health and good condition, if he can be kept apart from other horses, we see no reason why he should be debarred from cribbing; and, indeed, we think that, generally speaking, it would prove injurious to him. Any one who will take the trouble to examine one-half of the different contrivances that have been made to prevent it, will wonder how it is possible for a horse to crib-bite with some of them; and it will most strikingly convince them of the very great difficulty there is to overcome a habit once fully formed in a horse, or any other animal.—*Prairie Farmer*.

CURE FOR PAWING HORSES.

The habit of pawing can be overcome in most cases by lifting the foot and holding it up for a while each time the horse begins to paw. To give the horse his first lesson, put on an old harness, buckle a strap around each of the forward fetlocks, attach a small rope five or six feet long to each strap, pass the ropes through rings or loops on the top of the saddle, take the horse to a soft, smooth spot, so that he will not be liable to get hurt, girt the saddle tight so that it will not turn, take up one forward foot and hold it up for some ten or fifteen minutes by making the rope fast at the ring on the saddle. The object of this lesson is to teach the horse that standing on three legs is tiresome and disagreeable work; and also to teach him that his foot is held by a superior power, and that he cannot put it down without the consent of that power. For him to get these ideas he needs to stand long enough to get very tired of it, and needs to do his best to get his foot free before he can realize that it is impossible for him to free it. Having given this lesson, put the horse in the place where he is in the habit of doing the most pawing, and when he lifts either foot take that foot up by pulling on the rope attached to it, and hold it up for a short time only.

The object of this lesson is to teach the horse that it is when and only when he lifts his foot to paw that the control of it is taken from him. When he learns this he will probably stop the practice, but for him to get this idea the foot must be taken and held long enough for him to realize that it is held every time he attempts to paw. In this, as in all teaching and disciplinary work, the teacher and governor needs a good supply of patience and perseverance.—*New York Tribune.*

BOTS IN HORSES.

During the summer months of the year may be seen by any observer, on the lips, knees, and sides, of horses, a great number of small white specks or "nits." These on examination under the microscope are found to be eggs containing a pupa which is the immature bot or larva of the *Gad Fly* or *Cæstrus*. There are three members of this family which deposit their eggs on the horse, viz.: the *Cæstrus Equi*, the *Cæstrus Hamorrhoidalis* (selects the lips), and the *Cæstrus Veterinus* (the Red or Breast Bot). An English writer thus describes the *Cæstrus Equi*; "The fly of this species has opaque white wings with a golden tinge, a transverse black wave, and two spots near the extremity, a minute raised dot near the base of the wing. The abdomen is reddish-brown, with black spots and points. The legs are red. The female has a lengthened abdomen curving underneath; abdomen of male, obtuse. Found in meadows laying its eggs on knees, mane, and sides of horses. The egg is white, oblong, pointed at one extremity, the other obtusely truncated with a lid." (Fig 2.) "The larva or 'Grub' is barrel shaped tapering at one end and obtuse at the other and is covered with a thick skin beset with double rows of prickles round each joint alternately placed. It is found in the stomach of the horse to which it adheres by two short black hooks, one on each side of the mouth." (Fig 4.)

The life history of this fly may be given in a few words. The female having been impregnated and maturity having arrived, she seeks the horse by instinct. She may be observed hovering round with her body upright in the air and her tail curved inwards and upwards. She will be observed to approach the animal, and, poising for a few seconds, suddenly dart on to the part selected—the inside of the knee, sides, shoulders or lips being most commonly attacked. She deposits an egg on the hair of the part, making it adhere by means of a glutinous liquor secreted with it. This is repeated till hundreds of eggs may be deposited. They are always placed within reach of the mouth, and the horse in licking the part readily detaches the covering of the egg, and the larva is received into the mouth, and so to the stomach. Here (being its natural home) it attaches itself to the coats of the stomach by means of the hooklets, and here it remains and develops during the winter till spring, when, having arrived at maturity, it detaches itself from the stomach and is passed out in the manure, in which it remains buried till by the heat of summer it emerges from the chrysalis state as the fully developed Gad Fly.

Bots are generally supposed to be the cause of a large share of the affections which beset the digestive organs of horses; but such is seldom the case in fact.

There are few horses in the country,

especially, which do not harbour and pass large numbers of bots every spring, and yet the number of cases of digestive disorders in country districts is comparatively small. In some cases, however, where they have been taken in in large numbers, they must interfere with digestion and produce loss of condition and emaciation, and sometimes even colic.

Fig. 1.



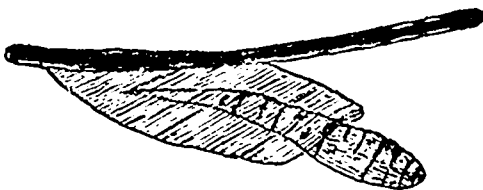
Egg case of the *Cæstrus Equi* attached to the hair; natural size.

Fig. 2.



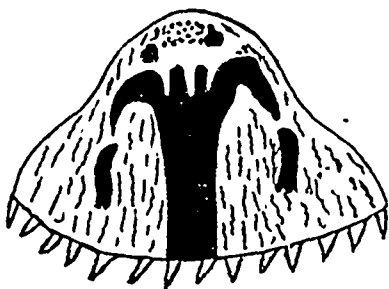
Egg case magnified, showing the bot, the cap being still in situ.

Fig. 3.



The Bot half extruded from the egg case; the cap being removed.

Fig. 4.



Head of the *Cæstrus Equi* or Bot, showing the hooklets, mandibles, etc., magnified.

In the treatment of a horse said to be suffering from bots, we must treat the symptoms as they present themselves. There is no known remedy which will kill them or cause them to detach themselves from the stomach, without at the same time injuring the coats of the stomach. The simplest plan then is to, if possible, prevent their reception into the stomach, so far as we are able, by the removal of the eggs from the hairs whenever they are observed; and this may be done frequently with driving horses, and should be done as often as possible with horses at pasture. In the spring again, when they are observed to be passed by a horse, a purge of linseed oil or aloes may save trouble by hastening their expulsion.

A good method of cultivating any crop is a great help. But it is well to remember that success depends, not so much on the method as the man behind the method. The best plans in the world won't work in the hands of a lazy, shiftless, happy-go-lucky apology for a man.

CREAM.

THERE are two sides of the liquor-drinking question, and it is best to keep the liquor on the outside.

"Ah! I am the saddest when I sing," she sang in plaintive key, and all the neighbours yelled: "So are we! so are we!"

A CRIPPLE the other day made his mark, and excused himself from signing his name on the ground that he had lost an arm; and was obliged to write short-hand.

A WELL-KNOWN chemist makes apple sauce out of chemicals. A surpassing triumph, however, awaits the man who can work over old derby hats into charlotte russes.

A LITTLE four-year-old being asked by his mother if he would like to have wigs and be an angel, replied: "No, ma; I'd rather be a hawk and live on chickens."

THE Crow Indians have been caught putting rocks in the bales of hay they sell to the Government. The day is not far distant when all Indians will be civilized enough to vote.

A YOUNG lady dropped a bottle of ammonia on the floor of the post-office at Smith's Falls, while the room was full of people waiting for the mail, and many of the bystanders wept at her loss.

LANDLORD: "We're so crowded, I'm sorry to say, that you two gentlemen will have to sleep in the same bed with other guests." Traveller: "Oh, no, we can't do that; we're grangers and don't want any middle man."

THE *New York Commercial Advertiser* says: "The Anglomaniac who calls a horse 'an oss' is a blood relation of the animal who once conversed with Balaam." Yes, and he ought to be slain with his own jaw-bone.

A NAUGHTY boy said to his mother: "You see, ma, you're always telling me to behave as well to the family as I do to company, but why don't you behave the same to me as you do to company, and ask me to have another piece of pie?"

"THERE are lots of men in the country who ought to be in the same condition that this gate is in," said the farmer, as he shut it behind a lightning-rod peddler. "How is that?" "Well hung," said the farmer, as he resumed agricultural pursuits.

"IN our country," said the Englishman, as he leaned back in his chair, "before we marry we arrange to settle a certain sum upon the wife." "Yes, I know," replied the American, "but with us it is different. It is after we are married that we settle everything on the wife and arrange to beat our creditors." "Haw! I see. And how do the creditors take it?" "They never find anything to take."

A LITTLE Brantford boy had his long curls cut off the other day and was annoyingly reminded of the fact by the remarks of all his friends. To his delight he escaped them by going with his family into the country. Soon after his arrival, however, he came running into the house in great sorrow, crying, "Mamma, mamma, even the hens laugh at me; they all say, 'Cut-cut-cut-got-your-hair-cut.'"

A SCORCH farmer was greatly exercised regarding the safety of his hay crop. The weather, through often threatening, favoured his efforts till he succeeded in getting it safely gathered in, being in this respect more fortunate than several of his neighbours. After seeing the last wisp of straw tied round his stacks, he exclaimed, with a self-satisfied air: "Noo sin' I ha'e gotten my hay safely in, I think the world would be greatly the better o' a guid shower."

POINTS FOR JUDGES.

Some Little Things Which Should be Generally Known.

Characteristics of the Hereford, Devon, and Ayrshire.

A correspondent gives us the following well-tried scale of the points of excellence of the principal breeds of horned cattle. It comes timely just at this season for the use of judges at the fall fairs which are about to be held in Ontario.

THE SHORTHORN COW.

Pedigree—Should show unbroken descent on both sides, from known animals driven from English herds, as found in the English or American Herd books, and without this an animal cannot compete in this class.

Head—Small, lean, and bony, tapering to the muzzle—8.

Face—Somewhat long, the fleshy portion of the nose of a light, delicate colour—2.

Eye—Prominent, bright, and clear; prominent, from an accumulation of adipose substance in the socket, indicating a tendency to lay on fat; "bright," as an evidence of good disposition; "clear," as guaranty of good health—2.

Horns and Ear—The horns should be light in sub-

The Quarters—Long, straight, and well developed downward—5.

The Carcase—Round; the ribs nearly circular, and extending well back—4.

The Flanks—Deep, wide, and full, in proportion to condition—8.

The Leg—Short, straight, and standing square with the body—2.

The Plates—Of the belly strong, and thus preserving nearly a straight under line—8.

The Udder—Should be pliable and thin in its texture, reaching well forward, roomy behind, teats well apart, and of a convenient size—8.

The Tail—Flat and broad at its root, but fine in its cord, and placed high up, and on a level with the rumps—2.

The Coat—Should be thick, short, and mossy, with longer hair in winter, fine, soft, and glossy in summer—2.

The Carriage—Of an animal gives style and beauty; the walk should be square, the step slow, and the head level with the body—2.

Quality—On this the thriftiness, the feeding properties, and the value of the animal depend; and upon the touch of this quality rests, in a good degree, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused, but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body, between the thumb and finger, it should have a soft, flexible, and substantial feel; and

the withers, which, by rising a very trifle above the level line of the back, gives to the ox a very upstanding and beautiful fore-end. The whole shoulder well clothed with muscle—8.

Crops—Filling up evenly behind the shoulders and blending them smoothly with the muscles of the back—8.

Back—Loin, and hips, should be broad, wide, and level—8.

Rumps—Should lie nearly and quite level with the back, and their covering should be abundant, mellow, loose, and freely moving under the hand; thus showing great aptitude to fatten—4.

Pelvis—Roomy, indicated by wide hips (as already mentioned), and the space between the rumps, which should stand well apart, giving a general breadth to the posterior portion of the animal—8.

Twist—Broad and full, extending well down on each side of the thigh, with corresponding width; a broad twist is a good indication of a butcher's animal—5.

Hind Quarters—Large and thoroughly developed in their upper and more valuable portions, as beef. The thigh gradually tapering to the hock, but muscular—6.

Carcase—Round throughout; full and capacious, with the under line of the belly level, or nearly so—8.

Flank—Full and wide—8.

Legs—Straight, upright, firmly placed to support the superincumbent weight; a strong back sinew, but by no means a large, coarse, canon bone—8.



SHORTHORN COWS.

"Bloom," calved March 29th, 1878. Bred by John Hobson, Guelph, County Wellington. The property of William W. Macalister, Stony Mountain, Manitoba. Got by Scottish Heir [4489]; dam Wingfield 4th by Comet [1184]; grandam Wingfield 8rd by Albert [9]; great grandam Wingfield 2nd by Honest Tom [8498], [18040].

"Bessie," calved February 1st, 1878. Bred by John Hobson, Guelph, County Wellington. The property of William W. Macalister, Stony Mountain, Manitoba. Got by Scottish Heir [4489]; dam Red Rose by Comet [1184]; grandam Wingfield 8rd by Albert [9]; great grandam Wingfield 2nd by Honest Tom.

stance, waxy in colour, and symmetrically set on the head. The ear should be large, thin, and with considerable action—1.

Neck—Rather short than long, tapering to the head; clean in the throat, and full at its base, thus covering and filling out the points of the shoulders—2.

Chest—Broad from point of the shoulders, deep from the anterior dorsal vertebra to the floor of the sternum, and both round and full just back of the elbows, or, in other words, "thick through the heart"—14.

Brisket—Deep and projecting, indicating a disposition to lay on fat—5.

Shoulder—Where weight, as in the Shorthorn, is an object, should be somewhat upright and of a good width at the points, with the blade well laid back to blend its upper portion smoothly with the crops—4.

Crops—Must be full, and level with the shoulders and back—8.

Back, Loin, and Hips—Should be broad and wide, forming a straight and even line from the neck to the setting on of the tail, the hips or hocks round and well covered—8.

Rumps—Laid up high, with plenty of flesh on their extremities—5.

Pelvis—Should be large, indicated by the width of the hips (as already mentioned) and the breadth of the twist—2.

The Twist—Should be so well filled out in its "seam" as to form an even and wide plain between the thighs—8.

when beneath the outspread hand, it should move easily with it, as if resting on a soft, elastic, cellular substance, which, however, becomes firmer as the animal ripens. A thin, papery skin is objectionable, especially in a cold climate—15. Total, 100.

THE HEREFORD COW.

Head—Moderately small, with a good width of forehead, tapering to the muzzle; the cheekbone rather deep, but clean in the jaw—8.

Nose—Light in its colour, and the whole head free from fleshy—2.

Eye—Full, mild, and cheerful in expression—2.

Ear—Of medium size—1.

Horns—Light and tapering, long and spreading, with an outward and upward turn, giving a gay and lofty expression to the whole head—2.

Neck—Of a medium length, full in its junction with its shoulders, spreading well over the shoulder points, and tapering finely to the head—2.

Chest—Broad, round, and deep; its flow running well back of the elbows, which, with a springing fore rib, gives great interior capacity to this all-important portion of the body—14.

Brisket—When in flesh, largely developed, descending low between the legs, and deep, by covering the anterior portion of the sternum, or breast bone, but never interfering with the action of the animal when in working condition—4.

Shoulder—Lying snugly and closely in towards the top, and spreading towards the points, the blade sloping somewhat back, and running pretty well up into

Plates—Of the belly strong, and thus preserving nearly a straight under line—2.

Udder—Broad, full, extending forward and well up behind. Teats of good size, squarely placed, with a slightly oblique pointing out, with veins large and swelling—8.

Tail—Large and full at its point of attachment, but fine in its cord—2.

Hair—Thick, close, and furry; and, if accompanied with a long growth, and disposition to curl moderately, is more in estimation; but that which has a harsh and wiry feel is objectionable—8.

Colour—Red or rich brown, oftentimes very dark, with a white or blocked face, are the colours most fancied, though there are gray and also cream-coloured Herefords—1.

Carriage—Prompt, resolute, and cheerful; and, in the ox, gay and lively—8.

Quality—On this the thriftiness, the feeding properties, and the value of the animal depend; and upon the touch of this quality rests, in a good degree, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body, between the thumb and the finger, it should have a soft, flexible, and substantial feel; and when beneath the outspread hand it should move easily with it, as if resting on a soft, elastic, cellular substance, which, however, becomes firmer as the animal "ripens." A thin, papery skin is objectionable, especially in a cold climate—15. Total, 100.

THE DEVON COW.

The Head—Should be small, lean, and bony; the forehead wide, flat, or, from fulness of the frontal bone over the eyes, somewhat dishing; the face straight; the muzzle fine; the nostrils open; the lips thin and rather flat—2.

The Nose—Of a light, delicate orange—4.

The Eye—Should be bright, prominent, and clear, but mild and gentle in its expression, as indicative of that spirited but tractable disposition so necessary to cattle that must bear the yoke; a beautiful orange-coloured ring should invariably surround the eye—4.

The Ear—Thin; of a rich orange colour within; of a medium size, with a quick and ready movement, expressive of attention—5.

The Horns—Light, tapering, of a waxy colour toward the extremity, and gaily as well as symmetrically placed on the head, the occipital bone narrow, thus bringing the base of the horns nearer together—2.

The Neck—Of medium length, somewhat light, its substance very clean, and well set upon the shoulder—2.

The Chest—Deep and round, carrying in fulness well back of the elbows, thus affording, by the aid of a spring rib, abundant internal room for the action of the heart and lungs, and that, too, without an extreme width forward and between the points of the shoulders, which might interfere with the action of the animal—14.

The Brisket—As it adds nothing to the internal capacity of the chest, must not overload the breast, but be sufficiently developed to guarantee a feeding property, attended with a full proportion of fatty secretion—4.

The Shoulder—Is in this breed a very beautiful and important point, and should, in a degree, approximate in form to that of a horse. It should take a more sloping position than is found in most other breeds, with its points less projecting and angular and the blade bone more curved, thus blending with and forming a fine wither, rising a little above the level of the back—4.

The Crops—Full and even, forming a true line with a somewhat rising shoulder and level back, without either drop or hollow—8.

Back, Loin, and Hips—Broad and wide, running on a level with the setting on the tail—9.

The Rumps—Lying broad apart, high, and well covered—5.

The Pelvis—Wide—2.

The Twist—Full and broad—8.

The Quarters—Long, and thoroughly filled up between the hocks or hip bones and the rumps, with a good muscular development down the thigh to the hocks—6.

The Flank—Moderately deep, full, and mellow in proportion to condition—8.

The Legs—Not too short, and standing as straight and square behind as may be compatible with activity. The bone quite small below the hocks and knee; the sinews large and clean, with the forearm well developed—5.

The Udder—Should be such as will afford the best promise of capacity and product—1.

The Tail—At its junction level with the back, long, very slender in its cord, and finishing with its tassel of white hair—1.

The Hair—Should be short, thick, and fine; and if showing on its surface a fine curl or ripple, it looks richer in colour, and is supposed to indicate a hardier and more thrifty animal—1.

Colour—In its shades and degrees is more or less an object of fancy, but in the Devon is *always red*. Formerly, a rich blood-red was the favourite colour and test of purity, and now a somewhat lighter colour is in vogue. In all cases the colour grows lighter around the muzzle, while a dark mahogany colour, verging almost to a black, and growing yet darker about the head, was a very questionable colour for a true North Devon, more especially when accompanied by a dark nose.

Carriage—The Devons having, from their excellence for the yoke, another destiny besides that of the butcher's block, it is important that the animal's carriage should indicate as much; but, to obtain this, something of the heavy, inert, squarely moulded frame of the merely beefing animal must be relinquished for a lighter and more acting frame—8.

Quality—On this the thriftiness, the feeding properties, and the value of the animal depend; and upon the touch of this quality rests, in a good degree, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body between the thumb and finger, it should have a soft and flexible feel; and when beneath the outspread hand it should move easily with it and under it, as if resting on a soft, elastic, cellular substance, which, however, becomes firmer as the animal "ripens." A thin, papery skin is objectionable, especially in a cold climate—15. Total, 100.

THE AYRSHIRE COW.

Head—As in the other breeds small; the face long and narrow; the muzzle and nose variable in colour—4.

Eye—Placid, and not strikingly large—2.

Ear—Of full size, and of an orange colour within—4.

Horns—Small, tapering, with an outward and upward turn, and set on wide apart; the face somewhat dishing—2.

Neck—Of medium length, clean in the throat, very light throughout, and tapering to the head—4.

Shoulders—Lying snugly to the body, thin at their tops, small at their points, not long in the blade, nor loaded with muscle—6.

Chest—Must retain sufficient width and roundness to ensure constitution. The lightness of the fore-quarter, and the "wedge shape" of the animal, from the hind-quarter forward, arising more from a small, flat, and thin shoulder than from any undue narrowness of the chest—12.

Crops—Easily blend in with so thin a shoulder, and prevent all hollowness behind—4.

Brisket—Not overloading the fore-end, but light—4.

Back—Should be straight, and the loin wide, the hips rather high and well spread—8.

Pelvis—Roomy, causing a good breadth at what is termed the "thurl" or "round bone," and between the points of the rumps—4.

Quarters—Long, tolerably muscular, and full in their upper portion, but moulding into the thighs below, which should have a degree of flatness, affording thus more space for a full udder. The flank well let down, but not heavy—6.

Ribs—Behind springing out very round and full, affording space for a large udder, which by Ayrshire breeders is considered very essential to secure the milking property; the whole carcass thus acquiring increased volume toward its posterior portion—8.

Rumps—Nearly level with the back, projecting but little—4.

Tail—Thin in its cord, of full length, light in its hair, and set somewhat further into its back than would be admissible in some other breeds—1.

Legs—Delicate and fine in the bone, inclining to be short, and well knit together at the points—8.

Udder—In this breed is of more especial importance, as the Ayrshires have been bred almost exclusively with reference to their milking properties. The great feature of the udder should be capacity, without being fleshy. It should be carried squarely and broadly forward, and show itself largely behind. As it rises upward it should not mingle too immediately with the muscle of the thighs, but continue to preserve its own peculiar texture of skin—thin, delicate, and ample in its folds. The teats should stand wide apart, and be lengthy, but not large and coarse—12.

Hair—Soft and thick; in the phreology of the country, woolly—4.

Colour—Varies, a dark red, a rich brown, a liver colour, or mahogany, running into almost a black. The light yellow is, however, a colour sometimes found on good cows, but these pale colours are objected to from an impression that such belong to animals of less constitution—1.

Carriage—Should be light, active, and over gay; this latter appearance is much promoted by the upward turn of the horn—1.

Quality on Handling—Will show the skin to be of medium thickness only, moving freely under the hand, and evincing a readiness by the animal to take on flesh when a drain in the constitution is no longer made by the pail—6. Total, 100.

THE JERSEY COW.

Adopted by the American Jersey Cattle Club, April 21, 1875.

Head—Small, lean, and rather long—2.

Face—Dished, broad between the eyes and narrow between the horns—1.

Muzzle—Dark, and encircled by a light colour—1.

Eyes—Full and placid—1.

Horns—Small, crumpled, and amber colour—8.

Ears—Small and thin—1.

Neck—Straight, thin, rather long, with clean throat, and not heavy at the shoulders—4.

Shoulders—Sloping and lean; withers thin; breast neither deficient nor beefy—8.

Back—Level to the setting on of tail, and broad across the loin—4.

Barrel—Hooped, broad and deep at the flank—8.

Hips—Wide apart, and fine in the bone; rump long and broad—4.

Thighs—Long, thin, and wide apart, with legs standing square, and not to cross in walking—4.

Legs—Short, small below the knees, with small hoofs—8.

Tail—Fine, reaching the hocks, with good switch—8.

Hide—Thin and mellow, with fine, soft hair—4.

Colour of Hide—Where the hair is white on udder and inside of ears, yellow—5.

Fore Udder—Full in form, and running well forward—8.

Hind Udder—Full in form, and well up behind—8.

Teats—Rather large, wide apart, and squarely placed—6.

Milk—Veins prominent—5.

Escutcheon—High and broad, and full on things—8.

Disposition—Quiet and good-natured—8.

General Appearance—Rather bony than fleshy—0. Perfection, 100.

THE CANADIAN COW.

The Canadian breed of cattle originally from Normandy was imported by the first French settlers, and until within a few years has been kept free from crossing. The points of excellence cannot therefore differ much from those of the Jerseys.

Purity of Breed—Should be fully established by undoubted testimony, and have a well-established reputation for the production of milk and butter—4.

The Head—Small, eyes full and bright, the face thin, the muzzle pointed and surrounded with a white circle more or less definite, the horns polished, irregular and generally turned inwards and black at their extremities, and the ears small with quick action—8.

The Back—Straight from the crop to the root of the tail, the chest deep and almost in a line with the belly—4.

The Skin—Strong without being loose, well covered with long hair of a red colour, sometimes spotted with white, or dark brown often striped—2.

The Carcass—Well rounded and deep, the ribs well together, flanks short and slightly hollow, tail thin and descending below the knees—4.

Legs—The front legs straight and thin, the hind ones short and close to each other, but should not cross when the animal is in motion—2.

The Udder—Full and high up behind, the teats large and well apart, veins large and full—4.

General appearance—8. Total, 81.

THE BULLS.

Most of the points desirable in the female are generally so in the male, but of course should be more masculine in their character as inseparable from a strong, vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively of a masculine description as never to be discovered in the females of his get.

In contradistinction to the cow, the head of the bull may be shorter, the frontal bone broader, and the occipital bone flat and stronger, that it may receive and sustain the horn; and this latter may be excused if a little heavy at the base, if its upward form, its quality, and colour be right. Neither is the looseness of the skin attached to and depending from the under jaw to be deemed other than a feature of the sex, provided it is not extended beyond the bone, but leaves the gullet and throat clear and free from dewlap.

The upper portion of the neck should be full and muscular; for it is an indication of strength, power, and constitution. The spine should be strong, the bones of the loin long and broad. The genital organs large, and the whole muscular system wide and thoroughly developed over the entire frame.

PURE-BRED STOCK.

As a rule pure-bred stock is not the most profitable for farmers to keep. Many who have tried to breed a herd of pure-blood animals have failed. The cost to begin with is large. The writer recently visited a herd of Jersey cattle, some of the cows in which had cost many hundreds of dollars. The product in flesh and milk from these animals is not so much over that of the grade cow as to warrant the prices paid. The management that such close bred stock requires is much greater than that of grade stock; that is, crosses between the pure-blood and the native stock. Pure-blood animals and herds, like the one above mentioned, are of value as breeding centres, from which the great mass of common stock can be built up. At a low estimate the value of the grade product can be raised \$15 or \$20 each, the first season. It may be that a farmer with a large herd of grades thus produced can afford to keep two or three pure-blood animals for further improvement of the herd, but in many cases it will be better to replenish the pure blood from one of the centres of such stock. It is a national blessing that "fancy farmers," as they are sometimes called, are pleased to make such large investments in pure-blood stock, for by this means the supply of any breed is kept up. It would be a calamity if from any cause these carefully managed herds should all be broken up and scattered. It is through them that the whole live stock of the country is to be improved by a gradual process of grading.

SHEEP AND SWINE.

THE OXFORDSHIRE DOWN AS A GENERAL PURPOSE SHEEP.

As to the question, "Which is the best mutton sheep, always ready for the knife, from early lambhood to adult wetherhood?" permit me to say the Southdown or Hampshire Down may do where you are close to a good market, but I think there is one breed of Down sheep that excels each of the others named in size, early maturity and hardiness of constitution, in addition to yielding a much heavier fleece than any of the other Down breeds, and that is the Oxfordshire Down. I have proved this to my own satisfaction, having handled all the breeds of Down sheep, but none with as much success as the Oxfords. I am not prejudiced in favour of any breed of sheep, and think the Hampshire and Southdown both excellent breeds. What I want is the general-purpose sheep, and for all purposes the Oxfordshire Down is the most profitable to the general farmer. They are heavy wool-producers, our flock of fifty two-year-old ewes having averaged twelve pounds and a half this year, and our rams as high as sixteen pounds. We have several ewes in our flock that weighed two hundred and fifty pounds at fifteen months old. The Oxfordshire Down is ready for the knife from a lamb of twelve weeks old to a sheep of any age; even the old ewes, when too old for breeding, fatten rapidly. They cross splendidly with any breed, and there is none but what they will improve. They are well adapted to any country or climate. The demand for these sheep in England from other countries is greater than can be supplied; nearly one-third of the Oxfordshire rams going to Germany this year to cross on the Merino, besides a great many going to Scotland, America, and other countries. The price of these sheep is advancing every year, owing to the great demand. This year's ram sales were much higher than those of last year in England. Mr. John Treadwell's being the highest, averaging nearly £24.—*W. F. Loake, in Breeder's Gazette.*

CORN-FED PORK.

"It has been found, from carefully conducted experiments from different persons," says the *Chicago Times*, "that one bushel of corn will make a little over ten and one-half pounds of pork, gross. When corn is worth 12½c. per bushel, pork will cost the producer 1½c. per pound. When corn is worth 17c. per bushel, pork will cost the producer 2c. per pound. When corn is worth 25c. per bushel, pork will cost the producer 2½c. per pound. When corn is worth 34c. per bushel, pork costs the producer 4c. per pound. When corn is worth 50c. per bushel, pork will cost the producer 5c. per pound. The above statement shows what the farmer realizes on his own corn when in the form of pork, and it also demonstrates the fact that there is money in corn at 25c. per bushel, when fed to hogs at 8c. per pound."

PROLIFIC SOW

Sanders Spencer, of Holywill Manor, St. Ives, Hunts, England, makes this communication to the *Farm and Home*, London: "I notice in your issue of the 19th, a paragraph headed 'Prolific Sow.' This sow appears to have produced forty-eight pigs within twelve months. I do not consider this in the least extraordinary, as I have had several old sows which have bred more pigs within a year. I have at the present time a young sow suckling her second litter, which has beaten this record by long chalk, as she has bred

thirty-five pigs in less than six months. She was one of the three first-prize winners at Smithfield last year in the class for large breed pigs under nine months; about two months after the show she farrowed her first litter of seventeen, and three weeks since she farrowed eighteen more live pigs, or a total of thirty-five pigs before she reached the age of one-and-a-half years. This is the most prolific sow I ever had, but several other sows of the same family have been heavy breeders. The mother of the yelt bred fifteen, nineteen, and seventeen pigs within a year; the sister of this sow also bred sixteen pigs at her first litter. I have had this strain of pigs for some years, and they have proved a little gold mine to me."

WHICH IS THE BEST BREED OF SHEEP?

Which is the best breed of sheep? Is it the Cotswold, with their noble presence, great antiquity, thorough pedigree, their health, hardihood, longevity, and heavy fleeces and heavy carcasses, their prolificacy, good nursing qualities? Is it the Leicesters, with their finer bone, greater refinement of carcass, fleece and points, aptitude to fat, good wool, neat outline, desirable fibre, length of staple, and profitable lambs? Is it the Southdowns, with medium size, extreme hardihood, adaptation to hill pastures, grand symmetry, unequalled mutton, early maturity, tough constitution and productiveness in breeding, coupled with surety of raising? Is it the Merino, with their swollen form, fine wool, hardihood, firm fleece, impervious pelt-like covering, their remarkable fecundity and good motherhood? Is it any of these, or some fixed grade of these, or some intred cross of these, or is it each and all? By fixed grades or crosses we mean such breeds as Oxfordshire, Hampshire, Lincolnshire Downs, etc. Is it some, one, or all of these? We contend that it is all. No one breed is best for all climates and conditions, no one breed is equally adapted to mountain pastures and to plains. Each is best where it thrives the best. Let the shepherd study the breeds, study his wants, his pasturage and his climate, market, and then select with judgment derived from knowledge. Size of flock, surface, soil, exposure, all should be taken into account. These are questions all must study and determine for themselves, and they are points that underlie all success in sheephusbandry. All are best where best adapted. All are worst where worst conditioned. We need each and all. We have diversity enough to accommodate all — *J. W. Lang, in Farm and Garden.*

DENSITY OF FLEECE.

In the second volume of the Register of the Vermont Merino Sheep-Breeders' Association, reference is made to the improvement in density of fleece of the American Merino, to which fact is attributed the superiority in gross weight and amount of scoured wool. For the purposes of actual test the skin of a sterile ram was used the animal showing a fair average fleece. The fleece at one year's growth weighed, gross, twenty five pounds, and scoured six pounds. He was slaughtered, and before the pelt had time to dry and shrink, an inch square was carefully measured and cut from the shoulder. After it had dried, it was sent to an eminent microscopist for count, and subsequently returned with the following report: "The mean result of all my experiments is that there are 276,480 pores from which wool may grow to the square inch, but they do not all contain fiber, as the fibers per square inch are 222,500. Of course either of these are liable to a small error, but I compared

them with the ordinary open-wool sheep, and find that there are about thirty on this pelt to one on the common sheep; and yet I examined what would be called a good-woolled sheep. I think that on many sheep there must be one hundred fibers to one on the common."

WOOL GROWING.

An account of the wool industry published in America states that during the last four census years the number of sheep and production of wool were returned as follows:

Census years.	No. of Sheep.	Lbs. Wool.
1850.....	21,723,220	52,516,959
1860.....	22,471,225	60,264,913
1870.....	28,477,951	100,102,387
1880.....	43,576,899	235,648,834

The increase in the number of sheep in the decade from 1850 to 1860 was only 748,055, equivalent to 3½ per cent.; but from 1860 to 1870 it amounted to 6,006,675, or 27 per cent. This augmentation was largely due to the protective tariffs of 1864 and 1867, while the influence of the latter act was felt during the subsequent decade, as the increase of 15,000,000, or 53 per cent., in the number of sheep conclusively proves.

The production of wool in 1883 was 3,000,000 pounds, but it is safe to predict that with the lower duties now existing, the increase will be less rapid.

WATER FOR SWINE.

There are many farmers who think it unnecessary to give a drink of water to a pig, but who consider the slop that it receives as ample for its needs, or that when a pig is fattening dry food only is needed and that water makes soft pork. There are many more who are hardly so ignorant as this, yet act precisely as though they were, and neglect to provide any water for their stock, but what they can procure from pond-holes or alongs. The consequence is disease and death. Pure water is indispensable to the health of all kinds of stock.

The *Iowa Homestead* believes there can hardly be a doubt that hogs are to rule high another year. Farmers all through the country have been selling close and short since early last fall, when it became certain that the corn crop would be short. The number of hogs wintered was less than usual, owing to high-priced corn, and the prospect of a light corn crop again this year has caused the marketing of thousands upon thousands early this summer. The supply of hogs is unusually short, and high prices must prevail. It is now apparent, however, that the corn crop is not going to be as light as it was feared it would be soon after corn-planting. But that there is a shortage in hogs to fatten is an undisputable fact.

It is not simply tradition that a red Berkshire pig has more lean meat in it in proportion to the fat than other breeds, but a fact. One slaughtered at Kirby Homestead which weighed 506 pounds, when cut up measured nine inches through the back, and of this five inches was lean meat, leaving four of fat. In other breeds there would have been from five to six inches of fat. The lams weighed over sixty pounds each, and there was less than two inches of fat around them. The amount of fat in these hams was not half as much as in other breeds. It is an objection to the fine and more chunky breeds that there is so much waste of fat in the hams and shoulders. This excess of fat makes them unsuitable for making bacon, and makes the pork less desirable, as people do not like to eat clear fat. For the same reason they are not so good for making sausage.—*F. D. Curtis.*

BEES AND POULTRY,**MAKING POULTRY PROFITABLE.**

Five hundred hens can be made to pay on an average as large a profit per bird as fifty. There often is more fault with the keeper and management than with the fowls. The care of poultry, in order to make it profitable, is no child's play, but a daily task. Chickens are early risers and eager for the first worm. Successful poultry-keepers are full-grown, sensible men and women. They succeed as a matter of course, and the business looks very easy to out-siders, as in all kinds of enterprises carried on for money-making. One reason is why so many fail is because they are not satisfied with the slow working up. There are some who are really fond of the poultry business, who would gladly unite profit with pleasure, but do not know how to manage it. If one is actually willing to work, can endure fatigue, and can control the temper, it is well to begin low down.

Begin (if no previous knowledge has been obtained) with a cock and a dozen hens, and ascertain just how much patience, time, labour, food and housing are needed to serve this small stock of fowls, together with their progeny. There is frequently great loss with chickens from ignorance as to feeding. I always recommend small grain, whole, with cracked corn. It must be given freely, increasing the quantity as they grow, and never stinting them while growing, or afterward. If small numbers are kept at first and gradually increased as fast as found profitable, there would be less disappointed poultry-keepers. There is something in breed, of course, but often more in the keeper. In the first place it is a good thing to understand what the fowls are intended for, whether for eggs or poultry, and treat them accordingly. No one expects to get much flesh on a Leghorn, neither do we expect many eggs from a Brahma.

If the Dorkings were better known they would be found in almost every case to meet the needs of the poultry-keeper for eggs, and especially for poultry where early broilers are required. They are heavy feeders until grown, but then, for their size, they are considered light consumers. Fowls that are in profit must be large consumers, or they will fail to give a profit. In keeping fowls in large numbers, the mistake is often made of herding too many together. They must have room to breathe in, and room to exercise and to scratch. It is as natural for a hen to scratch as to breathe, and when taken out of their natural run she must have something to scratch for. The person who undertakes keeping a large henery for profit will learn much through dear experience, and if successful will know what it is to work hard.

PREPARING BEES FOR WINTER.

In the *American Agriculturist* for September, Prof. Cook writes thus about preparing bees for winter:

The apiarist should prepare his bees for winter as soon as the frost makes all farther gathering of honey impossible. Examination will show whether there is sufficient honey stored to winter the bees. If the frames, just as they are taken from the hives, containing bees, honey and comb, weigh thirty pounds in the aggregate, then there is honey enough. If not, good thick honey, or thick syrup, made by dissolving granulated sugar, should be fed at once, so that all cells may be capped over before the cold days of October check the labours of the hive. It is best that the honey be so abundant in the frames that we need not give the bees all the frames used in summer. It is better to use not more than seven or eight

Gallup or American frames, and not more than five or six Langstroth frames. These are confined by division-boards. It is best to carefully exclude pollen. Frames of pollen are set aside, to be returned when breeding is resumed the following spring.

The bees may easily change the position of the cluster in the cold days of winter, and it is desirable to out small holes the size of a thimble through the combs, an inch or two above the centre. Cover above the bees with sacks of dry sawdust, which should be long enough to reach over the division-boards and to the bottom of the hive. These protect the bees from the extremes of heat and cold, and promote healthfulness. Thus prepared, the bees to be wintered in chaff hives on their summer stands, will need no further care until the succeeding April. If the bees are placed in the cellar, they need not be touched again until just before winter comes, when they are to be taken in.

THE LEGHORNS' COMBS.

The combs of the Leghorns are serious objections to many breeders living in cold latitudes, where Jack Frost takes a delight in "dubbing" the combs of all the high-combed variety of poultry, when he can get an opportunity to do so. Breeders have now established a strain of rose-combed Leghorns, which seem to possess all the desirable features and characteristics of the single-combed variety, without having the same liability to being frozen. Despite this fact, however, the rose-combed variety does not seem to make much headway with breeders or farmers, for it seems to be one of the peculiarities of the people to believe that a bird cannot be a pure-bred Leghorn without having a large, single comb. Be that as it may, however, the thing is to devise some ways or means to prevent the combs of the single-combed varieties from being frosted. A good, warm and comfortable house—one made of good, inch pine, stripped at the joint outside and covered over the inside with tarred felt or building felt—will keep out the cold, and if the birds are housed early and not left out till rather late each moon, the combs will rarely, if ever, be "nipped," provided no windows, doors, etc., have been carelessly left open, else the other care will all go for naught. When it is desired to specially protect any unusually fine specimen, intended for exhibition or other purposes, in addition to the good care given in the way of proper housing, many make "hoods" of red flannel, large enough to entirely cover the comb. This "hood" is slipped over the comb from the back, and secured, when put in proper place, by running a fine needle and small, silken thread twice through comb and hood, and then tying securely but not too tightly. After the hoods are removed in the spring, the spots where the threads have been will be no blemish to the birds, and will not interfere in the least with their chances of securing prizes, if put in the show pens. Some breeders "dub" the combs of their breeding flock of Leghorns, the same as done with Games, but we consider this a very bad policy, especially so as the Leghorns have such large and heavy combs, their removal must naturally prove an inconvenience, as well as an injury to their health.

PRESERVE THE WAX.

Mrs. L. Harrison gives the following advice in the *Prairie Farmer*:

All hives containing honey, in which bees have died, should be fastened up securely so that no bees can enter, for if they are permitted to carry it off as soon as it is all gone they will try the strength of all weak colonies and many will be

destroyed. We prefer to brush off the bees from the combs and store them in a room, instead of fastening them in hives where they have no ventilation, as they become damp and moldy, and the pollen sours. We put our combs into clean hives and pile them one upon another in the honey house, where they are secure from bees, and will remain dry. It is not necessary to pick out dead bees from combs, for the bees will do it, and work cheaper than we can if one comb at a time is given to a strong colony. Comb is a bee-keeper's stock in trade; better than money in the bank; and should be preserved, for while bees are building a pound of it they will store 20 pounds of honey. All bits of refuse comb should be made into wax, as it is very scarce at present, brings a good price, and is in demand for foundation.

FEEDING CHICKENS IN AUTUMN.

To get chicks early in the spring many persons will begin to hatch them late in the fall, and as no green stuff will be within reach, the matter of feeding the young chicks is something that requires consideration. The chief difficulty is that the chicks die from constipation at about the age of two weeks. They will often grow well at the start, appear active and lively, and with seeming health in every respect, begin to droop and die.

The first point to be observed is *regularity* in feeding. There should be certain hours, and the chicks should have all they can consume without waste. For a large number of young chicks, chopped eggs are expensive, but if a few eggs are mixed with milk, the mixture slowly cooked, and oatmeal added while cooking until it thickens the mass stiffly, a good food will be prepared. Let it become cold, and then crumble it into little pieces for them. This makes a good morning meal, and should be followed by potatoes and cornmeal mixed. Scald the meal first and add the potatoes. Chopped cabbage, onions, turnips, or any other vegetable may be fed in a raw state, but such food should be chopped very fine. The last meal should comprise wheat screenings, to which may be added seed of any kind, such as millet. This allows four meals daily, and will answer well for the first week. After that time the eggs may be omitted, and bean soup thickened with oatmeal and cornmeal substituted. Occasionally the second meal may be composed of clover tea thickened with cornmeal and a little rye or wheat flour. As the chicks get older feed cracked corn and whole wheat at night. At all times there should be within easy reach of the chicks finely powdered oyster shells, bone meal, and screenings. The water should be clean, and the feed should be given in little troughs or on boards. By thus giving a variety, at regular hours, and *often*, the chicks will thrive because all the wants of the system will be supplied.

We hear it frequently said that it is impossible to successfully raise chickens in Manitoba. Now, this is absurd. Chickens can be raised here almost as easily as in Ontario, if they are only given proper attention. A subscriber to the *North-West Farmer* keeps a large number in a house single boarded and covered with tar paper. In the winter he puts on double windows. Occasionally, during the coldest weather, he puts a warm stone in the nest. In this way he has eggs all winter. He has experimented with various kinds, but prefers the Buff Cochins as they can stand a greater amount of cold. However, he says this variety are hard to keep from "setting." On the other hand the Leghorns will not "set" at all, and are therefore preferred by many. He bought one pair of Brahmas last fall from J. H. Pugsley, of Brantford, and out of these he has since raised eighty chickens. Who will say after this that chickens cannot be made to lay in Manitoba?—*North-West Farmer*.

GOOD PAY TO AGENTS.

Agents wanted in every village, town and township to make a thorough canvass for the RURAL CANADIAN. Liberal inducements. Work to commence at once. For full particulars address

O. BLACKETT ROBINSON,
Jordan Street, Toronto. Publisher.

The Rural Canadian.

TORONTO, OCTOBER, 1883.

THE INDUSTRIAL FAIR.

The Industrial Fair appears to have satisfied both its managers and the public this year. It was favoured with two weeks of good weather, there were fine exhibits in all the departments, and the attendance of visitors was very large. The show of live stock was one of the best, if not the best, ever made in Ontario. The Durhams, Herefords and Polled breeds of cattle were unusually fine; these cattle are in great favour for their beef-producing qualities, and the large number of high grades in the Province readily explains our position in the export trade. It is only the heavy animals that pay for shipment to the English markets. For dairy purposes the Ayrshires and Jerseys are steadily gaining ground, and this year, for the first time, the Holsteins have put in an appearance. Mr. Cook, of Aultsville, has recently joined a New York State farmer in an importing venture, and ninety head have been brought out from Holland this season. Thirty of these are kept on Mr. Cook's farm in Osnabruck township, county of Stormont, and they form the nucleus of a fine herd. We believe that there are only two others in the Province who have Holstein stock, and both have made their first importations this year. These are Messrs. J. S. Hallmon & Co., of Wilmet township, in Waterloo, and Mr. Scatcherd, of Nisour, in Middlesex. The Holsteins are excellent milkers, good cows giving from 70 lbs. to 100 lbs. of milk per day, and with such a reputation we may be sure that farmers of the dairy districts will note, with interest, the success attending the enterprise of Messrs. Cook, Hallmon and Scatcherd. The show of horses was, if anything, superior to that of cattle. By some men, who profess to speak with authority, it was pronounced to be the finest exhibit of horses ever made in America. There were a large number of heavy draught horses, imported this year, one farmer of York county taking the lead with twelve. South-downs and Shropshire-downs were the leading favourites with sheep-breeders, and among those shown were several prize winners at the Royal Society's exhibition in England. Altogether the Industrial Fair was a good one, and evidently its management has won the confidence of the farmers.

THE PROVINCIAL EXHIBITION.

Coming after the Industrial Fair, the Provincial Exhibition needed to be complete in all its departments to create a first-rate impression. But the arrangements were not perfect, the facilities were not satisfactory, and the departments were not largely represented. We are speaking, of course, in a comparative sense. The Exhibition was scarcely, in any respect, as good as the Fair. It was, indeed, nothing more than an overgrown country show. And yet, it must not be misunderstood that we are depreciating the character of the exhibits. There was a splendid show of horses and thoroughbred cattle. Clydesdales and Percherons were numerous represented, and for bone, muscle and form they could with difficulty be excelled anywhere. The Shorthorns, Herefords, Devons, Polled Aberdeens and Galloways; Ayrshires, Jerseys and Holsteins were also a fine sight.

Wollington county is famous for its Shorthorns, Herefords and Polled cattle, and as might be expected these breeds were well and largely represented. Guelph is also the centre of a fine root-growing country, and in the department of roots the show was the best we have seen in Ontario. The display of machinery and agricultural implements was much inferior to the one seen at the Industrial Fair; manufacturers probably not caring to make entries where neither cover nor driving power was provided. Self-binding reapers and threshing machines were shown in limited numbers, and were driven by portable engines. Concerning the "crystal palace" part of the exhibition, it is difficult to say much. The building was inadequate for the purpose, and articles were crowded to the verge of confusion. The Association, however, feels encouraged to continue its exhibitions, and at the meeting held on the evening of the 26th ult., it was unanimously resolved to apply to the Legislature for the usual grant of \$10,000, and to hold another exhibition next year. The policy of this course is questionable.

AN UNFORTUNATE YEAR.

This year has been marked throughout the world as one of plagues, accidents and disasters. It is also an unfortunate year for farmers, at any rate as far as relates to our part of the continent. The wheat crop in Ontario and the Northern States was injured to a serious extent by the frosts of winter and the rains of summer. The uneven character of the harvested grain made it a difficult matter to give any reliable estimate of the yield, but now that the threshing season is well advanced, we are in a position to know what the total product will be. In many portions of Ontario fall wheat will not average ten bushels per acre, and over the whole Province the crop will fall short of last year's to the extent 15,000,000 bushels. In the United States it will be 80,000,000 bushels less than last year, and this means to the farmers of both countries a lessening of proceeds of fully \$100,000,000. It is a serious item, but it is not the only one. Fruit crops have been more than half destroyed by the operation of various causes, and more recently great damage has been done by early frosts. In the north-western States, even as far south as Illinois, Indiana and Ohio, the corn fields have been badly touched, and in our own Province the loss from the same cause will be severely felt. In the western and south-western counties many fields of corn have been utterly ruined, and, excepting on high and warm soils, the bean crop has also suffered seriously. In the more northerly counties, where grain ripened unusually late this year, spring wheat and oats have suffered to some extent. And along with this failure of crops come numerous failures in business circles and a general tightening of the money market—the inevitable results of over-trading and unwise speculation. It is a time when prudent men will carefully pick their way.

A THOUSAND SHEEP SLAUGHTERED.

The Dominion Department of Agriculture have received advices from Liverpool that a cargo of 1,000 sheep from Canada have been slaughtered on account of one sheep, said by the authorities there to have been affected with scab on landing. A strict investigation has been made by Professor McEachren, the chief quarantine inspector at Point Lewis, and he greatly doubts that the disease was scab at all, as, if scab had shown itself during the voyage, all the sheep in the pen would have been affected. It is his opinion that it was some skin eruption that had shown itself during the voyage

in consequence of bad weather. It is a well-known fact to the trade that skin eruptions are common among sheep at sea during boisterous weather, and that sheep wet with salt water and closely penned are apt to suffer from eczema, which may easily be taken for scab. It is hardly needful to point out that it is absolutely necessary for Canadian shippers, seeing that stock is exposed to such severe and apparently one-sided inspection, to use the greatest care in forwarding only healthy animals.

"PICTURESQUE CANADA."

WHO ARE THE "ART PUBLISHING CO.?"

THE KIND OF "ENTERPRISE"
DISPLAYED BY YANKEE PUBLISHERS IN DEALING
WITH CANADIAN FARMERS.

In another column will be found a letter from a subscriber from the county of Peterboro', touching a question which, under ordinary circumstances, we should not publicly refer to; but the fact that it is only one of a large number of similar character received at this office—from parties of respectability and reliability—we consider it incumbent on us to briefly answer our correspondents' several inquiries:

(1) The work called "Picturesque Canada" is published in New York city. The printing is done in the city of Brooklyn. The composition, electrotyping, etc., etc., have always been done in New York.

(2) Of some scores of artists engaged on the work, not more than five or six Canadians have contributed; and the number of these contributions is small and insignificant, with the single exception of Mr. O'Brien's, who supplies quite a number—and, we believe, among the best of the entire work. Some of the above Canadian artists therein represented have only *one drawing* to their respective credit. All, or nearly all, of our best Canadian artists were ready and anxious to contribute. A large number of them were promised work, in order to get the use of their names on the prospectus of the book; but they have all been "snubbed," and meanly "sold" after their names had been used by the publishers to float the work. Up to part 22, at any rate, *but one engraving* bears the imprint of any Canadian engraver. No engraving for the work has been done in Canada for the past fifteen months; and, previous to that, only a very small moiety.

(3) The "Art Publishing Co." are registered in Toronto, under the Ontario Statutes relating to partnerships, as being composed of Howard R. Belden and Reuben B. Belden—formerly the *Atlas*-publishing firm of H. Belden & Co., and are (to use our correspondents words) "the same who, some years ago, raised such a breeze among the farmers of the neighbouring county of Victoria, by the well-known *Atlas* dodge." They are natives, and former residents, of Newtown, Connecticut; but H. R. Belden is now a resident of Brooklyn, N. Y., and the other one resides temporarily in Toronto.

As to their financial standing, or their ability to carry out their promises, or complete the work, we prefer to offer no opinion. We do not know whether their present effort is—as suggested by our correspondent—merely to load up the farming community with their surplus stock, thrown on their hands by town and city subscribers. We do know in this connection, however, that the present town and city delivery throughout Canada *has shrunk to the extent of a great many thousands from its original dimensions*; and our information is to the effect that this shrinkage is in very great measure due to so many of the subscribers being, by degrees, undecieved as to the real identity of the so-called "Art Publishing Co."—coupled with a

knowledge of their previous business record in various parts of Ontario and Quebec, as well as their present "eccentricities" in dealing with their customers.

Those farmers living in the localities previously "atlased" by these people need not be enlightened, in order to be warned. But when all kinds of false pretences are indulged by canvassers as to *material points* in the case; when agents go so far as to assure those whose subscriptions they seek that the Marquis of Lorne, Earl Dufferin, Principal Grant and Mr. O'Brien are the chief stockholders of the concern; that the work is purely and solely Canadian—the "Company," artists, engravers, printers, paper-makers, and what-not; that the "encouragement" to "Canadian Art" is only asked to the small extent of "putting down your name" for one part (or half a dozen—as he can persuade the farmer) of a sixty cent part-book—soon after which a deliverer comes around with a cart-load, more or less, of "parts," and "bull dozes" the farmer into a settlement, under threat of a lawsuit, and on the strength of a cast-iron "contract" he has unwittingly signed; when this, and much more of a similar or worse character is practised by those people among the farming community at large; we agree with our correspondent, that it is our duty to lay the facts before our subscribers, in the way he suggests.

Very many questionable—not to say disreputable—matters have been unearthed in our enquiries on this subject (some of which are matters of record in the law courts, and in the Public Departments) which fully convince us that such gentlemen as Mr. O'Brien and Principal Grant (under whose names the real publishers conceal their own) are in utter ignorance of the *modus operandi* employed, or the disreputable and untruthful manner in which their good names are being bandied about the country to bolster up this falsely so-called "Canadian" enterprise.

SWINDLING THE AGRICULTURISTS.

The success of the man who goes among the farmers soliciting their money for his useless wares has long been a scandal and a shame. It is not all the farmer's fault. He is like other men in most respects. Human nature is much the same, the world over. But his isolation offers fewer opportunities for consultation and for combination in self-defence. A scheme that would fail in the town merely because it would attract the attention of others, and be discussed by them while looking on, may be carried out in the retiracy of the farmer's home. A band of scoundrels covering a house in the village with a net-work of lightning-rods, and then bull-dozing the owner into a promissory note for ten times the cost of the work, would fail merely from the casual presence of the neighbours who might chance to pass while the work was going on. Yet this transparent fraud may be successful when attempted on an unsuspecting and busy man who stands alone.

Legal technicalities tend to demoralize the farmer. He sees some one swindled by the combined shrewdness of two swindlers, one of whom is a lawyer, and he learns to distrust the law. Finding his name signed to a very harmless contract, he is persuaded that he has "got his foot in it," and he will pay out rather than stand for what he knows to be his rights, fearing the law. And, at all this, the self-sufficient man on the crowded streets will smile, and say the farmer ought to have more sense. And this is true. We should know more than we do. But experience is a slow school, and it is essentially the school of those who live in isolation.

But the position of the farmer offers the swindler

better opportunity to escape detection. The latter may be gleaning in far-distant pastures before his little scheme has been discovered, whereas, if it had been consummated in the village, the idle loafers, the lawyers, the officers, all would have been on his track while it was yet warm.

It is the duty of the press, as well as of reading and observant farmers and others to warn everybody against the oily tongues of the peddler of cloths, carpets, linens, etc., that have escaped duty, or are bankrupt stocks, and sold for a song. The travelling vender of grafts and fruit trees is a dangerous fellow, for it takes a long time to prove his guilt. But tree-planting is a matter of so much importance to the planter, and he should be so absolutely certain of what he is doing, that it seems strange that any one should permit himself to take the risk of relying on the representations of an irresponsible stranger.

But it is useless to attempt to enumerate the wiles of the wicked. The wisdom of the serpent will be sufficient to enable him to hide his trail. An old swindle will be succeeded by a new one, and when the old is forgotten it will be revived. The only safety is in giving a wide berth to offers of sudden riches at the hands of strangers—to all offers of something for nothing—and especially to every proposition that suggests on its face any intrigue, any fraud upon the Government, or on private persons, or any gain where others must lose.

PICTURESQUE CANADA.

MR. EDITOR,—Will you, through your columns, kindly inform me and a large circle of acquaintances here, and, I dare say, it will interest people in other sections as well:

1st. Whether the book called "Picturesque Canada" is published in Toronto.

2nd. Whether it is the product of Canadian artists and engravers.

3rd. And finally, as to the identity of the so-called "Art Publishing Company," whose imprint appears on the work, and their reputation as book publishers, their supposed financial standing, and ability to complete such a work. My reasons for making this request are: Agents of the company have been in this locality canvassing among farmers for this book and making representations such as are covered by an affirmative answer to the above queries, whereas it is stated by others, that all the above representations, as to facts, are false; that the Art Publishing Co. is really composed of Yankee Atlas men—Howard R. and Reuben B. Belden—the same who, some years ago, raised such a breeze among the farmers of the neighbouring county of Victoria, by the well-known Atlas dodge. It is further stated that the said parties are without means or credit to complete the work, and that they are now simply trying to raise funds by loading the farmers of this county with old stock which has been thrown on their hands by their town and city subscribers throughout Ontario, refusing to take the work on learning the nature of the fraudulent representations on which it was sold. It is also stated, as a proof of its being a foreign production, that, within the last few weeks, the entire stock of the publishers was seized in Toronto by the customs officers for undervaluation, and that a portion of the plates were seized in New York by the U. S. customs officials for having been smuggled by the Beldens and their agents, across the lines from Canada. Now, if the representations made by Beldens' agents are true, that this work is purely Canadian, it is a praiseworthy undertaking and deserves success. If false, I think it my duty to warn the press of the fraud, that they may, in turn, warn their subscribers and the public generally. There are a large number of people in

this locality who have no means of testing the truth of the statements of these agents, who will be thankful as well as myself for a reply to this communication through the columns of your valuable paper.

SUBSCRIBER.

SELECTION OF SEED GRAIN.

On this important subject the *Farmers' Review* offers the following:—In breeding stock of all kinds a careful selection is made by the intelligent farmer, especially in the male, in order that the quality of the progeny may be improved. In the selection of many kinds of seed similar care is exercised, and only the best obtainable planted. But in sowing the various small grains but little care is taken to secure the best seed and that possessing the highest vitality. It is usually sown as it comes from the threshing machine. Perhaps it is run through a fanning mill to clear it as far as possible of foul seeds. But there is no effort to make a selection of only the largest and plumpest grains for sowing, though it is absolutely certain that if such selections could be made, stronger, healthier, more vigorous and more productive plants would be obtained, with corresponding increased yield. An eastern farmer, writing to one of our eastern exchanges, gives his methods of making his selections of seed wheat, which is so simple that it could be readily employed by any farmer. He has constructed a drum holding about a bushel (it could be made on a larger scale), the ends of wood and the sides of wire netting, with a mesh of such size that will allow all but the largest kernels to pass through. This on being made to revolve by a crank, allows about three-fourths of the grain including all the small kernels and foul seeds such as cockle, wild buckwheat, mustard or other small seeds to fall through, giving him out of each bushel a peck of uniformly large plump kernels. In using this for seed he finds that he only needs about half the amount usually sown, since if every kernel is properly put in is sure to grow, while in wheat as ordinarily sown many seeds fail to germinate, and others produce a weak, sickly plant which is crowded and smothered to death by the more healthy and stronger growing plants.

BEGIN AT ONCE.

Make an effort! Every young man intends to make an effort. He is going to do wonders. "You just wait," he says, confident in his own good intentions and abilities. "I'll show you some day." Show us now, lad! Show us now! Now's the time! You'll never have a better. We can't wait; we are anxious to see you begin. Let us at once see you animated by the practical purpose of doing—not by the dream of doing—and then we will cipher up your future for you. Make an effort! Even if you fail the first time—a hundred times—that's no matter. Stuck to it! The result is inevitable! It is only those who back out who come to grief.

The value of dairy schools is shown by the results in Denmark and Ireland, where there are several. Danish and Irish dairy products stand far above American or Canadian, in spite of our broad acres and fine herds.

SOME one has taken the trouble to ascertain how far a farmer must walk to put in and tend forty acres of corn. To plough the ground with a sixteen-inch three-horse plough he travels 350 miles; to harrow the ground thoroughly before planting he will have to travel 100 miles; to cultivate the same he travels fifty miles; to cultivate it three times he will have to travel 150 miles—making a total of 600 hundred miles besides the gathering.

THE DAIRY.**BITTER BUTTER.**

Not a few complaints are heard of bitter butter on farms where butter making has not yet become a specialty in cold weather. Butter is sometimes bitter in warm weather, though rarely so. It is most often noticed in October or November, when the feed is getting poor, and the weather is too cold either for cream to rise readily or for the milk to sour. Milk set in rooms where the temperature ranges during the twenty-four hours from forty-five degrees to fifty-five degrees, throws up its cream so slowly, when set in shallow pans in the open air, that skimming is often delayed until the milk is forty-eight or sixty hours old. By this time, though not sour, as it would be in summer, it often has a very unpleasant taste, a very old taste, if nothing worse. Not unfrequently, the cream, as it lies upon the milk, will be decidedly bitter, and when this is the case the butter will also be bitter.

We do not claim a sufficient knowledge of chemistry to be able to clearly explain why milk set at one temperature will throw up a good, sweet cream, and at another temperature will sour in a very short time, and at still another temperature turn bitter or take on very disagreeable flavours, but such we know to be the fact. The most unfavourable temperature, according to our experience, for butter making, has been nearly fifty or fifty-five degrees. Professor Arnold explains the bitterness, we believe, by showing that at this temperature, namely, fifty or fifty-five degrees, a vinous fermentation sets in, which develops the bitter and disagreeable tastes. A temperature, either considerably lower or higher, would favour other and more desirable changes. If higher, lactic fermentation or common souring would take place, while if the temperature were reduced to forty degrees or less, all fermentation would be prevented or greatly retarded.

Farmers who are troubled with bitter cream and bitter butter in cold weather, often are perfectly successful in making good, sweet butter, after scalding their milk when first brought in from the stables. Heating up to a temperature of 150 degrees will destroy ferment germs, and such scalding seems to make the milk richer and sweeter. Village house-keepers often heat the milk they receive from their milkmen, to make it keep better. It is no small job to heat the milk of a large herd every morning and evening, especially with no better convenience than the kitchen stove, and if the cows are healthy, the feed of the best quality, and the temperature of the milk room is kept warm enough by artificial heat, there will seldom be any necessity for adding this labour to the usual daily routine of the dairy work; but if the conditions are not favourable to having sweet cream, scalding the milk will surely tend to render it so. We gave up scalding as a regular practice several years ago, believing that the quantity of butter was diminished thereby, and that, with sufficient care in other directions, the practice might be dispensed with. There are a few farmers who set their milk during cold weather in one of the coldest rooms in the house, where it will freeze within a few hours. This method has

been found to give butter of the richest quality, equal to that made by scalding the milk. Cream rises very fast in milk that is freezing, and the percentage of cream thrown up is scarcely equalled by any other method. The only serious difficulty is in securing a uniform temperature, sufficiently low to freeze it quickly, though the work of skimming in a cold room, and again warming the milk for use, is an objection. The cream is not usually frozen, and after warming up to the churning temperature comes to butter very readily. Scalding and freezing are probably the surest ways of preventing bitterness in butter at those seasons unfavourable to butter making.

CLEANLINESS

If there is one habit which any one who keeps a cow should avoid incurring, it is a habit of uncleanness in butter making. We are now speaking more particularly of uncleanness at the time of milking. Any impurities which may come in contact with the milk will so affect it with an offensive odour as that its presence may be detected in the butter product, although it has been strained and churned and worked and rinsed most thoroughly.

This fact is generally known by farmers and dairymen, but they do not always attach to it due importance. In a large dairy the milking must necessarily be done by hired help, and it is a deplorable fact that the average hired man scarcely ever has sufficient interest in his work to take such care as is needed at milking time to keep the milk clean. But, of course, there are some exceptions to this rule.

Even in a small dairy where but few cows are kept and no help employed, a carelessness is too often noticeable, and the farmer has none but himself to blame if there is a strange odour about his butter as he spreads his bread, or if he finds that his butter fails to bring the best price in market. We were conversing, recently, with an experienced dairyman on this subject, who receives from twenty to thirty cents more per pound for his butter than most others get, and he said that he never sat down to milk a cow, or even permitted any one else in his employ to do so, without having first thoroughly cleansed the cow's udder and teats, as well as her body and hind legs, from every vestige of impurity. We are fully aware that it is no pleasant matter to go through such a process of cleaning and washing on a cold winter morning, when the thermometer registers ten degrees or more below zero; but eternal cleanliness is the price of pure butter, and it will pay in the end. A plentiful supply of bedding, either of marsh grass or straw, should be given the cows every night, which will prevent much trouble on the part of the milkman.

MILKING—CARE OF COWS TEATS.

I began to milk when I was eight years old, which is sixty-four years ago, and there has not been more than two in all of the sixty-four years but what I have every day had something to do with the cows. And perhaps I know as much about cows as any boy who is no older than I am. I have had some experience with cows cracked teats. At night I wash the teats with water (I prefer to have it

warm), then, with a brush such as painters have, having in a tin basin some pure hog's lard melted, I give the cracks a good greasing. Then I would feed the cows with something that they like to eat, which diverts their attention.

I commence stripping down the teats with my thumb and finger; I do not clasp my whole hand harshly round the teat, for by so doing the cracks will open and hurt the cow. If the cow is inclined to kick do not whip her. I have long since found it better to pat them on their shoulders and card their cheeks, speaking gently to them, than to use all the goad-sticks one can get hold of. It takes some time longer to milk this way, as I milk in a long quart measure, with one hand, going round, taking only one quart at each time out of each teat. When I get all the milk I strip into one hand and apply it to the teats, leaving them quite soft and moist. Then I have a two-quart tin dish, with a handle, with about a pint of flour in it, and press the dish up to the bag with the teats enclosed; shake the dish, and the flour will adhere to the cracks. I have been told that those who tend grist mills do not have their hands crack. A wash made of milk and molasses of equal parts, is good to keep the teats moist while milking, and to be applied before the dish of flour is applied. To prevent the teats from cracking, I grease the cows' legs with lard where they rub against the teats when the cow is travelling.

Now, there is a good deal of fussing with cows, but what other animal can we any better afford to fuss over than the cow? We are deriving some benefit from the cow every day in the year on the farm. When she does not give milk, she is breeding, and her manure is on the farm, and not on the highways, as is that of the oxen and horses.—*Correspondent in Maine Farmer.*

MILKING.

If there is any cause for particular care and watchfulness on the part of the husbandman who employs help, it is most assuredly with those who do the milking of his cows. The manner of milking has a more powerful influence on the productiveness of the cow than most dairymen are aware of. A slow and careless milker soon dries up the best cow. The first requisite for a good milker is utter cleanliness; the udder should, therefore, be carefully washed before milking, if the cow has been lying in a yard or stable. The milker should begin gradually and very gently, but should steadily increase the rapidity of the operation until the udder is emptied, using a pail large enough to hold all the milk without changing. Cows are very sensitive, and the pail cannot be changed without leading the cow more or less to withhold her milk. The greatest care should be taken to strip the last drop, and it should be done rapidly. If any milk is left it is reabsorbed into the system, or else becomes caked and diminishes the capacity of the udder. If gentle and mild treatment is observed, the operation is one of pleasure to the cow; but if an opposite course is pursued, if at every restless movement caused by pressing a sore teat, the animal is harshly spoken to, she will be likely to kick, and thus form a habit which will be difficult to break. Avoid change of milkers, and be loth to part with a good one.

OVER THE ORCHARD FENCE.

BY HARRY J. SHELLMAN.

It 'peared to me I w'ant no use out in the field to-day ; I, somehow, couldn't swing the scythe nor toss the new-mown hay.
An' so I thought I'd jest sit here among the apple trees, To rest awhile beneath their shade and watch the buzzin' bees.

Well, no! Can't say I'm tired, but I somehow wanted rest, To be away from everything seemed sorter to be best, For every time I go around where there is human kind, I kinder hunger after what I know I cannot find.

It's sing'lar how in natur' the sweet apple blossoms fall, The breeze, it 'pears to know and pick the purtiest of 'em all ; It's only rugged ones, perhaps, can stand agin' the blast— The frail and delicate are made too beautiful too last.

Why, right here in the orchard, among the oldest there, I had a nice young apple tree just startin' out to bear, An' when the ekinocitral storm come terin' cross the farm It tore that up, while to the rest it didn't do no harm.

An' so you've been away a spell? Well, how is things in town?

Dare say it's gettin' close an' hot. To take it up an' down I like the country best. I'm glad to see you're lookin' spry.

No! Things don't go just right with me; I scarcely can say why.

Oh, yes! The crop is lookin' fair, I've no right to complain,

My corn runs well, an' I have got a purty stand of grain ; My hay is almost made, an'—Well, yes! Betsy? She's so so—

She never is as hearty as she ought to be, you know.

The boys? They're in the medder lot down by the old mill race;

As fine a piece of grass ground as I've got upon the place ; It's queer how, when the grass grows up, an' gits to lookin' best,

That then's the time to out it down. It's so with all the rest.

Of things in natur', I suppose. The harvest comes for all some day ; but I can't understand jest why the best ones fall ;

The Lord knows best. He fixes things to suit His own wise laws ;

An' yet it's curious oftentimes to figger out the cause.

Mirandy? Yes, she's doin' well ; she's helpin' mother now About the house. A likely gal to bake, or milk a cow, An'—No! I'm not half the man I were ten years ago ; But then the years will tell upon the best of us, you know.

Another? Yes, our Lizzie were the best of them all, Our baby, only seventeen, so sweet, an' fair an' tall ; Jest like a lily ; always good, yet cheerful, bright, an' gay— We laid her in the churchyard, over yonder, yesterday.

That's why I felt I w'ant no use in the field to-day, I, somehow, couldn't swing the scythe, nor toss the new-mown hay ;

An' so I thought I'd jest sit here among the trees an' rest ; These things come harder when we're old, but then the Lord knows best.

A SHORT TALE THAT TELLS ITS OWN MORAL.

Hildegardo Lyvelt had just come down to breakfast.

Miss Lyvelt was almost always late at the morning meal.

She was one of those young ladies who seldom trouble themselves about the convenience or inconvenience of others, as regards their own self-indulgence.

Miss Lyvelt, moreover, "went out" a good deal, and balls, soirees, and evening receptions do not correspond with early hours.

Mrs. Lyvelt, a gentle, weak-eyed little woman, who sat in an apologetic manner behind the coffee-urn, was, to tell the truth, afraid of her tall, handsome daughter, who came into the room like a fresh breeze, and seemed actually to light it up with her brilliant dark eyes and shining braids of auburn hair.

The eldest Miss Lyvelt, who was literary, was already settled down at her desk in the sunny bay window—the second Miss Lyvelt, who was domestic, was engaged in looking over a basket of table linen—but Hildegardo, the acknowledged beauty of the family, pretended to no special life.

"I shall marry rich," said Miss Hildegardo.

And really her pretty face and stylish manner seemed almost to authorize her in her boast.

"Well, dear, and how did you enjoy the ball last night?" said Mrs. Lyvelt, as she poured out a cup of hot coffee, and pushed the plate of toast towards her daughter.

"Oh, well enough," said Hildegardo, indifferently.

"But, oh, mamma! "brightening suddenly up, "who do you suppose I met there?"

"I don't know, I'm sure," said Mrs. Lyvelt. "Who was it?"

"Norton Wyldo."

"No!" ejaculated Mrs. Lyvelt, while Eleonora looked up from her translations, and Sophia dropped her ball of darning cotton.

"Yes," said Hildegardo, stirring the cream into her coffee, "he has returned, and Mrs. Stoyver tells me he has made a great fortune."

"Does he admire you as much as ever, darling?" asked Mrs. Lyvelt, smiling.

"I don't think there's much doubt of that, mamma," returned Hildegardo, with a conscious toss of her pretty young head. "He waltzed twice with me. You can't think how much he has improved since he went away. And he's to call here this evening. I always told you I should marry rich, mamma, and I rather think the hour and the man are come."

"I'm sure I hope so, dear," said Mrs. Lyvelt, rather dejectedly, "for papa is really getting quite outrageous about the bills for kid gloves and bouquets, and Mme. Beaumanoir's little account—"

"But, oh, mamma," recklessly interrupted Hildegardo, "he asked me about that plant he gave me before he went away—that white gardenia, you know."

"Well?"

"And I told him I had watered it every night and morning during his absence. What else could I say? He meant it for a sort of *gage d'amour*, you know, and it wouldn't do to own that I had forgotten all about it, and let it die."

"Oh, Hildegardo, did you let it die?" asked Eleonora, reproachfully.

"Of course I did," said the beauty. "What did I care for it? Norton Wyldo was a poor man then—his a rich man now."

"And what will he say?" demanded Sophia.

"That's the question," said Hildegardo. "He mustn't know. I must obtain a white gardenia somewhere or other before to-night to reproduce the one I have wept and mused over during his absence." And she laughed sarcastically.

"Oh, Hildegardo, what a hypocrite you are!" cried out Sophia.

"I'm no worse than other girls," retorted Hildegardo.

"I saw a lovely gardenia at the florist's last week," remarked Eleonora, "but they asked a pound for it."

"I haven't got a pound to spare, and that's the end of it," said Hildegardo, knitting her brows.

"Lucy Parke has one in bloom," said Sophia. "I was looking at it only yesterday, and wondering how it was that poor folks can keep such exquisite plants."

"Who's Lucy Parke?"

"She does sewing for me," said Sophia. Mrs. Hoyt, of our Dorcas Society, recommended her. Supports an old uncle, or something of that sort, I believe. I never should have thought of the thing again if you hadn't chanced to mention a white gardenia."

"Good," said Hildegardo, "it shall be mine."

"I don't think she'd sell it."

"I'll have it, anyway," asserted the imperious young beauty. "What's her address?"

"No. 17 Raven lane, third floor front," said Sophia, referring to a little memorandum book in the drawer of her work-stand. "It's rather a poverty-stricken sort of place, but—"

"I don't care," said Hildegardo. "I'll go there at once."

Lucy Parke was very busy that day finishing an order for Miss Sophia Lyvelt.

She was a pale, pretty girl, with regular Grecian features, glossy black tresses, and an air of lady-like refinement which one would scarcely expect to find in a mere sewing-girl.

Lucy had not always occupied that humble sphere.

She, too, had had her dreams of a higher, more luxurious atmosphere, from which, alas! she had awakened to the dull realities of a life of toil.

But Lucy's heart was lighter than usual, for a generous friend was even then sitting in the adjoining room with her old uncle, and through the partially open door she could hear his voice.

"Do you think, Abner Parke, I would let my father's old clerk, the man who had broken down and grown gray in his service, suffer from want? Before

I went away I was almost as poor as yourself; but now that I have succeeded in amassing a little money, I am going to make you comfortable. Yes, I know Lucy is a good girl—aye, and a pretty girl—but that's no reason she should toil herself into a consumption. I've bought that Whartley place, and you shall be the lodge-keeper at a good salary. There's a pretty little house for you and your old wife, and the country air will do Lucy good. And—"

But just then the girl's attention was called off the cheery monologue by a sharp, imperious rap at the outer door.

She opened it, supposing the new-comer to be some chance customer, of which commodity, poor child, she stood sadly in need.

And Miss Hildegardo Lyvelt swung in, hung with jewellery, scented with a faint odour of violets, and dressed in the very extreme of the fashion.

"I see you don't know me," she said, as Lucy rose in some surprise. "I am Miss Lyvelt, sister to the young lady who occasionally employs you."

Lucy bowed.

"And," added Hildegardo, looking past her at the superb creamy blossom which rose like a royal crown out of its glossy green leaves, "I want to buy that gardenia."

"It is not for sale," said Lucy, colouring deeply. "It was my mother's. She raised it from a slip before she died, and—"

"I dare say," coldly interrupted Hildegardo; "but poor people oughtn't to talk nonsense about sentiment. I see," with a glance, "that you need money. I'll give you half a crown for that plant."

"It is not for sale," repeated Lucy, constrainedly.

"Then you don't mean to oblige me," haughtily spoke out Hildegardo. "Very well; if you persist in your obstinacy, it will be the worse for you. I will tell my sister Sophia to withdraw her custom from you at once. Don't be an idiot; listen to the common sense of the thing. Here's half a crown; just wrap the plant up and let me take it away."

"But, Miss Lyvelt—"

"I have no time to argue the matter," interrupted Hildegardo. "Yes or no? I want the flower—and my sister is one of your best customers."

And Hildegardo Lyvelt triumphantly bore the snowy blossoms away.

Her footsteps had scarcely died out on the threshold before her Uncle Abner's friend bent pityingly over Lucy's drooping brow.

"What, crying, Lucy! And only because that handsome visage has stolen away your one little flower. Believe me, child, she is not worth one of those glittering tear-diamonds. I will fill your windows with flowers before night-fall."

"You are very kind," faltered poor Lucy, trying to smile; "but—they will not be my poor mother's gardenia."

Miss Lyvelt was in her most enchanting toilette when Mr. Wyldo called that evening.

And on a gilded tripod in the window stood poor Lucy Parke's cream-white blossom.

"You see," said Hildegardo, smiling sweetly, "how I have treasured it for your sake."

Norton Wyldo looked her straight in the face.

"Do you mean," said he, in that cold, blunt way of his that somehow jarred upon her pretty conventionalities, "that this is the same flower I gave you before I went away?"

"Of course it is," said unconscious Hildegardo.

"Miss Lyvelt," said Norton Wyldo, drawing himself to his full height, "you are a woman—and from a woman's lips falsehood comes with a double-distilled terror. You brought this flower from Lucy Parke's house to-day; you wiled it from her by threats and entreaties alike. And now you would palm it off upon me for the same I gave you three years ago!"

Hildegardo stood with crimsoned cheek, and fingers nervously working together—detected!

The platitudes which she would fain have uttered died away on her lips—she only felt that she had played out her game and lost it.

Norton Wyldo took his leave—and when Mrs. Lyvelt and the girls hurried in to inquire the reason of his unexpectedly brief sojourn, they found Hildegardo in a storm of passionate tears.

That was the end of her hopes on the subject of Norton Wyldo.

And six months afterwards, when they heard of his marriage to Lucy Parke, Hildegardo Lyvelt elevated her handsome eyebrows, and contemptuously remarked:

"After all, Norton Wyldo always had low tastes. To think of his marrying a dressmaker!"

HOME CIRCLE.

SOME OF THE FINE ARTS OF SOCIETY.

SPEAKING WELL OF OTHERS.

If the fine accomplishment of speaking well of others were taught in every household, it would become almost a paradisaical land. But, alas! the opposite accomplishment prevails. How many heart-burnings, quarrels and estrangements in families have arisen from this disposition of speaking evil of each other! Each of us has his faults. "There is none that doeth good; no, not one," and in the actions of the best of persons there will be occasional errors which others will perceive, and, if they are evil-minded, will publish; and before they have passed through half a dozen mouths, they are so changed that they are hardly recognizable.

The art of speaking well of others can be easily acquired, and it is a good rule to make in a household, that the one who criticizes others unkindly in the family circle, or among friends, shall pay a small fine to be used for some good object. The common and unchristian practice of talking about our relatives' and neighbours' faults is really taught in the household by parents and friends, and the children catch the habit only too quickly.

THE ART OF SOCIABILITY.

Learn to be sociable wherever you go, and to speak your lightest words in tones that are sweet, and with a spirit that is genial. Think how much pleasure you can give to others by a kindly word, or a cheerful conversation, and reflect how much sunshine such sociability throws back into your own soul!

Who does not feel more cheerful and contented for receiving a polite bow, and a pleasant "good morning," with a hearty shake of the hand? Who does not make himself happier by these slight expressions of good will? Silence, or stiff, unbending reserve, is selfish and churlish. The generous and polite man has a pleasant recognition and cheerful words for every one he meets, and he scatters sunbeams on his pathway through life, lights the path of others with smiles, and makes the world bright to those who are apt to find it cold and forlorn, while what he gives is but a tithe of what he receives, as his own heart is kept fresh and warm by the cheerfulness he expends upon others. Life would not be half as cheerless and lonely if sociability were cultivated as a fine art.

THE ART OF LIVING PEACEABLY.

The art of living in peace in the family is greatly promoted by the constant exchanges of the little courtesies of life, which are never unacceptable and never unimportant. Shall husbands and wives be less mindful of injuring the feelings of each other than those of strangers? Should there be less effort to maintain suavity of manner, gentleness of deportment, and courtesy of expression in the family circle than is extended to visitors?

It is the neglect of these little courtesies in home life which fills the saloons and billiard rooms with young men. There all is bright, gay and pleasing to the senses; and soon they are drawn into dissipation, and only look upon their homes as boarding places, where the physical necessities of eating and sleeping are procured. In early life brothers and sisters should be taught to be kind, obliging and attentive to each other, to perform little offices for each other, and learn the suavities of deportment which are so essential to the happiness of their own lives, and of those with whom they are connected. Brothers and sisters thus taught can rarely fail to make pleasant homes of their own, where words of bickering or strife are never heard. Sweet smiles and kindly actions are the small coins of life, and in their aggregate consist

the happiness and well-being of the whole family. Where such households become the rule, then peace and prosperity reign. "Better is a dinner of herbs where love is, than a stalled ox and hatred therewith."—*Daisy Eyebright, in Country Gentleman.*

HEALTH ALPHABET.

The Ladies' Sanitary Association, of London, gives the following simple rules for keeping health, which we find copied in the *Sanitarian*:

A—s soon as you are up shake blanket and sheet;
B—etter be without shoes than sit with wet feet;
C—hildren, if healthy, are active, not still;
D—amp beds and damp clothes will both make you ill;
E—at slowly and always chew your food well;
F—reshen the air in the house where you dwell;
G—arments must never be made too tight;
H—omes should be healthy, airy and light;
I—f you wish to be well, as you do I've no doubt,
J—ust open the windows before you go out;
K—eep the rooms always tidy and clean;
L—et dust on the furniture never be seen;
M—uch illness is caused by the want of pure air,
N—ow, to open the windows be ever your care;
O—ld rags and old rubbish should never be kept,
P—eople should see that their floors are well swept;
Q—uick movements in children are healthy and right;
R—emember the young cannot thrive without light;
S—ee that the cistern is clean to the brim;
T—ake care that your dress is all tidy and trim;
U—so your nose to find if there be a bad drain;
V—ery sad are the fevers that come in its train;
W—alk as much as you can without feeling fatigue;
X—erxes could walk full many a league.
Y—our health is your wealth, which your wisdom must keep;
Z—eal will help a good cause, and the good you will reap.

FARMING IN DALECARLIA, SWEDEN.

Rise when you like in the morning, and you will always find the farmer already at work. In the heat of high noon he may be asleep in his wooden bunk in the living room, but most of the day the house is deserted, and the key hangs on the door-jamb or is stuck in the shingles of the low porch. The labourers come in for their dinner after hours of dusty work in the fields. A huge copper pot is brought out in the middle of the court-yard and filled with water. The girls take off their kerchiefs and bathe their arms and necks, huddling together in the shade of the porch. Men follow and repeat the operation. Then the girls dip their feet in the bath, and dry them on the embroidered towels hanging in the sun, and finally the men and boys likewise finish their dinner toilet in the same water. The meal is a simple one—porridge, milk, unleavened bread, and perhaps some dry or pickled fish. Weak fermented drink is handed round in a clumsy wooden firkin, with side and cover painted or carved two generations ago. At the close of the meal they sit around the room and sing a hymn together before they return to the fields. Everything in the house is of the most primitive order. In a single large room on the ground-floor are chairs made of hollow tree-trunks, tables of rough-hewn planks turn up on folding legs against the side of the room, and there are bunks on the wall, with curiously carved and painted trimmings. Beside the rude stone fire platform, where the smoke curls up under an overhanging hood, stands the well-worn chopping-block, where during the long evenings of the winter months the farmer sits by the hour splitting kindling-wood and whittling. From the smooky beams overhead hang tools, baskets, and poles draped with great bunches of folded rye bread, about the appearance and texture of coarse brown paper. To lighten up the dull toned interior the farmer's wife has hung her embroidered towels and brilliant coverlets along the front of the straw-filled bunks, and spread a richly coloured piece of soft home-woven wool over the painted chest where the Bibles and hymn-books are carefully stored. On the floor she has sprinkled fresh birch leaves or stretched a piece of home-made rag carpet. Geraniums and roses bloom in the long low win-

down, where the green toned glass set in lead lets in a mellow light. The rakes which hang by the door are whittled out of tough wood. The beer-mug, the old hand-mangles, and the saddle-bows are carved in grotesque forms or covered with intricate ornamentation. Among the few pieces of coarse crockery is found perhaps a quaint silver cup, and sticking in the same rack with the clumsy wooden ladles is a battered but serviceable silver spoon which has fed a half-dozen generations. The only literature in sight is a bundle of Swedish newspapers from far-off Minnesota, carefully preserved, and read again and again.—FRANK D. MILLET, in *Harper's Magazine for October.*

A PETRIFIED FOREST.

The visitor to the petrified forest near Corizzo, on the Little Colorado, will begin to see the signs of petrification hours before he reaches the wonders; here and there at almost every step in the road small pieces of detached limbs and large stumps of trees may be seen almost hidden in the white sand.

The petrified stumps, limbs, and, in fact, whole trees, lie about on all sides. The action of the waters for hundreds of years has gradually washed away the high hills round about, and the trees that once covered the high table-lands now lie in the valley beneath. Immense trunks, some of which measure five feet in diameter, are broken and scattered over a surface of 300 acres. Limbs and twigs cover the sand in every direction, and the visitor is puzzled as to where he shall begin to gather the beautiful specimens that lie within easy reach. There are numerous blocks or trunks of this petrified wood that have the appearance for all the world, of having been just cut down by the woodman's ax, and the chips are thrown around on the ground so that one instinctively picks them up as he would in the log camps of Michigan or Pennsylvania.

Many of the small particles and even the whole heart of some trees have now become thoroughly crystalized, and the beautiful coloured cakes sparkle in the sunshine like so many diamonds. Every colour of the rainbow is duplicated in these crystals, and those of an amethyst colour would pass the eye of a novice for a real stone. The grain of wood is plainly shown in nearly every specimen—making the pieces more beautiful than ever.

Although the party went well armed with picks and crowbars, they were entirely unnecessary, for thousands of broken fragments can be gathered all about you, and the sunlight striking upon the crystalized particles point out their hiding places to the eager searcher after curiosities.—*Albuquerque Journal.*

AN ITALIAN SUMMER.

Let us pause then and look at this view than which few can be more suggestive since these are the plains of Tuscany, and eastward beyond those hills lies Umbria. It is early morning, and the whole land, diversified and softened by bright sunshine and deep shadows, looks rich, verdant, and even romantic. Far away the mist in exquisite gradations of gray defines line after line of graciously undulating hilly outline, where later on will appear only the sun bleached pallor of a shadowless plain. In front, the abrupt angle of the old wall, marked by its ruined tower, stands in deep shadow against the sullied blue of the misty hills. The vines show a richer green, a more leafy luxuriance, than they will later on; the fruit trees are of a deeper verdure; the shadows of the olives soften the brown and furrowed earth on which they stand; the hills show a darker blue, a clearer outline against the eastern

sky. Shadow-filled depths suggest leafy coolness, fresh retreats among the trees; amid the olives and vines rise the black spires of the cypresses. A little later and all this had disappeared. The country lies flat-looking, shadowless, each accident or surface almost lost in the broad and uniform sunshine. The distant hills are whitish-blue against the white horizon, the nearer ones hot and misty, showing bare spaces of earth. The trees look small and shrunk on a wide expanse of brown land, and the olives are little grey clouds, the vines narrow green lines drawn on the soil, the cypresses black spikes. Sunburnt yellow, gray-green, gray-blue colouring prevails, suggesting nothing but heat and light—a pale, hot, mist-tinted land beneath a pale, uniform cloudless blue sky. In the garden below a water-lily has opened on the small, stone-bordered pond, geraniums and marigolds bask in the sun, the shrill chirp of the cicadas never ceases. As the day declines and the sun sinks westward, the country will again gather colour and light; and later still, a moon will come to bathe it in a white and blue and green mystery inexpressible by words; a plain of pale-green trees faintly shadowed and silvered, melting into a white distance through gradations of exquisite and wonderful softness. So through the short summer night, till in the red dawn of another day, behind the vast foreground of deep, mysterious unlighted green, the blue hills rise against the new splendour of the eastern sky, as though carved in lapis-lazuli; a divine, an etheralized lapis-lazuli, of a blue never yet painted, transparent and yet solid, glowing as with light from within.

ANECDOTES OF ABRAHAM LINCOLN.

Mrs. Alice D. Shipman's "Reminiscences of Illinois Pioneers," published in the September number of the *Phrenological Journal*, state of Colonel W. H. Davidson that, though he supported Douglas in the contest of 1860, nevertheless "Lincoln, after his inauguration, wrote to Colonel Davidson offering him any office he might think fit to name, proposing himself the secretaryship of the treasury." The origin of Lincoln's intimacy with Joshua F. Speed is thus related: "Mr. Speed began his business life as a merchant in Springfield, Illinois, where he was settled when Mr. Lincoln came there to open a law office. One day as he was sitting in his store in an interval of leisure, Mr. Lincoln, whose ingrained awkwardness was then aggravated by youth, came up to the counter, and accosted him with visible embarrassment. 'I want to know, Speed,' he said, 'the cost of a bedstead and bed,' adding a rough description which indicated the cheapest kind of both. 'What you want,' answered Mr. Speed, 'will cost you about \$17.' At this Lincoln's jaw dropped, and a painful expression of sadness and perplexity spread over his countenance. Mr. Speed, noticing the look, and rightly interpreting it to signify that the price exceeded Lincoln's means, quickly added: 'Mr. Lincoln, I have a proposition to make you. My partner has just got married, and his bed in my room upstairs is vacant. If you are willing to occupy it, and share my room with me, you are more than welcome.' The painful expression instantly vanished from Lincoln's face as, with a few simple words of thanks, he accepted the offer and disappeared. In a short time he reappeared with a pair of old-fashioned saddle-bags on his arm, and, directed by his friend, shambled up stairs to the designated room. A minute had scarcely passed before he shambled down again, and, as he reached the shop, cried out, his face beaming with jocund content, 'Well, Speed, I've moved.' Henceforth unto death, Lincoln and Speed were bosom friends."

OLD CUSTOMS.

Old customs! Well, our children say
We get along without them;
But you and I, dear, in our day
Had other thoughts about them.
The dear old habits of the past—
I cannot choose but love them,
And sigh to think the world at last
Has soared so far above them.

We had not, in the years gone by,
The grace that art discovers;
Our lives were calmer; you and I
Were very simple lovers.
And when, our daily duties o'er,
We strayed beside the rushes,
The only gems you ever wore
Were bright and blooming blushes.

Our rustic way was slow, but yet
Some good there was about it,
And many ills we now regret
Old habits would have routed.
I know our children still can see
The fifth commandment's beauty—
May they obey, as we once did,
From love and not from duty.

The world to-day is far too high
In wisdom to confess them,
But well we know, dear, you and I,
For what we have to bless them.
Though love was in the heart of each,
I trembled to accost you;
Had you required a polished speech,
I think I would have lost you.

No doubt our minds are slow to gauge
The ways we are not heeding;
But here upon our memory's page
Is very simple reading.
It says the forms we still hold fast
Were wise as well as pleasant—
The good old customs of the past
Have leavened all the present.

STRAW LUMBER.

The *American Architect* says: It is said that 8,000 feet of lumber can be made from an average acre of straw. If this is true we shall not need to cut another tree for the ordinary uses of builders. The trees on an acre of land will not average more than 20,000 feet of boards; and it is easy to see that if seven acres of wheat will produce 20,000 feet, the straw crop would vastly exceed all the lumber demand. It requires a hundred years to produce an acre of timber; in seven years the straw of an acre would make the same amount of lumber. The Fargo imagination may have outdone the exact facts in the case, but if it does not magnify more than ten diameters—if an acre of straw will produce 800 feet of lumber—the Fargo achievement is one of the greatest events of the century. The *Architect* says that this new lumber can be made for about the cost of the finer kinds of pine lumber, and for half that of walnut, and it is enthusiastic over its qualities as a finishing material.

WHAT RUM WILL DO.

J. B. Gough says: A minister of the gospel told me one of the most thrilling incidents I have heard in my life. A member of his congregation come home, for the first time in his life, intoxicated, and his boy met him upon the doorstep, clapping his hands and exclaiming, "Papa has come home!" He seized the boy by the shoulder, swung him around, staggered and fell in the hall. That minister said to me, "I spent the night in that house. I went out, bared my brow that the night dew might fall upon it and cool it. I walked up and down the hill. There was his child dead! There was his wife in convulsions, and he asleep. A man about thirty years of age asleep, with a dead child in the house, having a blue mark upon the temple, where the corner of the marble steps had come in contact with the head as he swung him around, and his wife on the brink of the grave! Mr. Gough," said my friend, "I cursed the drink. He had told me that I must stay until he awoke, and I did. When he awoke he passed his hand over his face and

exclaimed, 'What is the matter? Where is my boy?' 'You cannot see him.' 'Stand out of my way! I will see my boy.' To prevent confusion I took him to the child's bed, and as I turned down the sheet and showed him the corpse he uttered a wild shriek, 'Ah, my child!' That minister said further to me: "One year after he was brought from the lunatic asylum to lie side by side with his wife in one grave, and I attended the funeral." The minister of the gospel who told me that fact is to-day a drunken hostler in a stable in the city of Boston. Now tell me what rum will not do. It will debase, degrade, imbrute and damn everything that is noble, bright, glorious and God-like in a human being. There is nothing drink will not do that is vile, dastardly, cowardly and hellish. Then are we not to fight till the day of our death?

MEDICINAL VALUE OF VEGETABLES.

Asparagus is a strong diuretic, and forms part of the cure for rheumatic patients at such health resorts as Aix-les-Bains. Sorrel is cooling, and forms the staple of that *soupe aux herbes* which a French lady will order for herself after a long and tiring journey. Carrots, as containing a quantity of sugar, are avoided by some people, while others complain of them as indigestible. With regard to the latter accusation, it may be remarked, in passing, that it is the yellow core of the carrot that is difficult of digestion—the outer, or red layer, is tender enough. In Savoy the peasants have recourse to an infusion of carrots as a specific for jaundice.

The large, sweet onion is very rich in those alkaline elements which counteract the poison of rheumatic gout. If slowly stewed in weak broth, and eaten with a little Nepaul pepper, it will be found to be an admirable article of diet for patients of studious and sedentary habits. The stalks of cauliflower have the same sort of value, only too often the stalk of a cauliflower is so ill-boiled and unpalatable that few persons would thank you for proposing to them to make part of their meal consist of so uninviting an article. Turnips, in the same way, are often thought to be indigestible, and better suited for cows and sheep than for delicate people; but here the fault lies with the cook quite as much as with the root. The cook boils the turnip badly, and then pours some butter over it, the eater of such a dish is sure to be the worse for it. Try a better way. What shall be said about our lettuces? The plant has a slight narcotic action, of which an old French woman, like a French doctor, well knows the value, and when properly cooked is really very easy of digestion.—*Medical Record*.

FLOOR COVERING.

A new process for covering floors is described as follows: The floor is thoroughly cleaned. The holes and cracks are then filled with paper putty, made by soaking newspapers in a paste made as follows: To one pound of flour add three quarts of water and a tablespoonful of ground alum, and mix thoroughly. The floor is coated with this paste, and then a thickness of manila or hardware paper is put on. This is allowed to dry thoroughly. The manila paper is then covered with paste, and a layer of wall paper of any style or design desired is put on. After allowing this to dry thoroughly, it is covered with two or three more coats of sizing made by dissolving half a pound of white glue in two quarts of water. After this is allowed to dry, the surface is given one coat of "hard oil finish varnish," which can be bought already prepared. This is allowed to dry thoroughly, when the floor is ready for use. The process is represented to be durable and cheap; and, besides taking the place of matting, carpet, oilcloths, or like covering, makes the floor air tight, and permits of its being washed.

NORINE MAURINE.

WORDS BY BILLY DEVERE.
Moderato

MUSIC BY EDDIE FOX

piano *mf*

poco rit.

1. Ah, No-rine Mau-rine, I am out in the gloaming, Down where the night-in-gale's singing its
2. Now don't for-get, dar-ling, The pro-mise you made me, Down in the or-chard last eve-ning so

lay; Un-der the wil-lows I'm wait-ing thy com-ing, Ere yet the gray
late, While o-ver our heads pan-sted pip-pins were hang-ing, And Ka-ty-dids

twi-light has sha-ded the day; The sun kissed the oc-ci-dent long ere I
chir-rup-ing down by the gate; You prom-ised to meet me to-night in the

start - ed, And sank in - to rest 'neath the am - e - thyst sea, You re - mem - ber the
 gloam - ing, A - down where the dai - sies be - span - gle the lea, . . . No - rine Ma -

prom - ise you made when we part - ed, No - rine Mau - rine, I am wait - ing for thee.
 your - neen, I'm wait - ing thy com - ing, Here in the twilight I am wait - ing for thee.

CHORUS.

SOPR. No-rine Mau-rine, the bright sun in its splendor Shall fail to ef-face heav-en's tear-drops, the
 ALTO. *mf*
 TENOR. No-rine Mau-rine, the bright sun in its splendor Shall fail to ef-face heav-en's tear-drops, the
 BASS.

dew, And the mother will cease her firstborn to re-member. Ere I, darling No-rine, prove faithless to you.
 dew. *p* Ere I, darling No-rine, prove faithless to you.

YOUNG CANADA.

"YOU CAN'T COME IN SIR."

If you would not be a drunkard
You must not drink a drop:
For if you never should begin
You'll never have to stop.

The taste of drink good people say,
Is hard in driving out;
Then, friends, in letting in that taste,
Why! what are you about?

Out of your house to keep a thief
You shut your door and lock it,
And hang the key upon a nail
Or put it in your pocket.

So, lest King Rum within you should
His horrid rule begin, sir,
Just shut your lips and lock them tight,
And say "You can't come in; sir."

A PRETTY WAY TO MOUNT PICTURES.

We commend the following advice from *Mastery* to our young folks, and feel sure they will be interested in working out the details:

A mounted picture has ten times the effect of an unmounted one, and the art of mounting enables one to preserve small chromos and engravings that would otherwise soon become soiled or torn; and the engravings in some of our magazines and illustrated papers are well worth preserving.

Now as to the process: For materials you will need Bristol board, a drawing-pen and ink. India ink is best, but good common black ink will do very well. Bristol board comes now in a great many tints, and can be obtained at any stationers, at from eight to twelve cents a sheet. Cut out a piece about two inches larger all around than the picture you wish to mount; cover the back of the picture thinly with starch-paste or glue, and lay it on the card-board evenly, taking care to let none come over the edges, as it would look shiny on the card-board and spoil the effect of your work. To insure getting the picture exactly even, you had better lay it on the card-board first, and put little pencil marks at the four corners to serve as a guide when you paste the picture down.

Now comes the decoration of the card. If you have never tried making straight lines with a drawing-pen, you had better practice a little before attempting to decorate your card frame. The use of the drawing-pen is easy to learn, and there is much less danger of blotting than with an ordinary writing-pen. Adjust the pen so that it will make a line about one-sixteenth of an inch thick; then with the help of a ruler make along all four edges of the Bristol board such a line; next make a narrow line on either side of the broad one, and your work is finished. Do you not think the picture is an improvement?

There are innumerable ways of lining these frames. I have seen them with the lines close into the picture, leaving the outer part of the card-board blank.

The pretty little chromos that are sold in the streets, when mounted in this way are worth twice their original value, and often make charming presents. I once mounted for such a purpose two small chromos of fruit

on white board, lined with one broad and one narrow band; altogether they cost about ten cents apiece, a cheap enough gift, but when I saw them on the wall of my friend's room, I was astonished. I remember seeing in a gentleman's office in the city, a series of engravings which had served as illustrations for an article on the White Mountains in a popular magazine; they were mounted on gray Bristol board, and were worthy of a place in the handsomest room. A good way of putting up these frames to avoid spoiling them with tack holes, is to drive the tacks below and above them so that the tack heads will overlap the edges and hold the cards in place very nicely.

TOMMY LEARNS ABOUT TOADS.

"Oh, papa, see what a great ugly toad! Do get a stick and kill him before he gets away," said little Tommy Gray, as he was walking in the garden along with his father.

"Why do you wish he killed?" said his father.

"Oh! because he is such an ugly thing and I am afraid he will eat up everything in the garden. You know we killed several bugs and worms here last evening. I am sure this toad is much worse than they."

"We killed the bugs and worms because they were destroying our flowers and vegetables. This poor toad never destroys a plant of any kind about the place; beside, he is one of our best friends. These insects that are doing so much harm in our gardens are just what he uses for his food. I have no doubt that he kills more of them every day than we did last evening. If you can find a live bug, place it near him and see what he will do."

Tommy looked about, and soon found three bugs which he placed near the toad, and then stood back a short distance to see the result. Soon the bugs began to move away. The toad saw them, and made a quick forward motion of his head. He darted out his tongue and instantly drew them, one by one, into his mouth. Tommy clapped his hands with delight,

"How can such a clumsy-looking fellow use his head and tongue so nimbly?" said Tommy; and he ran off to find more food for him.

The next evening Tommy went again into the garden and soon found the object of his search ready for his supper. At first the toad was shy, but he soon learned to sit still while Tommy placed his food near him. Then he would dart out his tongue and eat the bugs while Tommy was close by. Finding that the boy did not hurt him, he soon lost all fear, and became a great pet. Tommy named him humpy, and says he would not have him killed now for anything.

SOME CURIOUS FISHES.

I don't suppose you think there are any fishes that can either walk or live any time out of water. Yet there are.

The gurnard is one of the most important of the walking fish. M. Deslongchamp had an artificial fish-pond on the shores of Normandy, in which several of these creatures were. When he waded in the pond he could easily see all their movements.

On one occasion, when he was watching them in this way, he saw them close their fins against their sides, and walk along the ground by means of six slender legs, three on each pectoral fin. By these they can walk very fast.

The square-browed maltho can also walk, and can live out of water. Sometimes it spends two or three days creeping over the land. The reason that all fishes cannot stay out of water is because they are so made that they have to breathe air through water. All fishes are this way, but some can carry water in their gills, both for breathing and drinking purposes for several days.

The grouper fish is very queer in that it will swallow such curious things, which you would not think it could possibly digest. One was caught on the coast of Queensland which, when opened, was found to have in its stomach two broken bottles, a quart pot, a preserved milk-tin, seven crabs, a piece of earthenware encrusted with oyster shells, a sheep's head, some mutton and beef bones, and some oyster shells.

There is a crab in the Keeling Islands that lives on the land all day, returning to the water only at night to moisten its gills. It also eats coconuts, opening the shell with its huge claws, and the natives of the islands say that it climbs the trees to get them. This however is not known.

TRUE AND FAITHFUL.

"Charlie, Charlie!" clear and sweet as a note struck from a silver bell the voice rippled over the common. "That's mother," cried one of the boys, and he instantly threw down his bat and picked up his jacket and cap.

"Don't go yet! Have it out!"

"Finish this game. Try it again," cried the players in noisy chorus.

"I must go—right off—this minute. I told her I'd come whenever she called."

"Make believe you didn't hear," they exclaimed.

"But I did hear."

"She won't know you did."

"But I know it, and—"

"Let him go," said a bystander; "you can't do anything with him; he's tied to his mother's apron-strings."

"That's so," said Charles, "and it's to what every boy ought to be tied, and in a hard knot, too."

"I wouldn't be such a baby as to run the minute she called."

"I don't call it babyish to keep one's word to his mother," answered the obedient boy, a beautiful light glowing in his blue eyes. "I call that manly; and the boy who don't keep his word to her will never keep it to anyone else—you see if he does;" and he hurried away to his cottage home.

Thirty years have passed since those boys played on the common. Charlie Gray is a prosperous business man in a great city, and his mercantile friends say of him that his word "is a bond." We asked him how he acquired such a reputation. "I never broke my word when a boy, no matter how great a temptation; and the habits formed then have clung to me through life."

THE LOST CHILD.

The bairnie by the cottago door
Had all the morning played;
The sun shone bright as down the lane
The wee bit bairnie strayed.

He'd go and catch the pretty birds
That sing so clear and sweet:
So down the lane and through the fields
Wander the little feet.

And when the sun sinks in the west,
The child is far from home,
And tired, tired are the little feet—
"O mammy, mammy, come!"

The pretty birds have gone to sleep,
All nature is at rest;
Ah! how this weary, wandering bird
Longs for his cozy nest.

The bright eyes of the night keep watch,
And angels hover round
His grassy bed; O, weary head,
Its pillow is the ground!

The angels spread their snowy wings;
And, as he sleeping lies,
They bear him to his Father's home—
He wakes in paradise.

For two long days the mother seeks
Her boy; in anguish wild;
Three miles away from the cottago door,
A stranger finds the child.

O! mother, dry thy weeping eyes;
Thy bairnie's safe at home,
And thou shalt see thy boy again—
"O mammy, mammy, come!"

MR. ANY-TIME THE SPANIARD.

I have a friend whose reply generally is, when you ask him to do a thing: "Oh, yes, that can be done any time."

He is not the least unwilling to do things. He is not obstinate about admitting that the things ought to be done, but his first instinctive impulse in regard to almost everything in life is to put it off a little.

If you remonstrate with him, he has a most exasperating proverb on his tongue's end, and he is never tired of quoting it: "There is luck in leisure."

Do what you will, you can't make him see that his proverb is aimed at people who hurry unwisely; not in the least at people who are simply prompt. As if headlong haste and quiet energetic promptitude were in the least like each other.

We call Mr. Any-Time the Spaniard, because it is well known that the Spaniard's rule of life is, "Never do to-day that which can be put off till to-morrow." Even into the form of a historical proverb, the record of this national trait of the Spanish people had crystallized many years ago. Even the Spanish people themselves say sarcastically, "Successors of Spain: late or never."

But says Mr. Any-Time, "What is the use of being in such a hurry? Oh, do be quiet, can't you! Let's take a little comfort"; and then he settles back in his chair and looks at you with such a twinkle in his eyes, that you half forgive him for his laziness. That is one thing to be said for lazy people. They are almost always good-natured.

Then we preach a little sermon to him, and the sermon has four heads; four good reasons why we ought to do things promptly.

Firstly, we say to him, "How dost thou know, O lazy Spaniard, that thou canst do this

thing at any other time than the present? Many things may prevent—sickness, thine own or thy friends'—business, forgetfulness, weather, climate; there is no counting up all the things which happen, and which hinder our doing the things we have planned to do, but have put off doing."

Secondly, "There is another truth, O lazy Mr. Any-Time; each day, each hour, each minute, has its own thing to be done—its own duty. If one single thing is put off, that thing will have to be crowded into the day, or the hour, or the minute which belonged to something else; and then neither thing will be well done."

Thirdly, "If it *can* be done now; that alone is reason enough for doing it now; that alone is enough to prove that now is the natural time, the proper time for it. Everything has its own natural time to be done, just as flowers have their natural time to blossom, and fruits have their time to 'pen and fall."

Just suppose for a minute, that such things should get into the way of saying, "Any-Time!" That the grains should say, "Oh we can get ripe any day," and should go on, putting it off and putting it off all through July and August and September, and October, for when people once begin to put off, there is no knowing what will stop them—until all of a sudden, some day a sharp frost should come and kill every grass-blade throughout the country. What would we do for hay then I wonder! Why, half the poor horses and cows would starve, and all because the lazy grains said they could get ripe "any-time."

Suppose strawberries or apples should take it into their heads to say the same thing. Wouldn't we get out of patience going, day after day, looking for some ripe enough to eat? And wouldn't the summer be gone before they knew it? And all the time be wasted that the vines and the trees had spent in putting out their leaves and blossoms, which had not come to fruit? And wouldn't the whole world and everybody's plan of living be thrown into confusion if such things were to happen?

Luckily no such thing is possible in this orderly earth, which God has made with a fixed time for everything; even for the blossoming of the tiniest little flower, and for the ripening of the smallest berry that was ever seen. Nobody every heard the words "any time" from anything in this world except human beings.

Fourthly, we say to our dear Spaniard, "Things which are put off are very likely never to be done at all. The chances are that they will be, at last, forgotten, over-looked, crowded out."

"Any-time" is no time; just as "anybody's work" is nobody's work, and never gets attended to, or if it is done at all, isn't half done.

And after we have preached through our little sermon with its four heads, then we sum it all up, and add that the best of all reasons for never saying a thing can be done "any-time" is that, besides being a shiftless and lazy phrase, it is a disgraceful one. It is the badge of a thief; the name and badge of the worst thief that there is in the world; a thief that never has been caught yet, and never will

be; a thief that is older than the Wandering Jew, and has been robbing everybody ever since the world began; a thief that scorns to steal money or goods which money could buy; a thief that steals only one thing, but that the most precious thing that was ever made.

It is the custom to have photographs taken of all the notorious thieves that are caught; these photographs are kept in books at the headquarters of the police, in the great cities, and when any suspicious character is arrested, the police officers look in this book to see if his face is among the photographs there. Many a thief has been caught in this way when he supposed he was safe.

Now most of you have had a photograph of this dangerous and dreadful thief I have been describing. But you will never guess it till I tell you where it is. It is in your writing-book under the letter P.

You had to write out the description of him so many times that you all know it by heart.

"Procrastination is the thief of time." When you wrote that sentence over and over, you did not think very much about it, did you? When we are young it always seems to us as if there were so much time in the world, it couldn't be a very great matter if a thief did steal some of it. But I wish I could find any words strong enough to make you believe that long before you are old you will feel quite differently. You will see that there isn't going to be half time enough to do what you want to do; not half time enough to learn what you want to learn; to see what you want to see. No, not if you live to be a hundred, not half time enough; most of all, not half time enough to love all the dear people you love. Long before you are old, you will feel this; and then, if you are wise, you will come to have so great a hatred of this master thief, that you will never use—or if you can help it, let anybody you know use, that favourite by-word of his, "any-time."

HINDOO GIRLS AND THEIR DOLLS.

Once a year, just before the Dasserah festival, the little Hindoo girls destroy their dolls. The girls dress themselves in the brightest colours, and march through the busy bazaars of the city and along roads shaded by overhanging mango or sissoo trees, till they come to water—probably a large tank built by some pious Hindoo. A crowd of men and women follow them. Round the tank are feathery bamboos, plantains with their broad, hanging leaves, and mango-trees, and on every side are flights of steps leading down to the water. Down the steps the little bare feet go; and taking a last look at their favourite dolls, they toss them into the water. No Hindoo girl has such a family of dolls as many of our readers have in this country. But her dolls cost very little, and so the lost one is easily replaced. They are made of rags, or more generally of mud or clay, dried in the sun or baked in an oven, and rudely daubed with paint. An English doll is a marvel to a Hindoo girl. The fair hair, blue eyes, pretty face, and the clothes that are put on and taken off, fill her with wonder. In some of the mission-schools the scholars get presents at Christmas, and the girls get dolls, to their great delight.

VICTIMS OF MONACO.

The enormous gains of the Monte Carlo gaming tables are a direct incentive to play in all countries, and we are not surprised that no less than thirty-seven illicit tables were recently found open at night in and around Nice during a single police raid. For several years previous to the formation of the "International Association for the Suppression of the Gaming-tables at Monte Carlo," the clear profits of the Casino were over 25,000,000 francs per annum. The Prince of Monaco receives 250,000 francs yearly for the concession, besides a share in the profits, and considerable supplementary sums; and as the expenses of the Casino and entire principality are defrayed by the bank, the sum annually lost by players cannot have fallen below fifty million of francs! The receipts have fallen off considerably since 1887, but it is estimated that fully 30,000,000 francs have yearly found their way over the green tables into the coffers of the bank. What losses and misery does this sum represent! How many, tempted to play in the hope of "luck" and sudden wealth, have gone on and on till ruin and disgrace have stared them in the face! How many dependent wives, children, and relatives have been reduced to absolute poverty in a day! And, alas! how many have committed self-murder to escape the shame caused by their own folly.

While desirous of avoiding anything approaching sensationalism, we venture to quote the following paragraph from the "Colonis Etrangère," a paper published in Nice: "An Englishman allowed a train to run over his neck; a Russian blew his brains out; a young Bavarian fired a couple of bullets into his chest; a Pole shot himself in the middle of the gaming saloon at Monte Carlo; a well-dressed stranger shot himself at the Hotel des Empereurs, Nice; a merchant poisoned himself at the Hotel de la Garde, Cannes; an Austrian of distinguished family blew out his brains in a shed at Segurance, Nice; a lawyer threw himself from the top of the rock Rauba Capen into the sea, Nice; a German officer shot himself in the ear; a Hollander poisoned himself; a Dutch nobleman shot himself in the garden of his villa, Monaco; and a widow fifty-five poisoned herself at the Hotel des Deux Mondes, Nice; she had sold her last jewel to try and recover her losses at Monaco. A German shot himself on a seat, a few steps from the Casino; an Englishman hung himself on the Ponroad; a gentleman shot himself before the Café de Paris, close to the Casino; and a young Russian shot himself at the Casino door."

The "Times" reports the circumstances of a young German of good family shooting himself the Thursday after losing at the gambling tables; and a young Englishman of good family, whose father held a high position in the House of Lords, told the writer last week that he had lost a fortune in Monaco, and was a beggar, on the world, and that he seriously contemplated suicide as the only way of escaping misery and shame. The writer had a list of fifty more suicides before him, the direct results of gambling at Monte Carlo. What sorrow and distress these violent deaths have entailed upon helpless victims! Many of our readers visit the Riviera as a winter resort, and we entreat them to dissuade persons from going to Monaco "just to see the place." Though Monaco be "even as the garden of the Lord," the cry of it is grea, and its sin very grievous, even as Sodom and Gomorrah.

It is gratifying to find that the International Association has succeeded in drawing the serious attention of the great Powers to the subject of public gaming at Monaco. Almost the entire press of the United Kingdom is in favour of the movement, and the leading Continental press lends hearty co-operation. The question has already occupied the consideration of the French Chamber of Deputies and Senate, and the Italian Parliament and German Reichstag have denounced in indignant terms the continuance of an institution so fruitful in crime, misery, and death. The subject will be brought before the English Parliament.—*The Christian.*

CHINESE ASTRONOMY.

By the vast majority of the people of China the sun is regarded as the "yang," or male principle in nature; the name they give to it is 'ai yang, or "great male principle." The moon, being the weaker in light, is termed 'tai ying, or "great female principle." The two are supposed to be husband and wife, and the stars the numerous off-spring. Others think that sun and moon are both females. A tradition written in Chinese, the hieroglyphics of which I have recently been endeavouring to transmute as to idiom and character into our English, runs something on this wise:

All the stars are the children of the moon; in the beginning the sun also had many little ones, just as the moon. Afterwards the sun and moon met and considered, saying: "Our heat and light, combined with that of the stars, is too powerful; how can men endure it? Much better kill them" (the stars). They decided to eat up each her own children. The moon, being deceitful, concealed hers, but the upright sun, according to the contract, devoured her progeny. In the day, therefore, there are now no stars. The moon, seeing the sun devour her children, again caused her own to appear, seeing which the sun quickly became very angry, and pursued the moon with murderous intent. From that time to this she pursues her without ceasing, even to coming very near, desiring to bite and kill her. This is the cause of the eclipses.

I add another, which is partly my translation: Primarily there was a woman, who whilst attending a feast, was confidently addressed by a person standing behind her. He said, "I love you." It was already dark, and the woman did not know who it was. She left the feast, dipped her hand in soot and came back. She then smeared the cheek of the person who had thus spoken to her. When the lamps were lighted, she stared at him and discovered that it was her own brother. Greatly terrified, she fled; the brother followed. He pursued her even to the uttermost parts of the earth; then the woman leaped into space and became the sun. Her brother leaped after her and was changed into the moon. This is the reason that the moon always follows the sun. Sometimes the moon exhibits a dark shadow;

it is turning her cheek that was soiled at the feast, long before, towards the earth.

These, and hundreds of others, only awakened feelings of pity in our hearts for the poor people who are so ignorant in matters pertaining to our solar system. But when we consider their ignorance of our system of salvation through Jesus Christ, and the ideas they entertain on religious subjects, our hearts bleed. Their system of religion is by far more false than their ideas of astronomy; their priests more immoral and corrupt than their astrologers. Through the means of a Christian world, the true light of the Gospel of peace is to shine in this poor benighted land.—*Christian Observer.*

HOW IT FEELS TO BE INSANE.

I was once insane, and I often muse over my experience. There are, of course, many kinds of insanity. Some mental disorders take place so gradually that even the closest companions of the victim are at a loss to remember when the trouble began. It must have been this way in my case. One evening, after an oppressively hot day, when I experienced more fatigue from the heat than ever before or since, I sat in my porch fanning myself. "This arm that is now in motion," I mused, "must one of these days be dust. I wonder how long will the time be." Then I mused upon the evidence I had of immortality. I could do things that other people could not accomplish. I had gone through battle after battle, and though bullets sang and struck around me thick as hail, yet I remained uninjured. I had passed through epidemics of yellow fever. My idea gained strength as I mused, and I was convinced that I should live forever. No, this cannot be, for death follows all men alike. Yes, I am to die like other men, and I believe that it is my duty to make the most of life; to make money, and enjoy myself, and to educate my children. I wanted to be rich, and I began to study over an imaginary list of enterprises. At last I hit upon radishes. They should be in every store. They should be dried and sold in winter. I would plant fifty acres with radish seed, and people all over the country would refer to me as "the radish king." I would form a radish syndicate, and buy up all the radishes, and travel around and be admired. I hastened to the house to tell my wife that she was soon to be a radish queen. At the breakfast table I said:

"Julia, how would you like to be a radish queen?"

"A what?" she exclaimed. I explained my plan of acquiring great wealth, and during the recital she acted so curiously that I was alarmed. I feared that she was losing her mind. Finally she seemed to understand. She agreed with me, but told me not to say anything about it. After breakfast I saw her talking earnestly with her father, and I knew that she was explaining to the old gentleman how she intended to pay his debts when I became known as the radish king. The old man approached me with much concern, and told me that I needed rest, and that I must not think of business. Pretty soon I went out to inspect my radish kingdom. Looking around, I saw the old man following me. From the field I went to the village. I approached a prominent citizen who had always been my friend, and told him how I intended to become rich. He seemed grieved, and I saw at once that he was contemplating the same enterprise. It seemed mean that he should take advantage of me, and I told him so. He tried to explain, but he made me so mad that I would have struck him if my father-in-law had not come up and separated us. I tried to calm myself but could not. Those who had been my friends proved to be my enemies, and I was determined to be avenged, but before I could execute my will I was seized by several men. My father-in-law did not attempt to rescue me, and I hated him. I was taken to gaol; my wife came to see me, but she did not try to have me released. I demanded a trial, but no lawyer would defend me. Then I realized that the entire community was against me. I became so mad that my anger seemed to hang over me like a dark cloud. It pressed me to the floor and held me there. Men came, after a long time, and took me away, I thought to the penitentiary. One day a cat came into my cell, and I tried to bite it. She made the hair fly, but I killed her. I don't know how long I remained there, but one morning the sun rose and shone in at me through the window. It seemed to me the first time that I had seen the great luminary for months. A mist cleared from before my eyes. My brain began to work, and suddenly I realized that I had been insane. I called the keeper, and when he saw me, he exclaimed: "Thank God!" and grasped my hand. I was not long in putting on another suit of clothes, and turning my face towards home. A physician said that I was cured, and everybody seemed bright and happy at my recovery. I boarded a train, with a gentleman, and went home. My wife fainted when she saw me, and learned that I had recovered my mind. I asked for my little children, and two big boys and a young lady came forward and greeted me. I had been in the asylum twelve years.—*Col. Weekly, in Arkansas Traveller.*

MEAN PEOPLE.

One of the oddest things in the world is the fact that mean people do not know that they are mean, but cherish a sincere conviction that they are the souls of generosity. You will hear them inveighing loudly against a neighbour who does not come up to the standard of a generous man, and decrying the sin of hoarding and withholding, without being sensible in the least that they are condemning themselves. They are usually people who are not in the habit of self-criticism, and if they were not amusing, they would be the most aggravating class alive. Moreover, they are generally people who are not only willing to receive, but who demand a great deal at the hands of others; yet the example of their friends in giving and lending never seems to strike them as at variance with their own line of conduct, and if by any chance they part with a farthing, it appears to them a more magnanimous act than the founding of a hospital by another. The mean person must be brought

to a lively sense of the need before opening her purse; as for beggars, she disapproves of them altogether; they are as pestiferous as the mosquito, in her eyes, and ought to be legislated out of existence.

We do not, however, always find the mean person among the rich; she is quite as likely to be poor; indeed, one of the great disadvantages of poverty is that it often obliges one to seem small—obliges one to think of the candle-ends when one would prefer to think of better things. Money does not make a person mean necessarily, or we should not all be struggling so desperately to obtain it; it ought rather to be a preventive. The disease lies in the disposition of the individual, and it is doubtful if any ulterior circumstance can eradicate it; and while in this view we may easily forgive her, we yet find her vastly inconvenient to deal with. If she is the employer, the mean woman is apt to get as much work from her servants for the least money as possible. On some pretext or other, she detains her seamstress after her regular days work is over, underpays her wash-woman, or exchanges old duds for clean linen; keeps the servant's fire low, or pays her wages with cast-off finery. Sometimes, indeed, it is the servant who gives poor work for liberal payment; sometimes it is the husband who dines sumptuously at his club, while his family sit down to spare diet; sometimes it is the landlord who obliges the tenant to make his own repairs or go shabby; sometimes it is the neighbour who borrows but never lends; the manufacturer who adulterates food or drugs; the step-mother who feeds the children on skimmed milk; the mother-in-law who grudges her son's wife the falls she has not been used to; or the daughter-in-law who makes her husband's mother feel like a stranger in her home. Indeed, meanness is such an unlovely trait that it is no wonder we all disown it.—*Harper's Bazaar.*

BRIGHT COLOURS FOR AUTUMN.

It is quite evident that there is to be no toning down in the coming season; everything that is shown is bright with colour, and as decided as could be wished. Among the more prominent of the colours that are already shown as specially suitable to the approaching season, and those which will be the first choice for early autumn wear are the various shades of gray, some of which have blue tinges; others are of a pure silver shade, while others are mixtures of black or brown with white. Steel gray, with its bluish tone, which was once so popular, is revived again, and will be a favourite colour this season, beating, in fact, all the grays. Following closely after this comes the iron gray, then the smoke gray with its brown tone, and the granite or pure stone colour; turtle-dove is also another favourite shade of gray, and is shown in the new materials for both dresses and bonnets.

After this come the browns, blues, greens, and copper reds, with the always popular dark garnet and cardinal shades. The blues are most of them pure and simple shades, sapphire, marine, and azure, with some of the electric blues that show a gray ashen tint under that colour. In browns, which have appeared in force, there are the light shades in the natural tints of sandal-wood and of the castor beaver furs, while darker browns have reddish hues, and are called by the old-fashioned name of autumn leaf brown, which, by the way, are very different from the terra cotta browns of last season. Havana browns are seen again following up their success of the spring, and there is a good deal of the last season's copper colour also appearing. The dead leaf and chestnut browns have no gleam of red in their folds, but they are pure in colour and dark in shade, darker even than the seal brown. There are one or two shades of golden brown that are very pretty, and will be very becoming to almost every style of complexion and prettiness.—*Boston Advertiser.*

"PAPA" AND "MAMMA."

An early instance which occurs to me is in the "Beggar's Opera," (1727), where Polly Peachum, I think it is, speaks of "papa." The modern change from "papa" and "mamma" to "father" and "mother" among the upper classes, which began about thirty years ago, seems to have been a reaction against a custom which had gradually crept in among persons of a lower grade. As soon as common people's children began to say "papa" and "mamma," those of a higher class were taught to say "father" and "mother." It was among my High Church friends that I first noticed this adoption of "father" and "mother." One does not see the connection, but truly such is the fact. When I was young "papa" and "mamma" were universal among what may be called the middle and upper classes of society, and to this day "ladies of a certain age" still use the words. King George III., about the year 1762, addressed his mother as "mamma"; so I find it stated in "Granville Memoirs." But I do not think that Charles II., unless he was speaking in French, ever addressed Henrietta Maria by that endearing name, and I feel tolerably sure that the Lady Elizabeth never called Henry VIII. "papa." On the other hand, I would observe that "papa" and "mamma" are fast being supplanted by the old original "father" and "mother." For ten, or perhaps for twenty years past, children in the upper and middle classes have, so far as my observation goes, been taught to say "father" and "mother"; and "papa" and "mamma," which are words of extreme tenderness to those of my generation, seem now to have sunk into contempt as a "note" of social inferiority.—*Notes and Queries.*

THE sheep ranches of California are usually desolate places. For the herders it is a terrible life, how terrible is shown by the frequency of insanity among them. Sometimes, after only a few months, a herder goes suddenly mad.

SURREY Chapel on leasehold ground cost \$25,000; its successor, Christ Church, on freehold ground, has cost \$320,000, of which the last remnant, amounting to about as much as Surrey chapel cost, has lately been paid off as commemoration of the centenary of the old place of worship.

Delicate and Feeble Ladies.

Those languid, tiresome sensations, causing you to feel scarcely able to be on your feet; that constant drain that is taking from your system all its former elasticity; driving the bloom from your cheeks; that continual strain upon your vital forces, rendering you irritable and fretful, can easily be removed by the use of that marvellous remedy, Hop Bitters. Irregularities and obstructions of your system are relieved at once, while the special cause of periodical pain are permanently removed. None receive so much benefit, and none are so profoundly grateful and show such an interest in recommending Hop Bitters as women.

FEELS YOUNG AGAIN.

"My mother was afflicted a long time with Neuralgia and a dull, heavy, inactive condition of the whole system; headache, nervous prostration, and was almost helpless. No physicians or medicines did her any good. Three months ago she began to use Hop Bitters with such good effect that she seems and feels young again, although over 70 years old. We think there is no other medicine fit to use in the family. Ready, in Providence."

BRADFORD, PA., May 2, 1872.

It has cured me of several diseases, such as nervousness, sickness at the stomach, monthly troubles, etc. I have not seen a sick day for years, since I took Hop Bitters. All my neighbours use them.

MRS. FANNIE GREEN.

\$3,000 LOST.—"A tour of Europe that cost me \$3,000 done me less good than "one bottle of Hop Bitters; they also cured "my wife of fifteen years' nervous weakness, "sleeplessness, and dyspepsia."

R. M., Auburn, N.Y.

HIGH AUTHORITY.

Hop Bitters is not, in any sense, an alcoholic beverage or liquor, and could not be sold for use, except to persons desirous of obtaining a medicinal bitters.

GREEN B. RAUM, U. S. Com. Inter'l Rev.

SO. BLOOMINGVILLE, O., May 1, '79.

SIRS,—I have been suffering ten years and I tried your Hop Bitters, and it done me more good than all the doctors.

MISS S. S. BOONE.

BABY SAVED!

We are so thankful to say that our nursing baby was permanently cured of a dangerous and protracted constipation and irregularity of the bowels by the use of Hop Bitters by its mother, which at the same time restored her to perfect health and strength.—The Parents, Rochester, N.Y.

SKINNY MAN.

"Wells' Health Renewer restores health and vigor, cures dyspepsia, General Debility, etc."

"We are persuaded that the ancient Hermes with all the subtle art and natural resources of the Alchemists, was a very inferior doctor compared with Mrs. Lydia E. Pinkham of Lynn, Mass. As a man may have been after all only a clever practitioner of the black art; but we know of no humbug in the pharmaceutical chemistry of Mrs. Pinkham's Vegetable Compound."

"MOTHER SWAN'S WORM WREFF."

Infalible, tasteless, harmless, cathartic; for feverishness, nervousness, worms, constipation, etc."

DR. FOWLER'S Extract of Wild Strawberry will never fail you when taken to cure Dysentery, Colic, Sick Stomach, or any form of Summer Complaint. Relief is almost instantaneous; a few doses cure when other remedies fail.

LOOK OUT FOR FRAUDS!

The genuine "Rough on Corns" is made only by E. S. Wells (Proprietor of "Rough on Rats"), and his laughing face of a man on labels of 10c and 25c Bottles.

The most miserable mortal in existence is probably the confirmed dyspeptic. The Dock Blood Bitters cure Dyspepsia and all diseases of the Stomach, Blood, Liver and Gallbladder. Do not trust our word simply but address the proprietors for proof.

DON'T DIE IN THE HOUSE.

"Rough on Flies" Clears out the nose, roaches, bed-bugs, flies, ants, moths, and mites. 15c.

W. J. GUPPY, druggist of Newbury, writes: "Dr. Fowler's Wild Strawberry is just the thing for Summer Sickness. I sold out my stock three times last summer. There was a good demand for it. Dr. Fowler's Extract of Wild Strawberry is infalible for Dysentery, Colic, Sick Stomach and Bowel Complaint."

FLIES AND BUGS.

Flies, roaches, ants, bed-bugs, mice, gophers, etc. are cleared out by "Rough on Rats."

Scientific and Useful.

IMPROMPTU MUFFINS.—Put the rings on the griddle to get hot. Mix one cup of wheat flour with one of Graham flour, a little salt, one egg beaten very light and milk enough to make a thin batter. Bake as soon as mixed.

ONE trial of Mother Graves' Worm Expeller will convince you that it has no equal as a worm medicine.

CANNING ORANGES.—Canning oranges is growing to be one of the industries of Florida. The fruit is peeled and broken into its natural sections before canning, which is done by a process similar to that used for preserving other fruits, and when taken out is ready for use.

HARD and soft corns cannot withstand Holloway's Corn Cure; it is effective every time.

VINEGAR.—To make vinegar from cider, put a pound of sugar into a gallon jar, filling it up with cider. It must be well shaken, and then left for three or four months to ferment, when it will be ready for use. It must not be tightly corked, but should be covered over with a piece of writing paper pricked.

PLEASANT TO THE TASTE.—Children and persons with weak constitutions have always found great difficulty in taking Cod Liver Oil, and from this fact it has not been universally used, but with Northrop & Lyman's Emulsion of Cod Liver Oil and Hypophosphites of Lime and Soda, this difficulty is removed. It is so thoroughly digested that you cannot detect the Cod Liver Oil. One physician writes us that it is used almost as a beverage in his family; another person informs us that he had to hide the bottle from his children. For Coughs and Colds, broken down constitutions, and all Lung Diseases, it has no equal.

APPLE MARMALADE.—Pare and core two pounds of sour apples; put them in an enamelled saucepan with one pint of cider and one pound crushed sugar. Cook with gentle heat for three hours, or until the fruit is quite soft; then squeeze it first through a colander, then through a sieve. Sweeten to taste and put away in jars.

M. A. ST. MARS, St. Boniface, Manitoba, writes: Dr. Thomas' Electric Oil is a public benefit. It has done wonders here and has cured myself of a bad cold in one day. Can be relied upon to remove pain, head aches of various kinds, and benefit any inflamed portion of the body to which it is applied.

NEW potatoes should be laid in cold water for an hour before cooking. Then scrape off the skin and steam them. They should never be boiled. If you have a quantity to cook, a quick way to peel them is to throw them into a bucket with a good handful of pebbles. Shake vigorously for a few moments, and the skins will all come off.

AMONG the warmest advocates of the use of Northrop & Lyman's Vegetable Discovery and Dyspeptic Cure are ladies formerly in delicate health, whose vigour and bodily regularity have been restored by it. Cases of debility of long standing, chronic biliousness, weakness of the back and kidneys, feminine ailments, and obstinate types of nervous indigestion, are overcome by it.

SAUCE FOR MEAT.—Mince an onion; fry it a yellow colour with butter in a stew-pan; pour on a gill of vinegar; let it remain on the fire until a third of it is boiled away, then add a pint of gravy or stock, a bunch of parsley, two or three cloves, pepper and salt; let it boil a minute; thicken it with a little flour and butter; strain it and remove any particles of fat.

C. A. Livingstone, Plattsville, Ont., says: I have much pleasure in recommending Dr. Thomas' Electric Oil, from having used it myself and having sold it for some time. In my own case I will say that it is the best preparation I have ever tried for rheumatism.

HOW TO COOK POTATOES.—Old potatoes should never be pared before cooking. The most nutritious portion of the potato lies immediately underneath the skin, and this is generally all pared away through ignorance, leaving the watery part. A small slice should be first cut from each end, as this lets the water out, and the potatoes then put into cold water and allowed to heat slowly. They should boil as slowly as possible until done. Then throw off the water, lift the lid for a few moments and serve.

MR. HENRY MARSHALL, Revere of Dunn, writes: "Some time ago I got a bottle of Northrop & Lyman's Vegetable Discovery from Mr. Harrison, and I consider it the very best medicine extant for Dyspepsia. This medicine is making marvellous cures of Liver Complaint, Dyspepsia, etc., in purifying the blood and restoring manhood to full vigour."

Words of the Wise.

PURITY should keep the door of all our thoughts.

As we are not allowed to be idle in this world and to do nothing, so we are not allowed to be wilful and to do what we please.

It was Fuller who said: "He that spends all his life in sport is like one who wears nothing but fringes and eats nothing but saucers."

The interview is getting to be a synonym for the rack, or the thumbscrew, or whatever indicates nice cruelty or severe infliction.—Standard.

LONGFELLOW tells us that "Love keeps the cold out better than a cloak." In that case there are some married people whose teeth are chattering.

He that has a good God, a good heart, and a good wife to converse with, and yet complains he wants conversation, would not have been easy and content in paradise.

PEOPLE are sadly that they are weary of living, but truth is not in them. In their heart of hearts they are constantly quoting Shakspeare: "O, excellent! I love long life better than figs!"

The Christ whom we preach must be the full Christ of the Gospel—not the ideal, but the historic Christ; not a Christ of one's own invention and handiwork, but the Christ whom the believing Church of all ages confesses and adores as her own.—Van Oosterzee.

Be reserved, but not sour; grave, but not formal; bold, but not rash; humble, but not servile; patient, but not insensible; constant, but not obstinate; cheerful, but not light; rather be sweet-tempered than familiar; familiar rather than intimate; and intimate with very few, and upon good grounds.

No man's spirit were ever hurt by doing his duty. On the contrary, one good action, one temptation resisted and overcome, one sacrifice of desire of interest, purely for conscience sake, will prove cordial for weak and low spirits beyond what either indulgence or diversion can do for them.

"I HAVE had six children, and I bless God for His free grace that they are all with Christ or in Christ, and my mind is now at rest concerning them. My desire was that they should have served Christ on earth, but if God will choose to have them rather serve Him in heaven, I have nothing to murmur at; His will be done."

THERE is no life which in the past has testified to the power and beauty of the Gospel, but what lives to-day and shall continue in our future, unfolding life. There has been no shrinking from duty or sluggishness but what has left its impress on us; and on the other hand, no gift, no act of self-denial, which does not still work in us as a beneficent power.—R. S. Storr.

REMEMBER the good old rabbi who was ravened by one of his twelve sons saying: "Behold my eleven brothers he sleeping, and I am the only one who wakens to praise and pray." "Son," said the wise father, "you had better be asleep, too, than wake to censure your brothers." No fault can be as bad as the feeling which is quick to seek and speak of other people's wrongs.

Millions of packages of the Diamond Dyes have been sold without a single complaint. Everywhere they are the favorite Dyes.

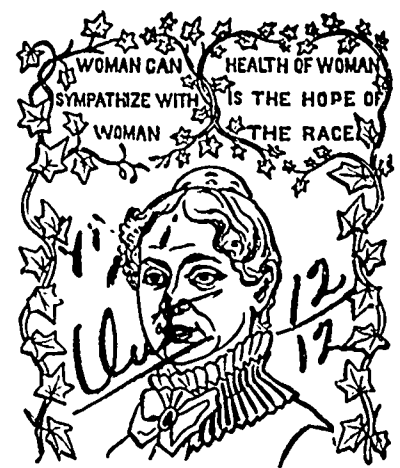
BE CAREFUL!

The genuine "Rough on Corns" is made only by E. S. Wells (Proprietor of "Rough on Rats"), and his laughing face of a man on labels of 10c and 25c Bottles.

DIAMOND DYES.
ONLY 10 CENTS
BEST COLOR
Best Dyes Ever Made.

FOR SILK, WOOL, OR COTTON. DRESSES, COATS, SCARFS, HOSIERS, YARN, STOCKINGS, CARPET RUGS, RIBBONS, FEATHERS, or any fabric of fancy article easily and perfectly colored to any shade. Black, Brown, Green, Blue, Navy, Cardinal Red, Navy Blue, Seal Brown, Olive Green, Terra Cotta and 20 other beautiful colors. Warrent and Durable. Each package will color one to four lbs. of goods. If you have never used Dyes try these once. You will be delighted. Sold by druggists, or send us 10 cents and any color wanted sent post-paid. 24 colored samples and a set of fancy cards sent for a 3c stamp.
WELLS, RICHARDSON & CO., Burlington, Vt.

GOLD and SILVER PAINT.
Bronze Paint. Artists' Black. For gilding Fancy Baskets, Frames, Lamp, Chandellors, and for all kinds of ornamental work. Equal to any of the high priced brands and only 10c. a package, as the druggists or post-paid from WELLS, RICHARDSON & CO., Burlington, Vt.



Yours for Health
Lydia E. Pinkham

LYDIA E. PINKHAM'S VEGETABLE COMPOUND.

A Sure Cure for all FEMALE WEAKNESSES, Including Leucorrhoea, Irregular and Painful Menstruation, Inflammation and Ulceration of the Womb, Flooding, PROLAPSUS UTERI, &c.

Pleasant to the taste, efficacious and immediate in its effect. It is a great help in pregnancy, and relieves pain during labor and at regular periods. PHYSICIANS USE IT AND PRESCRIBE IT FREELY. FOR ALL WEAKNESSES of the generative organs of either sex, it is second to no remedy that has ever been before the public, and for all diseases of the KIDNEYS it is the Greatest Remedy in the World. KIDNEY COMPLAINTS of Either Sex Find Great Relief in Its Use.

LYDIA E. PINKHAM'S BLOOD PURIFIER will eradicate every vestige of Humors from the Blood, at the same time will give tone and strength to the system. As marvellous in results as the Compound.

Both the Compound and Blood Purifier are prepared at 235 and 237 Western Avenue, Lynn, Mass. Price of either, \$1. Six bottles for \$5. The Compound is sent by mail in the form of pills, or of lozenges, on receipt of price, \$1 per box, or either. Mrs. Pinkham freely answers all letters of inquiry. Enclose 3c. stamp. Send for pamphlet. Mention this Paper.

LYDIA E. PINKHAM'S LIVER PILLS cure Constipation, Bloating and Torpidity of the Liver. 25 cents. Sold by all Druggists.

CATARRH OF THE BLADDER.

STINGING irritation, inflammation, all Kidney and Urinary Complaints, cured by "Buchupaiba." \$1.

WELLS, RICHARDSON & CO'S
IMPROVED BUTTER COLOR
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